

**Day 2**

<https://www.youtube.com/watch?v=y25aGM547Wk&feature=youtu.be>

**[0:00:16] Dr. Eve Stoddy:** Okay, good morning, and welcome to day 2 of meeting 2 of the 2020 Dietary Guidelines Advisory Committee. I want to welcome the committee and the public.

Again, we had over 1,000 people who registered for this meeting, around 200-300 to register to attend in person, and over 700 registered to attend online, and we appreciate your engagement in the Dietary Guidelines process.

I want to welcome Mr. Brandon Lipps, who is our acting Deputy Undersecretary for the Food, Nutrition, and Consumer Services.

**[0:00:55] Brandon Lipps:** Thanks, Eve. Good morning, everybody.

**Audience:** Good morning.

**Brandon Lipps:** Let's try again. Good morning, everybody.

**[0:01:00] Audience:** Good morning!

**Brandon Lipps:** Very good. We're going to have a lively bunch today. On behalf of Secretary Perdue, my colleague, Dr. Scott Hutchins, and our partners at the Department of Health and Human Services, I want to welcome everybody to day 2 of the 2<sup>nd</sup> meeting of the Dietary Guidelines Advisory Committee.

As Eve said, my name is Brandon Lipps. I serve as the Administrator of the Food and Nutrition Service, and as acting Deputy Undersecretary of the Food, Nutrition, and Consumer Services mission area at USDA.

We're focused today on giving the public an opportunity to provide oral comments here, directly face to face with the Advisory Committee. While your comments are to the committee, I want you to know that we will have representatives from HHS and USDA here all day as well.

This morning is dedicated to hearing from each of you. Your voice matters in this process. We believe this open dialogue is critical to the success of the 2020-2025 Dietary Guidelines.

**[0:02:01]** We are so pleased that so many of you chose to participate today, and we thank you for the time that you took out of your busy schedules to communicate directly with the committee.

We know more people wanted to provide comments today than we had time for, and we wish that we could fit everyone in. The good news is that this round, we have a second opportunity. For the first time

in the Dietary Guidelines Advisory process, there are two opportunities to provide oral comments to the Advisory Committee.

Today, which is the first opportunity to hear from the public early in the committee's work, has happened in previous processes. There's now a second opportunity at a later meeting, before the committee writes and presents its draft report at its final meeting. That second opportunity to provide oral comments to the committee will be at Meeting 4, which will be on January 23<sup>rd</sup> and 24<sup>th</sup> in Houston, Texas.

It's important to us that we hear from stakeholders across the country, so we thought it was important to get outside the DC bubble and speak with the people whose lives could be impacted by these guidelines.

**[0:03:03]** In December, be on the lookout for our announcement for the registration for that meeting to provide oral comments. If you haven't signed up at [DietaryGuidelines.gov](http://DietaryGuidelines.gov) to get our updates, please do that. Our email updates are our primary means to get word to you with announcements as soon as we have them.

I would also like to quickly remind you about our ongoing call for public comments to the Advisory Committee. We opened this call last March, and it will remain open for you to submit your comments to the committee throughout the course of their work into 2020.

You can find more information and find that link, again, at [DietaryGuidelines.gov](http://DietaryGuidelines.gov).

We do review each and every one of these comments, and we will consider them as we draft the *2020-2025 Dietary Guidelines*. So, please do visit our website and ensure that your voice is heard in this process.

Again, I want to thank everybody for joining us here today in person, and for those who are joining us via live webcast, for staying engaged in our process to develop the next edition of the *Dietary Guidelines for Americans*.

**[0:04:06]** I want to pause for a moment and thank our committee members, who have spent much time working on this process since the last meeting and are here today to hear directly from you. Let's give them a round of applause.

**[Applause]**

And I want to thank the committee specifically, who's volunteering their time for this process, for agreeing to take time out of their busy schedules, not only to do all of the work of this committee, but very importantly, to hear directly from the public on two occasions this round.

So, thank you for that.

Also, thank you to the HHS and USDA staff, who put so much time into ensuring that the process for the *Dietary Guidelines for Americans* is open and transparent process for the public to participate in.

With that, let's get started.

We have a very important process today. Somebody's going to lay that out for you. If you're planning to present comments, you need to listen carefully.

I would like to welcome Janet De Jesus from our partner at HHS Office of Disease Prevention and Health Promotion, who will provide more information on today's oral process.

**[0:05:06]** Thank you all very much.

**[Applause]**

**[0:05:16]** **Janet De Jesus:** Good morning.

**Audience:** Good morning.

**Janet De Jesus:** I'm going to give brief instructions for the oral comment session, and then, we can get started.

So, individuals that are registered to provide oral comments to the committee will be able to provide 3 minutes total of comments.

There are 72 speakers registered to provide comments and another 9 individuals on the standby list, so if time permits, will be able to provide their comments.

We will move swiftly through the commenters in hopes that everyone will be able to participate.

Individuals providing comments on both sides on the auditorium, in their assigned seats, with odd numbers on the left and even numbers on the right. We will start with number 1 on the left, move to number 2 on the right, and go back and forth.

**[0:06:06]** Staff are situated in the auditorium to help with the process, and we have an announcer, Kelly Cassavale, that will call your number. Once your number is called, please step forward to the microphone, state your name and affiliation, and proceed with your remarks.

A timekeeper seated at the front of the stage will start the 3-minute timer, okay, and when your allotted time is finished, please conclude your remarks.

We will be really appreciative of that.

To keep the process moving efficiently, staff on each side of the auditorium will have 3 people line up at the tape on each side, so when your number is called, you can step forward to the microphone.

Once you are finished, feel free to return to your seat or any other seat designated for the public, or you can also leave if you wish.

On a final note, this is being recorded.

**[0:07:01]** The video of this morning's public comment session will be posted on the website at [DietaryGuidelines.gov](http://DietaryGuidelines.gov).

So, thank you for your participation, and we can now have the first groups line up and get started. Thank you.

**Kelly Cassavale:** Commenter number 1.

**[0:07:19]** **Taylor Wallace:** Hello, my name's Taylor Wallace, with Think Health Group in George Mason University. And I'm providing comment on behalf of the Produce for Better Health Foundation, a nonprofit organization focused on fostering an environment where people can enjoy more fruits and vegetables in all forms and varieties at every eating occasion.

Fruits and vegetables have traditionally solidified their place in dietary guidelines, due to their dense micronutrient content and low energy density. However, over the last decade, significant scientific evidence suggests that fruits and vegetables have benefits beyond helping to provide basic nutrient requirements in humans.

**[0:07:58]** Therefore, the PBH Foundation commissioned a comprehensive umbrella review to summarize the current clinical and observational evidence on the potential health effects of fruits and vegetables in all forms, to inform public research priorities and to offer public health messaging strategies that are reflective of the current science.

The expert review, authored by myself and 12 other nutrition scientists, was just published in *Critical Reviews in Food Science and Nutrition* this last week, has been submitted to the USDA Evidence Analysis Library, and examines more than 100 systematic reviews on the topic.

Today, I'll briefly address a few of the key findings. The science is clear. Public health recommendations, including the *Dietary Guidelines*, should continue to advocate for at least 5 servings of fruits and vegetables in all forms each day, to reduce disease risk. Fruits and vegetables do more than just help people meet basic nutrient requirements, there is strong evidence that shows consuming up to 5

servings each day, as fresh, frozen, canned, dried, and 100 percent juice, can help reduce disease risk, particularly cardiovascular disease, the number one killer of Americans.

**[0:09:14]** Data from the systematic reviews also support intake of certain types of fruits and vegetables, particularly cruciferous vegetables, dark green leafy vegetables, citrus fruits, and dark-colored berries, which have superior effects on biomarkers, surrogate endpoints, and chronic disease outcomes, and this is likely due to their bioactive contents.

And colleagues, it is really critical that we start to look at bioactives, such as flavonoids, in our dietary guidelines.

All forms of fruits and vegetables play a role in health, and there's strong evidence that supports the need for more practical, realistic advice to help people enjoy 5 or more servings more often. At a time when people are increasingly told what not to consume for a healthy diet, let's encourage them to focus on what could be one of the most important things they can do for their health: enjoy more fruits and vegetables in all forms for healthier, happier lives.

Have a plant.

**Kelly Cassavale:** Commenter number 2.

**[0:10:22]** **Sarah Reinhardt:** Good morning, my name is Sarah Reinhardt. I am 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. Thanks to the staff at USDA and HHS for the work that you do to make this process transparent and accessible to the public.

There is vast untapped potential to save lives and healthcare dollars through better nutrition in this country.

Last month, the Union of Concerned Scientists released a report finding that if adults were able to meet current dietary recommendations for fruits and vegetables, we could prevent 110,000 deaths from cardiovascular disease and decrease medical costs by 32 billion in a single year.

**[0:11:04]** If adults were drinking one less sugar-sweetened beverage per day, we could prevent 19,000 deaths from type 2 diabetes and cut 16 billion in healthcare costs each year. And if adults were following science-based recommendations to eat little to no processed meat, we could prevent nearly 4,000 deaths from colorectal cancer and save 1.5 billion in healthcare spending.

Based on these findings, the Union of Concerned Scientists has several key recommendations.

One, the USDA and HHS must ensure effective implementation of the *Dietary Guidelines* to translate science-based recommendations to meaningful results in communities across the country. Currently, there is insufficient investment and enforcement to integrate the guidelines across all federal agencies carrying out food and nutrition programs, as required by the National Nutrition Monitoring and Related Research Act.

Two, recommendations contained in the committee's scientific report and the resulting *Dietary Guidelines* must be consistent with the best available nutrition research to protect public health.

**[0:12:03]** For example, the current literature supports recommendations to consume little to no processed meat, and to limit added sugar to, on average, no more than 6 percent of total daily calories.

Number three, to make decisions based on the best available research, the committee must have access to the best available research. We urge the USDA and HHS Secretaries to allow the committee, as in previous cycles, to include high-quality external systematic reviews and meta-analyses in its evidence review process.

Lastly, I'll leave you with a recommendation that we plan on addressing in forthcoming research. There is now overwhelming scientific evidence of the link between our diets and our changing climate, and for many, the consequences of climate change are already being felt. It is irresponsible for the *Dietary Guidelines* to continue to ignore the preponderance of evidence surrounding sustainability and diet. Doing so will threaten public health for generations to come.

We urge the committee to carefully review this body of literature and include related findings in your final report. Thank you.

**Kelly Cassavale:** Thank you. Commenter number 3.

**[0:13:10]** **Jessica Hixson:** Hi, my name is Jessica Hixson, and I am the Director of Government Affairs for SNAC International. Founded in 1937, SNAC International is the leading international trade association for the snack industry. SNAC represents over 400 companies worldwide, including snack industry suppliers, marketers, and manufacturers in both the traditional and emerging snack categories.

SNAC greatly appreciates the opportunity to provide comment to the DGAC.

As the leading trade association for the snack industry, we closely monitor snacking trends. According to the Hartman Group, 90 percent of consumers snack multiple times per day, and 7 percent only snack, not consuming any meals at all. According to IRI data, the average consumer snacks more than 2 ½ times per day.

Snacking is even more prevalent in younger generations, with 92 percent of millennials and Generation Z replacing at least one meal per week with a snack, with a majority reporting they snack 3 or more times per day.

**[0:14:08]** According to a recently-released Nielsen survey, while satisfying hunger between meals continues to be the top reason to snack, nutritional reasons are a close second. We understand work is underway to review frequency of eating, which raises questions about snacking. Given that NHANES studies consider any food or beverage consumed outside a meal to be characterized as a snack, and because snacking is an undefined term in the literature, and without a government definition, comparison across studies is very challenging.

This sentiment was reiterated in the subcommittee’s conversations around key definitions yesterday.

While there is research that snacking can increase intake of calories generally, we want to note to the committee that our forthcoming written comments will identify a large number of studies that found snacking, or more frequent eating, is beneficial to health throughout the life stages, as well as a positive contributor to appetite, mood and cognition, and nutrient contribution.

**[0:15:04]** A 2017 national study found that, due to the driving force of millennials, “Better for You” snack options are more mainstream and have become widely available nationwide. While 20 years ago, it may have been challenging for snack producers to make healthier options taste as good as indulgent options, the snack industry is constantly evolving, and with new technology and flavor profiles, our members are able to provide consumers with nutritious options that taste good.

Consumer preferences and changing—are changing, and health trends are increasingly evident. The increase in snacking occasions can be an opportunity to promote food groups to encourage, given that nearly 60 percent of consumers are either highly likely or likely to purchase “Better for You” on the go snacks. Our industry is working to meet new demands for natural, minimally-processed foods that incorporate real fruits, vegetables, nuts, seeds, pulses, and more.

We look forward to providing you with more information of snacks and snacking over the next few months. Again, we want to thank the committee for their important work, and we look forward to working with you.

**Kelly Cassavale:** Commenter number 4.

**[0:16:12]** **Melissa Maitin-Shepard:** Good morning. My name is Melissa Maitin-Shepard, and on behalf of the American Institute for Cancer Research, thank you for the opportunity to provide comments today. AICR is the leading US authority on the links between diet, weight, physical activity, and cancer prevention and survival.

As part of the World Cancer Research Fund International Network, AICR funds, gathers, and comprehensively analyzes global scientific research on the roles of diet, weight, and physical activity and cancer risk, and publishes expert reports that are trusted, authoritative scientific resources that underpin current cancer prevention recommendations and policy priorities.

AICR strongly recommends that the DGAC make full use of existing high-quality systematic reviews and meta-analyses conducted by researchers and organizations outside of the federal government.

**[0:17:03]** We believe that a determination to explicitly exclude the use of scientifically-sound external research will reduce the efficiency and effectiveness of the DGAC process.

Several of the DGAC's research questions have been addressed by existing high-quality reviews and meta-analyses, and these reports provide particularly important information concerning the relevant dose response relationships.

For example, the DGAC's research question on the connection between alcohol consumption and cancer risk can be addressed by meta-analyses on the relationship between alcohol consumption and 6 types of cancer, which show that the level of consumption associated with increased risk differs substantially by cancer type.

This conclusion may not be reached using a systematic literature review alone. Excluding the use of high-quality systematic reviews and meta-analyses is an unnecessary and inefficient departure from the evidence review process used by the 2015 DGAC, which utilized existing systematic reviews, meta-analyses, or reports to answer 45 percent of its research questions.

**[0:18:08]** The National Academies' committee that reviewed the process to update the Dietary Guidelines, recommended the use of existing research that is relevant, timely, and high-quality. Instead of unnecessarily duplicating existing research, we recommend that NESR more efficiently focuses its time on updating existing high-quality systematic reviews and developing new ones only where they do not already exist.

We will be submitting a letter to the docket with this recommendation that has been signed by more than 25 national organizations, including the American Society for Nutrition, the Academy of Nutrition and Dietetics, the American Heart Association, and the American Diabetes Association. In addition, AICR will provide detailed written comments with recommendations regarding methodology, research conclusions, and their implications for each of the DGAC's scientific questions related to the risk of cancer or excess weight. Thank you for considering our comments.

**Kelly Cassavale:** Commenter number 5.

**[0:19:08]** **Dr. Joy Dubost:** Good morning, I'm Dr. Joy Dubost, Head of Nutrition at Unilever, and appreciate the opportunity to provide oral comments.

Americans do not always consider beverage intake part of their total caloric intake or dietary pattern. However, we know that beverage consumption has a direct impact on health, and we would like to highlight two major points related to beverages.

First, we believe there's 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.

With this, we encourage the committee to include a comprehensive analysis of types and amounts of beverages within dietary patterns and their impact on specific health outcomes based on clinical consequences.

**[0:19:57]** This would include beverages that not only achieve nutrient and food group recommendations, but also bioactives, such as flavonoids, which have demonstrated clinical significance.

We recommend that USDA and HHS provide healthy beverage guidelines, including those that deliver bioactive components associated with optimal health. Second, we know beverages have an important role in optimizing health. An example of this would be unsweetened tea, which is the second most commonly-consumed beverage in the world.

The current preponderance of evidence suggests that long-term consumption of tea, flavonoids, may provide health benefits, with the strongest associations being the promotion of cardiovascular health, which is important, as cardiovascular disease is the leading cause of death in the US. Of the many dietary sources, tea is the major flavonoid source in the American diet.

A new systematic review meta-analysis, recently accepted with edits, into the *Annals of Internal Medicine*, indicates a linear dose response relationship between tea flavonoid intake levels and risk of all-cause mortality. The linear matter regression model showed that with each cup of daily green or black tea consumption, there was a 2 percent reduced risk for all-cause mortality.

**[0:21:09]** There was also a linear dose response relationship between tea flavonoid intake levels and risk of cardiovascular mortality. The linear matter regression model showed that with each cup of daily green or black tea consumption, there was a 3-4 percent reduced risk for cardiovascular mortality. Overall, the preponderance of scientific evidence supporting the role of unsweetened tea in a healthy dietary pattern is strong based on clinical evidence.

This data is robust and supports a case that unsweetened tea can be included as a beverage to encourage as part of a healthy dietary pattern. We recommend that USDA and HHS help shape American's beverage consumption by recommending unsweetened tea as a primary beverage option. We look forward to engaging in the dietary guidelines process. Thank you.

**Kelly Cassavale:** Commenter 6.

**[0:22:01] Becky Garrison:** Good morning. My name is Becky Garrison, and I'm a registered dietician speaking on behalf of the American Pulse Association and our US pulse industry affiliates. We appreciate the hard work that goes into developing the dietary guidelines and welcome this opportunity to comment today. The US pulse industry implores all parts of the US government who are responsible for initiatives, programs, policies, and dietary guidance, to use the correct terminology when it comes to pulses. By definition, the term pulse refers to the dry, edible seed of a legume pod.

Pulses include lentils, chickpeas, dry peas, and dry beans. Pulses are nutritionally unique in that they are an excellent source of folate and dietary fiber, as well as a good source of potassium, iron, protein, magnesium, and zinc. Compared to other legumes, pulses often have a higher protein and fiber content, while maintaining a lower fat content.

Additionally, pulses are harvested dry, which makes them economically-accessible and contribute to food security at all levels. Despite the clear and distinct definitions for the terms legumes and pulses, the DGA have referred to the legumes category in a variety of ways over the past 15 years.

**[0:23:04]** The most recent edition in 2015 uses the category nomenclature "legumes" with beans and peas in parentheses.

And with the exception of soybeans, all foods listed in this current category are more specifically pulses. Additionally, the current category does not include foods such as peanuts or fresh beans that the broader name of legumes would denote. Therefore, pulses, or pulses and soybeans, would be the correct terminology being referred to by the language currently used in the DGA.

Along with multiple terminology changes over the last 15 years, the consumption amounts recommended for pulses have consistently decreased also. Based on a review of the literature, we struggle to understand the scientific basis for the DGA decreasing consumption of this category. In 2005, the DGA recommendation for this category was set a 3 cups a week for a 2,000 calorie diet. In 2010, it dropped to 1.5 cups a week for a 2,000 calorie diet, and 3 cups a week for a 3,000 calorie diet.

**[0:23:57]** Then, in 2015, the recommendation continued at 1.5 cups a week for a 2,000 calorie diet, but no recommendation for the higher-calorie category was made. In summary, we ask that the DGAC correct and standardize the food category terminology in its upcoming report from legumes with beans and peas in parentheses, to pulses and soybeans, and in the interest of the public, we strongly recommend the DGAC clearly defines pulses and recognizes the benefits of pulses within the report.

Lastly, we recommend the DGAC update its dietary pattern recommendation to include 3 cups of pulses per week for all Americans, as it was in 2005. Again, the American Pulse Association and our affiliate

groups greatly appreciate the opportunity to comment and strongly support this forthcoming initiative. Thank you.

**Kelly Cassavale:** Commenter 7.

**[0:24:48] Nicole Manu:** Good morning, committee members, and thank you for the opportunity to speak today. My name is Nicole Manu, and I'm from The Good Food Institute. GFI is a Washington, DC-based nonprofit organization supporting the markets of plant-based and cell-based meat, eggs, and dairy. The health benefits of a diet rich in plant-based foods are supported by overwhelming scientific and medical evidence.

Therefore, the committee should recommend a stronger emphasis on plant-based foods in the *2020 Dietary Guidelines for Americans*. In particular, a range of new and innovative plant-based foods are now on the market that can make it easier for the public to make healthy food choices. Additionally, the guidelines should encourage a consumption of non-animal-based proteins to all Americans rather than only highlighting them in the healthy vegetarian eating pattern.

Plant-based meats present one opportunity for the committee to recommend a greater variety of plant-based foods in the upcoming guidelines. Plant-based meats provide a direct replacement for animal meat. They include both products that seek to replicate the taste and texture of animal meat, as well as plant-form products that serve as functional meat replacements.

Many plant-based meats have just as much or more protein than animal meat while containing less sodium and saturated fat.

**[0:26:00]** For example, both wheat-based seitan and soy-based tempeh have over 20 grams of protein per 100 grams, and minimal or no saturated fat. USDA recently credited tempeh in child nutrition programs, noting that the update will allow program operators to diversify menus. Several brands of plant-based meats that closely mimic the taste and texture of animal meat also contain high amounts of protein and even significant amounts of dietary fiber, which is not present in animal meats.

Plant-based milks present another opportunity for the committee to recommend a greater variety of plant-based foods in the upcoming guidelines. There are many more widely-available plant-based milks today than there were 5 years ago. For example, hemp milk, oat milk, and pea milk are typically fortified with calcium and vitamin D to levels comparable to cow's milk. Pea milk also contains more potassium than cow's milk, with the same amount of protein.

And in addition to these, water lentil milk, an emerging plant-based milk option, is expected to have considerable amounts of naturally-occurring calcium and iron.

**[0:27:04]** Including a broader range of plant-based foods in the dietary guidelines will be beneficial to all Americans, but especially to groups who do not eat animal products because of health concerns or

ethical or religious beliefs, and many people of color, who commonly cannot consume conventional dairy because of lactose intolerance. We urge the committee to be guided by the plentiful scientific and medical evidence highlighting the health benefits of plant-based foods to strengthen the guidelines' emphasis on these foods.

Thank you again for the opportunity to speak today, and we look forward to participating in the future as the *2020 Dietary Guidelines for Americans* continue to be developed. Thank you.

**Kelly Cassavale:** Commenter 8.

**[0:27:43] Dr. Susan Wolver:** Good morning. My name is Dr. Susan Wolver, and I'm a general internist practicing primary care and obesity medicine at Virginia Commonwealth University in Richmond, speaking on my own behalf. Thank you for allowing me the opportunity to speak and thank you for your commitment to improving the health of our nation.

I am here to implore you to consider the mounting evidence in support of a low-carbohydrate diet as a viable and necessary approach in the new dietary guidelines. I've been practicing medicine for 30 years. The first 24 were a cycle of seeing patients with their uncontrolled chronic conditions, tweaking medications, while watching them gain weight and their diseases worse. That was in spite of my continually recommending exercise, and a diet of whole grains, fruits, vegetables, lean meats, and low-fat dairy, but it never worked. And I mean never.

In those 24 years, 2 people lost weight, and 1 gained it back. And then, when I got to be middle-aged, and that same advice no longer worked for me, I realized that my advice might be wrong. I tried a low-carb ketogenic diet, lost weight effortlessly, and tried it with my patients, who were desperate for help, patients like a young woman with newly-diagnosed out of control diabetes.

She ate perfectly according to the guidelines. And standard advice would have been to eat less, move more, and start insulin.

**[0:29:02]** She would have been relegated to a lifetime of needles, weight gain, and a psychological impact of living with a chronic disease. Instead, I taught her a low-carb diet, and in just 3 months, she was barely in the pre-diabetic range, lost 25 pounds, and was overjoyed. More than 90 percent of the patients who come to me on insulin are able to discontinue it. In April, the American Diabetes Association said, and I quote, "Reducing overall carbohydrate intake for individuals with diabetes has demonstrated the most evidence for improving glycemia."

But a low-carb diet is beneficial not just for patients with established disease. A recent study by the University of North Carolina showed that a full 88 percent of the nation has at least one of the 5 components of the metabolic syndrome. Results from my patients and studies like the A-Z Trial prove that a low-carbohydrate diet not only has better weight loss than standard dietary advice, but better improvement in every component of the metabolic syndrome.

**[0:30:03]** Nearly 1,500 people have come through my weight loss clinic over the past 6 years, with an average weight loss of 12 percent at 9 months, and have kept it off for at least 18 months, with a reduction in medication burden, improvement in blood pressure, fatty liver disease, sleep apnea, arthritis, and enhancement in quality of life. I was so burned out from doing the same thing over and over and not getting results. I am now excited about practicing medicine again, knowing I can help my patients improve their health.

But we are tired of having to defend a low-carbohydrate diet as a valid dietary choice. It is working for us, it's supported by irrefutable medical evidence, and demands a place in the guidelines. Thank you.

**Kelly Cassavale:** Commenter 9.

**[0:30:45]** **John Hennessey:** Morning. My name is John Hennessey. I'm here today representing the Humane Society of the United States, the nation's most effective animal charity. The Humane Society represents cats and dogs, but we also help all other animals, including farm animals. One of our major goals is to create a more humane food system, so the Humane Society promotes the 3 Rs – Reduce the amount of animal products you eat; Replace those animal products with plant-based foods; and Refine any remaining animal foods to pick more human options, like cage-free and free-range eggs. Today, I'd like to give you 3 reasons to promote a high-fiber healthful diet to fuel Americans.

First, as a former USDA staff member, I'm proud to applaud the USDA for their recent decision to credit tempeh as a meat alternative in the child nutrition programs. I also commend the USDA for naming the protein section in My Plate as a protein section rather than a meat section, as well as including plant-based milk as an option in the dairy section.

The *2015-2020 Guidelines* included a healthy vegetarian eating pattern and specified it can be vegan, too.

**[0:31:57]** But given our staggering obesity rate, a plant-based diet should be the default option, with animal products as an alternative, not the other way around. Further, nutrition experts at the Harvard School of Public Health recommend that USDA adopt Harvard's version of My Plate, by replacing the dairy section with a water section. Second, the Guardian reported China is working on reducing meat consumption 50 percent by 2030 through dietary guidelines to improve public health.

And my colleagues at Humane Society International just praised Canada for "Letting evidence, not industry, inform the latest food guide." Canada is encouraging their citizens to eat a higher proportion of fruits, vegetables, grains, and legumes. We should do the same. And third, plant-powered diets rich in fiber are becoming very popular, including for athletes performing at the highest levels, such as tennis star, Serena Williams and Olympic weightlifter Kendrick Farris.

**[0:33:02]** We need to give our kids a fighting chance at growing up to be just as strong as them, and we need to stop telling Americans to eat foods that will make them obese. Please, clearly recommend more plants and less meat. Thank you for your work in creating a better future for all of us.

**Kelly Cassavale:** Commenter 10.

**[0:33:27]** **Jessi Silverman:** My name is Jessi Silverman. Thank you for the opportunity to share comments on behalf of the Center for Science in The Public Interest. CSPI is a nonprofit consumer advocacy organization that provides science-based food and nutrition advice and led efforts to secure the nutrition facts panel, and added sugar disclosures on that panel, calorie labeling on chain restaurant menus, elimination of artificial trans-fat from food, improvements to school lunches, and the removal of sugary drinks from schools, amongst other things. CSPI will submit detailed written comments on many of the questions that the DGAC will address.

**[0:34:01]** Today, I will briefly make 5 points. First, strong evidence supports the dietary pattern recommended by the 2015 DGAC, which is a diet “higher in vegetables, fruits, whole grains, low or non-fat dairy, seafood, legumes, and nuts, moderate in alcohol among adults, lower in red and processed meat, and low in sugar-sweetened foods and drinks and refined grains.” That dietary pattern is likely to reduce the risk of heart attacks and strokes as well as type 2 diabetes and some cancers.

Second, the strongest evidence consistently has found that replacing saturated fats with unsaturated fats reduces the risk of heart disease, and the best evidence does not justify a switch from low-fat to high-fat dairy. That evidence includes high-quality observational data and randomized control trials that measure both heart disease outcomes and LDL cholesterol, a well-established cause of cardiovascular disease.

Third, while every dietary guideline since 1980 recommended limiting sugar, the 2015 guidelines set a target of no more than 10 percent of calories from added sugars.

**[0:35:04]** That advice should continue, because sugary drinks lead to weight gain in children and adults in randomized control trials and are linked to a higher risk of heart disease, type 2 diabetes, and tooth decay. In addition, excessive consumption of sugary foods and beverages make it difficult to meet nutrient and food group recommendations without exceeding calorie needs.

Fourth, a variety of diets, including low-carbohydrate, DASH, and Mediterranean, can lead to weight loss. That conclusion is supported by numerous trials and by health authorities like the American Heart Association, the American College of Cardiology, and the Obesity Society.

Finally, the obesity epidemic is not a result of the wrong dietary advice, as some assert. Rather, poor public health is largely due to our toxic food environment, which surrounds us 24/7 with supersized burgers, fries, shakes, pizzas, nachos, cookies, and sodas, not just at restaurants, but at movie theaters, shopping malls, gas stations, convenience stores, and elsewhere.

**[0:36:00]** As it has in previous editions, the committee should provide recommendations for policies and food system changes to support the ability of families and individuals to eat according to its recommendations. Thank you.

**Kelly Cassavale:** Commenter 11.

**[0:36:15]** **Amie Hamlin:** Good morning. Thank you for your work and this opportunity. I am Amie Hamlin, Executive Director of the Coalition for Healthy School Food. We help schools around the country introduce plant-based foods to cafeteria menus and provide nutrition education.

We are proud to have a formal partnership with New York City, the nation's largest school district. The USDA school meal programs are based on the US dietary guidelines, thus, positive changes to the guidelines will influence the 30 million meals served each day in our nation's schools. First, I want to emphasize the importance of meat alternatives, especially beans, lentils, tofu, and tempeh, and request that the guidelines place more emphasis on plant-based main dishes.

**[0:37:01]** Plant-based entrees are a healthy choice for all children, but most schools are not offering any other than PB&J. What is common on school menus is processed meat, such as deli slices, pepperoni, sausage, and hot dogs. But processed meats are classified as group A carcinogens by the World Health Organization. They have no place in our diet. Since many children count on school meals for their nourishment, and children are more susceptible to carcinogens than adults, we ask the committee to discourage the consumption of processed meats and plainly state that they cause cancer.

Second, we urge you to remove dairy as a food group. Schools are required to offer milk, but research shows that milk does not build strong bones. What's more, people of color have high rates of lactose intolerance. Humans simply have no need for milk past the age of weaning, much less, milk from another species.

**[0:38:01]** For our guidelines to be encouraging consumption by people whose normal biology does not tolerate it, is frankly, a form of racial bias. Another common problem is chronic constipation in children from undiagnosed dairy allergies. So, we encourage you to remove the dairy as a food group and add a calcium group, and encourage greens, beans, and other high-calcium plant foods, as well as exercise, for bone strength. At the very least, the guidelines should promote the inclusion of non-dairy milk wherever cow's milk is offered.

Third, we recommend the guidelines address the issue of processed foods, because unfortunately, limits on calories, sodium, and fat still leave too much room for artificial and fiber-deficient ingredients. Virtually all foods displayed at school food expos are processed. At a recent conference, where we served main dishes made from scratch, one employee of a food company said to me, "I don't mean to be a wise guy, but you're actually cooking food. What are you selling?"

**[0:39:01]** I told him, “We’re selling good health.” Finally, I want to urge the committee to consider the role of animal agriculture on the climate crisis in your recommendations. Thank you for your attention to these important matters, which could make a huge difference for all people in the United States, especially our nation’s children.

**Kelly Cassavale:** Commenter 12.

**[0:39:22]** **Susan Levin:** My name is Susan Levin. I am a registered dietician at the nonprofit Physician’s Committee for Responsible Medicine and the nonprofit Primary Care Clinic Barnard Medical Center.

I am here today to ask the committee, and ultimately, the USDA to follow the path of evidence-based guidelines that have been improved upon but not perfected by recent iterations of the committee’s report. More diligence for facts and scrutiny against the pressures of industry is needed. One of the most outdated recommendations by the *Dietary Guidelines* is its commercially-oriented push for Americans to consume dairy.

**[0:39:59]** What may have started as an attempt to stabilize dairy prices has become a serious health problem for many and has justifiably been criticized as racist practice for two reasons. First, dairy products are not well-digested, if digested at all, by most people who are not white. And further, as the leading source of saturated fat in the diet, dairy products contribute to chronic diseases, including heart disease and prostate cancer that disproportionately harm or kill people of color.

In later childhood or early adulthood, the majority of black, Asian, and Native American people lose the lactase enzymes that digest the lactose sugar in milk and other dairy products. Commonly referred to as lactose intolerance, this is not a disease, but is rather the normal human condition. Due to the prevalence of lactose intolerance and the symptoms it causes, milk consumption should not be recommended.

**[0:40:57]** Americans are well past accepting Northern European-centric dietary recommendations that do not work well for most people. The *Dietary Guidelines* need to reflect and respect that change. The American Medical Association’s official policy is that the USDA should “include culturally-effective guidelines and recognize that lactose intolerance is a common and normal condition among many Americans.” And they go on to say that the *Dietary Guidelines for Americans* should clearly indicate that dairy products are optional.

As a dietician who has repeatedly corrected ailing patients’ misconceptions about the necessity of milk in the diet, I ask you to make that information available to all as soon as possible. This should not be suppressed information that protects industry while harming people. Let us look to our neighbors to the north. Canada’s decision to remove milk from a prominent position in the Canadian Food Guide is a testament to that nation’s ability to support and respect science and its multicultural population. America should be no less aware and no less accountable to all of its people. Thank you.

**Kelly Cassavale:** Commenter 13.

**[0:42:11] Dr. Priyanka Wali:** Good morning to everyone in the committee and thank you for this opportunity to speak. I'm Dr. Priyanka Wali, I'm a practicing physician from California who specializes in obesity medicine. I have treated thousands of patients who suffer from obesity and obesity-related complications, such as diabetes and metabolic syndrome.

I work on the front lines, and I use nutritional plans as a therapeutic tool for my practice every day. I'm here because I'm very concerned that the current nutritional guidelines do not reflect the current health status of our nation. You know? If laughter was the best medicine, then the nutritional guidelines are best practice, because they're a joke, a joke that's fallen flat.

**[0:42:58]** And I believe that's because the committee has forgotten the number one rule when it comes to joke writing, know your audience. Well, let me tell you about your audience. 1 in 5 Americans has diabetes. 1 in 3 has pre-diabetes. This is a disease that will kill you slowly by eating away at your brain, your vision, your vital organs. We suspect that 50 percent of Americans right now have pre-diabetes, they just don't even know it.

These are diseases caused by high insulin levels, which is caused by eating carbohydrates. And it doesn't matter if it comes from whole grain or cane sugar or 100 percent fruit juice. A carb is a carb is a carb. If you have pre-diabetes or diabetes, you are essentially carbohydrate intolerant, meaning when you put carbs in your body, it becomes affecting your hormones, you become hormonally-imbalanced, and you become sick.

**[0:44:02]** These are the medical facts. The current guidelines advise that consuming no more than 10 percent of calories from excess sugar. How can we make this recommendation if we know that half the country is carbohydrate intolerant? It's like if you knew someone had a life-threatening food allergen, you wouldn't tell them, "Well, avoid the food allergen, but you can eat up to 10 percent of your calories of that allergen." You would tell them "No, avoid this allergen at all costs"

So, why would it be any different with sugar? If there are people in this country who are carbohydrate intolerant, and that's half the country. Please change the excess sugar limit recommendation from 10 percent to 0 percent. Please reduce the recommended carbohydrate intake by half to reflect the current health status of our nation. The guidelines are a joke now, but they don't have to be. The guidelines should be medicine, because food is medicine. I've seen it in my practice with my patients, and right now, we are prescribing the wrong medicine for our country. Thank you.

**Kelly Cassavale:** Commenter 14.

**[0:45:14] Casey Gallimore:** Good morning. I'm Casey Gallimore, Director of Regulatory and Scientific Affairs at the North American Meat Institute, whose members produce the vast majority of beef, pork, lamb, and poultry in the United States. Consumer health and safety are the driving forces in the production of

meat and poultry products. Our industry is committed to offering nutrient-dense protein food products while working continuously to produce safe and wholesome food.

The Meat Institute appreciates the opportunity to provide commend in the 2020 Dietary Guidelines Advisory Committee. Protein is an essential nutrient and is critical for development. Meat and poultry products provide consumers with a convenient, direct, and balanced dietary source of all essential amino acids.

Per serving, meat, poultry, and fish provide more protein than dairy, eggs, legumes, cereals, vegetables, or nuts.

**[0:45:59]** Protein is critical for developing, maintaining, and repairing strong muscles, is vital for growth and brain development in children, and is essential to prevent muscle loss in the aged. Meat and poultry products are important sources of micronutrients, such as iron, zinc, selenium, vitamins B12, B6, thiamin, riboflavin, niacin, and potassium, nutrients essential in all life stages, including the first critical 1,000 days, growth and development periods like adult—childhood and adolescence, throughout adulthood, and older years, to maintain physical function, enhancing quality of life.

The iron and zinc in beef, pork, lamb, poultry, and fish are more bioavailable than from other sources, meaning they are more easily-absorbed and utilized by the body. The high iron content in meat and poultry products is important to certain subpopulations, including teenage girls and pregnant women, who are at higher risk for anemia.

Although iron supplements may be an option, the heme iron in meat is the most absorbable form. It is clear meat and poultry play an integral role in ensuring adequate vitamin and mineral intake.

**[0:46:58]** The superior nutrient contributions in meat and poultry products must be recognized relative to plant-based protein sources.

It is inappropriate and a disservice to the public to consider beans or tofu as equivalent to meat and poultry products from a nutrition and health perspective, because they're not. Americans would need to consume many more calories to reach the level of nutrients found in meat and poultry products, defying the responsible portion size notion. Nutrient-dense foods, like lean meats and poultry, contribute to meeting food group recommendations within calorie and sodium limits and enable consumers to more easily meet their macronutrient needs.

Although the Meat Institute supports including meat and poultry in the diet, it's understood that those products can be a part of the diet, not the entire diet. Balance, variety, and moderation in the dietary pattern, in combination with an active lifestyle, are the keys to positive health outcomes. The *Dietary Guidelines* are the foundation for nutritional policies and are intended to measurably improve the health of Americans. The Meat Institute supports dietary guidance that is practical, achievable, and affordable.

The Meat Institute looks forward to submitting more-detailed comments through the committee's deliberations. Thank you.

**Kelly Cassavale:** Commenter 15.

**[0:48:06]** **Clara Lau:** Good morning. I'm Clara Lau, Dr. Clara Lau, Director of Human Nutrition Research for the National Cattlemen's Beef Association, a contractor to The Beef Check-Off, which oversees research funded by beef farmers, ranchers, and importers to understand beef's role in healthy lifestyles. Beef is a foundational food that nourishes and optimizes health at every life stage. Beef is a nutrient-rich, high-quality protein food Americans enjoy eating as part of a healthy diet.

While the RDA for protein, which was developed to meet minimal requirements, evidence suggests that protein intake higher than the RDA, but within the AMDR, may help adults achieve and maintain a healthy weight, muscle mass, and reduce their risk of sarcopenia. During pregnancy and the early years of life, beef delivers the necessary protein, zinc, choline, B vitamins, and iron, which leading health organizations, such as AAP, recognize for supporting physical growth and neurocognitive development in infants and children.

**[0:49:06]** Americans eat beef within dietary guidelines. In fact, Americans eat an average of 1.7 ounces of beef per day, and beef is leaner than ever before, with more than 38 cuts meeting USDA's definition for lean. As more Americans are overweight and obese, we need every calorie to count. Americans are getting fewer calories and less fat from nutrient-rich beef, which contributes 5 percent of total calories and 15 percent of total protein to daily diets.

No other protein food delivers the same package of 10 essential nutrients at 10 percent or higher than the respective daily values per serving. Beef can be the principle protein food in heart-healthy diets, such as DASH and the Mediterranean-style pattern. Over 20 gold standard studies have shown that beef contributes favorably to heart health and other positive health outcomes.

**[0:49:59]** There's a need to systematically review the totality of evidence using best practices that are thorough, transparent, and relevant. Reliance on dietary patterns have limited ability to discern individual food recommendations, and in 2015, resulted in the exclusion of randomized clinical trials, or RCTs, of beef in heart-healthy diets. On the other hand, data from well-designed RCTs where beef is included in healthy diets can balance this challenge. People follow dietary guidance that recognizes personal preferences, habits, and cultural beliefs.

Americans have enjoyed beef for centuries, and it's part of most Americans' lives, traditions, and celebrations. To close, beef is a foundational food that nourishes at every life stage. Calorie for calorie, no other protein food delivers the same package of essential nutrients. Beef is a top protein choice for most Americans, yet they are not over-consuming, but rather, eating within guidelines. High-quality evidence shows there's an opportunity to help Americans enjoy more beef in healthy dietary patterns. Thank you.

**Kelly Cassavale:** Commenter 16.

**[0:51:04] Audrey Lawson-Sanchez:** Good morning. My name is Audrey Lawson-Sanchez, and I'm here on behalf of the public health and nutrition advocacy organization I run called Balanced. But there are a few things I could say as a professional that many of my colleagues will say later or have already said. So, I stand here in my most important role, and that's as a mother. I don't think it is an overstatement to say it's exceptionally difficult to parent in 2019, and I'm sure many of you understand the challenges.

And in no places are those challenges more pronounced than at the kitchen table or the lunchroom. And I know you all know how hard it is to teach children what to eat, how to eat, and how to develop those lifelong healthy skills. And arguably, it is harder now than it has ever been, or that it has been in recent history, because as our diets have become—as our food system and our diets have become increasingly imbalanced, our children and our families have grown increasingly less healthy.

**[0:52:05]** Our children and our families are overconsuming ultra-processed foods, foods high in cholesterol, saturated fat, sodium, sugar, and excess but empty calories. And I don't have to tell you, but our families are experiencing unprecedented rates of diet-related disease, and they're affecting our children younger and younger, with this generation of children being the first in over 200 years to have a predicted lifespan shorter than that of their parents.

And listen, I'm a realist. I understand the limitations that the *Dietary Guidelines* recommendations have on the behavior of everyday Americans, but I also understand the profound impact the *Dietary Guidelines* have in places that matter so much, like schools and hospitals. We're talking about what our most vulnerable populations eat or have access to on a regular basis.

**[0:52:59]** And so, now is not the time to settle for the status quo, or to build a consensus around minimally-good enough. It's certainly not the time to allow the indust—any part of the food industry to influence dietary guidelines. Now is a time for bold, evidence-based dietary guidelines that put the health of our children and our families first. And so, I ask you today, as you develop and build these guidelines, to think about your own families, to think about your own children, and build the guidelines that you would want for them, the guidelines that you live by, the guidelines that dictate the sort of food that you eat.

Because I promise you this. What you want for your families, everyone wants for their family. And that is a long, healthy, nourished lives. Thank you.

**Kelly Cassavale:** Commenter 17.

**[0:53:57] Mollie Van Lieu:** Good morning. My name is Mollie Van Lieu, and I'm with the United Fresh Produce Association. Thanks to each of you on the committee, as well as the staff at USDA and HHS for your dedication to this process. First, I will of course emphasize that evidence continues to support dietary patterns recommended by earlier guidelines around eating a diet higher in fruits and vegetables.

Unfortunately, we know that the fact is that most Americans struggle to meet the *Dietary Guidelines* recommendations. Nevertheless, they are important. The good news is, there is evidence showing success when the guidelines are followed. Recent data shows that 2-4-year-olds participating in the WIC program, since 2010, show declining rates of obesity, after a steady rise in earlier decades.

In 2009, WIC updated its food package to align with the *Dietary Guidelines*, including a voucher enabling recipients to purchase a wide variety of fruits and vegetables. Further data shows that these families are maintaining their healthy shopping habits when they—when their families age out of the WIC food package.

**[0:54:57]** Beyond WIC, CBC data indicates that there has been a 67 percent increase in children’s consumption of fruits in forms that are consistent with the DGA recommendations, and in the National School Meals Program, with its updates to nutrition standards in 2012 to align with the DGA, evaluation data shows that children are eating more fruits and vegetables in the program than they were pre-standards. The Federal Fresh Fruit and Vegetable Program also has proven to increase consumption in children. So, we know the change is possible, particularly institutionally, but there’s still more we need to understand and appreciate the broad range of questions being considered.

One in particular that is being asked by the Data Analysis and Food Pattern Modeling Cross-Cutting Working Group is around how dietary intake and patterns track across life stages. For fruits and vegetables in particular, we know that in the early years of a child’s life, they meet or are closer to meeting intake recommendations than older youth, and certainly, more than adults.

**[0:55:54]** Understanding which foods are instead being consumed throughout these transition and life stages, and why, could help us implement systems changes needed to increase consumption and better ensure alignment with recommendations. We strongly encourage the committee to consider these needs. Thank you.

**Kelly Cassavale:** Commenter 18.

**[0:56:18]** **Amy Lanou:** Good morning. My name is Amy Lanou. I am the Executive Director of the North Carolina Center for Health and Wellness at University of North Carolina Asheville. I’m here on behalf of myself. As a nutrition professional and a university professor, I’ve been giving oral comments to this esteemed body for 20 years.

And each time I have, I have urged the committee to focus on foods rather than nutrients to improve the usability of the guidelines, to emphasize plant-based and vegan dietary patterns for prevention of chronic disease, and to reduce the emphasis on milk, and to warn about dangers of recommending high protein and carbohydrate-restricted diets.

I'm delighted to hear the committee addressing questions about dietary patterns and considering foods as well as nutrients.

**[0:57:00]** In keeping with tradition, here are my recommendations for 2020. The 2020 guidelines should make a clear distinction between whole foods that contain healthy carbohydrates – fruits, vegetables, beans, or pulses, and whole grains – and those that contain highly-processed carbohydrates – the added sugars, white flours, and foods made from them.

Perhaps we need two different words to describe these categories of carbohydrates. Consumers clearly need help distinguishing between disease-promoting diets that are built from processed white bread topped with cancer-causing processed meats covered with highly-salted fatty dairy slices served with sugar-laden water, and those that are health-promoting and built from fruits, vegetables, legumes and pulses, and whole grains.

These later diets – vegetarian, vegan, and whole food, plant-based dietary patterns, are high in carbohydrates, fiber, and are nutrient-dense. They also contain appropriate amounts of protein, and as you will be reminded by your systematic review, are health-supporting. Second, avoid recommending low-carbohydrate diets.

**[0:58:01]** Traditional dietary patterns of China, Japan, Hawaii, and Native Americans have been shown to reduce chronic disease risk. Traditional diets are typically centered around a grain or a starchy vegetable. However, the idea that a return to the diet of paleolithic man would somehow be helpful, or to recommend to the general public to try to keep their bodies in a ketogenic state to burn fat, is irresponsible. A focus on whole or minimally-processed foods is well-substantiated, but the avoidance of all or most grains, starchy vegetables, and legumes, is a recipe for disaster.

While low-carb diets may have specific applications for certain adult groups, they are contra-indicated for children and for the general population. And finally, dairy products should be replaced by a healthful beverages group, because cow's milk is not necessary in the human diet. I was pleased to learn yesterday that studies on beverages will be systematically reviewed together, hopefully lumping "lacto-secretions of bovine mammals" together with water, alcohol, soda, coffee, tea, and other fluids, will decrease milk's strong—cow's milk's stronghold on US nutrition policy. Thank you very much for this opportunity to give oral—expert oral testimony to this esteemed body.

**Kelly Cassavale:** Commenter 19.

**[0:59:13]** **Lucy Sullivan:** Good morning. My name is Lucy Sullivan, and I'm the Executive Director of 1,000 Days, the leading nonprofit organization working to ensure that women and children everywhere have the healthiest first 1,000 days. As you know, the first 1,000 days between a woman's pregnancy and her child's second birthday are a window of opportunity to set the trajectory for a person's lifelong health and to build the foundation of a baby's brain and their future potential.

The first 1,000 days are also a period when food preferences and eating habits begin to take shape. It's why we at 1,000 Days believe the P-24 dietary guidelines can play a critical role in building a healthier future for America. And not only are these the first ever set of *Dietary Guidelines* for pregnant women and children under 2 in the US, they are actually the first ever set of dietary guidelines of these kind anywhere in the world, so no pressure.

**[1:00:04]** This is why the committee must ensure that the guidelines are based on the best independent science and that these guidelines are protected from industry influence and interference. There is simply too much at stake for these particular guidelines to become a tool of private profit over public health. The integrity of these guidelines, along with the transparency and the process to develop them, are of paramount importance. It's critical that the guidelines cover the following three areas.

First, nutrition during pregnancy and lactation, and this includes both foods to choose and foods to avoid, and a message around eating twice as healthy, not twice as much. Expectant mothers want to know what foods are best for their health, not just the nutrients. Second, consistent with the longstanding recommendations from public health authorities, such as the World Health Organization, the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, the guidelines must reinforce that breastfeeding is the best possible source of nutrition for infants, and that infants should be breastfed exclusively for the first 6 months, followed by continued breastfeeding to at least one year, with the addition of appropriate nutritious complementary food.

**[1:01:09]** If breastfeeding is not available, human donor milk is the next best alternative, followed by infant formula if neither breastfeeding nor human milk feeding are available. It's essential that the guidelines also speak to the extraordinary health benefits of breastfeeding to mothers, reducing the risk of breast cancer, ovarian cancer, type 2 diabetes, and high blood pressure.

Breastfeeding also plays a critical role in reducing this nation's scandalous infant mortality rate, as breastfeeding reduces the rate of sudden infant death syndrome, a leading cause of death among infants, particularly black infants, in the United States. Third, clear guidance on introducing a diverse diet of fruits, vegetables, meats, and other complementary foods, and the transition to the family diet.

We know that the committee members share our commitment to ensuring that every child in America has a healthy first 1,000 days, and we trust that the committee will carry out their work with the utmost integrity and transparency. Thank you to all of you for your service and thank you for the opportunity to provide comment.

**Kelly Cassavale:** Commenter 20.

**[1:02:12]** **Dr. Carolyn Trapp:** Hello, my name is Dr. Carolyn Trapp. I'm a nurse practitioner, a Doctor of Nursing Practice, who specializes in the care of people with type 2 diabetes, and I'm an adjunct faculty member at the University of Michigan School of Nursing. I've traveled here today from Michigan to speak to you about underconsumption of a nutrient of concern for public health, fiber.

My number one concern is number two. Yes, I want to talk to you about constipation. We nurses are knowledgeable practical commissions, and our patients talk to us about this medical issue. In underserved populations with limited access to fresh fruits, vegetables, and whole grains, it is common to have patients report having a bowel movement only once or twice a week.

**[1:03:02]** These are the same people who are at risk for obesity, colorectal cancers, heart disease, and type 2 diabetes, all diseases that are linked to overconsumption of meat and highly-processed foods, and underconsumption of pulses and other plants. Constipation is not limited to people with food insecurity. The CDC estimated in 2017 that only 1 in 10 adults eat enough fruits and vegetables. Walk into any pharmacy or large grocery across the US and you will see multiple shelves filled with laxatives.

Constipation is not the only concern of too little fiber. Foods are a package, and foods high in fiber, such as fruits, vegetables, pulses, and whole grains, also are high in other critically-important nutrients. Given the nutrient density of plant foods, the only source of dietary fiber, this committee could best improve the health of Americans in this way.

**[1:04:02]** Summarize your 800+ page report to the USDA/HHS with just one sentence. “All Americans are advised to consume a fiber-rich diet, aiming for 30-40 grams of fiber per day from whole foods.” Studies have shown that the more fiber, the better. Less risk of developing obesity, heart disease, type 2 diabetes, depression, colorectal cancer, and even early mortality. Why are Americans eating too little fiber?

One reason is that industry has promoted a fear of carbohydrates. We know that type 2 diabetes is not a result of eating too many apples, or sweet potatoes, or even whole wheat bread, but I have patients who have been led to believe that all carbs are bad, and that somehow, a greasy burger without a bun will save them. I ask you to help reduce the nutrition confusion and prioritize foods that are naturally full of fiber. Replace the healthy vegetarian pattern with a healthy whole food plant-based pattern. Let’s make America go again.

**Kelly Cassavale:** Commenter 21.

**[1:05:17]** **Sue Borra:** Thank you. Hard act to follow. Well, good morning. My name is Sue Borra, and as a registered dietician, I appreciate the opportunity to provide comments to you this morning on behalf of the Food Marketing Institute. We’re the trade association representing the entire retail food industry. We have single-owner grocery stores and large multi-chain stores, along with online operators.

In total, our FMI member companies operate about—or sell about 800 billion dollars’ worth of groceries every year, as well as we have about 33,000 stores that our consumers shop at. For the *2020 Dietary Guidelines*, FMI does support both the focus of a life stages approach, as well as the continued focus on what we eat and drink over time.

**[1:05:58]** While we know dietary guidance must be science-based and practical, but more importantly, they must be practical for consumers to apply to their lifestyles in order to really achieve these recommendations.

As this process moves forward, an important question must be asked. How will the *Dietary Guidelines* encourage and support adherence to dietary patterns that are identified as being most healthful for Americans? This is a topic very near and dear to FMI members, as the supermarket industry has long been committed to helping consumers achieve and maintain a healthy, balanced diet.

Retailers have created a marketplace for nutrition and health information. They continually strive to find new and innovative ways to facilitate healthy choices in their stores. And this will help improve eating behaviors among our shoppers. In fact, 95 percent of supermarkets currently employ registered dietitians who assist in identifying healthful choices at point of purchase, they support the preparation of nutritious meals through demonstrations, meal kits, and much more.

All this positions food retailers in the unique situation to really help consumers achieve their health goals.

**[1:07:05]** However, we all know adherence to the recommended patterns is as important as the patterns themselves, which makes it necessary for us to explore how and where foods and meals that comprise dietary patterns are consumed.

With that in mind, to improve the health of Americans, policy must include guidance related to building healthy habits, which starts at the breakfast, lunch, and dinner table. Existing research, including FMI research, indicates that those who eat and cook at home eat more fruits and vegetables, and consume fewer calories, fats, and sugars.

Furthermore, emerging research indicates that children and adolescents that share family meals at home are more likely to be in a normal weight range and have healthier dietary eating patterns, as well as emotional health benefits. Two previous editions of the *Dietary Guidelines* provided suggestions to eat at home as a way to lower calories and FMI strongly encourages this for the future.

**[1:07:58]** The committee could also consider the importance of consuming family meals at home based on existing and emerging research. In conclusion, the next frontier to benefit public health is truly identifying science-based approaches to increase adherence to dietary guidance and encouraging family meals consumed at home through guidance as a logical approach to consider when developing guidance that facilitates healthy lifestyles. Thank you.

**Kelly Cassavale:** Commenter 22.

**[1:08:24]** **Dayle Hayes:** Thank you for the opportunity. Sorry. Thank you for the opportunity to address the future *Dietary Guidelines for Americans*. My name is Dayle Hayes. I'm a registered dietitian and President for Nutrition for The Future, based in Montana.

As a consultant, I work with USDA programs for pregnant women, infants, childcare, and school-based nutrition programs, as well as agricultural commodity groups. In 2018, I was the lead author for the Academy of Nutrition and Dietetics Position and Practice Papers on School Nutrition Services. My comments today specifically address the work of the Dietary Patterns subcommittee and the Food Pattern Modeling Working Group.

**[1:09:07]** Focused on accepted solutions and marketplace implementation strategies that have shown success helping to increase vegetable consumption. We know that across all age groups, consumers fail to meet the recommended minimum daily servings of vegetables. Vegetable consumption relative to recommendations is lowest among boys 9-13 and girls 14-18. We also know that there has been little significant change in consumption over the past decade.

However, school nutrition programs are collaborating with food manufacturers and USDA foods to increase student consumption of vegetables and pulses while reducing sodium. School meals, based on the *Dietary Guidelines*, are served to more than 30 million students at lunch daily, and to another 14 million students at breakfast.

**[1:09:59]** School meal planners have learned how to balance student acceptance with enhanced nutrition, lowering fat, cholesterol, and sodium by serving cost-effective, flavorful entrees that blend meat proteins with vegetables like mushrooms, peppers, onions, and pulses. This follows a strategy suggested in the *2015 Dietary Guidelines*. One realistic option is to increase the vegetable content of mixed dishes, while decreasing the amounts of other food components that are often over-consumed.

These efforts are influencing students' eating patterns at school and beyond. Blending meat and vegetables also helps to reduce overall food waste in schools and to establish an early foundation for the healthy eating patterns that are known to help reduce the burden of chronic diseases. A shining success story comes from Cincinnati Public Schools, where Director Jessica Shelley and her team serve nearly 4 million school lunches yearly, which includes over 178,000 blended beef and mushroom burger patties from an Ohio-based food processor.

**[1:11:09]** All Cincinnati Public School lunches also include a salad bar with a variety of fruits and vegetables, another dietary guideline strategy, allowing students to choose a green salad or a vegetable as a side dish. Thanks again for the opportunity to illustrate how school districts are implementing real-world strategies to increase vegetable intake by following dietary guidance.

**Kelly Cassavale:** Commenter 23.

**[1:11:37]** **Gail Ferranto:** Hi, good morning. My name is Gail Ferranto, and I am the President of Buona Foods and Bella Mushroom Farms, a third-generation mushroom producer from Kennett Square, Pennsylvania, the mushroom capital of the world. The US mushroom industry has spent the past two decades investing in scientific research to better understand the nutrient composition and benefits of mushrooms.

**[1:12:02]** One result of that research has been the creation of a very practical culinary concept we call the blend. The idea that combining ground meat with finely-chopped mushrooms creates more nutritious, delicious versions of iconic American dishes, such as burgers. A study published in the *Journal of Food Science* explored the flavor-enhancing properties of mushrooms and found that blending finely-chopped mushrooms with ground meat enhances flavor and nutrition.

For example, a traditional ground meat recipe prepared with 50 percent mushroom and 50 percent meat can reduce calorie, saturated fat, and sodium intake, add nutrients like vitamin D, potassium, B vitamins, and antioxidants, and enhance overall flavor, thanks to mushroom's natural umami.

**[1:13:00]** If the *2020 Dietary Guidelines* once again aim to guide Americans to increase their vegetable consumption while decreasing saturated fat and sodium intake, I'd like to offer the mushroom industry's blended concept as inspiration.

It's a real life solution that now has been adopted by hundreds of schools and colleges, and even embraced by fast-food chains such as Sonic Drive-Ins, which is the first national chain to adopt the blended burger to their menu.

Sonic is the nation's largest drive-in restaurant, serving over 3 million customers per day. Americans want to enhance healthier eating patterns, and simple ideas such as the blend can make a positive impact by helping make our favorite foods as nutritious as they are delicious. Thank you for your exploration and consideration of solutions such as the blend and mushrooms to guide Americans towards healthier eating patterns.

**Kelly Cassavale:** Commenter 24.

**[1:14:05]** **Sarah Goldman:** My name is Sarah Goldman, and I'm a researcher at the Johns Hopkins Center for A Livable Future, based at the Bloomberg School of Public Health in the Department of Environmental Health and Engineering. The opinions expressed here today are my own. The Center for A Livable Future investigates the interconnections among diet, food production, public health, and the environment. We recognize the important role that the *Dietary Guidelines for Americans* plays in promoting health, advising nutrition choices, and informing policies and programs across the United States.

Today, I will discuss a few comments on the questions included in the subsection addressing dietary patterns and provide additional recommendations related to the integrity of the dietary guidelines development process. More details and evidence related to this comment will be submitted through our written comments.

The Dietary Guidelines Advisory Committee should explore the relationship between dietary patterns high in red and/or processed meats and chronic disease health outcomes, particularly in comparison to dietary patterns rich in fruits, vegetables, and plant-based proteins.

**[1:15:10]** The committee should publish guidelines recommending limited consumption of red and/or processed meats.

There is strong evidence from prospective studies and meta-analyses that moderate to high consumption of red meat and/or processed meat is associated with risk of stroke, diabetes, heart failure, colorectal cancer, and hypertension. However, dietary patterns high in plant-based foods and lower in animal-based can help prevent these chronic disease conditions and promote health.

The Dietary Guidelines Advisory Committee should also explore the other benefits of diets higher in minimally-processed plant-based foods and lower in animal-source foods with a specific focus on the future of food security and publish guidelines that incorporate the role of sustainable diets in ensuring that all Americans have future access to healthy, nutritious foods.

**[1:16:00]** In 2015, the Dietary Guidelines Advisory Committee found that a dietary pattern high in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, seeds, and lower in animal-based foods is more health-promoting and is associated with less environmental impact than is the current average US diet.

The *Dietary Guidelines for Americans* should also incorporate the role of sustainable diets in ensuring future access to healthy foods for all Americans. Finally, the *Dietary Guidelines* should identify complementary programs and policies that support healthy food access and address the root causes of diet-related health disparities.

Finally, the Dietary Guidelines Advisory Committee, USDA, Department of Health and Human Services, and the US Congress should take the necessary steps to ensure the integrity of the *Dietary Guidelines* for all Americans. Thank you.

**Kelly Cassavale:** Commenter 25.

**[1:16:53]** **Colleen Marsh:** My name's Colleen Marsh. I'm here on behalf of myself and those less informed. The topic of added sugar has brought me here from North Carolina. As a retired athlete and disabled veteran, I can attest to the positive effects reducing dietary sugar has on inflammation and chronic pain. As a pharmaceutical rep, I've witnessed the degenerative effects of diabetes, and now as a public health master's student, I have a voice to advocate.

Literature reviews from reputable sources show a correlation between sugar intake and disease such as diabetes, cardiovascular disease, and cancers. It would be naive to single out sugar as the only dietary contributor to poor health, but it is a contributor to the development of chronic disease, a contributor Americans are woefully uneducated about.

I'm here to ask that the 2020 guidelines list the recommendation for sugar as they do the other contributors to metabolic disease by listing the grams allowed per day. Page 25 of the guidelines key recommendations states sugars should be limited to 10 percent of caloric intake.

**[1:18:00]** Listing the recommendations in this way requires a knowledge of a 2,000 calorie diet to the begin a two-step math problem.

Calculating the 10 percent of 2,000 calorie diet gives you 200 calories from sugar a day, but since the nutrition labels report sugar content in grams, we now need to know how many grams are equal to 200 calories. After calculating that multiple-step math problem, we find the USDA recommendation is no more than 50 grams of sugar per day. The American Heart Association recommends 25 grams for women and 36 for men.

The average 20-ounce soda contains well over the 50 grams of sugar recommended by the USDA guidelines. Many people know sugar is not good for them, but most will never be able to quantify exactly how poor decision a 20-ounce soda is, because the recommendations for sugar are obscured by the manner in which the dietary guidelines presents them.

The American Diabetes Association states, "Every 21 seconds, another individual is diagnosed with diabetes in the US."

**[1:19:02]** The *Dietary Guidelines* should simplify the public's ability to limit choices which develop chronic, preventable disease. I'm asking the committee to be bold, show leadership in the midst of external pressures. I'm asking to prioritize the health of your fellow Americans and do it by clearly listing the daily limit of sugar in grams to demystify the key recommendations for healthy eating patterns. Thank you.

**Kelly Cassavale:** Commenter 26.

**[1:19:33]** **Eric Adams:** Good morning. My name is Eric Adams. I am not a dietician, not a doctor, not a nutritionist. I'm a retired member of the New York City Police Department. For 22 years, I've wore a bulletproof vest and protected the children and families of New York City. Three years ago, I woke up and I could not see the alarm clock. I found out later that I was blind in one eye and I was going to lose my sight in the other.

**[1:19:59]** After visiting 5 doctors, I learned the diagnosis was type 2 diabetes. I had what was considered to be permanent nerve damage in my hands and feet, and I was told I was going to lose some limbs. Not believing that and told that I was going to be on medicine the rest of my life, I decided to do research on my own. I had one skill, and that was knowing how to do investigations, and I knew how to read. I learned from organizations, such as PCRM, that there was a way not only to live with chronic disease, but to reverse chronic disease.

After 3 weeks of going on a whole food plant-based diet, my eyesight returned. Three months after, my A1C went from a 17 to a 5.7. The nerve damage in my hands and feet went away. No medicine, no insulin, only food. My mother pursued and followed the same whole food plant-based diet that I embraced.

**[1:21:05]** 80 years old, 2 months on it, 15 years diabetic, 7 years on insulin, mother is now off her insulin and has reversed her diabetes as well. She was taking 9 medicines during that time, and she's now off those 9 medicines. The real drug dealers are not those who are wearing baggy blue jeans on our corners. I've learned that the pharmaceutical companies that have our parents addicted to drugs.

Each time I try to reverse this condition, I'm told about the guidelines that you give. I represent 2.6 million people. New York City has followed me, and now we no longer serve processed meat in our schools. We have a program at Bellevue Hospital which 600 people have signed up for and started the process of reversing their condition. It has never been my DNA; it was my dinner. It's time to heal and not live with disease, but reverse disease. Let's make America healthy again. Thank you.

**Kelly Cassavale:** Commenter 27.

**[1:22:18]** **Sarah Ohlhorst:** Good morning. I'm Sarah Ohlhorst with the American Society for Nutrition. ASN is a scientific professional society with more than 6,500 members who enhance scientific knowledge and quality of life through excellence in nutrition research and practice.

ASN appreciates the life stage approach and suggests that the evidence review include the impact of diet on the metabolic and physiological changes that occur over the life course and during life stage transitions, such as with neurocognitive health. ASN supports the continued use of a strong evidence-based approach, emphasizing a rigorous scientific process and transparency throughout, including the systematic review of all evidence considered on key topics.

**[1:23:04]** ASN encourages the DGAC to include existing high-quality systematic reviews and meta-analyses outside of those conducted using NESR in the evidence review, if they meet standards established by USDA and HHS. ASN appreciates the subcommittee's efforts to standardize and harmonize your work and suggests that sleep and screen time be considered along with the diet and health impact of eating occasions, frequency, and timing.

ASN recommends broadening the dietary patterns considered and going beyond providing guidance solely for specific nutrients. ASN recommends addressing multi-cultural dietary patterns to better include our diverse society, including the role acculturation has on diet and health. The DGA should advise Americans not just on what to eat but provide guidance to help individuals understand how to change their eating and food behaviors in order to improve their health.

**[1:24:07]** ASN sees opportunity for the 2020 DGAs to continue to promote chronic disease prevention and ensure nutritional sufficiency. ASN supports the consideration of diet and nutritional biomarkers for chronic

disease endpoints when developing guidance that addresses health and disease. However, the development of recommendations should not be hindered or delayed by the ongoing process of discovery and validation of nutritional biomarkers for diet-related disease risk.

It's essential for the committee to consider the role that dietary supplements play in dietary intake of micronutrients and how individuals may translate dietary guidance into supplement usage, which could have both positive and negative repercussions, given that more than 50 percent of US adults report using a dietary supplement.

**[1:24:58]** ASN appreciates your continued focus on highlighting research needs. More recommendations on how to implement the dietary guidelines, in order to move Americans toward compliance, are needed, and ASN is happy to be a collaborator with the USDA and HHS on that process. Thank you.

**Kelly Cassavale:** Commenter 28.

**[1:25:21]** **Nina Teicholz:** My name is Nina Teicholz. I'm a science journalist and author of the book, *The Big Fat Surprise*, the culmination of a nearly 10-year full-time investigation into the scientific basis for US nutrition policy. The failures of science and policy-making that I discovered through that investigation compelled me to create the Nutrition Coalition, a nonprofit group dedicated to the public interest.

It receives no industry support and is committed to ensuring that America's dietary guidelines are based on solid, rigorous evidence. In other words, that they are evidence-based and trustworthy. I have two main points today. First, the dietary guidelines issued by USDA and HHS are not based on the most rigorous evidence, since this evidence has, since the launch of the guidelines, been ignored and/or excluded.

**[1:26:02]** This fact is validated by an article I wrote in the BMJ, which was peer-reviewed more than once. It established that the *Dietary Guidelines*, for the past 35 years, have ignored clinical trial evidence, largely funded by our government, on more than 75,000 people tested in experiments lasting up to 12 years. These data from clinical trials is considered the gold standard, because it can uniquely demonstrate causality. Unfortunately, instead of informing our nation's nutrition policy, this gold standard evidence has been ignored. Why? One can only speculate. Yet the fact that none of these trials could confirm the basic tenets of the *Dietary Guidelines* is indeed a factor.

Multiple trials did not confirm that a diet restricted in fat or saturated fat could protect against diet-related diseases. More recently, trials have shown that the guidelines high level of carbohydrates is actually harmful for people with diet-related diseases. These bodies of evidence all imply that the guidelines needed to walk back some of its basic advice, yet the guideline experts ignored the evidence and carried on without change.

**[1:26:59]** During this time, rates of diet-related diseases have risen to epidemic proportions, now afflicting at least 60 percent of all Americans. Ignoring scientific evidence is not okay. In fact, the National Academies' of

Scientists, Engineering, and Medicine, the first ever—did the first ever outside peer review of the *Dietary Guidelines* and said, in 2017, that the process established in the guidelines was not using the best practices for conducting systematic reviews, and “lacked scientific rigor.” The Academies’ advised that the USDA adopt one of the international standards for reviewing the science. USDA chose the GRADE standard, and this is my second point today.

The cofounder of GRADE, distinguished professor, Dr. Gordon Guyatt, who’s one of the world’s top experts in evidence-based medicine, recently submitted a comment, a public comment, to the USDA. His point was that the USDA are not following the standards of GRADE in fundamental ways. “Most importantly, you are not making important distinctions between high and low-quality evidence.”

Guyatt urged the USDA not even to use the word “GRADE” because doing so would give the appearance of rigor where it did not exist. “It would be illusory,” he wrote.

**[1:28:01]** Further, he cautioned that if the USDA were to continue without proper methods for evaluating the evidence, this would result in recommendations that are “unlikely to be trustworthy.”

In sum, our current dietary guidelines are not trustworthy, they are based on weak evidence and experts writing them have been excluding nearly all the rigorous evidence to the contrary. USDA’s been admonished by the National Academies’ of Sciences and encouraged to improve. And unfortunately, the guidelines are currently—

**Kelly Cassavale:** Thank you.

**Nina Teicholz:** —now on track to repeat the mistakes—

**Kelly Cassavale:** Commenter 29 please.

**Nina Teicholz:** —of the past.

**[1:28:28]** **Dr. Darren Schmidt:** Hi, my name is Dr. Darren Schmidt. I have a practice in Ann Arbor, Michigan, called Nutritional Healing Center of Ann Arbor, and I speak on my own behalf. So, I’ve been teaching low-carb to my patients since 1998, and ketosis in the last 4 years, and I quit taking insurance in 2005. I actually had to get my patients well, or else, they won’t come and see me, because they’re paying cash out of their pocket. So, I sat with you guys all day yesterday, and I understand the complexities that you’re dealing with, and all the moving parts.

**[1:29:01]** And I thought, “What can I share with you to help you out with your job?” So, Heather, you had some good points yesterday about low-carb and intermittent fasting, and Lydia, you said some good things, too. So, let me share this with you. Maybe this will help you out. So, there’s an equation that I learned

like 15 years ago, and it's this. It's quantity plus quality equals vitality, or quantity plus quality equals health.

So, initially, with my care, I'd tell people "Eat these foods and eat that food," and they would say, "What about bananas? What about pork?" And I stopped answering the questions.

And I said, "Fit your macros into these guidelines so you can be plant-based, you can be meat-based, whatever." And so, the quantity comes first in that equation, the quantity of the macronutrients. So, then quality comes second. So, lowering the carbs is vital. When you look our current health situation, obesity and all that.

And then, people have to match their—what they need for protein to be adequate protein, or maybe more.

**[1:30:01]** And then, their fat grams can go up and down. Of course, it's going to be healthy fat. So, that's what I wanted to share with you. Quantity comes first, and then quality, equals vitality. So, that way, people can choose whatever foods that they're going to—what they want to match their lifestyle with.

And then, when you do that, you're not liable to upsetting special interests, and also, then you look at the macros in the research, with the randomized control trials, the clinical trials, as opposed to epidemiology, you get the causes with the RCTs, and you'll see that, for example, the Public Health Collaboration of the UK, they have investigated all these RCTs regarding low-carb versus low-fat.

And they show that low-carb wins 32-0. So, when you work with the low-carb ideology, it's easy to just in the macronutrients. And I hope this helps you out, and if you want to discuss with me, I'm available to you. Thank you.

**Kelly Cassavale:** Commenter 30.

**[1:31:01]** **Alison Webster:** Good morning and thank you for the opportunity to comment as you work to inform the next *Dietary Guidelines for Americans*. My name is Alison Webster, and I'm a registered dietician here today on behalf of the National Potato Council, which provides a unified voice for US potato growers and represents the interests of the US potato industry on national issues.

Potatoes are an important part of the American Diet at every life stage. As a vegetable, they provide essential nutrition, have the ability to be purchased in shelf-stable forms, and can be prepared in a wide variety of ways for consumption by the general population, including those both young and old.

Although potatoes are a vegetable, they have been historically stigmatized in past editions of the *Dietary Guidelines*. In the 2015 DGAC report, white potatoes are specifically classified as a starchy vegetable, which has become a disparaging term with repercussions across many federal feeding programs.

For example, the Special Supplemental Nutrition Program for Women, Infants, and Children, also known as WIC, as well as the National School Lunch and School Breakfast programs have been quick to remove or disparage white potatoes.

**[1:32:08]** This is discouraging, given that white potatoes are high in both fiber and potassium, 2 nutrients of public health concern, due to underconsumption as outlined in the past edition of the *Dietary Guidelines*. Additionally, potatoes provide a number of other nutrients that are important to human health, including protein and carbohydrates, minerals such as iron, calcium, and magnesium, as well as vitamin C and B6.

We are pleased to see that the committee is taking a life stage approach for this edition, as potatoes are healthful across all life stages. In fact, it has been found that the consumption of white potatoes improves potassium intake for both women and children, which is important to note because potassium continues to be an under consumed nutrient for nearly all WIC demographics.

Further, an analysis of National Health and Nutrition Examination survey data suggests that women between the ages of 19 and 50 have less than optimum intake of vegetables, which in turn, leads to lower than recommended intakes of important nutrients.

**[1:33:07]** White potatoes included as part of a healthy diet are noted as one way to make up for these nutrient shortfalls, especially in women of childbearing age. Potatoes are a food enjoyed by the American public, allowing them to serve as a gateway vegetable, and thereby having the ability to increase overall vegetable consumption. The *Dietary Guidelines* should represent recommendations and promote dietary patterns that can be achieved by the American public in order to lead to a healthier nation.

Further support for the potato's role in the *Dietary Guidelines* can be found in the comments of the National Potato Council. Thank you for your consideration.

**Kelly Cassavale:** Commenter 31.

**[1:33:45]** **Dr. Becky Domokos-Bays:** Good morning. I'm Dr. Becky Domokos-Bays, a registered dietician nutritionist and recently retired director for Loudon County Public Schools in Virginia. As a past president of the School Nutrition Association, I am pleased to comment on behalf of our 58,000 members. We invite the committee to visit our school cafes.

They are the best places to see how the DGAs are shaping children's current and lifelong eating habits. School nutrition professionals provide approximately 5 billion lunches and 2 ½ billion breakfasts, as well as dinner, snacks, and summer meals to students. Federal rules require these meals be prepared in accordance with the DGAs.

Students select meals that expose them to a wide variety of fruits, vegetables, whole grains, lean protein, and dairy options they might not otherwise experience. The committee should know the implementation of the DGAs in school nutrition programs has presented some challenges.

The 2015 of the DGAs states “The guidelines embody the idea that a healthy eating pattern is not a rigid prescription, but rather, an adaptable framework from which individuals can enjoy foods that meet their personal, cultural, and traditional preferences and fit within their budget.” In practice, today’s school nutrition standards are extremely complex and have proven to be overly prescriptive for schools. Implementation of the DGAs has been challenged by many factors, including limited funding, inadequate equipment or facilities, and increasing labor costs.

**[1:35:09]** Students seldom have time to consume their meals at school, thus contributing to wasted food. Planning appealing nutritious menus that balance strict calorie, fat, and sodium limits while meeting daily and weekly component and item requirements is like assembling an elaborate puzzle. Schools must follow different meal patterns for breakfast, lunch, snack, supper, and summer meals. Each of these meal patterns have varying requirements for different grade or age groups.

Meanwhile, entrees and sides sold ala-carte must meet still different, equally complex smart snack standards. While school nutrition standards limit saturated fats, smart snacks limit total fat. As a result, healthy items such as hummus and guacamole are prohibited on ala-carte menus. Multiple sets of standards drive up costs for school nutrition programs, both in food and resource allocation.

**[1:36:02]** School nutrition is a narrow niche in the food supply chain. Production of food items must very standards as a burden. Small and rural schools often have limited access to a full line of items that meet all the standards and appeal to students. Two million fewer students each day receive a healthy school lunch since updated standards took effect, an unfortunate loss in light of research showing school meals are significantly healthier than lunches from home or elsewhere. We appreciate USDA’s efforts to provide flexibility in the standards, and we believe these changes will result in more students consuming nutritious meals at school.

To succeed, the guidelines must be practical, affordable, and achievable, too. Foods provided to students must be taste-appealing. Otherwise, they won’t eat them. Extreme limitations on sodium, nearly at therapeutic levels, have less students asking—

**Kelly Cassavale:** Thank you for your comments.

**Dr. Becky Domokos-Bays:** Thank you.

**Kelly Cassavale:** Commenter 32.

**[1:36:53]** **Dr. Mickey Rubin:** Good morning. I’m Dr. Mickey Rubin, Executive Director of the Egg Nutrition Center, the science and education division of the American Egg Board, representing America’s egg farmers. ENC

supports research on the role of eggs in human nutrition. Thank you for the opportunity to offer comments as you review the latest science in the next edition of the *Dietary Guidelines*, including topics related to nutrition from birth to 24 months and neurocognition.

As stated by the American Academy of Pediatrics 2018 recommendations on improving nutrition in the first 1,000 days, failure to provide key nutrients during this critical period of brain development may result in lifelong deficits. Key nutrients to support brain health identified by the AAP include protein, long-chain polyunsaturated fatty acids, iron, zinc, folates, iodine, selenium, vitamins A, D, B6, and B12, as well as choline.

Eggs have varying amounts of each of these nutrients and are one of the most concentrated sources of choline in the American diet. Most Americans are well below the adequate intake recommendation for choline, with only about 8 percent of adults and 8 ½ percent of pregnant women meeting the AI. The 2015 DGA listed choline among several under consumed nutrients for which shifts to more healthy eating patterns can help close nutrient gaps.

**[1:38:01]** Maternal choline intake supports fetal brain and spinal cord development and is associated with reduced risk of neural tube defects. And a recent research has shown maternal choline intake is associated with favorable neurocognitive outcomes in children. In fact, a recent clinical trial showed an improved cognitive performance in children of mothers that supplemented choline during the third trimester of pregnancy.

Furthermore, research from observational cohorts has shown how choline intake throughout life may have lasting effects on cognition and prevention of cognitive decline. Unfortunately, recent survey performed by the research from IPSOS and commissioned by Egg Nutrition Center show low levels of awareness of choline among both new and expecting mothers, and the health professionals who care for them.

Over 60 percent of these moms and over 40 percent of OB/GYNs and pediatricians were unfamiliar with choline. The 2015 DGA listed eggs among other foods and food groups that are nutrient-dense. Eggs are a good or excellent source of 8 essential nutrients and are one of the few natural food sources of vitamin D, a nutrient of public health concern.

**[1:39:02]** Eggs are also a bioavailable source of the carotenoids lutein and zeaxanthin. In infants, the observation is that lutein is preferentially taken up by the developing brain, suggests a role in neural development, while emerging research also links lutein status to cognitive performance in children and reduced risk of mild cognitive impairment in middle-aged and older adults.

Finally, recent studies show that pairing eggs with vegetables can increase the absorption of carotenoids and vitamins compared to consuming vegetables alone. As Americans are increasingly using eggs as a carrier for vegetables, these recent studies suggest the benefit of this combination beyond simply encouraging more vegetable consumption.

We'll look forward to providing you with additional information through in comments. Thank you.

**Kelly Cassavale:** Commenter 33.

**[1:39:45]** **Dr. Christy del Castillo-Hegyí:** My name is Dr. Christy del Castillo-Hegyí. I represent over 700,000 supporters of the Fed Is Best Foundation, a nonprofit organization whose mission is to advocate for safe breastfeeding practices. We do this to prevent the complications of insufficient infant feeding, namely dehydration, excessive jaundice, and hypoglycemia, all known causes of brain injury, disability, and rare deaths. Jaundice and dehydration are the leading causes of newborn hospitalization in the US, making up to 78 percent of readmissions.

The leading risk factor for jaundice and dehydration is exclusive breastfeeding before full milk production, which primarily results from insufficient breast milk supply. 12-35 percent of exclusively breastfed newborns will develop excessive jaundice, 1 in 7 losing excessive weight, and 1 in 25 requiring readmission. These complications are commonly accompanied by hypoglycemia and hypernatremia, a brain-threatening form of dehydration.

10 percent of exclusively-breastfed newborns develop detrimental levels of hypoglycemia by 6 hours of life at levels known to reduce 4<sup>th</sup> grade academic proficiency by 50 percent and increase the risk of neurodevelopmental disabilities by 200 to 400 percent. Among breastfed newborns screened for hypernatremia, 36 percent were hyponatremic, which occurred by 5 percent weight loss.

**[1:41:02]** Breastfed newborns who develop symptomatic hypoglycemia have been shown to have extensive brain injury on MRI. Decades of research have shown these complications can lead to attention deficits, cognitive and developmental impairments, and even global disability. These preventable outcomes are among the most devastating in all of medicine.

Why, in 2019, are we failing to safely breastfeed newborn babies? In 1991, a baby-friendly hospital initiative was launched, and the WHO 10 Steps to Successful Breastfeeding. Step 6 recommends to give no food or water other than breast milk, unless medically indicated.

This policy was created with minimal attention to the high incidence of insufficient breast milk in the days after birth, and no data demonstrating safety or efficacy. Newborns who are crying and nursing for hours from hunger commonly do not get supplemented until they have developed medical emergencies. Mothers are advised to avoid supplementation with no education of the consequences of doing so if breastfeeding is not enough.

**[1:42:00]** They are not told until complications are obvious, by which time, brain injury may have already occurred. This failure in patient education results in approximately 190,000 admissions a year, costing the US approximately 2.7 billion dollars, and millions more per child who sustains brain injury over their lifetime.

We ask the committee to educate the public and health professionals on the importance on safe and sufficient infant feeding, on a minimal nutritional requirements of infants and harmful effects of dehydration, jaundice, and hypoglycemia. We ask for a responsible public health message that respects all the ways required to provide optimal infant feeding and prioritize the safety for every child regardless of a mother's ability or decision to breastfeed. Thank you.

**Kelly Cassavale:** Commenter 34.

**[1:42:46] Dr. Michael Greger:** My name is Dr. Michael Greger with NutritionFacts.org. This month, a paper was published in the *Journal of The Academy of Nutrition and Dietetics*. It found that since there's been no change in processed meat consumption over the last 20 years or so, it represents just an abject failure of all of us in the public health community to warn people about the very real risks of processed meat – bacon, ham, hot dogs, lunch meat, sausage.

These are known human carcinogens. The official 2018 IARC report couldn't have been clearer. "Consumption of processed meat causes cancer of the colorectum." That's our second-leading cancer killer of men and women combined. We know these foods cause cancer. I mean we try not to smoke around our kids. Why would we send them to school with a bologna sandwich? That's not hyperbole.

According to the Surgeon General, living with a smoker increases risk of lung cancer 15 percent. So, the cancer risk of secondhand smoke is comparable to the 16 or 18 percent increased risk of colorectal cancer. Even the equivalent of a single sausage link a day. The *2015 Dietary Guidelines* really particularly dropped the ball on this issue, saying "Processed meat can be accommodated, as long as sodium and saturated fats limits were within limits."

**[1:44:00]** But that's ignoring the cancer risk, which we've known at least back since 2007, when the first comprehensive analysis was published by the American Institute for Cancer Research, in fact, one of their top 10 recommendations for cancer prevention, "Avoid processed meat." Full stop. American Cancer Society also encouraged people to minimize intake of processed meat.

We cannot allow the billion-dollar meat industry to continue to subvert the science, when so many million lives are at stake. The Global Burden of Disease study, largest study of disease risk factors in history, funded by the Bill and Melinda Gates Foundation, found that the number one cause of death in these United States is the American diet, since bumping tobacco to number 2.

This committee now has control over our number one killer. You know? 1964 was the peak year of smoking in the US, before declining basically every year since. What happened in 1964?

**[1:44:58]** The science hadn't changed. We have studies going back to the 30s linking lung cancer to smoking. What changed is the Surgeon General's report, just this public acknowledgement by the powers that be of this

link between smoking and cancer. You now have this mantle to make a difference by just informing the American public about the risks of cancer with processed meat. Godspeed.

**Kelly Cassavale:** Commenter 35.

**[1:45:29] Maureen Ternus:** Good morning. I'm Maureen Ternus, Executive Director of the International Tree Nut Council on Nutrition Research and Education Foundation, or INCREF, and I'd like to thank you for the opportunity to present comments today.

INCREF is a nonprofit organization that represents 9 tree nuts, including almonds, brazils, cashews, hazelnuts, pecans, pistachios, pine nuts, macadamias, and walnuts. I'd like to comment specifically on the committee's work regarding the current healthy US-style, healthy Mediterranean-style, and healthy vegetarian-style eating patterns in the *2015-2020 Dietary Guidelines for Americans*.

**[1:46:06]** All 3 patterns recommend between 2 ½ and 3 ½ ounces of nuts, seeds, and soy products per week. Compare those to the 10 ½ ounces per week recommended in the FDA Qualified Health Claim for nuts and heart disease. According to USDA ERS data, consumers eat about 1.3 ounces of tree nuts per week. Increasing the recommended amount of nuts in healthy food patterns can help consumers lower their risk for chronic disease and potentially improve overall health.

In the last 5 years, there's been a dramatic increase in the number of studies showing the positive impact of nuts on cardiometabolic health, weight, and satiety. More than 7 epidemiological and clinical mixed nut studies have shown that nut consumption is not associated with higher body weight. Over 45 research articles have shown that mixed nuts can help reduce the risk of heart disease, diabetes, and metabolic syndrome.

**[1:46:59]** In a systematic review and meta-analysis of 61 controlled intervention trials, tree nut intake lowered total cholesterol, LDL cholesterol, APO-B, and triglycerides.

The major determinant of cholesterol lowering appears to be nut dose rather than nut type. Another systematic review and meta-analysis of 40 randomized control trials, consumption of nuts significantly decreased insulin-resistance and fasting insulin, suggesting that nut consumption may improve insulin sensitivity.

I'd like to comment on another topic being addressed by the committee, frequency of eating.

Research shows snacks provide about 25 percent of daily calories. When it comes to the role of nuts, approximately 60 percent of nuts consumed are as snacks. In a recent study, researchers looked at data from the 2009-2012 NHANES, and found that replacing between-meal snacks with tree nuts led to more nutrient-rich diets that were lower in empty calories and sodium and had more favorable fatty acid profiles.

**[1:47:57]** Replacing snacks high in refined carbohydrates with just 1/3 cup of nuts per day could have a positive impact on the nutrient density of the diet. In summary, consumers are eating well below both USDA dietary guidelines and FDA recommendations for nuts. The DGAC, through its review of the ever-growing body of evidence on nut consumption and subsequent inclusion of dietary-relevant quantities in its recommended food patterns, can help consumers understand the benefits of regular nut consumption. INCNREF looks forward to providing this evidence to the committee throughout the comment period. Thank you.

**Kelly Cassavale:** Commenter 36.

**[1:48:34]** **Dr. John Kelley:** Madame Chair and committee members, thank you for the opportunity to speak on behalf of the nonprofit American College of Lifestyle Medicine and its more than 3,000-member clinicians who specialize in treating chronic disease with lifestyle evidence-based interventions, including diet. I'm Dr. John Kelley. I would have the privilege of being the founding President of the College over 15 years ago.

**[1:49:03]** I am certified in preventative medicine and as a lifestyle medicine specialist. That's my practice is as a lifestyle medicine specialist. I want to address your work, how your work can help us prevent and treat type 2 diabetes, but I first have to make a comment.

After sitting here and hearing all this wonderful advice that you're getting, I thought, when I was getting ready to make my comments, I had more advice than I've ever had in my life, but I realize you have far more than I did. But anyway, in seriously, lifestyle medicine clinicians find poor diet to be one of the most important risk factors for type 2 diabetes and whole food plant-strong diets to be one of the most important interventions for its treatment and remission.

The College's official position statement on diet and disease reads thus. "For the treatment, reversal, and prevention of lifestyle-related chronic disease, the College recommends an eating plan based predominantly on a variety of minimally-processed vegetables, fruits, whole grains, legumes, nuts, and seeds."

**[1:50:15]** Now, much evidence exists for the positive impact of a whole food plant-strong diet in the primary prevention of type 2 diabetes, including numerous large cohort studies, Nurse's Health Study, Health Professional Study, etcetera, epic cohorts, Adventis Health Study 1 and 2, that consistently find that a plant-strong diet is associated with reduced incidence and prevalence of type 2 diabetes.

In addition, numerous randomized trials demonstrate plant-strong whole food diets are effective in treating type 2 diabetes and other chronic conditions, and I want to say that, as an evidence-based group of physicians and clinicians, we recognize one size does not fit all.

**[1:51:06]** I'm not in any way seeking to invalidate the fact that, apparently, for some individuals, different macronutrient balance is more effective than other macronutrient balances. The College embraces the

fact that we're not all the same. But we do find that the greatest danger in our lifestyle medicine treatment is usually not sufficiently reducing medications.

I personally have had the experience—

**Kelly Cassavale:** Thank you for your comments. We'll need to move on.

**Dr. John Kelley:** Thank you.

**Kelly Cassavale:** Commenter 37, please.

**[1:51:41] Dr. Asha Subramanian:** Hello, I am Dr. Asha Subramanian, a community family physician who is here to represent my own patients, as well as the millions of Americans, particularly children, who will be directly affected by this committee's decisions. I thank the committee for the opportunity to speak today.

**[1:51:59]** Based upon the scientific evidence, I would like to urge you to rethink the prominent role of dairy in the upcoming 2020 guidelines. Dairy products are the number one source of saturated fats in the American diet, and scientific evidence has clearly tied dairy consumption to heart disease and high cholesterol. Moreover, milk and other dairy products have consistently been shown to increase the risk of breast, ovarian, and prostate cancers, through the mechanisms of IGF1 and estrogen dominance. Research has closely linked dairy to female reproductive diseases, acne, ear infections, asthma, and allergies.

In addition, due to the mechanisms of molecular mimicry, there is also strong scientific evidence on the relationship of type 1 diabetes, celiac disease, rheumatoid arthritis, and other autoimmune conditions from dairy consumption in childhood. Lactose intolerance, per the NIH, affects up to 50 million Americans, results in diarrhea, bloating, gas, and abdominal pain.

**[1:53:00]** 80 to 100 percent of Asian-Americans, African-Americans, Native Americans, and Latino Americans are affected by lactose intolerance. Yet, dairy is still a staple of the National School Lunch Program and is served daily to school children, often from these very populations. This racial and ethnic disparity of dairy consumption and its health repercussions have never yet been addressed by the *Dietary Guidelines*. Dairy, whether it's derived from industrial agriculture or grass-fed cows, contains high levels of estrogen, pus, BCs, and other contaminants. In fact, the main source of animal-derived estrogens in the human diet is from dairy products.

Furthermore, there has been mounting scientific evidence that the dairy industry has contributed to climate change and its dangerous effects through industrial agriculture. It's a heartbreaking industry that takes a mother's milk away from her baby cow to funnel it for human consumption, under the false pretense that it's healthy for humans.

**[1:53:58]** The USDA has served for years in a conflicting role, protecting the public health, while at the same time, pushing agricultural products. At what cost? Americans are increasingly and clearly aware that milk does not do a body good. Plant-based milks alone are now over a 1.6 billion dollar market. I am not here to profit financially or to represent big plants.

I am here as a frontline evidence-based physician advocate for my patients and for all Americans, and my 5-year-old daughter, who's going to be starting kindergarten in a few months. Let's eliminate dairy in the 2020 guidelines and really stand up for our nation's health. Thank you.

**Kelly Cassavale:** Commenter 38.

**[1:54:42]** **Laura Abshire:** My name is Laura Abshire, and I'm the Director of Food and Sustainability Policy at the National Restaurant Association. We are the leading association for the restaurant industry, representing over 1 million locations nationwide. The restaurant industry has dramatically increased its focus on nutrition and wellness in recent years, developing a wide range of strategies to help Americans live healthier lives.

**[1:55:03]** Restaurants throughout the country are offering a variety of healthful options, including more fruits and vegetables, lean protein, whole grains, low-fat dairy, healthy fats, and plant-based foods. Additionally, many new brands have centered their entire businesses on nutritionist—nutritious options. While some restaurants have formally pledged to make positive changes through public commitments, others have chosen to take a stealth health approach through their changes in menus. The restaurant industry is also committed to providing nutrition information. This is why we came together with the public health community to support the menu labeling nutrition disclosure standard.

This standard has been implemented in restaurants across the nation, ensuring that customers have the information they need to make healthier choices. Our industry is also looking to experts for help in achieving healthier menus by employing more registered dietitians than ever before. In fact, we currently have 220 professionals that are part of our Nutrition Executive Study group.

**[1:55:59]** Our commitment to health and wellness is also evident through our participation in a number of programs, like the Association's Kids Live Well Program, which provides parents with healthful children's menu choices. Kids Live Well is now located in every state and includes over 150 national, regional, and local restaurant brands, representing over 42,000 locations.

Building on this success, we are currently revising the criteria as we prepare to launch Kids Live Well 2.0. We are also participating in the Portion Balance Coalition in conjunction with Georgetown University. We are excited about the opportunities to shape, co-create and implement change in this area with a diverse group of multi-sector players.

Finally, many of our members are engaged in the Culinary Institute of America's Healthy Menu R&D Collaborative. Through this effort, more produce, less sodium, fewer calories, and higher-quality

proteins are now being offered through its collective offering of 38 million meals a day. These efforts are clearly having an impact.

**[1:56:59]** The Association recently surveyed a sample of 2,000 adults, and the results indicated that 72 percent believe restaurants have made it easier to monitor calorie intake, 50 percent agree that restaurants have made an effort to balance portion sizes, and 40 percent report more options for lower-calorie beverages.

The restaurant industry is truly committed to taking a long-range proactive approach to meeting evolving science-based nutrition evidence, as well as consumer needs and attitudes towards nutrition. We appreciate the opportunity to provide comments today and would direct you to our forthcoming written comments. Thank you.

**Kelly Cassavale:** Commenter 39.

**[1:57:38]** **Diane Welland:** My name is Diane Welland, and I'm a Nutrition Communications Manager for the Juice Products Association, known as JPA. JPA's a trade association representing processors, growers, and distributors to the juice industry. We support the current *2015-2020 Dietary Guidelines for Americans* recommendations around juice, which state "100 percent juice contributes beneficial nutrients and should be one of the primary beverages consumed."

**[1:58:02]** 100 percent juice is part of the fruit and vegetable group. "100 percent juice in appropriate amounts can be included in a healthy dietary pattern." I'd like to share three evidence-based reasons that support 100 percent juice as a nutrient-dense healthful beverage in the diets of Americans. One, 100 percent juice delivers significant beneficial nutrients, such as valuable vitamins, minerals, and bioactives, through the diets of children and adults. More specifically, 100 percent juice is a source of potassium, vitamin C, and number health-promoting plant compounds, like polyphenols and flavonoids. It's an important contributor to folate, magnesium, thiamine, riboflavin, and niacin.

Fortified juices also provide vitamin D and calcium. 100 percent juice, number 2, is 100 percent juice is nutritionally similar to fruits and vegetables and can help all Americans meet fruit and vegetable group recommendations. On a gram for gram basis, fruit and its 100 percent fruit juice counterpart is similar in their nutritional profiles.

Today, more than 75 percent of Americans fall short when it comes to meeting recommended amounts of daily fruit servings.

**[1:59:02]** While JPA recognizes whole fruits should be the majority of fruit consumed by children, 100 percent juice does play a significant role in helping children meet suggested intakes. Research shows that children who consume 100 percent juice have higher intakes of whole fruit than those children who don't.

This suggests that fruit juice is complementary and not competitive with whole fruit intake and may actually encourage the intake of whole fruit in the diet. Furthermore, data shows that 100 percent fruit juice drinkers, both children and adults, have better diet qualities than non-fruit juice drinkers. Number 3, drinking 100 percent juice is not associated with weight status and does not increase risk of chronic illness.

In fact, it may even protect against certain conditions. The majority of science on obesity in children overwhelmingly shows no association between drinking 100 percent juice and trends in weight gain. A 2018 study systematically reviewed the current evidence associated with 100 percent fruit juice consumption of various chronic health conditions in children and adults.

The study found no significant associations between juice and weight gain in children or adults and concluded that no adverse health effects were found to be associated with 100 percent juice consumption related to diabetes, cardiovascular disease, and blood pressure.

**[2:00:08]** Emerging evidence indicates drinking 100 percent fruit juice can support cardiovascular health and may be associated with improved cognitive function. In conclusion, JPA supports making dietary choices that include a variety of foods that contribute to a healthy overall diet, including 100 percent fruit juice consumed in appropriate amounts. Thank you for this opportunity.

**Kelly Cassavale:** Commenter 40.

**[2:00:31]** **Jasmine Westbrook:** You're halfway there, committee. My name is Jasmine Westbrook, and I'm a registered dietician with a master's in nutrition education, and a founder of a nonprofit called Eat Well Exchange, where we help provide access to healthy and affordable foods in low socioeconomic communities.

About 23.5 million people live in food deserts. Half those people live in low-income areas, while the other half are among the general population. So, this affects you, this affects your family, and your community.

**[2:01:00]** A food desert is a community that lacks access to full-service grocery stores, where fresh produce and other healthy foods are scarce or nonexistent.

Residents living in food deserts also had a hard time finding foods that were culturally-relevant that meet their dietary restrictions, according to the White House Task Force on Childhood Obesity. So, my question for you all today is how can we improve a community without the tools to make a positive and healthy change? About 34 percent of Americans are from diverse nations, which have their own cultural values, food, and traditions. To impact these communities, we must first be knowledgeable of the foods and how we can use them to satisfy a healthy dietary guideline based on our culture.

To see a change in the eating patterns of all Americans, the *Dietary Guidelines* should, first, recruit dietary guideline ambassadors from diverse neighborhoods and promote culturally-relevant healthy foods. This is a need to implement and teach low socioeconomic communities the *Dietary Guidelines for Americans*.

**[2:02:00]** These nutrition ambassadors will have a cultural connection to the lifestyle and the ability to produce respectful changes. For example, the goals of the nutrition education would be to bridge the gap between the *Dietary Guidelines* recommendations and what foods that community is familiar with. Second, provide nutrition education to individuals in low socioeconomic communities about how and why to pick these choices, along with increasing availability of healthier foods. Evidence demonstrates that creating change for food habits involves increased knowledge about how and why these dietary changes are important.

Research has shown that nutrition education programs encouraged from a quasi-experimental study show 4 out of 8 nutrition programs conducted by the USDA and Nutrition Service resulted in significant improvement of fruit and vegetable consumption from nutrition education by the Supplemental Nutrition Assistance Program.

**[2:02:58]** So, it is important to realize this is not a personal or individual problem, this is a systematic problem. We need to eat like our ancestors to prevent and treat chronic conditions. For example, the Southern diet is often referred to as a traditional diet for African-Americans, however, the real traditional model truly eaten by Africans consist of high-fiber rich, leafy greens and beans and legumes. Dietary guidelines are not variations and our cultures cannot be ignored. The foods we eat, the way we live, and the resources that we have access to impact our overall health. Thank you.

**Kelly Cassavale:** Commenter 41.

**[2:03:32]** **Pepin Turna:** I'm Pepin Turna with the Academy of Nutrition and Dietetics. America faces a debilitating health crisis that is largely of our own making. Rates of obesity and diet-related chronic diseases are on the rise. Our diets are killing too many of us, and they're making too many of us sick. More than ever, we need these evidence-based guidelines, but we also need strategies and funding, and a unified commitment to implement them so that all Americans can make healthier decisions for ourselves and for our families.

**[2:04:00]** The Academy of Nutrition and Dietetics represents 108,000 credentialed women and men committed to evidence-based practice, who are making a difference producing lifestyle change and improving health in communities throughout the country in schools, hospitals, as researchers, and as private practice. We have confidence in this particular Dietary Guidelines Advisory Committee as a body and in the individual members selected to serve on it.

Having observed the discussion yesterday and at the first public meeting, all Americans should feel confidence in this committee's abilities, approach, and astuteness in answering the scientific questions before you, and you being able to fulfill the charge outlined in the charter.

Sometimes, rarely actually, our *Dietary Guidelines* get it wrong. Whether it's the unintended consequences of a focus on total fat, or political decisions that reject, weaken, or rewrite recommendations in the scientific report to make them anadigm. It happens. And we learn from it, and we dig deeper, and we work to ensure that the guidelines evolve as the science evolves.

**[2:05:03]** This Advisory Committee and the USDA and HHS scientists working alongside you are well-suited to the task of distilling the science from the silliness. The nature of science is errative, and we have confidence that this DGAC will not miss the forest for the trees. We continue to support a focus on dietary patterns over individual nutrients, and taking a systems approach reflecting the need to think about nutrition as a biological variable. This requires a willingness to see topics and questions anew and cast off guidelines and theories that assume too much, or overly reliant upon surrogate endpoints that may matter less than we originally thought.

The Academy of Nutrition and Dietetics will follow up with some specific comments on proposed protocols and processes, and the purposes of the guidelines, and the complexities of nutrition science, but in the remaining time allotted, I want to emphasize three salient points. First, transparency. The committee and the departments to date have worked to implement and incorporate the National Academies' recommendations, but where the rubber meets the road, is that period and process between the submission of your scientific report and the issuance of the final guidelines.

**[2:06:07]** And we are committed to ensuring that the final *Dietary Guidelines* reflect science, not politics, in accordance with the statutory requirements. Second, timing. The *Dietary Guidelines* charter was issued in October of 2018 for a period of 2 years. Take the entire 2 years. Take until October 2020. You have new and added responsibility of the B-24 recommendations and significant new evidence in literature. Take all the time you're allotted and get it right rather than getting it artificially—

**Kelly Cassavale:** Thank you for your comments. We need to move on.

**Pepin Turna:** Thank you.

**Kelly Cassavale:** Commenter 42, please.

**[2:06:41]** **Marie Caudill:** Good morning. My name is Marie Caudill, and I'm a choline researcher in the Division of Nutritional Sciences at Cornell University. Thank you for the opportunity to provide comments on this important scientific review. To start, although choline is an essential nutrient for all ages and stages of life, only 1 of 10 US adults meet target intake levels.

**[2:07:04]** The best dietary sources of choline are animal-source foods like eggs and meat. However, consumers are often advised to limit these foods in their diet. With public health calls to shift eating patterns away from animal-based foods, a potential unintended consequence is a further lowering of choline intake. It thus appears that choline needs will be most easily met in the United States through a combination of food and supplements, particularly among special populations like pregnant and lactating women, who have an increased choline requirement.

Low choline intakes throughout the perinatal period are of concern, because choline is required for proper brain development and function. Research shows that supplementing the maternal diet with additional choline elicits better cognitive outcomes, like improved processing speed and attention in infants, and better visual memory in 7-year-old children.

**[2:08:08]** Higher maternal choline intakes are also associated with a reduced risk of having a baby with a neural tube defect and may protect against certain neural insults, like fetal alcohol syndrome. Authoritative bodies are now beginning to recognize choline as a nutrient needed for optimal health during development and in infancy. For example, the American Medical Association recommended choline be a component of all prenatal vitamin supplements.

And the American Academy of Pediatrics issued a policy statement calling out choline as a key brain-building nutrient. In addition to the pregnant and birth-24 month populations, choline is important for health across the life stages.

**[2:08:55]** Choline supports brain health and function among older adults. It also helps move fat out of the liver, keeping this vital organ healthy and functioning properly, and potentially preventing non-alcoholic fatty liver disease, a leading health concern in the United States. Thus, it seems of critical importance that future dietary guidance elevate awareness of choline and choline-containing foods. We hope the committee will consider reviewing the data around this important nutrient. Thank you.

**Kelly Cassavale:** Commenter 43.

**[2:09:31]** **Karen Sealander:** Good morning. I'm Karen Sealander for the American Dental Hygienists Association. ADHA represents the nation's more than 200,000 dental hygienists who work with individuals and groups across the life span to ensure people realize the importance of adopting routine oral health preventative practices to not only curb dental carries, tooth decay, but also to promote a healthy diet.

**[2:09:57]** Why are healthy teeth important to healthy diets? Painful and missing teeth can limit dietary intakes of fruits, vegetables, whole grain breads, and other foods that require chewing. Studies have found that individuals with partial or full dentures have lower consumption of 20 key nutrients. Poor oral health is also associated with serious systemic medical conditions, including diabetes, heart disease, and stroke.

What is the scope of the problem? Rates of dental carries match or exceed rates of obesity in individuals at all ages, demonstrating that carries is a major chronic disease across the lifespan.

Indeed, dental carries is the most common chronic condition among children, five times as prevalent as asthma. Importantly, unlike medical maladies, virtually all dental disease is fully-preventable through proper dietary intake and oral health preventative practices.

**[2:10:58]** Including the importance of oral health preventative practices in the *Dietary Guidelines* will ensure that guidance on how to ensure healthy teeth can make for healthy meals, reaches more Americans.

Today, more than half of all children do not receive instruction on self-care oral hygiene in a given year. Routine oral health care also helps prevent periodontal disease, which impacts over 17 percent of seniors and can lead to tooth loss and subsequent poor dietary intakes. Preventing dental carries early and throughout life can also improve social interactions, school performance, military readiness and effectiveness, and job opportunities.

Education about the benefits of oral health preventative practices will help all Americans avoid the negative effects of tooth loss and painful teeth. ADHA and our partners request that the *2020-2025 Dietary Guidelines* recommend “Individuals of all ages should follow a daily oral hygiene routine, which includes brushing their teeth with fluoridated toothpaste, cleaning between their teeth where possible, chewing sugar free gum for 20 minutes after meals or snacks if possible, drinking fluoridated water, and limiting intake frequency of dietary fermentable carbohydrates.”

**[2:12:13]** This is essential, because oral health preventative practices have significant dietary benefits from all Americans. Thank you for the opportunity to provide comments on behalf of the American Dental Hygienists Association and additional supporting organizations listed in our written testimony. Thank you.

**Kelly Cassavale:** Commenter 44.

**[2:12:33]** **Dr. Catherine Shanahan:** My name is Dr. Cate Shanahan. I’m a family physician from Florida. I’m here on behalf of myself. I wrote a book about 10 years ago about how families used to raise healthy children using the resources they had available to them in their environment, whole foods basically. The book is called *Deep Nutrition: Why Your Genes Need Traditional Food*.

**[2:12:57]** And what it does is basically take a look at the obvious changes that have happened in the past 100 years through the food supply and the way we feed ourselves that amount essentially to a massive nutritional and dietary experiment involving hundreds of millions of participants in this country alone over hundreds of years.

And the obvious is that 100 years ago, people were self-sufficient in their food to a degree that we can’t even really comprehend anymore, because people hunted, people fished, people had a garden whenever that was possible, people raised their own animals, they cared about the health of the animals that they raised, they cared about the soil.

It was their job to bring up healthy children, because if they didn't do it, the government wasn't going to help them out. And so, what has changed over the past 100 years is that now, we have very few people who have any of those skills.

**[2:13:58]** We have lost the skills of gardening, of farming, of cooking, of knowing even how to combine flavors in a tasty way. We've lost the knowledge of culinary skills that used to be considered essential, making stock, using the whole animal or the whole plant.

We've lost so much. We've lost knowledge, we've lost time, we've lost health. Over the past 100 years, so much has changed. And one of the most important changes, I think that the fact that so many things have changed, actually, is important to point out, because it is very confusing to understand what we really should be doing given the degree of alteration of our food supply.

But what I wanted to share with you is that the most important change, in my opinion, as a Cornell-trained biochemist, is that we now eat 80 percent of our fat calories from refined, bleached, deodorized vegetable oils, and only 20 percent of our fat calories come from any kind of whole foods.

**[2:15:09]** These vegetable oils include soy, corn, and canola, and they are nobody's friend.

I've heard nobody up here talking about how we need refined, bleached, deodorized vegetable oils. They are unhealthy because they deteriorate in our body in ways that promote inflammation, that promote DNA damage, mitochondrial damage, and are associated—that kind of damage is associated with every disease.

**Kelly Cassavale:** Thank you for your comments.

**Dr. Catherine Shanahan:** Thank you.

**Kelly Cassavale:** Commenter 45.

**[2:15:37]** **Alexandra Lewin-Zwerding:** Hello, my name is Alex Lewin-Zwerding, and I'm the Vice President for Research and Partnerships with the International Food Information Council Foundation. The IFIC Foundation is a nonprofit organization with a mission to effectively communicate science-based information about health, nutrition, and food safety for the public good.

Our focus is on helping Americans make informed choices and understanding what motivates and informs consumers so that they can lead an increasingly healthful lifestyle.

**[2:16:05]** One of the primary objectives if the IFIC Foundation is commissioning and conducting consumer research. I would like to highlight today a subset of our findings from our 2019 Food and Health Survey, released just this past May.

This marked our 14<sup>th</sup> consecutive annual survey, tracking Americans' perceptions around food and diets, eating habits, and trends. Consumer habits are changing, including alignment of one's values with the foods they consume. This year's survey found that 38 percent of consumers reported following a diet over the past 12 months, with clean eating being the most widely-cited diet.

Not far behind was intermittent fasting. At the same time, consumers are reporting eating healthier compared to 10 years ago. The top 2 changes people say they've made to improve their diets was limiting sugar intake and increasing consumption of fruits and vegetables. This survey also explored American snacking habits and found that nearly everyone snacks at some point during the week, with roughly ¼ saying they snack multiple times a day.

**[2:17:05]** Plant-based diets have garnered widespread media attention as well, but the ways people define plant-based diets varies. Our survey found that consumers' definitions raised from—ranged from vegan to vegetarian to one that focuses on minimally-processed foods. Over half of consumers want to learn more about plant-based diets. At the same time, consumption of plant-based protein is on the rise, with roughly ¼ of consumers saying that they eat more plant-based protein now compared to only one year ago.

In 2019, the top health benefits consumers are seeking from food include weight loss and maintenance, energy, and digestive health. When it comes to feeding newborns and infants, parents face specific challenges. Our 2018 B-24 research showed that parents are focused on feeding their children nutritious diets, but concerns remain. These include choking hazards, allergic reactions, what foods to introduce and when, as well as where to find reliable advice.

**[2:18:02]** We encourage the committee to explore this study's results in more detail. In summary, dietary guidance must reflect the motivations and attitudes of consumers, and IFIC Foundation consumer research can be used to help inform this process.

As members of the committee, we encourage you to keep the pulse of the consumer central to your discussions and nutrition recommendations. Thank you for your time today, and we welcome further discussions about any of the IFIC Foundation data I referenced during my comments.

**Kelly Cassavale:** Thank you for all of the comments. We will now take a break, and we'll reconvene promptly at 11:00.

**[Break 2:31:53- 2:43:06]**

**Kelly Cassavale:** If everyone could please take their seats, we're going to get started.

**[No speaking 2:43:09- 2:43:55]**

**Kelly Cassavale:** Alright, we're going to resume. Commenter 46, please.

**[2:30:39] Christine Najjar:** Hello, I'm Christine Najjar. I'm a nutritional medicine physician at Pounds Transformation in West Hartford, Connecticut. I have my training in internal medicine primary care, a bachelor's in biochemistry, and a master's in human nutrition. And I want to thank the committee for taking on the daunting task of sifting through the ever-expanding body of nutritional literature.

**[2:31:00]** But I am here today to bring to your attention a substantial class of Americans that are not currently being evaluated. These are Americans with hyperinsulinemia. The hyperinsulinemia syndrome is extremely broad and includes endpoints such as obesity, cardiovascular disease, type 2 diabetes, liver disease, certain cancers, polycystic ovarian syndrome, and Alzheimer's disease. Dare I suggest that this is one of the primary drivers of the current American healthcare crisis. Now prevalence for hyperinsulinemia will not be found accurately in the literature, because it's not routinely screened for in primary care.

Most clinicians have never even heard of a *CRAfT assay*. This test can diagnose type 2 diabetes decades earlier than our current diagnostic standards. CDC estimates upwards of 100 million Americans are suffering. Now, clinicians who do evaluate for and diagnose hyperinsulinemia find that the treatment is quite simple with a low-carbohydrate or well-formulated ketogenic diet, and I understand these guidelines are not for the prevention of—or for the prevention of disease and not treatment.

**[2:32:06]** However, I was wondering if the committee has put any thought into how they are going to address these new healthy Americans who have recovered from hyperinsulinemia and require adherence to a low-carbohydrate lifestyle to stay healthy. Clinically, if these Americans consume any of the dietary patterns currently available, and upwards of 50-55 percent of their daily calories from carbohydrates, disease will recur.

So much for prevention. These Americans require a low-carbohydrate dietary pattern, and with numbers like 100 million, I'm not too sure giving a blanket statement about how much starch and sugar we should all be consuming is a great idea.

And to help define what low-carb is, I suggest familiarizing yourself with a physiological concept called personal carbohydrate tolerance, defined by Phinney and Volek. And perhaps, maybe the first step towards effective change is to step away from nutritional epidemiology and start engaging in open discussions with clinicians who are already treating and successfully preventing hyperinsulinemia. And perhaps, maybe then, screening for and treating for hyperinsulinemia will be incorporated into primary care, and together, we can all make Americans healthy again. Thank you.

**Kelly Cassavale:** Commenter 47.

**[2:33:24] Meredith Whitmire:** Hi, I'm Meredith Whitmire, Policy Director for the Defeat Malnutrition Today Coalition, a group of 90 national state and local organizations and agencies fighting older adult

malnutrition. The framework and approach outlined for the *2020-2025 Dietary Guidelines* highlight the importance of guidelines to improve the nutritional intake of Americans across the lifespan. As older adults represent a growing proportion of the United States, including dietary guidelines relevant to an aging population is important.

**[2:33:57]** In fact, older adult malnutrition is a growing crisis in America today. 1 in 2 older adults face the threat of malnourishment. Malnutrition is pervasive, costly, and contributes to disability and slower recovery.

However, it has not yet been addressed by a systematic consistent approach throughout the continuum of care, including in our communities. We were very excited to see the focused question on the relationship between dietary patterns consumed and sarcopenia. Malnutrition is a leading cause of sarcopenia, and many cases of severe sarcopenia could have been prevented with an adequate diet. Relatedly, in your work researching nutrients of public health concern, we ask you to closely consider necessary intake of protein in older adults.

Studies show that older adults need a substantially-higher amount of protein to maintain their muscle mass and prevent sarcopenia. And yet, the reference intakes are the same for all groups aged 14 and older, male and female. This should be reevaluated.

**[2:34:59]** We are also excited that you're studying the current prevalence of nutrition-related chronic health outcomes. In your evaluations, we ask you to consider the presence of malnutrition when you're consid—when you're examining chronic health outcomes, since poor nutrition causes some conditions and exacerbates many others. Ultimately, older adult malnutrition is preventable, but to defeat it, we must first address it. The work of the Advisory Committee can and should lead the way on this effort. Thank you for having me and thank you for your important work.

**Kelly Cassavale:** Commenter 48.

**[2:35:35]** **Farida Mohamedshah:** I'm Farida Mohamedshah, with the Institute of Food Technologists. IFT, a global organization of over 16,000 individual members from over 100 countries, brings together professionals from academia, government, and industry, to apply the science of food and technology 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.

**[2:36:01]** We appreciate the opportunity to provide input on the *2020 Dietary Guidelines for Americans*. Dietary guidelines are inspirational in nature. However, they should be realistic and practical. IFT emphasizes that the DGA should be based on science and include recommendations for dietary changes that enable implementation and maximize adoption in a sustainable manner.

Therefore, consideration of the role of food science and technology is crucial, as nearly all available food products have been developed through the application of these disciplines. However, food scientists and

technologists and their perspectives are not currently represented in the Dietary Guidelines Advisory Committee.

Food scientists and technologists formulate and produce food products that are safe, nutritious, accessible, palatable, and affordable, and help consumers meet their nutrient, dietary, and health needs, and personal preferences. It is important to recognize that without a safe and sustainable food supply, efforts to improve nutrient and diet quality are fruitless, thus attention to formulation, processing, packaging, ingredients, and supply chain innovations, efficient use of natural resources, as well as advances in science and technology to address food safety, nutrition, food loss and food waste, are critical as we move to 2020 and beyond.

**[2:37:14]** Food scientists and technologists employ various approaches to formulate and produce food products to meet the nutritional needs of consumers across all stages and socioeconomic strata. We have been successful in addressing nutrient deficiencies such as folate and vitamin D, increased levels of nutrients in food groups, such as dietary fiber and whole grains, and decreased sodium, sugar, and saturated fats, for example.

Application of food science and technology allows formulation of food products that are affordable and convenient for meal preparation for all demographics and enables consumers to embrace personal dietary preferences, such as cultural, ethnic, and religious. Recent consumer research shows that food purchasing decisions are driven by taste, price, healthfulness, and convenience, with taste and price being the primary drivers.

**[2:38:00]** Aspirational dietary guidance that ignores these drivers will not be readily adopted or successfully implemented. Food scientists and technologists are integral in delivering against a rapidly-changing marketplace demands of safe, nutritious, palatable, affordable, and convenient and abundant food supply.

IFT and its members look forward to furthering the committee's understanding of the role of food science and technology in leading the goals of the *Dietary Guidelines*. IFT urges the committee and the Departments of Agriculture and Health and Human Services to engage food scientists and technologists in the deliberation process to develop recommendations that are science-based, practical, and realistic to improve the diet and health of Americans. Thank you.

**Kelly Cassavale:** Commenter 49.

**[2:38:41]** **Pamela Popper:** Thank you. My name is Dr. Pam Popper. I'm from Wellness Forum Health in Columbus, Ohio, and I thank you for the opportunity to talk to you today. We've been in business for almost 25 years, and we've worked with about 100,000 people who have contacted us because they wanted to regain or maintain their health.

Most of these people have chronic degenerative conditions, like type 2 diabetes and coronary artery disease.

**[2:39:02]** We've seen a couple of really disturbing trends. One is lower and lower ages of onset of disease. We have 2<sup>nd</sup>-graders with type 2 diabetes, high school kids with rheumatoid arthritis. And of course, the population's getting fatter and sicker.

It's rare to see a normal weight person in our office today. Poor diet's always a contributing factor. It's often the thing that has caused these people to be sick. Most of our people have eaten a diet high in fat and protein, too much animal food, too much dairy, too much processed food. The standard procedure in our office, we put these people on a low-fat, high-fiber, plant-based diet and they get better.

In fact, they get better so quickly that they have to be medically monitored because the drops in blood pressure and glucose levels mean that medications have to be reduced, and sometimes withdrawn within a few days. One of the most common things that people ask us at the end of this process is "Why didn't I know about this?"

**[2:39:58]** They tell us routinely, "I would have converted to this diet if I knew I could have prevented diabetes, and I certainly would have done it if I thought that I could have reversed my disease." So, why aren't we telling people this? Well, there's a lot of confusion about diet. Some of it's been said here, people advocating high-fat diets.

And I personally take offense to anybody who would come up here and say that the *Dietary Guidelines* are a joke. That's my opinion. I think it's offensive. But if you take a look at high-fat diets, low-carb diets, the measurements, short-term, show that the benefits are there. People lose weight and they, their numbers come down. But if the only thing we're going to do is consider short-term benefits, there are a lot of things that cause people to lose weight and have good biomarkers.

One's cocaine addiction. I've never had a fat cocaine addict in my office, and I've never had one with high cholesterol or high fasting glucose levels. Now I'm being facetious of course, but the point is, if the only thing that counts is short-term, a lot of things are short-term good, bad in the long term, because it takes a long time for cancer to evolve in response to a high-fat diet, for example, or a high-protein diet.

**[2:41:01]** A plant-based diet low in fat, high in fiber, is the one consumed by the healthiest people on the planet, like the Okinawans who didn't get the memo that high-carb, starch-based diets are bad for you. So, I strongly encourage the committee to take a very strong stance on this issue and recommend a whole foods, plant-based diet. Thank you very much.

**Kelly Cassavale:** Commenter 50.

**[2:41:23]** **Miquela Hanselman:** Good morning. My name is Miquela Hanselman, and I'm the Manager of Regulatory Affairs at the National Milk Producers Federation. As the committee begins to put together

its report, first and foremost, I would like to emphasize the need to maintain dairy's current position as a distinct food group, as well as a recommendation that consumers ages 9 and older, receive 3 servings of dairy a day.

Dairy foods are nutrient-rich products and irreplaceable in the diet if we want to meet the DGA recommended nutrient requirements. Dairy foods are one of the top sources of calcium, protein, phosphorus, magnesium, potassium, vitamins A, B12, D, and riboflavin in children's diets.

**[2:41:59]** In fact, it was determined in 2015 that 42 percent of individuals over the age of 1 don't get enough calcium or vitamin D, two micronutrients that dairy products are full of.

If dairy were removed from the diet, people would fall significantly below the estimate average requirement. In the *2015 Dietary Guidelines Advisory Committee* report, the committee compared the nutritional value of dairy foods and non-dairy alternatives. In this analysis, it was found that while some non-dairy alternatives have been fortified to match the levels of calcium and a few other nutrients in milk, there's always at least 1 nutrient that was negatively impacted. As stated in the 2015 analysis, no dairy alternatives, aside from soy, provide a similar enough nutrient profile in terms of essential nutrients to be considered for inclusion in the dairy group.

Because of this, the committee should continue to only include real dairy products in the dairy category. One of the key attributes which makes dairy products such a nutritious option is the protein it packs with each serving.

**[2:43:00]** On average, a glass of milk offers 8 grams of a complete protein. Almond beverages have only 1 to 2 grams, and like all plant-based beverages, the proteins provided are incomplete.

Across various measurement tools, the protein quality of animal proteins is higher than plant proteins, because of the high content of essential amino acids they contain. Animal proteins have been proven to have higher skeletal muscle anabolic response due to the bioavailability of the amino acids. Lucien, which has high anabolic properties, is especially found in high amounts in milk. These protein properties, coupled with the micronutrient package milk offers, makes it invaluable in Americans' diet.

The most recent research on the benefits of dairy consumption continue to show dairy's role in reducing the risk of chronic disease, including a reduced risk of type 2 diabetes and cardiovascular disease. With all the nutritional benefits dairy has to offer, and the accessibility across income classes it has, it is a no-brainer to keep dairy as a staple in the *Dietary Guidelines* in their own category, and encouraging people to consume 3 servings of dairy daily, especially when considering it is a vital source of micronutrients that Americans have a hard time meeting the daily requirements of. Thank you for your time.

**Kelly Cassavale:** Commenter 51.

**[2:44:16]** **Sally Greenberg:** Yes, good morning. Thank you for a fascinating morning. This has been great. My name is Sally Greenberg. I'm Executive Director of the National Consumers League. And we are here to comment on—to this Advisory Committee and focus our comments on one issue that we think is being overlooked, and that's the issue of portion balance as a strategy for achieving greater health for all Americans in the *2020-2025 US Dietary Guidelines*.

In February 2019, my organization, along with two national consumer advocacy groups, and six leading food industry trade associations, joined together to call on the USDA and the HHS to highlight the importance of portion balance in the new guidelines.

**[2:45:01]** Throughout our 120-year history, the National Consumers League has focused on food safety and nutrition. At the turn of the 20<sup>th</sup> century, in fact, our founders advocated for the need for safe drinking water and safe milk and protecting consumers against adulterated foods. Today, the issues are different, but every bit as pressing. Obesity continues to take its toll on the overall health of Americans and is projected to affect 115 million adults by year 2030.

This projection is due in large part to an increase, over the last four decades, in the portion sizes of meals, snacks, and beverages. One promising, and we think underutilized strategy for tackling the obesity epidemic is helping consumers understand and implement appropriate portion balance.

In a 2014 report, the Mackenzie Global Institute found that interventions to control portion size, such as reducing the size of packaged foods, fast food, and high-calorie beverages, could be the single most effective measure leading to reduced obesity.

**[2:46:03]** Unfortunately, while the current version of the *Dietary Guidelines* mentions portion size, it appears to be the—mostly an afterthought among the various strategies to improve diet and fight obesity.

Portion balance is not mentioned in the Guidelines' Executive Summary, in fact, and this is despite the fact that larger portion sizes have greatly contributed to the problem of overweight and obesity. We therefore urge the Dietary Guidelines Advisory Committee to include portion balance as a key strategy to addressing the rise of obesity and to make education about portion balance a cornerstone of the guidelines, as the Dietary Guidelines Advisory Committee continues its work.

We hope to do some surveying around this issue as well. Finally, I'd enlist First Lady, former First Lady Michelle Obama to spread the word. She was my favorite role model when it comes to food. She talks about the joy of eating, which we shouldn't forget, but also talks about you can eat healthy most of the time, but you can also have ice cream, French fries, and cake once in a while.

**[2:47:05]** Not every day, but as a part of a healthy diet, I guess what we're saying is portion balance means everything in moderation. We welcome the opportunity to work with you in the future and thank you so much for holding this meeting.

**Kelly Cassavale:** Commenter 52.

**[2:47:19] Kathy Weimer:** Hi, my name is Kathy Weimer, and I'm a registered dietician. And on behalf of the Grain Chain, a farm-to-table grain coalition that brings innovative and healthful foods to consumers, I thank you for the opportunity to comment today. Our written comments list our members. The Grain Chain endorses maintaining the *2015 Dietary Guidelines* recommendation of carbohydrate intake between 45 and 65 percent of calories, and at a minimum, the recommended 6 servings daily of traditional grains, with at least half as whole grains.

Further, given that Americans continue to under consume whole grains, we support an increase in daily recommended whole grain servings while maintaining at least 3 servings of enriched grains.

**[2:48:01]** At least 95 percent of refined grains in the US are enriched and fortified and are labeled as such. Therefore, consuming a refined grain that has not been enriched or fortified is highly improbable.

The body of scientific evidence continues to support grain consumption because of its substantial nutritional contributions and positive impact on health outcomes and can serve as a cornerstone for a plant-based diet. Cumulatively, research shows that a variety of grain choices contribute to nutrient density in the total diet and have the potential to increase consumption of shortfall nutrients, particularly dietary fiber, folate, and iron for all age groups.

Since folic acid fortification became required, the prevalence of American babies born with neural tube defects has decreased by 35 percent, leading the CDC to deem folic acid fortification one of the top 10 public health achievements of the 1<sup>st</sup> decade of the 21<sup>st</sup> century. Furthermore, based on a recent study, there is potential for increased risk of neural tube defects in infants born to women who consume a low-carbohydrate diet.

**[2:49:04]** We believe it is premature to recommend low-carbohydrate dietary patterns to the US population. Research data for low-carb diets is inconsistent for both diabetes and weight loss or maintenance health outcomes. Also, a new meta-analysis suggests that low and very high carbohydrate diets are associated with increased risk of all-cause mortality, whereas consuming a diet with 50-55 percent of calories as carbohydrate reduces the risk. We ask that the committee carefully reexamine carbohydrate levels in low-carb studies since the amounts often classified as low may actually be within recommended DGA levels.

Related to chronic disease risk, multiple meta-analyses evaluating grain consumption show little to no association with all-cause mortality, chronic heart disease, type 2 diabetes, and certain cancers. These meta-analyses separately address total grain, whole grain, and refined grain consumption and reinforce the important role that grains play in health outcomes.

**[2:50:00]** Additionally, the health benefits of cereal fiber are well-established from at least a half-dozen meta-analyses. We support the committee's proposed systematic review of protocols for folic acid and other

topics as outlined, and we encourage the committee to include fortified and enriched foods within the research evaluation related to iron and pregnancy and lactation protocols.

**Kelly Cassavale:** Thank you for your comments. Commenter 53.

**[2:50:25] Darlena Birch:** Good morning. I am Darlena Birch, a registered dietician and the Senior Public Health Nutritionist at the National WIC Association. NWA is the nonprofit education arm and advocacy voice of the WIC program, the over 7 million mothers and children served by WIC, and the 12,000 service provider agencies who are the front lines of WIC's public health nutrition services for the nation's nutritionally at-risk mothers and young children.

The WIC food package and nutrition education are the cornerstones of WIC, both of which are shaped by the *Dietary Guidelines for Americans*. Because the 2020-2025 DGAs will be the first to provide recommendations for pregnancy and birth through 24 months of age, it is imperative that they take into account factors that affect the WIC population.

**[2:51:06]** As the DGAC continues its work, NWA asks that the committee consider the following:

For the pregnancy life stage, we would like to bring attention to 3 topics. They are dietary supplements, diet during pregnancy and risk for food allergies, and seafood.

Number one, dietary supplements. We ask that the committee address and provide recommendations for iodine, choline, vitamin D and DHA/omega 3 fatty acid supplementation. For omega 3 fatty acids in particular, we urge the committee to review the efficacy and consider the differences in quality between fish oil and myco-algae oil, if such a supplementation is recommended.

Number two, diet during pregnancy and lactation and risk of food allergy in the infant. We ask that the committee share the latest research on the link between foods consumed during pregnancy and lactation and food allergies in infants.

Number three, seafood. We ask that the committee provide practical approaches to help pregnant women determine the approach—the appropriate amount of seafood to consume.

**[2:51:59]** For the children 2-18 life stage, we urge the committee to focus on dietary fats and to clarify the role of dairy fats, such as 1 percent milk, in brain development. We ask that the committee continue to examine the research on providing children 2 years and older with low-fat milk options, which was adopted by the Nasim Food Package in its 2017 report. However, if the science has evolved since the publication of the 2015-2020 DGAs, the WIC food package should reflect what new evidence may suggest.

For the infants and toddlers life stage, there are two topics that we would like the committee to focus on, the complementary feeding and dietary supplements.

Number one, complementary feeding. WIC participants turn to WIC staff for guidance on a variety of complementary feeding topics and questions.

Therefore, we urge the committee to: review the appropriateness of baby-led weaning versus traditional weaning practices, provide recommendations on rice consumption, due to arsenic concerns, perform research to support the link between the use of sippy cups and child weight, dental health, and juice/milk consumption, discourage the use of food pouches, provide clear recommendations for beverage intake for infants and children, and provide recommendations for the introduction of allergy-induced foods in the first year of life.

**[2:53:06]** Number two, dietary supplements. We urge the DGAs to provide recommendations for vitamin D intake as a means to reinforce its importance.

The DGAs provide a standard by which WIC and many other communities measure nutrition adequacy within populations. We commend the committee for the hard work and look forward to the continued participation in the review process to update the DGAs. Thank you.

**Kelly Cassavale:** Commenter 54.

**[2:53:28]** **Dr. Georgia Ede:** Good morning. My name is Dr. Georgia Ede. I'm a psychiatrist practicing in Massachusetts. Thank you all for your time and expertise to these important questions, for dedicating your time. I'm here because I share your conviction that a healthy body and mind begin first and foremost with a healthy diet.

It doesn't make sense to me that 1 in 6 Americans should need psychiatric medication. I specialize in nutritional psychiatry so that I can focus on addressing root causes of mental illness, rather than simply controlling symptoms with drugs.

**[2:53:57]** Most neuropsychiatric conditions share many root cause mechanisms – nutrient deficiencies, inflammation and oxidation, imbalances in hormone and neurotransmitters driven by unstable blood sugar and insulin levels, and cerebral glucose hypometabolism, that's sluggish brain glucose processing, strongly correlated with insulin resistance and a key feature of Alzheimer's, now often referred to as type 3 diabetes.

My strategy for optimizing brain health is straightforward. I focus on eating—getting people to eat foods that best deliver essential nutrients to the brain and exclude foods that place the brain at risk.

I'd love to point them proudly to our guidelines, but how can I do that when our guidelines explicitly recommend refined grains, refined carbohydrates, powerful promoters of inflammation, oxidation, and insulin resistance, all root causes of brain dysfunction?

When our guidelines explicitly recommend industrially-produced seed oils, which tilt our systems too far towards inflammation? When our guidelines explicitly warn against the consumption of red meat, grounded almost exclusively in epidemiologically-based hypotheses about potential health risks that aren't supported by anthropology, physiology, or human clinical trials?

**[2:55:08]** The science is clear that including animal foods is the most reliable way to obtain most micronutrients in their most bioavailable form, including some which are difficult or even impossible to obtain from plant foods. When our guidelines recommend we base our diets on grains and legumes, starchy staples which are low in nutrients unless fortified, high in anti-nutrients, and too high in carbohydrate to be safe for the growing majority of us with insulin resistance?

So, instead, I recommend a whole foods pre-agricultural diet as a starting point, or in cases of compromised insulin—brain glucose metabolism, a ketogenic diet.

These work very well in clinical practice. The current guidelines cause my patients, families, and healthcare teams to worry that that same diet, which is helping their ADHD, bipolar disorder, chronic anxiety, or early Alzheimer's, is somehow dangerous.

**[2:55:59]** I don't envy your task. The nutrition literature's vast, it's heavily-influenced by politics, money, and the strong personal feelings we all have about food. However, I sincerely hope that you will stay intellectually-curious, ask fresh questions, challenge assumptions, and acknowledge the limitations of the science, rather than presenting it as settled, to allow clinicians and patients the freedom to discover what works best for them within their dietary pattern of choice. Thank you for your work and best of luck. We're all counting on you.

**Kelly Cassavale:** Commenter 55.

**[2:56:32]** **Garth Davis:** Hi, my name is Garth Davis. I'm the Medical Director of Weight Management in Asheville, North Carolina, though I'm not here on part of my city, which would probably ask you to replace the milk recommendation with beer.

I am a board-certified weight loss surgeon and medical weight loss doctor. I've been treating obesity for 18 years, and I am begging this committee to please put me out of business. I am tired of cutting people open for obesity and rearranging their intestines.

**[2:57:03]** And I think it's absolutely ridiculous that it's 2019, and we have a group of very smart people in this room, yet, we are asking what we should be eating. It's absolutely crazy. And I'll tell you what. My patients are confused. They're confused by the guidelines, and they're confused by the discussions here, and they're confused by bad science.

So, I ask you to look at the science very carefully, because I did. I wrote a book saying we should be eating protein first, and we should be on ketosis diets. But you know what happens with these ketosis

patients? They end up eventually on my operating room table when they fail this diet over and over again. We talk about it all the time. So, I eventually went back and said, “Why am I failing the ketosis diet and why are my patients failing?”

And I studied this extensively. And I looked around the world, because you know what? You’ve heard people here tell you that carbs cause diabetes, and yet, when you look at the blue zones, they eat extremely high carbohydrate diets. When you look at the epic database, fructose is associated with a decrease in diabetes, and in fact, taking 5 percent of your saturated fatty acid and changing it to fructose decreases your diabetes risk by 30 percent.

**[2:58:07]** People say insulin resistance and acting as if carbs cause insulin resistance. That is not true. Animal protein and animal fat, causing intramyocellular fat, causing ceramide toxicity, causes insulin resistance. But our patients don’t know that, so all they hear is protein, carbs, protein, carbs.

I think it’s crazy they have to go and order a salad, complete with beans and all kinds of things, and the waiter asks me if I’d like protein with my salad. Well, how ridiculous is that? There’s protein in my salad. The poor teenager who then hears me ask these questions to him, just says “Hey, look, I’m working a summer job.”

But this is what all my patients are dealing with. They don’t know whether to go low-carb, they don’t know whether to go low-fat. They’re petrified of the banana. You could hold up a bank with a piece of bread. People are so scared of carbs. And it’s ridiculous, when you go to Okinawa and they’re eating sweet potato and rice.

**[2:59:01]** And I’ll tell you that my practice, my life, has changed over the years, where I no longer tell people they’re not allowed to come in and tell me what macronutrient they’re eating, they’re only telling me what plants they’re eating, what foods they’re eating. I want a whole food plant-based diet. So, I ask the committee to get rid of the recommendation for a protein, and rather, focus on whole foods. The questions out there are complicated, but the answer is simple. And I refer to Michael Pollan. “Eat real foods, mostly plants, not too much.” Thank you.

**Kelly Cassavale:** Commenter 56.

**[2:59:34]** **Jill Nichols:** Good morning. I’m Jill Nichols. I oversee scientific and regulatory affairs at National Dairy Council. And this morning, I’d like to share three points for the committee’s consideration. First, milk, cheese, and yogurt contribute nutritional value to the food supply. Americans who consume the recommended amounts of dairy foods are better able to meet nutrient recommendations, including for calcium, vitamin D, and potassium.

**[3:00:01]** In the 2015 DGA healthy US-style pattern for 2,000 calories, 3 servings of low-fat or fat-free dairy foods provide almost 70 percent of the calcium, 65 percent of the vitamin D, 29 percent of the protein, 21

percent of the potassium, and more than 20 percent of 6 other nutrients in the diet, at only about 12 percent of the calories.

It's difficult to replace the nutrient package of dairy foods, even with calcium-equivalent foods or beverages. See the 2015 DGAC report for more information on that. The value of dairy foods extends to very young children. Cheese and yogurt are important complementary foods that make nutritional contributions and offer unique sensory experiences to the developing older infant.

As infants age into toddlers, with the allowance of milk at 1 year, dairy nutrients continue to support growth and development, including building strong bones.

**[3:00:58]** Second, dairy food consumption is linked to multiple health benefits. The 2015 DGA states that dairy foods are linked to better bone health, especially in children and adolescents. It also states that healthy eating patterns containing low-fat or fat-free dairy foods are associated with reduced risk for cardiovascular disease, based on strong evidence, and type 2 diabetes, based on moderate evidence. The evidence linking dairy foods consumption and these health outcomes has continued to grow since the 2015 DGAC evidence review. In addition, emerging research on dairy foods indicates it's difficult to predict dairy's health outcomes based simply on their content of single nutrients like fat.

Most studies have found the higher consumption of dairy foods, often regardless of fat content, are neutral or beneficial, regarding these health outcomes.

Third, dairy foods are appealing, accessible, and affordable. A new study found that milk and dairy foods were the lowest cost dietary sources of calcium, vitamin, and vitamin D in the US diet, and the second lowest cost sources of potassium, magnesium, and vitamin A.

**[3:02:07]** So, in addition to contributing essential nutrients, dairy foods are also inexpensive sources of several of those nutrients.

So, in closing, dairy foods are nutrient-dense, affordable, and responsibly produced. As part of healthy eating patterns, they can help Americans across the lifespan meet nutrient needs and reduce their risk for chronic disease of major public health concern. Thank you.

**Kelly Cassavale:** Commenter 57.

**[3:02:34]** **Guy Johnson:** The word for today is, opportunity. Hi everybody, I'm Guy Johnson from the McCormick Science Institute. So, what would you say if I told you there was a magic ingredient that was natural, affordable, had no fat, sugar, sodium, or calories, and could do the following things? Increase vegetable consumption among high school kids at a cafeteria by 15-20 percent without even telling them about it.

**[3:03:08]** Decrease the sodium intake by about 1,000 mg a day among free-living adults after about 5 months. Partially or fully compensate for the loss of flavor in foods lower in fat and saturated fat by 60-65

percent. Do the same thing in foods with appreciably less added sugar. And, what if I told you there was peer-reviewed science to support all of these what ifs? Would you be interested?

Well, the secret ingredient is flavor, flavor from spices and herbs, in this case. It's no secret though that flavor is really the most important factor about why people eat the foods that they do. IFIC has data that goes back decades, showing that the number one reason people make the choices they do is the way that foods taste.

**[3:04:06]** So, the opportunity is simply to think about the fact that flavor is what drives dietary guidelines. If they're not implemented, they're just an academic exercise. Now there's a good start in the current guidelines, which talk about using spices and herbs instead of salt to add flavor to foods. So, why not build on that in this upcoming set of guidelines? You could use it for vegetables, you could use it for foods lower in added fat or saturated fat and sugars. You could use it for healthy dietary patterns.

And you don't need new systematic reviews to enable you to do this, because what you're doing is talking about enabling recommendations that are already there and not creating new ones. CNPP does a great job of helping people figure out how to make healthier choices, but you can give them really powerful tools by just talking about the importance of flavor in your report to the Departments. The opportunity is now. Thank you.

**Kelly Cassavale:** Thank you. I believe commenter 58 is not present, so we'll move on. Commenter 59.

**[3:05:22]** **James Bailes, Jr.:** Thank you. I'm Jamie Bailes, and I'm a pediatrician and pediatric endocrinologist from Huntington, West Virginia. I've been in practice for 25 years, and I've referred—a lot of patients get referred to me because of overweight and obesity in children. In the first 5 years of my practice, I followed the American Academy of Pediatrics guidelines and placed all these children on low-fat diets, encouraging more fruits and vegetables, encouraging whole grains and more exercise.

One of our pediatric residents did a research project, and he looked at 75 patients I had placed on these low-fat diets, and referred them all to dieticians, and what he found was stunning to me. He found that none of them lost weight, not one. And they all gained weight at the same rate, and some gained weight even faster.

**[3:06:02]** Well, this was confusing. I thought I was doing a pretty good job. And so, as a good pediatrician, I was sure that these patients just weren't following my guidelines. And so, after some reflection though, and actually doing some research, I came to a different conclusion, perhaps that fat wasn't the problem. And physiologically, it makes sense. Carbohydrates and sugar stimulate insulin secretion, and insulin's the form that stimulates fat storage.

20 years ago, I started a different approach. And I was skeptical. I didn't know if it would work. But the first patient I saw was a 10-year-old girl, and she lost 14 pounds in 2 months, 24 pounds in 4 months,

and she continues to lose—she continued to lose weight until she reached her ideal weight, a total of 50 pounds.

I have since gone to see hundreds and hundreds of growing children lose lifechanging amounts of weight by restricting sugar and carbohydrate intake. To a tee, the parents tell me, the kids feel better, they have more energy, they're less hungry, and they end up actually eating less.

**[3:07:06]** I've seen several growing kids lose over 100 pounds. Talk about lifechanging and self-esteem improvement.

Now about a year ago this September, I had a 16-year-old patient referred to me. He was newly diagnosed with type 2 diabetes. He was 5'2", weighed 265 pounds. His hemoglobin A1C was 11.9. He was autistic, mentally challenged. His entire family was fairly low IQ. In 10 minutes, I was able to teach his family what foods to eat and what foods to avoid.

In 4 months, his hemoglobin A1C came down to 5.4 without medication. In 12 months, he lost 102 pounds, and he's maintained his weight loss to this day. Now I know these dietary guidelines are not geared for weight loss, but if we take these guidelines and we turn them upside-down, and we increase our fat and cut out our carbohydrate intake, we see tremendous weight loss. So, our goal should be to prevent obesity, and it starts with a more balanced approach. Thank you.

**Kelly Cassavale:** Commenter 60.

**[3:08:13]** **Randy Philipp:** Hi. My name's Randy Philipp, and I'm speaking for myself. I'm a type 2 diabetic, I'm obese, but let me take you on a journey. I went to a—went to my doctor, my A1C was 8.4. And the next time I saw him, he says, "Well, if it doesn't improve, we're going to start you on insulin," which I didn't really want to do. Picked up the—I picked up Jason Fung's book, *The Obesity Code*, and actually listened to it as I was driving to the Poconos and back.

And after that, I started the protocol of a ketogenic diet and intermittent fasting, and my A1C went down to 7.8. 6 months later, it was 5.7. And then 6 months later after that, it was 5.7 again. It's really helped me.

**[3:08:58]** I look at things like the theory of gravity. It's very well-understood. And we don't know exactly how—what causes gravity, but we understand it to the point where we can actually describe actually how things work in the universe.

And when we've come to nutrition, I think we should try to aspire to get that level of understanding. I mean there are lots of theories that I think really, we really should go out and start questioning, like the cholesterol lipid hypothesis, the calories in, calories out model. I mean Jason Fung is—talks more based on a hormonal model, and I think it's a lot more useful to me than doing calories in, calories out.

And also, the hormonal model, two-compartment model that Jason Fung has talked about actually explains the problems with the calorie in, calorie out model. What I'd like to do is I'd like to ask you to really think about all the theories that you're basing the *Dietary Guidelines* on and really consider like what is the current science out there?

**[3:10:01]** I mean what exactly are the current theories? And start questioning them. Start really evaluating the science behind it. I mean look in terms of like observational studies really provide correlation, but they really don't provide any causation. And I could sit here and list crazy correlations you have that are completely meaningless, like—excuse me. But that's what I'm concerned about. But thank you for your time, and I hope you take this in the appropriate light. Thank you.

**Kelly Cassavale:** Thank you. Commenter 61.

**[3:10:40]** **John Cox:** Good morning. I'm John Cox with the Soy Foods Association of North America. Our member companies suggest that the committee consider recent developments in three areas.

Number one, increasing consumer interest in plant-based foods and unique role of soy as a high-quality plant-based source of protein.

**[3:10:58]** Number two, data supporting soymilk as the best alternative for cow's milk.

And finally, the opportunity to encourage greater consumption of soy protein for its heart health benefits.

First, soy and increasing interest in plant-based foods. Evidence is mounting supporting the health and environmental benefits of plant-centric diets. The US government can join other leading global organizations in encouraging increased consumption of plant-based foods that can positively impact consumer health and the planet.

Soy foods play an important role in helping consumers embrace plant-based eating in a way that is nutritious and provides variety. Soy is unique among plant-based proteins because of its protein quality and extensively-studied health benefits.

Soy protein is high-quality—is a high-quality source of protein, comparable in protein quality to milk, meat, and egg protein, making it unique among plant proteins. The versatility of soy contributes lean protein to many nutritious and tasty meals, snacks, and beverages.

**[3:12:03]** Our second point is that soymilk is the best alternative for replacing cow's milk. Americans are also increasingly interested in plant-based non-dairy milks. In a 2018 publication in the *Journal of Food Science and Technology*, Canadian researchers examined the nutritional attributes of a variety of plant milks and concluded that soymilk is the best alternative for replacing cow's milk in the human diet.

Almond milk, rice milk, and coconut milk each have about 1 gram of protein per serving, whereas soymilk typically has about 7 grams. There will always be a place in American grocery stores for cow's milk, but an increasing number of consumers are turning to plant-based milks for a variety of reasons.

And finally, soy is heart healthy. There is agreement across numerous studies that soy lowers cholesterol with both intrinsic and extrinsic affects.

**[3:12:59]** The studies demonstrate that soy has a positive replacement, or extrinsic affect, when incorporated in a balanced diet, but soy also has an intrinsic ability to lower cholesterol. The totality of evidence continues to support the inclusion of 25 grams of soy protein a day as part of a diet low in saturated fat and cholesterol to reduce the risk of heart disease.

In closing, there's opportunity through the guidelines to help consumers make better dietary choices that can positively impact personal health and the environment. We hope that the committee will use your important platform to help Americans understand that soy is the preferred source of plant protein. Thank you.

**Kelly Cassavale:** Commenter 62.

**[3:13:41]** **Neil Cooper:** Good morning. Neil Cooper with the Southeast Permanente Medical Group, speaking for myself. First of all, thank you for the important work that you are pursuing on behalf of all Americans. I'm a physician and have no financial support from the food or nutrition industry. Today, I represent frontline physicians who deal with the epidemic of chronic disease every day.

**[3:14:01]** Lifestyle disease accounts for 81 percent of hospital admissions, 91 percent of all prescriptions, and 76 percent of all physician visits. Chronic diseases are responsible for 70 percent of deaths in the US.

I'm here today not to point to the scientific papers that you are already reviewing. I'm here to simply testify that when patients eat more plants and less animals, there's an absolute decrease in morbidity and a frontline win against the chronic disease battle.

As a certified lifestyle medicine physician, I have the opportunity to work with patients making dietary transitions to a whole food plant-based diet. I work with a large medical group practice helping institute plant-based wellness challenges for hundreds of providers and support staff.

I've witnessed a patient with multiple sclerosis, whose white meta-plaques completely resolved after 6 months on a plant-based diet. I've seen a patient with refractory psoriasis clear their skin completely after 21 days of a whole food plant-based diet. I've seen the patient whose rheumatoid symptoms resolved after instituting a plant-based diet, and a patient whose total cholesterol dropped from 300 to 180 in 21 days of a plant-based diet.

**[3:15:10]** After my own myocardial infarction, I converted to a whole food plant-based diet and have personally experienced the benefits, normalization of all inflammatory biomarkers, no medication requirement, and feeling more energetic than ever.

Healthcare providers today are better educated about the importance of prescribing a proper dietary pattern, but the plethora of opinions regarding what constitutes a healthy diet is confusing and often contradictory. We need strong guidelines.

Using the current science that you rigorously review, do not hesitate, do not hesitate to set the dietary guideline bar at a high level, more plant-based, less processed and animal foods.

The argument that vegetarian dietary patterns are not practical for Americans is illogical and paternalistic. No one wants to be sick. When sick patients are given proper information and dietary guidelines, the majority make a change.

**[3:16:03]** As you review the preponderance of evidence demonstrating that a diet rich in fruits to vegetables, whole grains, pulses, nuts, and seeds, confers population health benefits, please remember that the science translates to successful health outcomes on a 1:1 frontline experience every day. Thank you.

**Kelly Cassavale:** Thank you. I believe commenter 63 is not present, so we'll move on. Commenter 64.

**[3:16:28]** **Sarah Hallberg:** Hello. My name is Dr. Sarah Hallberg, and I work for Indiana University Health and Verta Health, and I am pleased to be here today. I have worked in the obesity field for almost 25 years. I want to start out with a really critical issue that was discussed yesterday, which is that a low-carbohydrate diet may potentially be defined as less than 45 percent of calories from carbohydrates.

Let me be very clear. As one of the foremost experts in this field, that is not a low-carbohydrate diet.

**[3:16:59]** The scientific literature strongly suggests that there are no advantage to that degree of carbohydrate restriction, and either keeping people well or restoring health. A low-carbohydrate diet is under 30 percent of calories from carbohydrates, and the best results in metabolic disease and obesity is with a very low-carbohydrate intake, which is under 50 grams of carbohydrates a day, or around 10 percent of calories.

I worked for years as an internal medicine physician in primary care, and I instructed my patients to follow the *Dietary Guidelines*. My patients brought back their food records, talked of their new exercise programs, and got sicker and more obese. I got more despondent as a provider. I was not helping them at all. Then I spent a year scouring the scientific literature on how I was going to solve the unsolvable problem.

I discovered a low-carb eating pattern, and the hardest thing for me to do was make peace with the fact that, despite my best intentions, I had previously been making my patients worse, not better, with my advice.

**[3:17:58]** I founded the Obesity Program and Indiana University Health Arnette as a low-carbohydrate program almost a decade ago. The results we saw were almost unbelievable. People losing weight, regaining their health, reversing hypertension, fatty liver disease, lipid disorders, and type 2 diabetes.

I am now the PI on the largest and longest controlled clinical trial ever, to look at very low-carbohydrate nutrition interventions for type 2 diabetes, and here are our results.

At 1 year, 60 percent of the 262 intervention patients had reversed their diagnosis of type 2 diabetes. At 2 years, this number remained at 54 percent, and our patients had lost an average of 12 percent of their body weight, an average of 30 pounds, while improving their 10-year cardiovascular risk score.

Let me repeat. 54 percent of patients with a diagnosis of type 2 diabetes had reversed out of this disease. Compare this with the Women's Health Initiative, which tested the *Dietary Guidelines*, and found that they did nothing to prevent diabetes or cardiovascular disease risk reduction and resulted in less than 5 pounds of weight loss at a year.

**[3:19:10]** I think it is very important to review the enormous body of clinical trial evidence for a low-carbohydrate eating pattern in obesity and early metabolic disease. Did you know that a very low-carbohydrate eating pattern does not change plasma-saturated fat, yet a high-carbohydrate diet increases it? This is one of—

**Kelly Cassavale:** Thank you for your comments. We need to move on.

**Sarah Hallberg:** —of a number of studies that cannot be ignored.

**Kelly Cassavale:** Commenter 65.

**[3:19:35]** **Albert Lear:** Good morning. I am Albert Lear, Director of Science and Research for the International Bottled Water Association, known as IBWA. IBWA represents all segments of the bottled water industry, including spring, artesian, mineral, sparkling, and purified bottled waters. Founded in 1958, IBWA member companies include domestic and international bottlers, distributors, and suppliers.

**[3:20:03]** IBWA represents small, medium, and large companies, including many family-owned businesses. 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.

Inclusion of all beverages, including water, as one of the topics to be considered by the 2020 Dietary Guidelines Advisory Committee will allow the committee to consider relevant research and information on the important contribution water has to healthy dietary patterns among all age groups.

Not only is drinking water strongly encouraged, but health experts widely recognize water as a preferred source of hydration that contributes to good health. Scientific research shows that drinking water positively influences overall wellbeing and a number of healthy bodily functions and organs.

**[3:21:04]** The Centers for Disease Prevention and Control’s drinking water fact sheet recommends the following: Adults and youth should consume water every day and points out that drinking enough water every day is good for overall health. As plain drinking water has 0 calories, it can also help with managing body weight and reducing caloric intake when substituted for drinks with calories, like regular soda.

Drinking water can prevent dehydration, a condition that can cause unclear thinking, result in mood change, cause your body to overheat, constipation, and kidney stones.

Since the *2020 Dietary Guidelines* will also focus, for the first time, on children from birth to 24 months, it is important to consider that the development of chronic diseases start at an early age, and so do good drinking habits. Breast milk or infant formula, along with the introduction of water for children between 6 and 12 months old, is consistent with CDC recommendations for drinks to encourage.

**[3:22:06]** In terms of consumer education, it is worth noting that the importance of waters in a healthy diet is recognized by governments throughout the world. Currently, 48 countries promote water consumption in their nutrition 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—

**Kelly Cassavale:** Thank you for your comments.

**Albert Lear:** Thank you.

**Kelly Cassavale:** We need to move on. Commenter 66, please.

**[3:22:40]** **Dotsie Bausch:** Hi. Thank you for keeping eyes wide open for the last speakers. I’m Dotsie Bausch, Executive Director of the nonprofit, Switch4Good. As a Silver medal winning Olympian, I am deeply concerned about the USDA’s **[unintelligible 3:22:52]** recommendation that Americans consume dairy foods. And believe me, for 35 years of my life, I never thought I would be standing here today.

**[3:23:01]** I drank milk, I had ice cream from time to time, I ate yogurt. It all seemed harmless enough to me at the time. I mean even the United States Olympic Committee told me that I should drink cow’s milk to stay strong and healthy. But it just didn’t make sense to me. So, I began to dig deep and look at the research on a quest to become a better athlete, and I learned how noxious it is to drink the mother’s milk from another species.

And I also became saddened and a little enraged that the dairy industry continued to use me and my peers as pawns in their marketing schemes for profit. For athletes and non-athletes alike, the destructiveness of dairy is multi-layered.

Cow's milk's proteins, particularly casein, which makes up 80 percent of cow's milk, had been shown to increase mucus production in the gut and in the respiratory tract. Impaired breathing, asthma, and chronic runny nose can all be exacerbated by drinking cow's milk.

**[3:24:00]** By regularly consuming dairy products as a means of a recovery fuel, an athlete's acute inflammation and oxidative stress can become chronic, leading to prolonged recovery, muscle fatigue, cell damage, and even elevate one's risks of chronic diseases.

65 percent of the global population is lactose intolerant, according to the National Institute of Health. This number is even higher among non-white populations, such as Asians, blacks, and Hispanics, which you've all heard here today. Those who cannot effectively digest the lactose in cow's milk, they experience really painful symptoms, like abdominal pain, bloating, gas, nausea, diarrhea, constipation.

Why on earth does the USDA have a food category on the *Dietary Guidelines for Americans* that makes over half of us sick, uncomfortable, and unable to breathe? For the USDA to continue to put its stamp of approval on a product that is unnecessary and unhealthy, and rooted in a highly-oppressive system, is unconscionable.

**[3:25:04]** We have an opportunity today to prove that the US cares about its constituents. Its constituents, by the way, are your mothers and fathers and daughters and sons who have been afflicted by type 2 diabetes and hormonal-based cancers, like prostate, ovarian cancer, and breast cancer, which dairy foods perpetuate.

I stand up here today as one of your constituents. I represented the US when I stood on the podium and accepted my Olympic medal, and now today, I'm asking you to represent me, using your podium, and please, remove dairy as a food group from the *Dietary Guidelines*. Thank you.

**Kelly Cassavale:** Commenter 67.

**[3:25:42]** **Ted Barnett:** Ted Barnett, Rochester Lifestyle Medicine Institute. I'm a physician from Rochester, New York, where I have been practicing medicine for over 3 decades. I'm here to make the case that the next *Dietary Guidelines* should acknowledge that most of the suffering and cost associated with our current epidemic of chronic disease could be alleviated if we all adopted a whole food plant-based diet.

**[3:26:00]** 28 years ago, like any good parents, my wife and I decided to perform an experiment on our children. We adopted a vegan diet. The experiment was a success. All 5 of us are still thriving. Our kids are now young adults enjoying happy and healthy lives without the consumption of dairy, meat, fish, or eggs.

I majored in biology at Yale and was a medical student and radiology resident at Tufts. I am board-certified in diagnostic imaging as well as in vascular and interventional radiology, a high-tech field utilizing image-guided procedures, such as angioplasty and stent placement.

In addition, 2 years ago, I took the inaugural examination of the American Board of Lifestyle Medicine and became board-certified in the new specialty of lifestyle medicine, which emphasizes low-tech treatments and holds as one of its principles the use of a predominantly plant-based diet to help prevent, arrest, and reverse most of the chronic conditions affecting Americans.

With board certification in both interventional radiology and lifestyle medicine, I am known as the high-tech doctor with low-tech solutions.

We began the nonprofit Rochester Lifestyle Medicine Institute for the purpose of treating patients utilizing a plant-based diet and other low-tech environmentally-friendly sustainable interventions.

**[3:27:03]** Our 15-day outpatient Jump Start program teaches our patients to eat an **[unintelligible 3:27:07]** style oil-free vegan diet without caloric counting or portion control. It has been given 10 times to 250 patients in the Rochester, New York area, as well as to 40 patients in Austin, Texas. The results have been remarkable.

For patients whose total cholesterol was over 200, there was an average drop of 50 points by day 15, with 1 patient dropping her total cholesterol from 299 to 149, a drop of 150 points in just two weeks.

Last fall, an untreated patient with diabetes and a hemoglobin A1C of 13.6 took our Jump Start, and within 3 months, his hemoglobin A1C was 6.0, meaning that he no longer has diabetes.

While these are anecdotes, many other physicians using plant-based interventions have documented similar results, and peer-reviewed literature backs up these observations.

With results achieved so quickly and easily, a whole food plant-based eating pattern should be considered the default diet. According to the Executive Summary of this committee 5 years ago, at least 117 million Americans are afflicted with one or more preventable chronic diseases.

**[3:28:03]** Given that the leading cause of this epidemic is the food we eat and given that the most effective way to prevent or reverse these chronic conditions is a whole food plant-based diet, I urge the committee to make this clear in the next report.

Even if the final guidelines do not reflect this conclusion, I urge everyone in this room to remember that a whole food plant-based diet should be their first choice when they or a loved one are afflicted with one of the chronic conditions now plaguing so many Americans. It's effective, it's quick, it's simple, and it's environmentally-sustainable. Thank you.

**Kelly Cassavale:** Commenter 68.

**[3:28:34] Sherene Chou:** Hello, my name is Sherene Chou. I'm a registered dietician specializing in plant-based diets. I'm here today representing the Plant-Based Foods Association. The Plant-Based Foods Association was founded in 2016 to promote the plant-based foods industry. We currently have over 140 members from small startups to large established companies. Our members offer consumers a variety of plant-based options.

Plant-based foods have a unique role in healthy diets and dietary patterns, which optimize and increase health at all life stages.

**[3:29:02]** The guidelines should support and facilitate Americans' ability to make healthier food choices through public policies that reflect scientific evidence and the evolving food environment.

Decades of research have shown that shifting to a plant-based diet provides an array of health benefits and chronic disease prevention, and promotes healthy growth at all life stages, including pregnancy and lactation, infancy, childhood, adolescence, older adulthood, and for athletes.

People consuming a plant-based diet are at a reduced risk of health conditions, including heart disease, type 2 diabetes, hypertension, certain types of cancer, and obesity, all conditions the committee is examining. The *2015 Dietary Guidelines* concluded that the 3 main patterns to support healthy eating. The healthy vegetarian, Mediterranean, and US patterns were all nutrient-dense and plant-centric.

These patterns emphasize higher consumption of fruits, vegetables, whole grains, legumes, nuts and seeds, lower in animal foods, lower in sugar-sweetened beverages and foods.

**[3:29:59]** These plant-centric patterns emerged to help Americans increase intake of nutrients that are under consumed, including vitamins A, E, C, folate, magnesium, potassium, and fiber. A diet rich in plant foods tend to be higher in all these nutrients and has health-protective phytochemicals and fiber, which are exclusively found in plants.

Also, calcium and vitamin D were noted as nutrients of public concern, with recommendations to increase dairy. However, as you've heard today, 30 to 50 million Americans are lactose intolerant. Fortified plant milks are accessible and nutritious that can provide the same amounts or sometimes more calcium and vitamin D as dairy. Plant-based milks support those avoiding dairy due to health, culture, and lifestyle choices.

In addition to plant-based milks, many other plant-based foods are excellent sources of calcium.

Finally, plant-based sources of protein are nutritionally-superior to animal sources for several reasons. Plant-based protein sources, such as nuts and seeds, legumes, including all beans, lentils, peas and soy foods, provide essential amino acids and are excellent sources of both soluble and insoluble fibers.

**[3:31:05]** Regular intake of these foods is associated with a lower risk of cardiovascular disease, colon cancer, and type 2 diabetes.

Data shows that more Americans are interested in incorporating more plant-based options into their diets. This is a very positive shift the committee should encourage further and recommend more availability of these options in institutions nationwide.

As the committee evaluates ways to develop patterns that promote long-term health, it is critical to provide guidance establishing plant-based foods as the foundation for optimal health. Thank you.

**Kelly Cassavale:** Commenter 69.

**[3:31:38]** **Milton Mills:** Hello. My name is Dr. Milton Mills. I'm here on behalf of Gilead Medical Group. I have no relationship whatsoever to the pharmaceutical company. I work as an internal medicine and critical care physician in the DC Metro area, and so, I practice both outpatient and hospital-based medicine.

**[3:31:56]** I actually came here this morning to call out the racism that is inherent in the *US Dietary Guidelines*, but then, as I got a look at this committee, I suddenly understood why it's such an intractable problem. This committee bears no relationship to the general makeup of the American populace, and whoever put it together is clearly still practicing the optics of tokenism.

Now that is not an attack on any of you as individuals, because I'm sure you're all very accomplished and very sincere, but it is outrageous to have a committee that does not reflect the American population, and as non-minority members of this committee, I should think you would be embarrassed looking around this table. But anyway, I want to talk about the health profiles of communities of color, which as we know, are generally much worse than the general population.

And why is that? It has to do with the guidelines coming out of this committee. As coauthor on a paper published in 1999, called "Racial Bias: The US Dietary Guidelines, Two Parts," I would encourage you to look it up and read it.

**[3:32:59]** But I have actually seen illness caused by your guidelines. As people have already mentioned, the vast majority of people of color in this country are intolerant of the lactose that's in milk. Yet, because they think they have to eat this stuff, they go out, eat it, get sick, and think that they have some sort of intestinal problem, but in fact, when I encourage them to stop eating dairy, their problems cleared up.

And so, it's really outrageous to encourage people to eat foods we know will make them sick, particularly when the number one reason advanced with dairy foods is its calcium content. But African-

American women are genetically protected against getting osteoporosis, so we're making them sick for no good reason.

People have trashed carbs left, right, and center here, and never mentioned glycemic index.

Whole food carbs that have their fiber are excellent. The ones that have the fiber removed; those are the problems. It's not carbs, it's the processed carbs.

And lastly, there's no scientific or nutritional reason for people to be consuming dairy products.

**[3:34:02]** We have no more reason to suck on the teats of a cow than we have to suck on the breast of a postpartum weasel. And we've already talked about the hormone content that creates excess disease, such as prostate cancer, breast cancer.

I tell people, as far as the nutrients contained in dairy foods, drinking—taking—eating dairy products for the nutrients is equivalent to inhaling cigarette smoke for its oxygen content. It's not a good idea.

So, I want to encourage you, get the racism out and get the dairy out. Please do your job. Thank you.

**Kelly Cassavale:** Commenter 70.

**[3:34:39]** **Eric O'Grey:** My name is Eric O'Grey. I'm a private citizen, and I'm here because I believe that this committee can and must resolve the current—America's current pandemic of obesity and chronic disease.

10 years ago, at age 50, I was 340 pounds on 15 different medications, including 200 units of insulin a day for type 2 diabetes and every other thing that you could imagine.

**[3:35:00]** I had been morbidly obese for 25 years, and I didn't know why, and nobody could tell me why. I kept going from doctor to doctor, and I couldn't get a solution. I was eating what everybody else was eating. What was the problem with me?

And so, one day at a physical, my doctor told me he'd run out of options, and my option really, unless I wanted 2/3 of my stomach removed, was to purchase a cemetery plot, because he didn't know anything else that he could advise me to do.

So then, I decided to get a second opinion. And my second opinion, I found a doctor, and she sat down with me and she said, "I'm going to prescribe for you two things. I'm going to tell you to get a rescue dog from your local shelter, because you need a little bit of exercise. And I'm also going to prescribe a whole food plant-based diet."

And I'd never heard of that before, so it was really interesting. At that point, I had tried every diet ever commercially marketed in the United—in America, and I was able—including, I'd cycled on and off Atkins for about 20 years.

**[3:36:00]** I was always able to lose a little bit of weight, but then I would put it back on, and I never knew why. And when I failed on each of these diets, I would feel ashamed and I would just go back and crawl back in my hole, not knowing what to do.

Now on this new diet, I lost 150 pounds in 10 months. It felt effortless. I felt better than I'd ever felt in my entire life. And after 3 weeks, I'd lost 20 pounds. And I went back and I said, "It feels like a miracle has happened. My energy is through the roof, my mental clarity's like nothing I've ever experienced. I feel like I've experienced a miracle or emerged from the matrix. What has happened to me?"

And she said, "You're starting to feel normal." Apparently, I'd never felt normal before.

Now it is true that humans can feel good and lose weight without a whole food plant-based nutrition or a low-carb high-fat eating pattern. But I beg you to consider the long-term ramifications of each of these.

As has been shown in long-term large population studies going back over 50 years to Framingham, high cholesterol is associated with heart disease.

**[3:37:04]** Most Americans who consume animal products need statins to control their cholesterol.

Several large-scale long-term studies show that vegan populations have the best longevity and lowest chronic disease, and there was no study suggesting that keto or any other low-carb high-fat diet improved longevity or reduced heart disease or cancer as there is with vegan diets.

And even if all other things were equal, vegan diets are indisputably better for our environments and do not involve the horrors of factory farming and concentrated animal feeding operations. I beg you to choose life. Thank you for your time.

**Kelly Cassavale:** Commenter 71.

**[3:37:39]** **Kerry Foley:** Hi. Good afternoon. My name is Dr. Kerry Foley. I'm a retired emergency medicine physician from the Washington, DC area, having practiced emergency medicine here for roughly 30 years.

The emergency that I concern myself with now is our epidemic of obesity, heart disease, diabetes, and other purely food-borne illnesses that are sickening us and overwhelming our healthcare system.

**[3:38:03]** It is no secret that nutrition is not taught to our healthcare providers, which is a glaring error, given that most of our chronic diseases, not only are preventable, but often reversible with proper nutrition.

Every time we eat, we are either feeding disease or we are fueling our health. I became interested in this personally because I watched my mother die from Alzheimer's disease, as her mother had died before her, and I was determined not to have that befall me. So, the more I read, the more I studied up, it's the food. There's just no question in my mind about it. It's the food.

Our healthcare system is bankrupting us, taking care of what are really preventable diseases.

Your task, therefore, I see as a tremendous opportunity and a sacred responsibility to lead us towards wellness.

The topic that I wanted—chose to home in on today is something others have spoken about, but I believe it bears repeating, and it's dairy.

**[3:39:00]** We are the only species that continues to consume dairy after the age of weaning, and the dairy that we consume is that of another mammal, which makes zero sense. It's sort of gross if you think about it. We're also culturally acclimated into this reality that we don't—that we all accept this very weird fact.

But when we include dairy into our dietary recommendations, we do so at the expense of the health of our children and ourselves. Milk does not do a body good, unless you're a baby cow. That slogan is sci—it's not science, it's marketing, and nothing more.

The idea that dairy is necessary for bone health has been debunked, and we know that the United States has one of the highest rates of dairy consumption, as well as one of the highest rates of osteoporosis and hip fracture in the world.

Cows don't make calcium; they get it from eating grass. They get it from the plants, as do we. Because we were never physiologically meant to drink cow's milk, the majority of Americans have some degree of lactose intolerance, as others have covered.

**[3:40:03]** And then when we did take the—kids eat dairy in school every day, we are making them sick every day. It's really unconscionable.

Dairy is laden with saturated fat and cholesterol, which add to the cardiovascular disease burden, which we absolutely know from autopsy studies, starts in childhood.

Past dietary guidelines have instructed people to decrease their rates, their intake rather, of saturated fat and cholesterol, but that messaging is purposefully confusing to people. We need to clearly tell them what foods to eliminate, such as dairy, eggs, and meat, for their optimum health.

I implore you to follow the lead of Canada, which earlier this year, chose to—

**Kelly Cassavale:** Thank you for your comments.

**Kerry Foley:** —deemphasize dairy from their dietary guidelines.

**Kelly Cassavale:** Commenter 72, please.

**[3:40:45] Jennifer Lutz:** Hi. My name is Jennifer Lutz. I'm the director of the True Health Initiative. We are a nonprofit organization that is a coalition of health professionals dedicated to using the evidence-based practices of lifestyle as medicine to eradicate the preventable chronic disease that is currently severely harming our society.

**[3:41:10]** As such, I am here today to advise the committee to recommend the foods and dietary patterns that work best for human health, both directly and indirectly, the environmental affects of producing these foods. Specifically, we believe this should extend to protein foods.

We call upon the *Dietary Guidelines for Americans* Advisory Committee to do away with the category of protein foods altogether, and in its place, we advise this committee to recommend the specific foods that are best for human health, both directly and indirectly.

This approach would emphasize nuts, seeds, legumes, whole grains, and vegetables, following in line with the 2015 DGA recommendations that Americans eat more vegetables and less animal products.

**[3:42:09]** The last *Dietary Guidelines* moved strongly in the right direction by focusing more on dietary patterns, but public misconceptions about protein often steer people towards unhealthy food choices, making this issue timely and important for the *2020 Dietary Guidelines*.

Americans are not subject to protein deficiency, with the rare exception. In fact, more Americans eat too much protein than too little, mostly coming from animal products, and often, highly-processed animal products that contribute to disease.

A variety of plant foods can supply all essential amino acids. They do not need to be eaten in any specific time frame. And they provide the nutrients that most Americans are deficient in, potassium, fiber, calcium.

**[3:43:04]** At the same time, they have minimal amounts of the nutrients. In fact, the guidelines recommend be limited, sodium, saturated fats, and added sugars.

We do not have a protein deficiency problem in the United States, we have a vegetable deficiency problem, we have a fiber and vitamin deficiency problem, and we have a food system sustainability deficiency problem.

This is threatening the health of the public, but relies on these food systems, and clarifying the confusion around protein by recommending the specific foods that are both sources of protein and health-promoting would help solve all of these issues. Thank you.

**Kelly Cassavale:** Commenter 73.

**[3:43:51] Jillian Johnson:** Good afternoon. My name is Jillian Johnson, and I am here on behalf of countless parents, asking that the DGA committee take our concerns into consideration as they prepare for the nutrition guidelines. While it may be rare, it's not impossible for a newborn to die from dehydration. I would know, as I lost my first child from dehydration, while attempting to exclusively breastfeed.

As soon as I found out I was pregnant, I took all of the hospital parenting classes. I thought I knew everything I needed to know as I prepared for the arrival of my first child. I was so wrong. We had not been home from the hospital for even 12 hours before I found him not breathing.

He was so dehydrated, but he had to be given fluids through his shins, because they couldn't get a vein anywhere else in his tiny body. I sat at the hospital for the first 24 hours of him being on life support, running everything through my head. I was exhausted, because I'd spent the last 3 days trying to soothe a baby that was crying out from the pain of starvation.

He had to room in with me, because I had him at a baby-friendly hospital, and there was no nursery, hence, why I was exhausted.

**[3:44:58]** As I met with the head of the NICU, he told me that he believed Landon went into cardiac arrest due to dehydration. He himself did not understand why hospitals pushed exclusive breastfeeding so hard. He said, "Yes, breast is best, if the baby is actually fed. But please, follow with a bottle if you're in doubt."

I couldn't understand what he was telling me. How does a baby that is being breastfed become dehydrated? How is a new mom to know her child is in danger if she is taught by everyone that the constant crying and nursing is normal?

They told me Landon's cardiac arrest led to his brain stem being damaged, and ultimately, his death, after 2 weeks on life support. Just like that, my beautiful baby, who was perfectly healthy when he was born, was gone. It's been more than 7 years, and I still find it to be ludicrous.

How foolish do you think it sounds when people ask me how he died? He starved to death because I didn't give him a bottle. My body failed me, and my milk didn't come in until he was on life support. Not a day goes by that I don't have to live with the thought that my son's death was 1,000 percent preventable, and it still happens every day.

**[3:46:02]** I was not given the tools I needed up front. The education that was provided at the hospital and in all of the literature pushed breast as best and formula is poison, and I was brainwashed not to give him formula. The classes didn't teach you the what ifs. What if my milk doesn't come in? What if I don't get enough? What are the signs that something's wrong?

I was set up to fail from day one. Most people are fortunate enough to not have their situations end as horribly as mine, but no child should ever come that close. No prescription should have to be written for a baby to be supplemented. Hospital feeding classes should be required to educate on supplementation whether it's donor milk or formula.

And the risk of not supplementing should be very obvious and put in front of new parents. My son died, and that's why I'm here, because this is still happening to other babies. So, on behalf of all the parents out there, I'm asking that you guys please put into place standard practices and patient education guidelines so that we can protect newborns from these 100 percent preventable negative outcomes. Thank you.

**Kelly Cassavale:** Commenter 74.

**[3:47:10]** **Tamara Hazbun:** Thank you for sharing that. My name is Tamara Hazbun. I'm a family physician and obesity medicine physician practicing in Lafayette, Indiana. Thank you so much for allowing me to speak to you today. I'm here to request that a low-carbohydrate diet be included as an acceptable diet in the *2020 US Dietary Guidelines*.

I've been practicing medicine for 21 years. My family medicine practice consisted of wonderful patients, many, many of whom had metabolic syndrome and obesity.

I managed them the way I was trained, with medicines and instructing them to follow a low-fat diet. Unfortunately, over time, many of these patients became sicker, and I found myself chasing their blood sugars, and lipids, and blood pressures, with more and more medicines.

**[3:48:03]** In 2013, I began learning about low-carbohydrate diets as a way of improving metabolic health. I was skeptical at first. But after reviewing the literature, I gradually integrated low-carbohydrate into my practice. My patients started to get healthier. I had such phenomenal success, that in 2016, I completely switched the focus of my practice to obesity medicine and metabolic health.

In my obesity clinic, I teach my patients how to eat a low-carbohydrate, moderate protein, high-fat diet. For adults, we start with 50-75 grams of carbohydrates per day, and then often reduce to 30 grams a day. For kids, we shoot for 60 grams of carbs per day.

Initially, when I explain a low-carb diet to my patients, they are flabbergasted. They cannot believe that a doctor is telling them to increase their dietary fat, because they have been told for their whole lives that in order to be healthy, they must eat low-fat.

**[3:49:11]** As my patients progress through my program, learning to eat low-carb high-fat, I'm often able to remove medications, including those for blood sugar and blood pressure. I also see their lipids improve.

I have so many stories of patients who have been successful in my program. Those who've gotten off of insulin, patients who've lost 100 pounds, but I'm going to close with a story about a teenager named Chad, because really, we need to change the guidelines so the kids have a healthy future.

16-year-old Chad came to my clinic with a percent body fat of 32, which is considered obese. He was a high school swimmer and worked out 2 hours per day year-round. He was frustrated because he had obesity and pre-diabetes, even though he was an athlete.

**[3:50:00]** Over the next 6 months, my team taught him how to reduce his carbs, eat moderate protein, and increase his dietary fat. His blood sugars improved, and so did his weight.

We've got to include low-carb in the *Dietary Guidelines*. It's imperative for the health of our—

**Kelly Cassavale:** Thank you for your comments.

**Tamara Hazbun:** —country and especially for our children.

**Kelly Cassavale:** Speaker 75. Thank you.

**[3:50:22]** **Haiuyen Nguyen:** Good afternoon. I'm Haiuyen Nguyen here on behalf of the Council for Responsible Nutrition. First, we commend the committee and the USDA and HHS staff for implementing what has become the most transparent Dietary Guidelines process yet. With limited time and resources, you have done a tremendous job.

The *Dietary Guidelines for Americans* is a critical effort to improve and promote public health through nutrition. While the focus is on healthy dietary patterns that include a wide array of foods, it is also prudent to consider the potential contribution dietary supplements can make to these healthy dietary patterns in targeted populations and more broadly.

**[3:51:09]** Regarding birth to 24 months, and pregnancy and lactation life stages, we recommend that the Advisory Committee consider the variety of infant feeding options, taking into account practicality and flexibility, with the goal of supporting healthy mothers and healthy babies.

Prenatal multivitamins are widely-recommended to women before and during pregnancy, and often postpartum for breastfeeding women, to ensure adequate intake of nutrients. A recent study suggests that pregnant women in the US do not meet recommendations for key essential nutrients and that dietary supplements reduce the risk of inadequacy.

Thus, dietary patterns recommended for this life stage should highlight opportunities for supplementation.

**[3:52:01]** More broadly, in their scientific reports, previous Advisory Committees have consistently observed data demonstrating that the majority of the US population do not consume enough vegetables, fruits, whole grains, and dairy to meet nutrient needs, and thus, have nutrient shortfalls. In fact, some shortfalls have significant impact and present public health concern. These include vitamin D, calcium, dietary fiber, and potassium.

We recommend that the Advisory Committee consider novel recommendations, including supplementation, to help Americans meet nutrient requirements without exceeding energy needs. Healthy dietary patterns can consist of a variety of nutrient-dense foods, as well as nutrient-dense supplements.

Consumers understand that dietary supplements are just one part of healthy lifestyle, reporting that they use dietary supplements to support overall health and wellness, and to fill nutrient gaps.

**[3:52:58]** In addition, data demonstrates that supplement users are more likely than non-supplement users to engage in health-promoting habits, such as eating healthy diet and incorporating regular physical activity.

Therefore, if current data still point to underconsumption of important nutrients by the US population, appropriate supplementation may be warranted to correct these nutrient shortfalls, when nutrient adequacy is not met through—

**Kelly Cassavale:** Thank you for your comments.

**Haiuyen Nguyen:** Thank you.

**Kelly Cassavale:** Commenter 76, please.

**[3:53:28]** **Michael Dodds:** Good morning. My name is Dr. Michael Dodds, and I'm Oral Health Lead Scientist at Mars-Wrigley and an interim professor of dentistry. Mars-Wrigley has provided written comments to the Dietary Guidelines Advisory Committee, and I thank the USDA and HHS for the opportunity to provide the highlights in this oral testimony.

Our comments address the importance of strong teeth and good oral health to consuming a high-quality diet throughout all life stages, and the importance of incorporating sugar free gum, a food, as part of a daily dietary pattern.

**[3:53:59]** The development of dental carries, a noncommunicable nutrition-related chronic health condition, is almost entirely preventable through good dietary habits and oral preventative practices. The 2005 and

2010 *Dietary Guidelines for Americans* recognized the importance of oral health prevention by recommending brushing, flossing, and drinking fluoridated water.

Mars requests that the *2020-2025 Dietary Guidelines* recommend individuals of all ages should follow a daily oral hygiene routine which includes brushing their teeth with fluoridated toothpaste, cleaning between their teeth where possible, chewing sugar free gum for 20 minutes after meals or snacks, if possible, drinking fluoridated water where available, and limiting intake frequency of dietary fermentable carbohydrates. Oral health preventative practices have significant dietary benefits for all Americans.

Carries is the most prevalent chronic disease, affecting both children and adults in the US, and is associated with a multitude of other health and social comorbidities.

**[3:54:58]** While a presence of bacteria in the mouth is universal, inadequate oral hygiene can allow dental plaque to grow, often in hard-to-reach sites, where decay occurs. If not removed, the bacteria in dental plaque can metabolize dietary carbohydrates, producing acids that lead to decay.

The frequency of intake of fermentable carbohydrates during the day can be more important than the total amount of sugars consumed for carries' development. Eating habits are changing, with the individual snacking throughout the day, often while on the go. At a high frequency of consumption, fermentable carbohydrates, even in healthy snacks, such as fruits, fruit juices, and energy bars, can cause the pH of the plaque to drop, putting teeth at risk for decay. Routine oral health preventative practices can reduce the plaque and decay.

Saliva is the mouth's natural healing force, which neutralizes acids and provides minerals to repair and reverse early decay. Extensive research has shown sugar free gum after meals can stimulate saliva to neutralize plaque acids, thus reducing decay.

**[3:56:01]** The European Union and Canada have approved health claims that chewing sugar free gum, and dental associations worldwide, including the American Dental Association, have endorsed the role of gum in reducing dental decay. I thank you for the opportunity to provide these comments.

**Kelly Cassavale:** Commenter 77.

**[3:56:18]** **Eric Sodico**ff: Good afternoon. My name is Eric Sodico. I would like to thank the members of the committee for allowing me to speak before you today in doing its important work. I'm a medical doctor, internist, obesity specialist, and sometimes, a hospitalist in Philadelphia. I have become an advocate of low-carb diets. I traveled here because I would like the DGA committee to give serious consideration to the evidence base supporting the utility of low-carb diets in preventing and reversing metabolic disease.

During my 20 years of practice, there's been a dramatic rise in type 2 diabetes and obesity that the DGA has done nothing to arrest it, and I suspect it might actually be contributing to the epidemic.

**[3:57:03]** I practiced conventional-style medicine for 15 years over my early career. I rapidly churned through patients while writing a lot of drug prescriptions, which truth be told, didn't do anything but mask the symptoms of chronic disease.

Then 5 years ago, feeling rather burnt out, I read a startling book by two journalists that introduced me to the scientific literature supporting low-carbohydrate diet to promote human nutrition, a body of literature that is still not found in the DGA.

Now, in defiance of the DGA patterns, I teach low-carb diets to my patients, in whom I see marked quantifiable improvements in multiple health factors, both objective and subjective, while using less medicine, and I simply love my job now.

**[3:57:57]** Roughly  $\frac{3}{4}$  of the patients who I find on my hospital list every morning are there with preventable diseases, such as diabetic kidney infections, dental disease, cholecystitis, diverticulitis, kidney failure from diabetes and hypertension, coronary disease, arrhythmia, and most troublesome, suffocation from excess body fat, among many others.

All 3 of the UH—USDA/HHS dietary guidelines call for 55 percent of their—of fattening, non-essential carbohydrates. It is crucial that we get the DGA right this time and—because its influence trickles down throughout society.

Several years ago, I attended an obesity conference here in Washington, DC. A roomful of obesity specialists were in a hotel ballroom, and the speaker asked, "Who here uses the USDA My Plate to help your patients lose weight?" The room broke out into spontaneous laughter. This is not a laughing matter. We do need to get this right; we do need to command respect from the *Dietary Guidelines*. Thank you very much.

**Kelly Cassavale:** Commenter 78.

**[3:59:18]** **Jamie Kane:** Hi, thank you. I think I'm batting clean up here, so thanks for your patience and your service. I'm the Chief of the Section of Obesity Medicine at the Zucker School of Medicine at Hofstra/Northwell in New York, as well as an obesity educator. I direct an obesity medicine fellowship and play an active role on multiple committees of the American Board of Obesity Medicine.

Obesity continues to represent a critical medical and social problem in the United States. Over 70 percent of our population suffer from overweight obesity, or normal weight obesity.

It is associated with increased diabetes, vascular disease, and at least 13 types of cancer. No organ system is spared when it comes to the ravages of this disease.

While the ardent perpetuation of our obesity epidemic stems from a combination of genetic, behavioral, and environmental factors, the single greatest modifiable risk factor for obesity and its comorbidities is diet.

**[4:00:04]** I have personally treated thousands of patients struggling with obesity, and there's great confusion about what to eat. In fact, the confusion persists among healthcare providers as well.

The light press and for-profit industries have helped perpetuate this confusion. Today, I would like to address one major concept that I see often, an overemphasis on macronutrients in determining healthy eating strategies.

This would suggest that all carbohydrates are the same, though high-fructose corn syrup is obesogenic, whereas the indigestible resistant starch and fiber in beans hardly adds at all to caloric balance and improves insulin sensitivity.

It suggests that all proteins are considered the same, when we know that diets high in animal sources of protein are linked with increased obesity, diabetes, hypolipidemia, and cellular aging, whereas diets based on whole foods and plant-based sources of proteins potentially prevent or reverse these very issues.

It suggests that all fats are the same, and we know that diets high in saturated fat increase blood lipid levels, and consumption of nuts, mainly made up of fat, lower lipid levels.

**[4:00:58]** Rather than relying on fixed macronutrient distributions, I recommend the committee focus on consumption of whole, unrefined foods.

A recent NIH study suggested that a diet consisting of highly-processed foods increases overeating and weight gain, and consuming whole foods, on the other hand, we can avoid empty calories, added sugars, and fats.

On the positive side, a whole foods based diet would be higher in fiber and prebiotic foods, associated with reduction of cancer, diabetes, and vascular disease. It would augment the consumption of low-energy density foods. Low-energy density diets have been associated with a reduction in obesity. And it could maximize disease-fighting micronutrient and phytochemical consumption.

Finally, in considering the whole foods based diet, we could obsess less about specific macronutrients, and I could allay patients' ever-growing fear about not getting enough dietary protein, as their fitness magazine suggests.

For instance, 2,000 calories of brown rice and broccoli, neither one would be considered a protein in common vernacular, and not that I make this exclusive recommendation, they actually have more than ample amounts of protein in both of them for health maintenance.

Thank you for your time.

**[4:01:58] Janet De Jesus:** Thank you all for the comments. This will conclude our oral comments session, and we'll have a few closing remarks.

**Dr. Barbara Schneeman:** As the chair of the DGA committee, I do want to extend my appreciation to all of you for being with us for the—most of you were here yesterday but being with us this morning and providing your comments. The committee takes very seriously the role of the public in providing input, either through these oral comments or through the written comments, and I remind you all that the comment—the written comment period is open for the period that the DGAC is meeting, so we, once again, encourage you to use that route as well.

On behalf of the committee, we really appreciate your being here, sticking to the time. We appreciate the staff managing this in a way that we were able to hear so many of you, even more than we had originally thought we would be able to hear in this public hearing. So, thank you.

**[4:03:08] Dr. Eve Stoddy:** Yes, thank you. And we did end up—we pushed it a little bit so we'd get everybody who actually came today, who had registered to provide oral comments, both those who were confirmed as well as those who were on standby. So, thank you for your comments.

So, just to quickly wrap up, this concludes meeting 2 of the 2020 Committee. There are—here are the dates for the remaining meetings. As we've noted before, 2 of the next 3 meetings will be in Washington, DC. The 4<sup>th</sup> meeting will be held in Houston, Texas. In addition to this meeting, meeting 4 will include an opportunity for oral comments to the committee from the public, and registration for each meeting will be announced about 1 month prior to the meeting at [DietaryGuidelines.gov](http://DietaryGuidelines.gov) and through our Listserv.

In the meantime, we encourage you to follow along at [DietaryGuidelines.gov](http://DietaryGuidelines.gov).

**[4:04:00]** We have gotten some questions if the slides from yesterday are available. The slides are not yet available, however, the committee walked through their protocols, so the analytic frameworks, the inclusion and exclusion criteria, the definitions, the analytic plans, all of that is available through the Protocols at [DietaryGuidelines.gov](http://DietaryGuidelines.gov).

So, if you go to [DietaryGuidelines.gov](http://DietaryGuidelines.gov), go to Work Under Way, and the Review of The Science, there's a list of topics and questions, and through each of the questions, you can see the details on the proposed approach for examining the evidence by the committee.

We encourage you, as I said, to stay engaged. We do make announcements through our website, and also, through our Listserv. And really, our Listserv is the way to stay up-to-date.

If you haven't signed up for our Listserv, if you scroll—go to [DietaryGuidelines.gov](http://DietaryGuidelines.gov), scroll down all the way to the bottom of the page, and there's a link to Stay Updated, and that's how you can sign up for our Listserv.

**[4:04:58]** And then we do want to take a minute, of course, to say thank you to the committee, but also, to say thank you to the staff supporting this process. There is a team of over 60 staff who support this process in different ways, from the Department of Agriculture and the Department of Health and Human Services.

At USDA, most of the staff were from the Center for Nutrition Policy and Promotion, which is led by Jackie Haven, but we also have support from the Food and Nutrition Service and Agricultural Research Service. From HHS, staff are primarily from the Office of Disease Prevention and Health Promotion, which is led by Dr. Don Wright, but we also have support from the Centers for Disease Control and Prevention, the Food and Drug Administration, and the National Institutes of Health.

The staff leading the process include Dr. Rick Olsen and Janet De Jesus from ODPHP, and Colette Rihane and me from CMPP.

**[4:05:52]** Thank you to all of the federal liaisons, to the NESR staff, which is led by Dr. Julie Obaggy, and to the staff who will be conducting peer review of the NESR systematic reviews, which will be coordinated by Dr. David Klurfeld, the data analysis and food pattern modeling staff, led by Dr. TusaRebecca Panucci, the [DietaryGuidelines.gov](http://DietaryGuidelines.gov) team, which is led by Elizabeth Rahavi and Stephanie Phou, the public comment team, which is led by Kristen Cokle, our staff supporting stakeholder relations and outreach, which is led by Jessica Larson and Stephanie Phou, and our staff who made this meeting happen, which was led by Jean Altman, Susan Cole, and Colette Rihane.

So, thank you for helping to make this a transparent, inclusive, and science-driven process.

So, with that, we will adjourn.

**[4:19:59]** We hope to see you at our next meeting on October 24<sup>th</sup> and 25<sup>th</sup> here in Washington, DC. Thank you.

**[Applause]**