

2020 DIETARY GUIDELINES ADVISORY COMMITTEE

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PUBLIC MEETING

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FRIDAY
JANUARY 24, 2020

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The Dietary Guidelines Advisory Committee met in the Agricultural Research Service, Children's Nutrition Research Center, 1100 Bates Street, Houston, Texas, at 9:00 a.m., Barbara Schneeman, Chair, presiding. The meeting allowed for public viewing, both in-person and by webcast.

MEMBERS PRESENT

DR. BARBARA SCHNEEMAN, PhD, Chair
 DR. RONALD KLEINMAN, MD, Vice Chair
 DR. JAMY ARD, MD, Member
 DR. REGAN BAILEY, PhD, MPH, RD, Member
 DR. LYDIA BAZZANO, MD, PhD, Member
 DR. CAROL BOUSHEY, PhD, MPH, RD, Member
 DR. TERESA DAVIS, PhD, Member
 DR. KATHRYN DEWEY, PhD, Member
 DR. SHARON DONOVAN, PhD, RD, Member
 DR. STEVEN HEYMSFIELD, MD, Member
 DR. HEATHER LEIDY, PhD, Member
 DR. RICHARD MATTES, PhD, MPH, RD, Member
 DR. ELIZABETH MAYER-DAVIS, PhD, RD, Member
 DR. TIMOTHY NAIMI, MD, MPH, Member
 DR. RACHEL NOVOTNY, PhD, RDN, LD, Member
 DR. JOAN SABATÉ, MD, DrPH, Member
 DR. LINDA SNETSELAAR, PhD, RD, Member
 DR. JAMIE STANG, PhD, MPH, RD, Member
 DR. ELSIE TAVERAS, MD, MPH, Member

PUBLIC COMMENTERS:

RAYMOND DeVIRGILLIS
BECKY GARRISON
BILL YOUNG
KARIMA KENDALL
BERIT DOCKTER
DONALD LAYMAN
SUSAN BACKUS
MAIA JACK
ALLIE GRAHAM
SARAH REINHARDT
JOY DUBOST
JESSI SILVERMAN
SARAH OHLHORST
CHRIS JONES
JONATHAN CLINTHORNE
CHRISTOPHER PALMER
PEPIN TUMA
LINDA CARNEY
LANA FRANTZEN
MICHAEL DODDS
NANCY ERIKSEN
BROOKE GOLDNER
MARTICA HEANER
TONY MARTINEZ
TAYLOR WALLACE
BANDANA CHAWLA
MUNISH CHAWLA
AMY EIGES
DARREN SCHMIDT
TYLER HAZARD
TOM BRENNAN
ERIN JANUS
MARGARET JARDINE
DIANE WELLAND
MARCIA de OLIVEIRA OTTO
CARY FRYE
MINH NGUYEN
GUY JOHNSON
JENNIFER McGUIRE
LARRY DIAMOND
TED EYTAN
DEBRA MILLER
ANTHONY GUSTIN
MICHELLE MULLER

NADIR ALI
DOUG REYNOLDS
TIFFANY NGUYEN
FARIDA MOHAMEDSHAH
JACOB SMIGEL
ALBERT LEAR
MOLLY McADAMS

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9:02 a.m.

MS. HAVEN: Good morning. Welcome of day two of the Dietary Guidelines Advisory Committee meeting, live from Houston, Texas. My name is Jackie Haven. I'm the deputy administrator for USDA's Center for Nutrition Policy and Promotion, and it's my pleasure to introduce the Deputy Under Secretary for USDA's Food, Nutrition and Consumer Services, Brandon Lipps.

It's my pleasure to introduce him, and just for background, FNCS, Food, Nutrition and Consumer Services, works in hunger and to improve the health of the U.S. as it administers federal domestic nutrition assistance programs and links scientific research and nutrition needs of consumers, through science-based dietary guidance, nutrition policy coordination, and nutrition education.

Mr. Lipps?

MR. LIPPS: Good morning.

AUDIENCE: Good morning.

1 DEPUTY UNDER SECRETARY LIPPS: That
2 was good. Jackie, thanks for the kind
3 introduction. Welcome everyone to the fourth
4 meeting of the 2020 to 2025 Dietary Guidelines
5 Scientific Advisory Committee.

6 I'm here on behalf of USDA,
7 specifically, Food, Nutrition and Consumer
8 Services, and my colleague, Dr. Scott Hutchins from
9 ARS, and our partners at the Department of Health
10 and Human Services.

11 It is good to be back in my home state.
12 People regularly say to me, are you going to get
13 to see your family while you're home? I am in my
14 home state, but I am 532 miles from home.

15 So those of you from smaller states, you
16 don't understand, but I'm not going to see my family
17 while I'm here. Given the second opportunity for
18 the public to provide comments to the Committee,
19 it was very important to Secretary Purdue that we
20 get out of the beltway of Washington, D.C.

21 This is the first time in decades that
22 the public has had an opportunity to comment on the

1 Dietary Guidelines outside of the work that we do
2 in the beltway in D.C. and the important decisions
3 that are informed by the work of this Committee for
4 the American public every day. We're grateful to
5 the folks here at the Children's National Research
6 Center for allowing us to hold this important
7 meeting here. A little background on where we are
8 in the important public-private partnership that
9 has made today possible.

10 USDA's Agricultural Research Service
11 and the Baylor College of Medicine have had a
12 long-shared interest in public health issues. I
13 saw on your way in -- hopefully you all saw this,
14 but I brought a little prop so that we can remember
15 what the important work of the Children's National
16 Research Center is about, the children, and they
17 have this wonderful little pin that you set on your
18 desk and wiggle.

19 It's a good distraction from my remarks
20 this morning, so I brought it. This partnership
21 between government and the private sector is
22 another example of how combined intellectual power

1 increases our power to address and potentially
2 solve important nutritional challenges.

3 Thank you again to Children's National
4 Medical Center, Dr. Bier and his colleagues at the
5 Baylor University College of Medicine, for hosting
6 us today and for being a willing partner and
7 allowing the Committee to again hear from the
8 American public.

9 Can the webcast hear this microphone
10 okay? Okay. Good.

11 We're also happy to see professionals
12 and students from the Texas Medical Center and the
13 greater Houston area registered for the meeting
14 today.

15 Thank you to each of you for joining us.
16 To the medical students here today, I hope that you
17 are impressed both by the time and effort that this
18 Committee has put forward to help inform the
19 significant government policy and the importance
20 of your participation in the formation of
21 government policy as your career progresses.

22 Last night I had the opportunity to

1 visit with a student who traveled here today to
2 watch the important work of this Committee. We'll
3 need more people to get involved in the public
4 policymaking process earlier in their careers to
5 ensure that we have people willing to dedicate the
6 time that these wonderful individuals have as they
7 progress in their careers.

8 To the Committee -- I say this every
9 time we're together -- you all do all of the hard
10 work; I follow you around and say, thank you, and
11 I'm here to do that again today.

12 Thank you for continuing to dedicate
13 your scientific expertise and time to the important
14 phase of reviewing the current body of evidence,
15 to answer the questions that we have asked of you.

16 As we saw yesterday, you had your hands
17 full reviewing the evidence. Your work to conduct
18 this rigorous, robust, and independent scientific
19 review is critical to informing the work of USDA
20 and HHS as we prepare for the next edition of the
21 Dietary Guidelines.

22 I also want to thank the Committee for

1 including time to hear directly from members of the
2 public this afternoon. Past Dietary Guidelines
3 have traditionally heard in-person, oral comments
4 only once at the beginning of their scientific
5 process.

6 This is the first time that the public
7 will have an additional opportunity to provide
8 comments in person to the Dietary Guidelines
9 Advisory Committee.

10 I want to make sure that the public
11 understands that this is a volunteer Committee of
12 experts who are very busy in their professional
13 lives with very important work and have volunteered
14 their time to come help, and they all
15 overwhelmingly and happily agreed to have a second
16 in-person session to hear directly from the public.

17 They have a difficult job with a lot of
18 evidence to review. They are spending a
19 significant amount of time making sure that they're
20 getting that right and that they are taking the
21 proper steps necessary to inform this process.

22 So with that, let's give the Committee

1 a round of applause for their dedication and hard
2 work.

3 (Applause.)

4 DEPUTY UNDER SECRETARY LIPPS: To the
5 folks here in Houston and those joining us by
6 webcast, thank you for your participation in our
7 multi-year process to develop the Guidelines. As
8 you continue to follow the Committee's
9 deliberations today, I think you'll see firsthand
10 that, as we noted, this is no small undertaking.

11 Again, I hope you'll have an
12 appreciation for how much the Committee is putting
13 into its work to review the science to address our
14 topics and questions.

15 For those not able to provide oral
16 public comments here today, just a reminder.
17 There is an ongoing open period for public comments
18 to the Committee that started in March of last year
19 and will close when the Committee submits its
20 scientific report in May of this year to USDA and
21 HHS.

22 So don't be shy. There's time for you

1 to submit written comments. We review each and
2 every one of those and provide a summary of them
3 to the Committee as they continue their work, and
4 your input and participation is important to this
5 process.

6 Again, I cannot thank the Committee
7 enough for their work on this very important
8 process and for their willingness to travel to
9 Houston to meet today. We are excited to be here
10 in Houston with you all.

11 Before I turn the meeting over to begin
12 their important work, I want to take a moment to
13 pause and thank my colleagues at USDA and our
14 colleagues at the Department of Health and Human
15 Services for their tireless work in support of this
16 Committee.

17 Every time I have a chance to interact
18 with the Committee, the first thing they say to me
19 is hello. The second thing they say is, I want to
20 tell you how wonderful the staff at CNPP and ODPHP
21 are in support of what we have to do in the big task
22 that we have.

1 I know that. I get the wonderful
2 opportunity to work with these individuals on a
3 daily basis. But I know the work that they're
4 putting in in support of the Committee, and I
5 appreciate your recognition for that.

6 If you are staff in support of this
7 process, would you stand and let us give you a round
8 of applause, please? Jackie?

9 (Applause.)

10 DEPUTY UNDER SECRETARY LIPPS: With
11 that, we will get on with the work of day two, and
12 I will now turn it over to the Chair of the 2020
13 Dietary Guidelines Advisory Committee, Dr. Barbara
14 Schneeman, to get day two started.

15 Thank you.

16 (Applause.)

17 CHAIR SCHNEEMAN: Great. Thank you so
18 much for those comments, and again, on behalf of
19 the Committee, we also extend our appreciation to
20 the Children's Nutrition Research Center, the ARS
21 Center here, for hosting this meeting, and we'll
22 echo the wonderful staff support and how much we

1 appreciate the staff support for the work that is
2 being done.

3 So I'm going to just go through a few
4 slides to get us started with today's meeting. So
5 again, we want to just describe the status and
6 provide updates on the work of the Committee up to
7 this point, and we had draft conclusions for
8 approximately 30 questions that are being
9 presented during this two-day meeting, including
10 the NESR systematic reviews and data analysis.

11 And these draft conclusions have been
12 drafted by the subcommittee and then are being
13 brought to the full Committee for discussion at the
14 public meeting. Those systematic review
15 conclusions will be posted online after going
16 through peer review, and again, I remind you that
17 they are considered draft until the Committee
18 submits its report to the Secretaries.

19 And I thought it would be worthwhile to
20 just also comment that I think, as we are looking
21 at what was presented yesterday and what we'll be
22 seeing today, we're primarily focused on summaries

1 of the evidence that the subcommittees have been
2 working on.

3 And I think in some of the reports
4 yesterday, you began to see a little bit of a hint
5 of the detail that the subcommittees are working
6 at in terms of how closely they look at the nature
7 of the studies that come forward, the study design,
8 the interpretation, the confounders.

9 I think in the Beverage and Added Sugar
10 subcommittee report, you were beginning to see some
11 of that detail that the committees actually look
12 at it.

13 So while we're focused on the summaries
14 here, the evidence portfolios that are available
15 to the Committee are very detailed, and all of that
16 information eventually becomes part of the public
17 record, as we keep moving through the process.

18 So yesterday, we had the subcommittee
19 reports from the Birth to 24 Months, Pregnancy and
20 Lactation, Dietary Fats and Seafood, Beverages and
21 Added Sugar, Data Analysis and Food Pattern
22 Modeling, and I think, a very useful Committee

1 discussion about not only each of those reports,
2 but then how the Committee is beginning to see the
3 relationship between these different areas of
4 work.

5 And today, after these opening remarks,
6 we'll be hearing from the subcommittee on Dietary
7 Patterns, and the Frequency of Eating
8 subcommittee. And again, each of those will be
9 followed by some Committee discussion.

10 And we also then are looking forward to
11 the public comments, and again, let me just note
12 that the comments have been useful to the
13 Departments, HHS and USDA, and useful to the
14 Committee in its work.

15 Many of you who have been following the
16 process know that the website gives the status of
17 our work, and that's a new part of the website to
18 not only just tell you about the Dietary
19 Guidelines, but to track the work that the
20 Committee is actually doing, plus it provides a lot
21 of information on the process, the ways that the
22 Committee is in fact evaluating the information.

1 The Departments do continue to update
2 the information on that website, not only sort of
3 the protocols and where we are, but also updating
4 the frequently asked questions section. So that
5 way, they can clarify the approach that the
6 Committee -- for example, I know that there have
7 been some updates to provide more information on
8 our process for evaluating evidence, the data
9 analysis, the systematic reviews, and the food
10 pattern modeling, just to make sure that the way
11 the Committee is working through is clear to the
12 public, as we move forward.

13 So I encourage you to either be on the
14 listserv for the Dietary Guidelines as a way to get
15 notices as updates happen, but also just check that
16 website and particularly look at that FAQ section,
17 if you have some particular questions in your own
18 mind about the approaches that we're using. You
19 can find some more information.

20 So a note on our timing today. Again,
21 our afternoon session will begin at 1:00 p.m.
22 Central Time, and we really try to hold clear to

1 that time because of the webcast.

2 Our breaks during the morning and
3 afternoon sessions are not set for a specific time,
4 but will be taken as they fit within our discussion.
5 And our public comments will begin no later than
6 2:00 p.m. Central Time, but they may begin earlier
7 if we're ready to start that process. So hopefully
8 if you're giving a public comment, you'll be here
9 before two, just in case.

10 So again, this is the website for the
11 DietaryGuidelines.gov, and as Eve did, Dr. Stoody
12 did yesterday, we've highlighted the place where
13 you can view the protocols, with that reminder
14 that, for the protocols presented, it's most useful
15 to us if you have any comments you might provide
16 by February 7.

17 But I would also note, given where we
18 are in the process, where the March meeting is
19 really the last decision-making meeting for the
20 Committee, the last public meeting where we'll be
21 getting subcommittee reports, feel free to get
22 comments to us if you have comments about our

1 conclusion statements or other aspects of what the
2 Committee is working on by that February 7 date,
3 to be most useful in our decision-making process.

4 But as noted by Mr. Lipps and others,
5 the comment period is open until the Committee
6 concludes its work. So with that, I think we will
7 start with our agenda for the subcommittees.

8 I want to check with the Committee
9 members if you have any questions or comments at
10 this point? Jamy, please?

11 MEMBER ARD: Jamy Ard. So just as a
12 point of process, would it be okay for us to
13 interrupt presentations with questions today? Is
14 that okay for discussion? Or I don't know if it's
15 more efficient to let --

16 CHAIR SCHNEEMAN: Yes. It's --

17 MEMBER ARD: -- people go through the
18 entire presentation and then do what we have done,
19 but I --

20 CHAIR SCHNEEMAN: I think we -- I'll
21 let each subcommittee chair sort of address that
22 at the beginning, if they're comfortable with

1 having that approach. So we have the two
2 subcommittees, so we'll just them say whether
3 they're comfortable with that.

4 (Pause for conference.)

5 CHAIR SCHNEEMAN: Right, it might be
6 useful. Well, let me just check before we jump
7 into -- anybody else, question or comment? Okay.
8 Oh, okay, so both are fine with that. So -- okay.
9 So -- all right.

10 (Pause for conference.)

11 MEMBER BOUSHEY: Good morning again.
12 Because I think you said good morning, too. And
13 so my name is Carol Boushey, and you can see on this
14 list, they're members of the Dietary Patterns
15 subcommittee.

16 And I think this is the largest
17 committee in numbers and maybe has to do with -- we
18 do have a lot of work to review, because this area
19 of dietary patterns has really exploded since the
20 last Dietary Guidelines Advisory Committee.

21 So the NESR staff, they've been
22 screening articles, preparing evidence

1 portfolios, and they've been screening -- screened
2 approximately 113,000 articles from the electronic
3 search results for questions dietary patterns and
4 sarcopenia, all-cause mortality, and a combined
5 search for the questions related to growth, size
6 and body composition, type 2 diabetes, and
7 cardiovascular disease.

8 In addition, the NESR staff has
9 extracted data and assessed risk of bias for more
10 than 190 articles and additional extraction is
11 underway. Today the subcommittee will present the
12 evidence and draft conclusion for the dietary
13 patterns and all-cause mortality.

14 The subcommittee is also refining and
15 prioritizing its remaining work for the questions
16 related to dietary patterns and sarcopenia,
17 cancer, neurocognitive health, and bone health,
18 which will be discussed in more detail at the end
19 of this presentation.

20 So our key definitions -- and so you've
21 seen this before. Many people have seen this
22 before. But the key definitions that we're using

1 for dietary patterns are the quantities,
2 proportions, variety or combination of different
3 foods, drinks and nutrients, when available, in
4 diets and the frequency with which they are
5 habitually consumed.

6 This key definition came from -- oh,
7 apparently, we didn't put that in this time. Okay.
8 All information provided by studies about
9 diet -- it came from an international statement.

10 So this wasn't created just for this,
11 and so it is internationally recognized as the
12 definition for dietary patterns.

13 All information provided by studies
14 about dietary patterns tested or examined,
15 including both foods and beverages, macro- and
16 micro- nutrients will be extracted from included
17 articles.

18 And that macro- and micro- nutrients,
19 that was added as a result of comments from
20 individuals outside of the Dietary Guidelines
21 Committee. The comments were received; we added
22 in that component within the dietary patterns.

1 Based on conversations at the last
2 committee meeting and misconceptions among the
3 public and media, the SC refined the intervention
4 exposure criteria for the intervention exposure to
5 clarify how the subcommittee will consider dietary
6 patterns, as well as diets based on macronutrient
7 distribution and how they may or may not relate to
8 each other.

9 For the first time, the subcommittee is
10 considering diets based on macronutrient
11 distribution where at least one
12 macronutrient -- that is either carbohydrate, fat
13 and/or protein -- is outside the acceptable
14 macronutrient distribution range, or its also
15 known AMDR, set by the National Academies of
16 Science.

17 For example, any study in which
18 carbohydrate intake is above or below the AMDR,
19 greater than 65 percent of energy or below
20 45 percent of energy that also meets the
21 inclusion/exclusion criteria provided in the
22 protocol will be examined to answer the questions.

1 This approach allows the committee to
2 systematically review the overall scientific
3 landscape of dietary patterns, including patterns
4 that are both within and outside the AMDR, along
5 with different diet types.

6 So the question that will be reviewed
7 today, we'll be presenting the findings from the
8 systematic review question related to dietary
9 patterns consumed and all-cause mortality. The
10 approach to answer this question is a NESR
11 systematic review.

12 You've seen quite a few analytic
13 frameworks, and the analytic framework provides a
14 foundation for the systematic review and helps to
15 inform the approach for this question. The
16 subcommittee defines all-cause mortality as the
17 total number of deaths from all causes during a
18 specific time period.

19 The exposure of interest is the
20 consumption of and/or adherence to a dietary
21 pattern. The comparators are consumption of
22 and/or adherence to a different dietary pattern and

1 different levels of consumption and/or adherence
2 to the dietary pattern.

3 The population of interest for the
4 exposure and outcome include children through
5 older adults who are healthy and/or at risk for
6 chronic disease. For this question, the
7 subcommittee decided that infants and toddlers
8 from birth to 24 months were out of the scope.

9 The key confounders are listed on this
10 slide, and within the body of evidence the
11 subcommittee reviewed, the majority of studies
12 accounted for these factors. This slide
13 illustrates the literature search and screening
14 results for articles examining the dietary
15 patterns and all-cause mortality.

16 The results of the electronic database
17 searches, after removal of duplicates, were
18 screened independently by two NESR analysts using
19 a stepwise process by reviewing titles, abstracts,
20 and full text to determine which articles met the
21 inclusion criteria.

22 For this review, 11,547 articles titles

1 were searched, 1,693 articles were
2 abstract-screened, and 554 articles were screened
3 at the full text level. A manual search was done
4 to find articles that were not identified when
5 searching the electronic databases.

6 All manually identified articles are
7 also screened to determine whether they met the
8 criteria for inclusion. For this review, no
9 articles were identified during the manual search.

10 The review resulted in 152 included
11 articles. The 152 articles in this review are all
12 prospective cohort study designs. An aside there:
13 we're kind of glad about that. We hope that no one
14 ever does a randomized trial that the endpoint is
15 death.

16 So in some ways, this is something to
17 be very grateful for. They examined the
18 relationship between dietary patterns and
19 all-cause mortality. The studies used multiple
20 approaches to assess dietary patterns.

21 105 articles used only index or score
22 analysis to examine the relationship between

1 dietary patterns or diets based on macronutrient
2 distribution and all-cause mortality.

3 Eighteen articles examined the
4 relationship between dietary patterns with factor
5 and cluster analysis and/or diets based on
6 macronutrient distribution; 27 articles examined
7 the relationship between diets based on
8 macronutrient distributions.

9 Of the remaining 15 articles, six
10 articles used multiple methods, including both
11 index analysis and factor analysis, or factor
12 analysis and reduced rate regression, or just
13 reduced rate regression was used for comparison.

14 Of the 27 articles that evaluated
15 macronutrient distribution, 15 articles also used
16 another approach to examine dietary patterns.
17 Despite the variety of different methods applied
18 to examine or derive dietary patterns, there was
19 remarkable consistency in the majority of the
20 studies finding statistically significant
21 relationships between dietary patterns consumed
22 and all-cause mortality.

1 Although the dietary patterns were
2 characterized by different combinations of foods
3 or beverages, due to the variety of methods used,
4 protective dietary patterns emerged with the
5 following themes: patterns emphasizing higher
6 consumption of vegetables, legumes, fruits, nuts,
7 whole grain, fish, lean meat or poultry, and
8 unsaturated fats relative to saturated fats,
9 either as a ratio of MUFA to saturated fat, or
10 MUFA -- PUFA to saturated fat, or olive oil
11 specifically.

12 They were generally associated with
13 decreased risk of all-cause mortality. Notably
14 there was consistency in particular with the
15 inclusion of fish and/or seafood. Of the dietary
16 patterns that included animal products, protective
17 associations were generally observed with
18 relatively lower consumption of red and processed
19 meat or meat and meat products.

20 Some of the dietary patterns also
21 included alcoholic beverages in moderation within
22 specific thresholds. The inclusion of white meat

1 to red meat ratio, type and amount of dairy
2 products, and refined carbohydrates, sweets, as
3 elements of these patterns was less consistent
4 across the evidence.

5 Among the dietary patterns that
6 included higher consumption of white meat relative
7 to red or processed meat, low-fat dairy relative
8 to high-fat dairy, and lower relative to higher
9 refined carbohydrates and sweets tended to show
10 reduced risk of all-cause mortality.

11 Despite the variability between
12 approaches used to examine dietary patterns,
13 higher adherence to dietary patterns with common
14 labels, such as Mediterranean, Dietary
15 Guidelines-related, and also Dietary Guidelines
16 such as healthy eating index, DASH scores, or
17 plant-based guides were generally protective
18 against all-cause mortality risk.

19 This highlights that high-quality
20 dietary patterns comprised of nutrient-dense
21 foods, regardless of the label, were associated
22 with decreased all-cause mortality risk. And the

1 next one will have a little -- where is that? Oh
2 it's later.

3 Although all included studies were
4 prospective cohort studies, the majority of
5 articles reported adjustment for most key
6 confounders, as I had mentioned earlier, with the
7 exception to race/ethnicity.

8 Due to lack of reporting, it is
9 difficult to determine the impact that
10 race/ethnicity specifically may have in the
11 relationship between dietary patterns and
12 all-cause mortality.

13 The largest segment of evidence in this
14 systematic review used the index or score analysis
15 to assess dietary patterns. Within this segment
16 of evidence, nearly 80 different indices or scores
17 were used to assess dietary patterns, including 30
18 Mediterranean indices.

19 Now, to make that clear, it doesn't mean
20 that the Mediterranean diet was used 30 times; it
21 was 30 different variations of the Mediterranean
22 diet, with the Mediterranean score by Trichopolou

1 as being the most frequently used.

2 There were seven healthy eating indexes
3 that were used or the Dietary Guidelines for
4 Americans indexes. Only one DASH score, so DASH
5 was the same across the board, no matter what study
6 that used DASH.

7 Sixteen country specific indices, such
8 as the Dutch healthy diet index, and 24 other
9 indices or scales, such as the recommended food
10 score. Across all indices or scores, the
11 following items or components are generally, but
12 not exclusively, considered.

13 So this is an extensive list here, that
14 I'll give you a few minutes to look through, or take
15 an image. And it's important to know these were
16 not exclusive, so we can't say that every dietary
17 pattern had one of these in there.

18 This is just a summary of the most
19 common food sources that made up the components of
20 the dietary patterns. Macronutrient
21 distributions with proportions of energy falling
22 outside of the AMDR for at least one macronutrient

1 were examined in this body of evidence, but results
2 were not consistent.

3 Notice we have switched to summary of
4 evidence synthesis. Among these studies,
5 proportions of carbohydrate reported were both
6 below and above the AMDR. Proportions of fat
7 reported were both below and above the AMDR.

8 No studies examined macronutrient
9 distribution in which protein fell outside of the
10 AMDR.

11 Comparison of the macronutrient
12 distributions with or without the context of the
13 foods, food groups comprising the dietary patterns
14 showed inconsistent findings due to several
15 limitations.

16 The gradient between the macronutrient
17 proportions compared between distributions was
18 small: a range of 41 percent to 41.7 percent.
19 Most methods used to estimate macronutrient intake
20 differed between studies.

21 Most proportions reported were only
22 marginally outside of the AMDR, due to the variance

1 with which studies defined and applied limits to
2 macronutrient categories. When viewing these
3 null results, the committee reflected, looking at
4 macronutrient distribution without diet quality is
5 maybe a moot activity. That was just a reflection
6 of ours.

7 So the strong evidence suggests that
8 certain dietary patterns in adults and older adults
9 are associated with decrease risk of all-cause
10 mortality.

11 These dietary patterns were
12 characterized by intake of vegetables, legumes,
13 fruits, nuts, whole grains, fish, lean meat or
14 poultry, and unsaturated fats related to saturated
15 fats.

16 Of the dietary patterns that included
17 animal products, protective associations were
18 generally observed with relatively lower
19 consumption of red and processed meat or meat and
20 meat products.

21 Some of these dietary patterns also
22 included alcoholic beverages in moderation or

1 within specific thresholds. The inclusion of
2 white meat, red meat ratio, type and amount of dairy
3 products, and refined carbohydrates, sweets, as
4 elements of these patterns was less consistent
5 across the evidence.

6 However, the dietary patterns that
7 included higher consumption of white meat relative
8 to red or processed meat, low-fat dairy relative
9 to high-fat dairy, and lower relative to higher
10 refined carbohydrates and sweets tended to show
11 reduced risk of all-cause mortality.

12 Macronutrient distributions with
13 proportions of energy falling outside of the AMDR
14 were examined in this body of evidence, but results
15 were inconsistent. And insufficient evidence was
16 available to determine the relationship between
17 dietary patterns and all-cause mortality in
18 younger populations, and that's ages less than 35
19 years.

20 Coming next -- and I should mention on
21 that last slide, you have been used to seeing all
22 these different grades; the evidence on this was

1 so clear.

2 Out of all the papers that we reviewed
3 outside of the macronutrient distribution, there
4 were really only 10 papers that didn't have
5 significant results of protection with regard to
6 dietary patterns, high-quality dietary patterns.

7 So now where we're going is we're
8 refining and prioritizing the remaining work. The
9 subcommittee is in the process of refining and
10 prioritizing its remaining work. This includes
11 looking at the intermediate and endpoint outcomes
12 and refining what the subcommittee will have time
13 to accomplish.

14 For example, the subcommittee has
15 decided to only look at the endpoint outcome of
16 sarcopenia and severe sarcopenia, and excluding
17 articles that only examine intermediate outcomes.

18 For the question related to cancer,
19 neurocognitive health, and bone health, the
20 subcommittee is reviewing the work of the 2015
21 Dietary Guidelines Advisory Committee and may
22 refine outcomes to align with these existing

1 reviews or carry forward existing work.

2 The other next steps are to complete the
3 data extraction and risk of bias assessment of
4 dietary patterns and sarcopenia. The NESR staff
5 is also in the process of screening the scientific
6 literature for questions related to dietary
7 patterns and growth, size and body composition,
8 dietary patterns in type 2 diabetes, and dietary
9 patterns in cardiovascular disease.

10 We will also develop a conceptual
11 framework to facilitate evidence synthesis based
12 on dietary patterns and their components, which may
13 include foods and beverages, food groups, and
14 macronutrient distribution in the context of diet
15 quality.

16 Thank you for listening to the summary
17 of our work to date in the Dietary Patterns
18 subcommittee. Here we have listed again the
19 members, which were on the opening slide, but also
20 the support staff, because we wouldn't be able to
21 do any of this work without the great support staff
22 that we have from the USDA and the Department of

1 Health and Human Services.

2 So no one interrupted me, so why don't
3 you do that now?

4 (Applause.)

5 MEMBER BOUSHEY: Rick. But let's go
6 with Rick first, because he's usually first.

7 MEMBER MATTES: You commented on the
8 consistency of the findings and noted that these
9 are 100 percent prospective cohort studies that
10 often have large sample sizes. Can you comment on
11 the effect size of the trials?

12 They may all be significant, but to what
13 degree are they meaningful? If you have big sample
14 sizes, you can find small differences
15 statistically significant. To what degree do
16 you -- does the evidence indicate --

17 MEMBER BOUSHEY: Well, you know,
18 actually not all of them were completely large,
19 Rick. That's what's interesting.

20 Does anyone have a -- kind of an outline
21 of what some of the ranges of samples sizes were?
22 And some of the ones that didn't find the

1 significant results were smaller ones, but there
2 really were some as small as 200.

3 MEMBER MATTES: Okay.

4 MEMBER BOUSHEY: Yeah.

5 MEMBER MATTES: Nevertheless --

6 MEMBER BOUSHEY: Yeah.

7 MEMBER MATTES: -- can you comment on
8 effect size, not just significance?

9 MEMBER BOUSHEY: I don't know that I
10 can comment on it. I'd have to actually think
11 about that a bit, but that's -- does anyone else
12 on the committee have an idea of what the effect
13 size might be? Joan?

14 MEMBER SABATÉ: Joan Sabaté. The
15 effect size did vary, and sometimes it's just a
16 decrease in the risk of 10 percent, but sometimes
17 went up to 25 percent decrease. So this is the
18 effect size that I do remember.

19 Maybe there is a table that staff can
20 show on the screen, but I -- the effect size was
21 sometimes not very big, but you know, that's quite
22 considerable.

1 MEMBER BOUSHEY: That's good. Thank
2 you.

3 MEMBER MAYER-DAVIS: So I'm recalling
4 ratios that were around .85 to maybe .95, something
5 like that, but it did vary, and some of that was
6 a function of duration of follow-up, you know,
7 which is another issue, that, you know, varied
8 quite a bit across all of this literature.

9 And sample size did vary quite a bit.
10 I've actually never seen a set of data with this
11 degree of consistency. It was quite remarkable.

12 MEMBER BOUSHEY: Yeah.

13 MEMBER SABATÉ: Joan Sabaté again.
14 Not only the effect size, but also some of these
15 indices -- I mean, there were different
16 categories. So there was kind of a dose response
17 effect that was quite visible, you know, in this
18 body of literature.

19 MEMBER BOUSHEY: Yeah. I really
20 cannot emphasize enough this whole idea that there
21 is no one magic bullet, but when you have
22 consistent, high-quality -- a high-quality diet it

1 can be achieved using multiple foods, and as long
2 as it fits within these tight guidelines of what
3 we outlined -- you know, low in certain fats, low
4 in sugar, and all of are low
5 in -- some -- controlled sodium -- it's quite
6 remarkable.

7 MEMBER NOVOTNY: Thanks. That was
8 very interesting. It makes me reflect on the work
9 of the whole Committee, particularly those of us
10 that are looking at foods, food groups, seafood,
11 added sugars, beverages, and really, broadly at our
12 methods.

13 And it seems clear that we're moving in
14 this direction, and a lot of our methodological
15 challenges have to do with the reality of focusing
16 on a food in the context of a very complex diet.

17 And therefore it makes me -- if we could
18 start all over again or start again or have longer,
19 the idea of basically pulling out those foods
20 within a dietary pattern or looking at the dietary
21 pattern with an emphasis on those that are high in,
22 say, added sugars or those that are high in certain

1 beverages or even overall beverages, those that are
2 high seafood, some way of basically looking at that
3 list of foods in the scoring and, again, defining
4 diets according to our interests.

5 I think its -- so I guess the short,
6 real question is whether any of that is still
7 possible to contribute to the other committees. I
8 know that we're trying to tie up our work, but if
9 not, I think as a committee something to think about
10 in our recommendations is how to go forward with
11 this kind of review of literature in that
12 communication.

13 MEMBER BOUSHEY: You know, I actually
14 really -- I like that comment that you made,
15 Rachel, but I also actually like that we have these
16 other -- you know, that we're looking at it in
17 different ways to give real affirmation.

18 I really like that, but your comment
19 about that what the foods are. Actually, Liz and
20 Laural have been working on this, and they've
21 created a - right now, it's in an Excel
22 spreadsheet, and we're trying to figure

1 out -- it's massive -- so we're trying to figure
2 out how we can condense it down to -- the best that
3 we've got was that one slide that you saw with all
4 the foods listed; that fit on the slide, so that
5 worked well.

6 But it is -- it's extensive. Do you
7 want to shake your head? Yeah. And so I -- so the
8 neat thing is you've given them affirmation for the
9 amount of work that it took them to do that.

10 And so if you want to work with us as
11 to how we're going to make it something that can
12 be shared, that would be fantastic. I think
13 it's -- you hit it spot-on.

14 CHAIR SCHNEEMAN: So Tim I'm going to
15 add you and I'm going to add myself.
16 So -- Heather.

17 MEMBER LEIDY: Heather. This is more
18 just a clarification, a methodology question. At
19 the last meeting, you brought up the analytical
20 framework, but I think it's a little more teased
21 out now.

22 And so my question is related to

1 whether -- and I don't think this is the case, but
2 I'm going to ask anyway. So there are studies were
3 just varying macronutrients, and so some of the
4 public comments in the discussions were about, you
5 know, ketogenic diets or low-carb diets.

6 And so when you look at those studies
7 from a manuscript perspective, a lot of them are
8 prescribed from varying macronutrients, not food
9 first. And so my question is that I would imagine
10 that a lot of those studies were excluded based on
11 the definition of the dietary patterns and your
12 analytical framework.

13 And so just to clarify that, because it
14 seems like a lot of the dietary patterns were -- the
15 studies were selected, and then macronutrient
16 composition was then kind of described and compared
17 in the subsequent analyses, and so a lot of the
18 studies -- maybe not for all-cause mortality, but
19 I think as we get into the other outcomes that we'd
20 have more randomized controlled trials, most of the
21 studies -- maybe not the most, but a good number
22 of them would actually be macronutrient

1 composition first, but because they are generally
2 not always describing the foods in those diets,
3 just to clarify, they would actually be excluded
4 from these analyses?

5 Is that correct? Because they're not
6 foods, they're generally macronutrient-specific
7 comparisons? And that's not in your analytic
8 framework.

9 MEMBER BOUSHEY: Do you want to speak
10 to that?

11 MEMBER BAZZANO: We did specify that
12 even if they didn't describe the foods, but if they
13 had a macronutrient intake that was outside of the
14 AMDR for any of the micronutrients, carbohydrate,
15 fat or protein, we included them, even if they
16 didn't have the food description, but they had a
17 nutrition description like what the components
18 were.

19 For instance, what kinds of fats, what
20 kinds of fiber, et cetera. If they had any kind
21 of a description like that, they were included.

22 MEMBER LEIDY: Okay. So then just to

1 clarify in terms of the definition, or maybe I
2 missed it, it seemed like the dietary pattern
3 definition was really looking at foods.

4 MEMBER BOUSHEY: Yes.

5 MEMBER LEIDY: But that would be
6 different than --

7 MEMBER BOUSHEY: But that's for
8 dietary patterns. The macronutrient distribution
9 is a completely different concept.

10 MEMBER LEIDY: Okay.

11 MEMBER BOUSHEY: Yeah. It's in
12 addition to. It's not -- the dietary -- when we
13 look at the macronutrients, we're just looking at
14 the macronutrients.

15 MEMBER LEIDY: Okay.

16 MEMBER BOUSHEY: Yeah.

17 MEMBER LEIDY: So it's basically a
18 separate -- it's a separate question from the
19 dietary patterns, then.

20 MEMBER BOUSHEY: It is.

21 MEMBER LEIDY: Okay.

22 MEMBER BOUSHEY: It is. I

1 mean, -- yeah, because they're not the same.

2 MEMBER BAZZANO: And then the main
3 issue here is that it's all-cause mortality.

4 MEMBER LEIDY: Right. I --

5 MEMBER BAZZANO: I mean, that's our
6 outcome for this one. There will be randomized
7 controlled trials in other --

8 MEMBER LEIDY: I was just more looking
9 forward when -- when the next analytic framework
10 we see and the other outcomes. I thought if it was
11 the same, it's going to miss those diet
12 comparisons, just based on the definitions of what
13 you have in your analytic framework.

14 MEMBER BOUSHEY: Right. And for the
15 macronutrients, that's a whole -- that was that
16 different definition on that second page.

17 CHAIR SCHNEEMAN: Can I -- I know we
18 have a comment from staff, but keep in mind that
19 in the analytic framework under the inclusion and
20 exclusion criteria, if there's a particular diet,
21 but it's really a treatment diet -- and that's the
22 whole point of the study -- that would not

1 necessarily get included as well.

2 So that's another factor to keep in
3 mind.

4 MS. ENGLISH: This is Laural English.
5 So just to clarify, I think, the points, the
6 comments that were just mentioned are accurate, but
7 we kept the analytic framework with just that more
8 simplified version, that -- really to speak to the
9 overall package of the diet.

10 And so the intent was to cover the
11 dietary pattern, as Dr. Boushey had shown in the
12 definition, particularly if you notice in the
13 definition, there's -- defined by the foods and
14 drinks as well as nutrients when available.

15 And so it was the case where there was
16 a paper or an included article that looked at the
17 dietary pattern but also reported enough
18 information and the macronutrient distribution in
19 which, one, fell out of the AMDR.

20 However, we also included articles that
21 were just based on the macronutrient distribution,
22 because in the criteria, because in the criteria

1 it does specify that the foods or food groups do
2 not need to be required for inclusion based on the
3 diet, or where the diet is based on macronutrient
4 distribution.

5 So the framework is a little more
6 simplified, but the inclusion and exclusion
7 criteria gives a little more detail to speak to
8 that.

9 CHAIR SCHNEEMAN: Tim?

10 MEMBER NAIMI: Yeah. I was just
11 wondering. I -- Tim Naimi, Boston University.
12 You may be getting to this later, but for the
13 studies of all-cause mortality, I was interested
14 in how does the distribution of cause of death break
15 down? Where is the reduction in mortality? Is
16 there any general comments you can provide on that?

17 MEMBER BOUSHEY: Yeah. I don't think
18 we did that. That's an interesting question. We
19 did not. It was just all-cause. We certainly
20 would probably have it from many of the studies.
21 So perhaps that would be something of interest to
22 do. It just varied across the range.

1 Good question.

2 MEMBER TAVERAS: Carol, I was
3 wondering if -- I know you said this is going to
4 be covered in the next meeting, but could you talk
5 a little bit about the decisions that you're
6 weighing for reprioritizing the cancer and
7 neurocognitive health and bone health questions?

8 Is there room or time to weigh on maybe
9 some of those decisions about using existing
10 reviews or what some of those endpoint outcomes
11 are?

12 MEMBER BOUSHEY: We are going to use
13 some. You know, I don't have the list here, but
14 here's -- just to -- remember when we had our first
15 meeting, and we were all so excited and stuff?

16 So what happened, well, we thought we
17 would get this done in a week. Right? And so
18 when -- remember I had kind of open forum, because
19 there was a list of what cancers we were going to
20 look at.

21 And recall that we said, well, let's
22 have some more. And so -- we added in liver

1 cancer, I believe, and then pancreatic cancer.
2 Isn't that -- weren't -- those were the two we
3 added in.

4 And so as we see how much work all this
5 is, we're thinking of maybe recommending that the
6 next group do liver and endometrial cancer, and by
7 that time, there's going to be really a lot of data
8 for them to use.

9 And then the other one -- in fact, I
10 should probably -- let me punt this over to you all,
11 because you know which ones are going to be coming
12 out, but they were all the ones we added when we
13 had our wonderful first meeting.

14 We were just so -- thinking we could get
15 through this in a day. So do you want to
16 add -- what were the others?

17 MS. ENGLISH: So the other cancers
18 specifically or the other --

19 MEMBER BOUSHEY: Good question. Did I
20 get them all with those two?

21 MS. ENGLISH: I think so. Yeah.

22 There was childhood leukemia, liver and

1 endometrial.

2 MEMBER BOUSHEY: Oh, yeah. Those were
3 all added. And then what in the -- there was
4 another set that we also eliminated, some that --we
5 also -- so I thought we eliminated some others.

6 MS. ENGLISH: I think those were the
7 new cancers added --

8 MEMBER BOUSHEY: Okay.

9 MS. ENGLISH: -- so the existing
10 reviews for the other four breast, lung, prostate
11 and colorectal cancer. So those were the four
12 other --

13 MEMBER BOUSHEY: Yeah.
14 Did -- hearing that list, did you have some that
15 you think we should definitely try to address?

16 MEMBER TAVERAS: I was wondering where
17 you think you might carry forward in existing
18 reviews?

19 MEMBER BOUSHEY: Oh, the -- let me look
20 at the notes here again as to which one. So you
21 have them memorized better than me. Which ones
22 will we carry forward with existing reviews?

1 MS. ENGLISH: For the bone health
2 question, there's an existing review as well as the
3 neuro, so with bone health, it's pretty much just
4 a very similar framework, instead of outcomes that
5 was in the existing review.

6 For neuro, there are several additional
7 outcomes. The existing review covered more of the
8 realm of neuropsychological illness or depression,
9 and Alzheimer's disease and cognitive impairment
10 type outcomes, and so those are -- those were
11 covered in the existing reviews.

12 Additional outcomes were anxiety, ADHD
13 and autism spectrum, and then more of the childhood
14 outcomes with developmental domains, and those
15 were not exclusively covered in the existing
16 review.

17 MEMBER TAVERAS: And will those then
18 not be reviewed? I'm particularly interested in
19 the neurocognitive outcomes --

20 MEMBER BOUSHEY: No.

21 MEMBER TAVERAS: -- than if --

22 MEMBER BOUSHEY: No. We'll update

1 them.

2 MEMBER TAVERAS: Those are --

3 MEMBER BOUSHEY: And this is -- what
4 we're doing is, we're not going to go from scratch,
5 like what we've just done. We'll update those.

6 MEMBER TAVERAS: From -- in the last
7 five years?

8 MEMBER BOUSHEY: Yeah. And I believe
9 someone did that yesterday. They spoke to that
10 from B-24. Oh, yeah, because they had all that
11 work from -- done earlier. That will -- yes. So
12 that isn't going to be lost.

13 CHAIR SCHNEEMAN: Actually, I want to
14 take a turn, too. So I would be interested in the
15 comments -- and I know the subcommittee has been
16 talking about this, that just sort of -- one of the
17 dilemmas with looking at the macronutrients in
18 isolation, where it's not considering diet quality
19 that -- you know, do you wind up with some of the
20 inconsistency that you really have to factor in
21 diet quality once you start dealing with the
22 macronutrients?

1 So I'd be interested in some discussion
2 about that.

3 MEMBER BOUSHEY: Yeah. It's so much
4 fun. Do you want to -- it is --

5 MEMBER MAYER-DAVIS: I was going to
6 refer to Jamy, because we -- our committee has
7 given this a great deal of thought. It also
8 relates to Rachel, Dr. Novotny's comment about
9 integration, really, across subcommittees.

10 So -- but Jamy really initiated some of
11 this conversation, so let me have you comment on
12 hierarchy.

13 MEMBER ARD: Okay. Jamy Ard. So I
14 think the way we really sort of looked at the scope
15 of the data for all-cause mortality really starts
16 at a few different levels, and I think it does lead
17 to a fairly consistent narrative and the conclusion
18 that you saw, that the dietary pattern is really
19 driving the overall effect, and the dietary
20 pattern -- the consistency of that effect or the
21 strength of that effect, the effect size, is likely
22 related to the food group consumption and the

1 adherence to the dietary pattern.

2 So you can have a DASH dietary pattern
3 that you say you're following, but there's levels
4 of adherence, and if you are closer to an ideal,
5 as studied in the original DASH trials dietary
6 pattern, then you see the strongest effect.

7 If you start to dilute that in terms of
8 changes in the food groups and quality of the foods
9 that are part of that pattern -- so you may still
10 be technically, you know, consuming fruits and
11 vegetables and whole grains and low-fat dairy and
12 so forth, but if the quality of that starts to
13 decrease, you see a decreased effect.

14 So there are trends, and we didn't
15 report on that, but there are fairly consistent
16 trends even within a dietary pattern. As you go
17 from higher adherence to lower adherence, you see
18 decrease in effect sizes in terms of
19 protectiveness.

20 And then -- so you also then look at it
21 from the macronutrient standpoint, and so that's
22 how we got to this idea of -- well, let's look at

1 the macronutrients outside of the AMDR, because
2 there's a lot of public interest in this idea of
3 if I am eating fewer carbohydrates or if I am eating
4 higher fat content, is that beneficial, is that not
5 beneficial?

6 And so this literature gave us an
7 opportunity to say, what can we see in that regard?
8 And the fairly consistent thing -- even though the
9 overall data are inconsistent, the fairly
10 consistent thing was that, within the context of
11 a given dietary pattern, you saw there's really not
12 much effect of the independent macronutrient
13 distribution.

14 Right? It always rolls up to the
15 dietary pattern that you are considering. And so
16 once you start to think about -- okay. We've
17 looked at it from the overall dietary pattern, and
18 we see a fairly consistent response across all of
19 this literature.

20 We've got, even within that literature,
21 some different food group analyses, and so not
22 everything was about dietary patterns. Some of

1 those were, you know, diet patterns that were high
2 in fats or sugar-sweetened beverages or different,
3 you know, clusters of food groups that people
4 looked as a -- and named as a dietary pattern.

5 And you saw, again, fairly consistent
6 results, that higher-quality foods tended to lead
7 to more consistent protective effects. And then
8 you -- we also looked at it from a macronutrient
9 standpoint.

10 And in every instance, you had to come
11 back to the conclusion that the effects are being
12 driven by the dietary pattern, so it creates this
13 sense of a hierarchy, right, where we could say at
14 the top level, in the context of energy overall,
15 energy intake overall, we have dietary pattern, and
16 so you know, how you consume your calories and the
17 combinations of foods that you put together
18 overall, that is what matters most.

19 Then within that, it's the quality of
20 the foods that make up the dietary pattern. And
21 then finally it's the macronutrients that are
22 contributing from the foods that you're consuming.

1 And those do have some -- I'm not saying
2 that those don't have some biological effects.
3 They do. But from a perspective of all-cause
4 mortality, it seems to all be driven by this idea
5 of a dietary pattern, and quality is the thing that,
6 you know, sort of links all of these together.

7 Right? So high-quality intake at the
8 pattern level, high-quality food choices at the
9 food group level, and even the quality of the
10 macronutrients, high-quality fat intake, for
11 example, or quality protein, and where those
12 protein sources are coming from.

13 Those things do matter in terms of the,
14 you know, sort of, underlying consistency across
15 that hierarchy. And so I think in that way, it does
16 provide a fairly unifying theme, narrative, to say,
17 maybe at some level we've been too fascinated with
18 macronutrients, and that's not gotten us anywhere,
19 really, and we should continue the narrative that
20 the other committees have started, where we're
21 starting to make this pivot to.

22 Well, let's actually really try to get

1 people to look over here and think in terms of their
2 overall pattern of consumption. And that may be
3 more beneficial; it seems to be more powerful, and
4 certainly it seems to be more consistent.

5 The evidence is very, very clear. I
6 mean, the magnitude -- as Carol said, the magnitude
7 of consistency across hundreds of studies, across
8 hundreds of countries and different populations
9 and subgroups, men and women.

10 That is fairly clear. So I think
11 that's one way to potentially conceptualize this,
12 and Carol alluded to the idea of -- if we can come
13 up with something that helps us visually --

14 MEMBER BOUSHEY: Well, we know we
15 should really share that we have the volunteer for
16 that. Dr. Heymsfield has volunteered to make our
17 visual on that, and that is one of our big tasks.

18 But we have Dr. Sabaté. Yeah.

19 MEMBER SABATÉ: To say it in a slightly
20 different way, I mean, for a long time, we have
21 focused on macronutrients, and especially the
22 amount of macronutrients, and the amount of

1 macronutrients translates into the proportions as
2 far as percentage of proteins versus fats versus
3 carbohydrates.

4 And as we look at these, I mean, we
5 realized that it's the type of macronutrients and
6 particularly the source that comes from foods, and
7 so although the macronutrients may be having the
8 same name, I mean, all come originally from foods.

9 And so it's the type of macronutrients
10 and the source of the macronutrients that may be
11 the influence. But when we take these outside the
12 context of the food patterns and the foods then,
13 in our analysis we could find much more consistency
14 of the results.

15 But we put into the context of dietary
16 patterns and the foods, that is the type and the
17 source, then that starts making sense.

18 CHAIR SCHNEEMAN: Lydia?

19 MEMBER BAZZANO: Okay. I would also
20 just like to make the point, the same point that
21 Joan here has made. But I mean, if you think about
22 a plate that has salmon and non-starchy vegetables

1 on it, that is -- with olive oil, that's
2 Mediterranean.

3 That's also low carbohydrate
4 or -- so -- it's not the dietary -- it's the
5 dietary pattern overall and includes what it comes
6 from much more so than the specific differences
7 in macronutrients.

8 And I will say that we didn't have a lot
9 of macronutrient differences. None of these were
10 low-carbohydrate diets. They were all just barely
11 below the AMDR or barely above, depending on which
12 macronutrient it was, so I don't think you take this
13 and look at it specifically for those purposes,
14 because it wasn't -- this information wasn't meant
15 to be --

16 MEMBER BOUSHEY: Right.

17 MEMBER BAZZANO: -- looked at for those
18 purposes. The study wasn't designed for those
19 sorts of things.

20 MEMBER BOUSHEY: Yeah.

21 MEMBER NOVOTNY: Just to kind of
22 comment. I was thinking about the lack of evidence

1 in childhood for all-cause mortality, and I assume
2 it's lack of data, and of course, you hope children
3 aren't dying early and so on.

4 But that would be an interesting set of
5 data to have. I'm also thinking about having
6 excluded the B-24, and where there might be data,
7 and thinking of EMRs and potentially at least
8 infant feeding data, and data that might be
9 available, if nothing else, for future
10 recommendations.

11 MEMBER BOUSHEY: Yeah. And it might
12 come up in our other questions.

13 MEMBER NOVOTNY: Yeah. And then
14 totally different -- you know this a topic of mine,
15 but this starchy vegetable thing, I -- you know,
16 I think here in the U.S. we usually think about
17 potatoes, and you know, I'm sure many people can
18 find value in potatoes.

19 Certainly in the region I work there is
20 a variety of nutrient-rich, starchy vegetables.
21 So just to -- it is a problem in our analyses, so
22 I think we need to create a category for and

1 actually look at the role of starchy vegetables,
2 because they also are not high calorie, depending
3 on how they're cooked.

4 So I just think that they deserve more
5 attention in our patterns.

6 MEMBER MATTES: Well, I want to
7 follow -- I think Jamy's description of the data
8 is very, very important. You know, we, I think,
9 mostly recognize that even small changes in body
10 weight have disproportionate health benefits, and
11 the dose response kind of findings that you have
12 here raise the same question.

13 If the population even makes small
14 changes in the direction of these dietary patterns,
15 can we expect disproportionately large health
16 benefits? To the degree that you can quantify
17 sort of the magnitude of change necessary to
18 realize benefit, I think that would be a very
19 powerful message.

20 MEMBER BOUSHEY: Well, Rick, this will
21 be interesting, because as we've all said, you
22 know, we will hopefully get some randomized trials

1 in the next topics that aren't, you know, all-cause
2 mortality.

3 And you know, I think that that's going
4 to be one of, you know, the type of diets that we'll
5 be looking at. We'll be looking at dietary
6 patterns. And so that will really help with
7 answering that. That's a good point.

8 CHAIR SCHNEEMAN: I also wanted to come
9 back on -- I think it was in the Pregnancy and
10 Lactation subcommittee report yesterday. We had
11 some discussion of food patterns, and as I recall,
12 it sort of resonates very well with what we're
13 hearing from the Dietary Patterns group, and it
14 would be interesting to hear some comments.

15 MEMBER DONOVAN: For that, we were
16 depending on the existing systematic review, and
17 so Jamie was on that text, so maybe -- would you
18 like to address that?

19 MEMBER STANG: Sure. So when -- Jamie
20 Stang -- when we did the pregnancy collaborative
21 before this Committee met to do those
22 reviews -- and they're published -- one of the

1 things that we came down to is looking at dietary
2 patterns, again, echoing that it came down to
3 specific foods, because we had like the new Nordic
4 diet, and the DASH diet and five kinds of
5 Mediterranean diets, and -- but when you looked at
6 them all, there were some very consistent
7 components.

8 In each of the diets that had a positive
9 effect, you could pull out, with a very good degree
10 of consistency across the studies, that it was
11 fruits, it was vegetables, it was nuts and seeds.

12 And so that's why we felt very strongly
13 in our conclusion statements, that rather than
14 naming the diets or talking about the healthy diet,
15 that we put in those food components, because
16 that's how people eat.

17 Right? They select fish and nuts and
18 seeds. They don't select a Mediterranean diet
19 when they're in their kitchens or in their grocery
20 store. So it seemed to be so consistent and so
21 blatant that it just felt like it needed to be
22 specified and those conclusion statements.

1 And I think, again, that's the -- you
2 know, that is what we want to be able to tell people
3 is, you can call it what you want, but it is -- these
4 are the things that make up those diets that seem
5 to have the health benefits.

6 CHAIR SCHNEEMAN: Other comments or
7 discussions. Oh, Jamy, please.

8 MEMBER ARD: I think -- Jamy Ard -- so
9 I think one other thing that this points to is the
10 idea that certain things are bad or not bad or good
11 or so forth or -- I mean, that's something we've
12 got to sort of grapple with.

13 Right? So I mean, as I think about,
14 like, Lydia's comment around, you know, a plate
15 with lean protein or fish and vegetables being
16 characterized as low carbohydrate in that
17 particular meal and instance and being also
18 consistent with Mediterranean style of eating, I
19 think one of the things that's confusing for
20 people, though, is, well, a lot of these dietary
21 patterns include -- actually include and give you
22 more points for consuming higher amounts of

1 vegetables that -- or I mean, fruit or whole grains
2 or those types of things.

3 So I think we've got to be careful in
4 terms of helping people understand the nutritional
5 value of these foods and not get confused by the
6 idea of, well, if it has any carbohydrate, it's
7 bad.

8 Right? I think that's where we need to
9 sort of come up with a way to help people understand
10 this idea of quality of intake, because again even
11 within any of the patterns, when the quality was
12 poor, the effect was either null or reduced, and
13 that was definitely consistent.

14 So all carbohydrates are not equal.
15 All protein is not equal. All fat is not equal.
16 All foods are not equal. All dietary patterns are
17 not equal. Right?

18 And so we've got to help people
19 understand the nutritional value of foods and how
20 we put those together to get the maximum impact
21 based on the evidence we have.

22 I think if we don't say something to

1 that, then we're going to miss an opportunity to
2 really help people do the things that we're talking
3 about in terms of nutrients of public health
4 concern yesterday, where if we say, well, we want
5 people to be able to eat diets that are overall
6 healthier but we're afraid of eating a piece of
7 fruit, then that's a problem.

8 I think that's a problem.

9 MEMBER BAZZANO: I just want to second
10 what Jamy said, and that it's the lack of nuance
11 I think gets us into trouble because it is the foods
12 that are high quality that we need to be focusing
13 on.

14 CHAIR SCHNEEMAN: I would suggest we
15 take a break right now, and then we can come back
16 at 10:30 hear the next subcommittee. Is that
17 agreeable to everyone? Okay. So we'll be back
18 here at 10:30, then.

19 (A short recess was taken.)

20 CHAIR SCHNEEMAN: Okay, if we could
21 reconvene, please? Yeah. So we have one more
22 subcommittee report to go through before the --

1 before we take the break at lunch. And I will just
2 note that whatever time we're done, we will have
3 to take a break, because they do need to set up the
4 room to facilitate the public comments.

5 So want to -- yeah.

6 VICE CHAIR KLEINMAN: Our next speaker
7 is Dr. Steve Heymsfield, and he's going to present
8 the summary findings of the committee that looked
9 at frequency of eating. Steve?

10 MEMBER HEYMSFIELD: Thank you, Ron.
11 First, let me begin by thanking my committee
12 members, Carol, Heather and Rick, who have really
13 contributed a lot to this report. And also, we
14 have finished our review.

15 We're complete. So this is going to be
16 a rather long presentation, but that's it. We're
17 done. Yeah.

18 (General laughter.)

19 (Off-mic comments.)

20 MEMBER HEYMSFIELD: No, no. I know
21 that. We do have that.

22 Anyway, this is a new topic for the

1 Dietary Guidelines -- frequency of eating, and I
2 thought I might begin just by a very brief summary
3 of this topic, because it's also new to me.

4 And if we think about eating behavior,
5 which is the major topic of the Dietary Guidelines,
6 there are three parts it -- to eating behavior.

7 One is the quantity of food people eat.
8 The second is the quality of the food they eat, and
9 that's the major deliberations that we've heard so
10 far, and that's been the topic of the Dietary
11 Guidelines for quite some time. But there's a
12 third part to it, and that's the frequency and
13 timing of eating -- frequency and timing of eating
14 -- and that, together with the other two, quality
15 and quantity, determine eating behavior.

16 And the frequency of eating is a very
17 under-studied part of this area. But there's
18 major physiology, increasingly understood
19 physiology that relates to the frequency of eating,
20 the number of times you have an ingestive event per
21 day, even including water.

22 So, it's a very important and

1 interesting topic, and this is a new question for
2 the Dietary Guidelines. And because of that,
3 we've had very intensive discussions about what we
4 mean by frequency of eating.

5 So just a little brief background.
6 Normally "we eat three meals a day." That's kind
7 of a fantasy, but we eat three meals a day, and we
8 can divide those into breakfast, lunch and dinner.

9 And that actually sums up very clearly
10 number three, is the frequency of eating, but also
11 breakfast, lunch and dinner is the timing of
12 eating, so the frequency and timing are related to
13 each other.

14 And as you'll see, as we move forward
15 with our deliberations, we uncouple timing from
16 frequency, and I'll explain that a little more
17 later. And the other thing we've struggled with
18 is, what is frequency of eating? How do you define
19 it?

20 And it boils down to what's called an
21 ingestive event, or an eating occasion, and we
22 spent a lot of time thinking about what we mean by

1 eating occasions, and that comes up to the search
2 strategies we did as well, what we include as an
3 eating occasion.

4 And the tools for measuring eating
5 occasion -- they're really two main tools, there
6 might be others, but the three-day diet diary is
7 one, and the other is a food frequency.

8 And as we plowed into those, we
9 discovered there were issues related to how you
10 measure frequency of eating. And lastly, there
11 are two types of studies, observational and
12 interventional, and each one of those we've been
13 able to separate out and have different criteria
14 for.

15 Well, the search strategy then on
16 frequency of eating, 41,000 articles have been
17 screened, and there were six initial questions for
18 this committee, and we've answered one of them in
19 the previous meeting, in meeting three, of the
20 relationship between frequency of eating and
21 mortality. And we'll look at the remaining five
22 today. And I'll briefly review again the

1 mortality question.

2 The original question was: What is the
3 relationship between frequency of eating, such
4 just meals per day, snacking, fasting and so on,
5 and each stage of life, various life outcomes?

6 And as I mentioned, the timing of eating
7 occasions is important topic, increasingly
8 important. We really focused our work,
9 particularly as we moved on -- on the number of
10 eating occasions, we uncouple those two, because
11 it turned out to be very difficult to find studies
12 that had both the number of eating occasions and
13 the timing of those occasions.

14 The analytical framework and
15 inclusion/exclusion criteria were updated at
16 meeting three after our discussions here, again,
17 focusing on the number of eating occasions and not
18 the timing of eating occasions.

19 And also, at meeting three, we
20 clarified the minimum size of study groups and
21 power analyses criteria required for intervention
22 studies. And we also noted that the requirement

1 for data collection on two separate occasions was
2 removed for observational studies but remained for
3 intervention studies.

4 And this issue comes up a lot about
5 observational studies. You quantify the
6 frequency of eating at the beginning of an
7 observational study, and 20 years later, you're
8 looking at their outcome, but you don't have a
9 second time point.

10 So, many of the observational studies
11 have only a single time point for quantifying
12 frequency of eating. And we also noted that three
13 24-hour periods was retained as an attempt to
14 capture customary frequency of eating.

15 In other words, weekdays, weekends.
16 If you have just a single 24-hour period, you don't
17 really get a good sampling of what people are doing.

18 Now, the key definition, then, for
19 frequency of eating is defined as an ingestive
20 event, as I mentioned, an eating occasion, and that
21 include preload meals or snacks, and also
22 beverages, energy or non-energy yielding beverages

1 or food. That's our key definition.

2 And for our inclusion and exclusion
3 criteria, of course, the number of daily eating
4 occasions and the inclusion criteria are studies
5 that only examine frequency of intake of a single
6 food, beverage, or category of food or beverage.

7 And as I mentioned, there are two types
8 of studies. We looked at observational and
9 intervention studies, and observational studies,
10 we used data collection for eating frequency that
11 encompasses a minimum of three 24-hour periods, and
12 that could be with three 24-hour dietary recalls
13 reporting an ingestive event, or one eating
14 frequency questionnaire documenting eating
15 frequency for the past month.

16 Those are our criteria. And the
17 intervention studies were a little different, of
18 course, those are typically going to have two time
19 points, the beginning and the end of the study.
20 And for these studies, then, we would have each
21 eating occasion that encompasses a minimum of three
22 24-hour periods, or questionnaire that covers at

1 least three days addressing eating frequency; for
2 example, again, the 24-hour recalls or the eating
3 frequency.

4 And we also -- for intervention
5 studies, we wanted to make sure they were powered
6 adequately. So, we decided that 15 participants
7 were required for studies using within-subject
8 analyses, or 30 participants for studies using
9 between-subject analyses, or a power calculation
10 was needed.

11 And the numbers of 15 and 30, did some
12 back-of-the envelope calculations to try and
13 figure out the minimum number of people needed for
14 a reasonable study that would give statistical
15 significance.

16 The first question we were asked of the
17 six was the relationship between frequency of
18 eating and all-cause mortality. This was
19 presented at meeting three. This was the
20 analytical framework.

21 The endpoint, then, is all-cause
22 mortality, as it relates to frequency of eating.

1 This one was easy. There were no studies that we
2 could find, so no evidence is available to
3 determine the relationship between the frequency
4 of eating and all-cause mortality, and therefore,
5 there's no grade assignable.

6 Now, the remaining five questions,
7 then, is what we'll review today. Gestational
8 weight gain, pregnancy, postpartum weight loss,
9 growth, size, body composition, risk of overweight
10 and obesity, cardiovascular disease, and type 2
11 diabetes.

12 We screened -- I'm going to have a hard
13 time reading -- over 51,000 papers, and at the end
14 of the day, that came down to 10 after rigorous
15 screening of those. And on the bottom, you'll see
16 they're divided up into the topics.

17 The most studies were growth, size,
18 body composition. There were six papers for that.
19 Cardiovascular disease and diabetes have two.
20 Postpartum weight loss had one, and there were none
21 for gestational weight gain.

22 So, the first topic, then, is

1 relationship between frequency of eating during
2 pregnancy and gestational weight gain. The
3 endpoint here is weight gain across the period of
4 pregnancy, and this is the analytical framework.

5 Eating frequency was the intervention
6 or exposure, and there were no studies that we came
7 up with between January 2000 and September 2019.
8 So like mortality, there's no evidence available
9 to draw a conclusion about the relationship between
10 frequency of eating during pregnancy and
11 gestational weight gain.

12 The next question is what is the
13 relationship between frequency of eating during
14 lactation and postpartum weight loss? The
15 endpoint here is change in weight from baseline to
16 a later time point during the postpartum period.

17 And here we did find one study. It took
18 place in Sweden. Four-day weighed food records
19 were used at baseline and follow-up to measure
20 eating occasions per day. Change in
21 frequency -- of eating frequency between baseline
22 and follow-up was assessed.

1 The study outcome was reported as a
2 change in postpartum weight loss. And all of the
3 women in the study were overweight or obese.
4 Ninety-five percent were exclusively
5 breastfeeding. Five percent were partially
6 breastfeeding, and parity was one.

7 In this one prospective cohort study,
8 they did not find a significant association between
9 eating frequency and a change in postpartum weight
10 loss after a 12-week follow-up period.

11 So, we conclude then that there's
12 insufficient evidence available to determine the
13 relationship between the frequency of eating
14 during lactation and postpartum weight loss.

15 The next question is, what is the
16 relationship between the frequency of eating and
17 growth, size, body composition and risk of
18 overweight and obesity. And the most papers we had
19 available that met our criteria were in this
20 category.

21 There were six papers available, and it
22 covered a broad spectrum of endpoints; for example,

1 body mass index, weight, weight for age, and other
2 endpoints like healthy weight, overweight, obesity
3 and so on.

4 So, there's quite a few endpoints
5 available for this study. There were six that I
6 mentioned. One was a randomized control trial.
7 Five were prospective cohort studies. Five took
8 place in the U.S.; there was one study that was
9 reported from Greece.

10 And the number of eating occasions in
11 the comparison groups differed across the studies.
12 For example, some studies looked at two versus
13 three meals. Others looked at one versus 10, and
14 so on. So, the number of eating occasions differed
15 across the studies.

16 Three of the studies used a three-day
17 food record, and three studies used a food
18 frequency questionnaire with an added question to
19 assess the number of daily eating occasions,
20 because, as I understand it, the FFQ normally does
21 not have a question about eating occasions.

22 And the studies that we included that

1 had food frequency questionnaire as the tool also
2 had an added question about daily eating occasions.

3 And many study outcomes were reported:
4 BMI, change in BMI, body fat, change in waist
5 circumference and so on.

6 There were five studies in adults.
7 Three of them reported a positive association
8 between frequency of eating and growth, size and
9 body composition. Two studies did not find a
10 significant association between frequency of
11 eating and growth, size and body composition.

12 And if you're like me, you're probably
13 thinking, what does a positive association mean?
14 Well, okay. So positive association means that
15 more meals translate to bigger body size and
16 composition. Okay. So that's what that means.

17 A negative association would be more
18 meals is less size and body composition, and so on.
19 And we use the words interchangeably, inverse,
20 negative and so on here. We try to be consistent.

21 So, in one study in children reported an
22 inverse association between frequency of eating and

1 growth, size and body composition after a 10-year
2 follow-up study. So, these are mixed kind of
3 reviews on this topic.

4 And so, these studies were inconsistent
5 in how they defined and examined frequency of
6 eating, the outcomes they examined in the reports,
7 and the reported results. They have several
8 additional critical limitations.

9 Which you'll see again in some of the
10 other questions, there was a high risk of bias, and
11 also a high or unknown attrition rate in these
12 studies, trying to track how many subjects were
13 entered in the beginning of the study, how many were
14 at the end, and the reasons that they were taken out
15 over time.

16 So, the conclusion statement here for
17 the largest of our samples, six in this question,
18 was that there's insufficient evidence available to
19 determine the relationship between the frequency of
20 eating and the growth, size and body composition,
21 and the risk of overweight and obesity.

22 The next question is: What is the

1 relationship between the frequency of eating and
2 cardiovascular disease? And in this analytical
3 framework, the endpoint is cardiovascular disease
4 of all types, stroke, venous thrombosis, and so on.

5 We also included intermediate outcomes
6 here, lipid levels, blood pressure and so on.
7 Those are intermediate outcomes.

8 And we found two studies in adults that
9 met the inclusion criteria. Both studies were
10 prospective cohort studies. One took place in the
11 U.S. and one in Greece.

12 The number of eating occasions, again,
13 differed across the comparison groups. One study
14 used a three-day food record and one study used a
15 food frequency questionnaire, with again the added
16 question to assess number of daily eating occasions
17 at baseline.

18 And the study outcomes that were
19 reported were coronary heart disease,
20 hypertension, systolic blood pressure, and
21 diastolic blood pressure.

22 Now, one study reported an inverse

1 association in adults between eating frequency in
2 baseline and systolic and diastolic blood pressure
3 and risk of hypertension after five years'
4 follow-up. This is an intermediate outcome, of
5 course.

6 And one study reported no association in
7 adults between eating frequency at baseline and
8 coronary heart disease after a six-year follow-up,
9 and obviously, the net result of that was kind of
10 an ambiguous outcome.

11 The studies were inconsistent in how
12 they defined and examined frequency of eating. The
13 outcomes they examined, and in the reports -- the
14 results they reported. And again, the same types
15 of limitations. There's a high risk of bias. The
16 attrition rates were unknown in these studies.

17 So, we concluded then that there's
18 insufficient evidence available to determine the
19 relationship between the frequency of eating and
20 cardiovascular disease.

21 The next question is: What is the
22 relationship between the frequency of eating and

1 type 2 diabetes? Very important question. And
2 the outcome -- endpoint outcome here was type 2
3 diabetes, and we had two studies here to review that
4 met the inclusion criteria.

5 Both were prospective cohort studies.
6 Both took place in the U.S. Both used a food
7 frequency questionnaire with an added question to
8 assess the number of daily eating occasions. And
9 the outcome was risk of developing type 2 diabetes.

10 One study reported, in men -- in this
11 study, they found that men who reported one to two
12 eating occasions per day had a higher risk of
13 developing type 2 diabetes compared to men who
14 reported three eating occasions a day, not a very
15 big gradient in the number of eating occasions per
16 day, but they did find that. But when they did a
17 trend analysis, they didn't find any trend overall
18 between the number of eating occasions. They
19 picked out that one significant finding of one to
20 two versus three eating occasions per day.

21 And the second study was actually in
22 women, and they did not find an association between

1 eating frequency and risk of developing type 2
2 diabetes.

3 Again, you see the same limitations
4 here. The studies were inconsistent in how they
5 defined and examined frequency of eating in their
6 results. They also again had a high risk of bias.
7 Weak study designs were present to answer this
8 question, and the attrition rates were unknown.

9 Therefore, we concluded that there is
10 insufficient evidence available to determine
11 relationship between frequency of eating during
12 lactation -- lactation? -- and type 2 diabetes.
13 Hmm. Okay.

14 I did not do that one. I proofread
15 these too. Okay. Well, you get the picture.

16 So, you can see that there are a number
17 of limitations across these studies. One is the
18 inconsistent and insufficient findings to draw
19 conclusions about the relationship between
20 frequency of eating and health outcomes.

21 And that by no means doesn't mean this
22 isn't an important question. It means that the

1 studies that have been done to date really are
2 inadequate to meet what we consider a very high bar
3 for examining frequency of eating, ingestive
4 events, eating occasions, and so on.

5 And for example, things like water
6 ingestion, water consumption, are very rarely
7 mentioned in these studies, something that should
8 be done in the future.

9 There are very inconsistent measures of
10 frequency of eating. For example, some studies
11 included snacks, others didn't. Some defined
12 inter-meal internals differently and so on. So
13 very inconsistent. Eating frequency was only
14 assessed at baseline in prospective cohort studies.

15 The comparisons -- again, the number of
16 eating events were inconsistent across studies.
17 Both energy-yielding and non-energy-yielding
18 beverages were inconsistently accounted for, as I
19 mentioned, and the attrition rates were very
20 commonly unknown or undefined in the studies.

21 And the study populations did not
22 represent the race, ethnic, or socioeconomic

1 diversity of the U.S. population. And research
2 recommendations, there will be many coming out of
3 it, and we've thought a lot about what things we can
4 do to contribute to future research, but of course,
5 there's a need for more controlled trials.

6 There's a need to develop a consistent
7 definition of an ingestive event that includes
8 eating and drinking, and methods to quantify them.
9 We need to encourage documentation of frequency of
10 water consumption.

11 There needs to be a number of ingestive
12 events across 24 hours, at least three days of
13 ingestive event data on at least two discrete eating
14 occasions to allow assessment of estimate
15 reliability; that's very rarely done.

16 Report information on food insecurity
17 to allow isolation of voluntary versus involuntary
18 ingestive events, important consideration. And
19 finally, the need to report key confounders and
20 other factors need important consideration.

21 So, the next step then will be
22 systematic reviews will be peer-reviewed. We'll

1 collaborate with the Data Analysis and Food Pattern
2 Modeling working group for the data analysis
3 question answering what is the relationship between
4 the frequency of eating and achieving nutrient and
5 food group recommendations?

6 My understanding from Regan's
7 presentation yesterday is that we're going to get
8 even deeper into that. Right? There's more
9 information about frequency of eating that will
10 generate -- might be among the most interesting
11 parts of our report.

12 We'll use the frequency -- use the
13 findings of the completed systematic reviews and
14 data analyses to draft the scientific report of the
15 Dietary Guidelines Committee. And finally, I want
16 to thank everybody on my committee once again, and
17 the NESR staff.

18 Thanks very much.

19 (Applause.)

20 VICE CHAIR KLEINMAN: Thanks, Steve.

21 Questions? We'll start with Regan.

22 MEMBER BAILEY: In a rare turn of

1 events, I have a question for Rick.

2 What -- is there research looking at the
3 reliability and validity of self-reported number of
4 eating occasions and what you would call an
5 ingestive event?

6 MEMBER MATTES: Yeah. That's -- we
7 had substantial discussions about that. No.
8 That's one of the issues. Frequency of eating just
9 has not been in the foremost of people's thinking
10 about eating patterns and so on, and so there's a
11 paucity of data, as you've seen, and very little
12 effort has gone into how to measure it. So no, we
13 don't have good evidence on that.

14 MEMBER BAILEY: But I think that might
15 be changing for the next committee's work with
16 intermittent fasting and things like that that more
17 research is going on in that area.

18 MEMBER MATTES: Right. And that was
19 frustrating for us. Heather pointed this out to us
20 many, many times. There's a fair literature on
21 intermittent fasting and breakfast-skipping and so
22 on, and you would think that we should have

1 incorporated that into our analysis.

2 The problem is those studies don't
3 report the total number of eating events in a day,
4 which we decided was the unit of time that we would
5 focus on. So, you don't know what compensation
6 there may be.

7 Yeah, they skip breakfast, but maybe
8 they had three more snacks in the evening to offset
9 that. Without the totality of the evidence in a
10 relevant period of time, you just can't draw
11 conclusions.

12 MEMBER NOVOTNY: I wondered whether in
13 the -- I know this wasn't directly your question
14 but, whether in the body of evidence you looked at
15 whether there was a relationship between the
16 frequency of eating and energy intake.

17 MEMBER HEYMSFIELD: We didn't, did we,
18 Rick? I'm trying to think. We didn't, but that
19 should be something available.

20 MEMBER LEIDY: Yeah and -- this is
21 Heather. It was more just because it was out of the
22 scope of our question. Intake would be an

1 intermediate -- or a mediator of sorts. And so
2 just another comment to Rick's point too.

3 A lot of the studies with skipping
4 meals, whether it's breakfast, or even snacking
5 throughout the day or intermittent fasting, they do
6 publish energy intake in macronutrient content and
7 food choice and food selection, more energy
8 content, but they just don't do the eating
9 occasions.

10 And so our -- we were trying to be true
11 the questions that we were being asked, and so it
12 was looking at eating frequency, we looked at our
13 end outcomes and they didn't include energy intake.

14 We did use that as a covariant in the
15 model, but not -- we didn't specifically use that
16 as an endpoint, because that was not one of
17 the -- that wasn't part of our questions. But it's
18 a really, really good point, and we do have intake
19 data on that.

20 It was just the fact that the majority
21 of studies that we thought would be included were
22 just not, because they didn't report eating

1 frequency. It was -- they generally had a concept,
2 a topic around the eating frequency, but their -- it
3 was just looking at energy or macronutrient
4 composition.

5 MEMBER MATTES: Can I just follow up on
6 that? So not based on the papers that we reviewed,
7 but just sort of a familiarity with the literature
8 in this area, it's one of the more interesting and
9 frustrating issues, because there is a sense that
10 increased eating frequency is associated with
11 increased energy intake, NHANES data shows that,
12 and so on, but the translation of that to body weight
13 is not consistent at all.

14 And so, resolving that inconsistency is
15 a very important question, and we just don't have
16 the data to do it.

17 VICE CHAIR KLEINMAN: One study in
18 childhood actually showed an inverse relationship,
19 which was a little hard to figure out.

20 MEMBER LEIDY: Just another point, too,
21 you know, and Steve had said this. We
22 linked -- initially we linked to timing and

1 frequency, because they are obviously related, but
2 then to answer our question, we removed the timing
3 and focused on frequency.

4 There probably is more research -- we
5 didn't review it -- on timing, but in order to
6 assess timing, you really need to also look at
7 24-hour frequency. So, they go hand in hand. So,
8 I think it's -- our research recommendations will
9 be highlighting that point, that timing, I think,
10 is important and gets to some of these other
11 questions, but our charge was really looking at
12 eating frequency.

13 MEMBER DEWEY: Yeah. Thanks very
14 much. I have three questions. So, one of
15 them -- I know that you had these criteria for the
16 number of times that dietary intake frequency was
17 assessed, and there was -- that was also for the
18 randomized controlled trials.

19 So, my question is, were there any
20 randomized controlled trials excluded because they
21 didn't have enough dietary assessment days
22 according to your criteria?

1 I brought this up at the last meeting,
2 so I'm a bit concerned, because a randomized trial,
3 when you're assessing that aspect, it's really a
4 measure of adherence. And so, it's a little
5 different than for the observational study, so I'd
6 just like to know if any were excluded for that
7 reason?

8 And then there was one randomized trial
9 for the growth, size and body composition outcomes,
10 that I'd like to know a little bit more about that
11 one, the size, the target group and what they found,
12 just because that's a stronger design than others.

13 And lastly, there was a slide for the
14 diabetes outcome, where I think you said there was
15 no dose response, but the bullet said that there
16 was, so I was a bit confused. Maybe it was a typo.

17 MEMBER HEYMSFIELD: Starting with the
18 last one is probably the easiest one, I think what
19 they did is, they had -- they used an analysis of
20 variants, and found, you know, no trend across the
21 studies, but when they went in and compared
22 individual comparisons, like two versus three meals

1 a day, they got statistical significance.

2 Isn't that it, more or less, Rick?

3 That's what they did.

4 MEMBER DEWEY: Well, the second bullet in
5 the slide says, in the same study, there was also
6 a significant dose response with --

7 MEMBER HEYMSFIELD: Yeah.

8 MEMBER DEWEY: -- increased eating
9 occasions and risk of type 2 diabetes.

10 MEMBER MATTES: Oh, that might be an
11 error.

12 MEMBER HEYMSFIELD: I think that was
13 not -- again, I don't think that's right, from what
14 I recall.

15 MEMBER MATTES: Yeah. I think there
16 was a significant P for trend --

17 MEMBER HEYMSFIELD: Yeah.

18 MEMBER MATTES: -- but there -- a
19 non-significant P for trend, but in a separate -- it
20 wasn't like in and over and then they went back and
21 did a post-hoc to see where a difference may have
22 occurred.

1 In a separate analysis, they just
2 happened to notice that -- the distinction between
3 eating once or twice versus three times --

4 MEMBER HEYMSFIELD: Right. Yeah.

5 MEMBER MATTES: -- was significant, and
6 you know, I don't want to accuse them of P-hacking
7 or whatever, but --

8 MEMBER HEYMSFIELD: Yeah.

9 MEMBER MATTES: -- there are many, many
10 pair-wise comparisons one could do in that data set,
11 and it just happened to be one, and it isn't
12 necessarily the most logical one that one would have
13 a priori examined.

14 MEMBER LEIDY: And, Steve, I can answer
15 the question. One of the ones as far as randomized
16 control trials, and whether they were excluded
17 based on two separate occasions.

18 And I can defer back to the NESR folks,
19 but I'm pretty sure that that wasn't the case, that
20 when they were -- the studies that were excluded
21 were primarily the -- I don't want to say primary.

22 Some of them were because of the lack of

1 three-day assessments and not the pre-/post-but as
2 you know, when these papers get reviewed, it's when
3 there's one limitation that kind of -- that
4 explanation kind of stops there.

5 But if I remember -- I don't know where
6 our folks are that can comment on that. I
7 think -- if I remember in our discussion that there
8 weren't any that were excluded just based on dietary
9 intake, like the three-day collections. Is that
10 true?

11 DR. OBBAGY: That is -- there were some
12 that were excluded because they did not capture
13 three 24-hour periods in their assessment. I think
14 there were some that were also excluded because they
15 didn't assess baseline eating frequency when they
16 enrolled subjects in the study.

17 They often had the follow-up assessment
18 of adherents, but they didn't capture their
19 baseline eating frequency at the point of
20 enrollment in the trial, or they didn't report
21 baseline eating frequency.

22 MEMBER DEWEY: But again, I'm not

1 focused on the observational studies right now. I
2 just want to know, of the randomized controlled
3 trials, were any excluded because of these issues?

4 DR. OBBAGY: Yes. That was in
5 reference to the randomized control trials.

6 MEMBER DEWEY: Okay. So, for me at
7 least, it would be helpful to have a little more
8 information on those, because they are a much
9 stronger study design, and I'd just like to see, you
10 know, what they were about.

11 And then, the other question was that
12 one randomized controlled trial that you did
13 mention. Can you tell us any more about that one?

14 MEMBER HEYMSFIELD: I have some
15 information about that one. It was a very small
16 study. I think they called it a pilot study.

17 DR. OBBAGY: Yeah. Correct. There
18 were 45 subjects analyzed in two groups where they
19 compared a three-meal group -- so three meals per
20 day -- versus a grazing group, which was instructed
21 to graze by eating 100 calories every two to three
22 hours.

1 That was sort of the general gist, men
2 and women, but small sample size overall, and the
3 results that Steve described on the slide. This
4 one may be worth noting, that they did not adjust
5 or control energy intake in this trial.

6 So, the three-meal group did have
7 statistically significant lower energy intake than
8 the grazing group. So that supports Rick's point
9 earlier about energy intake with increasing -- with
10 increased eating frequency.

11 MEMBER DEWEY: But that's sort of the
12 point, isn't it, that that's an intermediate
13 variable that -- I wouldn't call it a confounder,
14 and I think it's an important observation if that
15 was the case.

16 DR. OBBAGY: Correct.

17 MEMBER DEWEY: Thanks.

18 MEMBER TAVERAS: And I think similarly,
19 is it right that there was just one study in
20 children? Is there more information about that
21 one? Because the inverse association is somewhat
22 paradoxical.

1 Is there any more information about
2 sample size, what age the children were, where the
3 exposure was assessed?

4 MEMBER BAILEY: This is kind of similar
5 to that. It might be related to physical activity,
6 so the more frequently you exercise, you eat more
7 frequently, you -- I mean, is that captured in any
8 of this literature?

9 MEMBER MATTES: No.

10 DR. OBBAGY: Elsie, to answer your
11 question, the data from that analysis were from the
12 NHLBI Growth and Health Study -- so it was nine- to
13 10-year-old females only, so it was a pretty limited
14 population in terms of just girls and just at nine
15 to 10 years of age.

16 And there were about 2,000 subjects in
17 the analysis. And they adjusted for physical
18 activity.

19 MEMBER MATTES: And if I can just follow
20 up on your point, the questions about the
21 association between eating frequency and body
22 weight change or energy intake truly are two-tail

1 tests.

2 You can make very reasoned hypotheses in
3 either direction, so neither one should sort of
4 stand out as unexpected, but we don't have the data
5 to say which is more valid.

6 MEMBER LEIDY: Just another
7 clarification point. If I remember correctly,
8 that the intake data was also different at baseline
9 before they even started the intervention with the
10 three versus grazing. Is that correct? So it
11 wasn't that, over time when the pre-
12 post-assessments were different at intake, at least
13 in some of these studies, they actually didn't
14 adjust for intake at baseline, and they were, in
15 fact, different at baseline.

16 If not this study, I know that there were
17 a few others that we reviewed where that was the
18 case. So that wasn't adjusting for the differences
19 at baseline to begin with, which was a confounding
20 factor.

21 MEMBER TAVERAS: Heather, does that
22 mean that the exposure was measured at one time and

1 not longitudinally or change in the --

2 MEMBER LEIDY: Well, it depends on
3 which study. In the kids' study, they did measure
4 it at baseline and then post-study. I just can't
5 remember. There were a few studies that I'm
6 getting mixed up on with baseline, though -- that
7 their intake data at baseline was different, but
8 that wasn't adjusted for as a covariant in the
9 model.

10 And so, it raises a question, because
11 they were starting -- they had different intakes at
12 baseline before they had the intervention.

13 MEMBER TAVERAS: So how consistent the
14 pattern was --

15 MEMBER LEIDY: Right. Followed.

16 VICE CHAIR KLEINMAN: And it also
17 raises the question about how reliably you're
18 capturing their eating frequency when you have a
19 10-year study and you measure it twice. So I think
20 it's challenging outcome with a lot of challenging
21 methodologic aspects to this study itself. Is that
22 fair?

1 MEMBER MATTES: Yeah. I think it's
2 fair to say, and the evidence on trends in eating
3 frequency are very strong and clear. We've
4 increased, in adults, probably one and a half
5 ingestive events a day as a population, which is
6 remarkable, and one eating event a day in kids. So,
7 if you don't track that over time, you've missed a
8 great deal of information.

9 MEMBER NOVOTNY: Just as a
10 clarification -- I may have missed it -- so
11 the -- was water considered an ingestive behavior
12 then?

13 MEMBER HEYMSFIELD: Yes.

14 MEMBER NOVOTNY: So we -- so that may
15 also be something that's changed in how we've
16 measured this across time?

17 MEMBER MATTES: Yeah. It is an
18 ingestive event, in our opinion, but it was not a
19 criteria by which we excluded a study, because we
20 recognized people just have not been recording
21 that.

22 There would have been no studies to

1 review if we had used that as a criteria. We think
2 it's important going forward, but we didn't impose
3 that as a standard here.

4 VICE CHAIR KLEINMAN: Any more
5 comments?

6 MEMBER HEYMSFIELD: I think we're
7 getting more data from cell phones. People take
8 pictures and they can record time and what they ate
9 and so on, and so there have been several very
10 prominent papers on eating frequency in
11 relationship to cell phone use and so on in small
12 populations, but there will be more data on this
13 subject.

14 MEMBER BOUSHEY: Yeah, I think that
15 really is an excellent point, because what's
16 going -- with mobile-based methods, we will be able
17 to get more information on this very topic, and it's
18 going to be one of the best uses of being able to
19 have these images, and it was because of this
20 Committee going back and looking at all of our
21 images that we have.

22 And I can't reveal anything, because

1 it's all not finished up, but it's been pretty
2 interesting.

3 VICE CHAIR KLEINMAN: All right.
4 Jamy?

5 MEMBER ARD: So -- Jamy. One other
6 question on the results related to the five studies
7 in adults where three studies were positive or had
8 a positive association. I think you mentioned that
9 there were challenges because they used a variety
10 of different measures or outcomes related to
11 growth, size and body composition.

12 Were any of those, you know -- did any
13 of them have any similar outcomes across those three
14 studies? Or are we talking about, you know,
15 differences in, you know, sub-cu fat versus, you
16 know, weights or BMI or --

17 MEMBER HEYMSFIELD: I want to say they
18 were mainly BMI, as I recall; I think they were
19 primarily BMI.

20 VICE CHAIR KLEINMAN: All right. So
21 what's next?

22 CHAIR SCHNEEMAN: So what's next is

1 more general Committee discussion again, and we do
2 have time before the lunch break. So you know,
3 again, we heard quite a few of our subcommittees
4 yesterday, the additional two today.

5 So I'd just like to take whatever time
6 we have to go round, and I'm going to strategically
7 start with Jamie. So again, any observation
8 relative to the subcommittees you've been hearing
9 from, but also as you think about it in the larger
10 context, it's just helpful for our overall
11 discussion.

12 MEMBER STANG: Yeah. I haven't had
13 much time to think about this, but I think what keeps
14 coming to my mind is, how consistently each of the
15 committees are saying that there's some very
16 specific limitations, particularly around
17 assessment of diet, and I think that, as we think
18 about this individually as committees, then
19 thinking about what that is that is cutting across
20 all of these committees, then those should be our
21 real big priority recommendations for moving
22 forward.

1 CHAIR SCHNEEMAN: Elsie?

2 MEMBER TAVERAS: Nothing to add.

3 MEMBER MATTES: I think some of the most
4 telling analyses are coming from the Food Modeling
5 and the Food Pattern groups, and the message seems
6 to be that there is something about the totality of
7 the diet that is meaningful and a target for making
8 recommendations that could indeed have some impact.

9 And that being true, I just want to kind
10 of repeat myself from yesterday, that we don't eat
11 nutrients. We eat foods, but we choose foods based
12 primarily on palatability. In the U.S., we have
13 the luxury of spending less than 10 percent of our
14 discretionary income on food.

15 As a result, we can just pick foods we
16 like. We're not forced to eat foods that aren't
17 necessarily palatable but it's the way to get
18 sustenance. And so I think it's very important,
19 going forward, for us to put food choice into the
20 recommendations we're making and the determinants
21 of that.

22 Some of it is public health and access

1 to food and so on, but a fair amount of it is also
2 the issue of palatability, familiarity, and so on,
3 and we should be mindful of that.

4 CHAIR SCHNEEMAN: Somebody else?

5 MEMBER SABATÉ: Regarding the last
6 presentation, it's interesting to see the results
7 regarding the frequency of eating, but
8 unfortunately, since that was not your primary
9 question, and I think that it's more of interest to
10 the general public, that is, the timing of eating,
11 and intermittent fasting was not considered.

12 So I'm afraid that maybe the general
13 public will get no guidance from this Committee, and
14 this point I think this is an important issue,
15 because it's becoming very widespread, not only in
16 the popular media, but in many segments of the
17 population.

18 That's one aspect that we really,
19 certainly have to include the next Dietary
20 Guidelines on that.

21 The other issue is clear, based on
22 presentations yesterday, that the average American

1 diet is -- needs much for improvement.

2 That it is across age segments, that
3 it's not any particular age. It's for both
4 genders, and I would say that it's pretty much also
5 across ethnic or social groups. So the task that
6 this Committee has to do is to put things quite
7 clear, I mean, for the general public.

8 We all know that the information is not
9 enough to change, but at least presenting it in a
10 very clear way. And in judging a reflection after
11 the presentation of the Dietary Patterns towards
12 the conclusions, I notice -- and that is not the
13 intention probably, but that was the situation -- is
14 that the foods that we conclude that build a good
15 dietary pattern or healthy dietary patterns such as
16 fruits, vegetables, legumes, very little consumed
17 by the American public, nuts, so on and forth, are
18 mentioned only once; I'm saying on the slide.

19 However, meat that we say has to be
20 drastically reduced, is mentioned eight times. I
21 know that in the context of high versus low, and lean
22 and all this, but I mean, just from the

1 psychological impact, anyone reading these
2 recommendations, if a word is repeated eight times,
3 and other words is only repeated once.

4 I mean, the psychological message is
5 that one food is more important than the other one.
6 So we have to aware of the way that we deliver the
7 message, even though everything written, I
8 subscribe and I agree and I think it's appropriate.

9 I mean, just the psychological
10 impact -- I mean, how we deliver the message, I mean,
11 may have tremendous effects. So we have to be
12 careful in the way that we phrase our
13 recommendations.

14 MEMBER LEIDY: Just a comment, for
15 clarification from the Eating Frequency
16 subcommittee. We did in fact include
17 studies -- well, we set out to include studies that
18 had meal skipping or intermittent fasting.

19 They didn't meet our criteria. So it
20 wasn't that they were excluded because they were
21 intermittent fasting or meal frequency, but if they
22 didn't include 24-hour eating -- documentation of

1 eating frequency over a 24-hour period, they were
2 excluded.

3 Just a point of consideration. It was
4 part of our -- what we set out to do, but there were
5 no studies that adequately documented eating
6 frequency across the day. It's just a point with
7 that.

8 And then, you know, just some other
9 things that came to mind. Kind of going onto what
10 Rick had said, you know, we think of it in terms of
11 dietary patterns, and then it's really about
12 recommending the foods, but then I think, for us,
13 it's then -- you know, people are eating foods, but
14 then there's very specific times that they're
15 eating them, and so it's, you know, how much should
16 they eat them at one eating occasion and what time?

17 So I think that's why -- just going back
18 to eating frequency, I think that it is an extremely
19 important topic, along with timing. The data right
20 now just isn't -- we're not able to put that in.

21 And I think in some regard it comes full
22 circle. Right? You know, back in the day, you

1 know, there were examples of what a day should look
2 like in terms of meals and snacks and what the foods
3 are within that.

4 I think we've gotten away from that and
5 we've focused about dietary patterns, which are
6 important, but then I think, from the general public
7 standpoint, it's really -- well, here are the foods
8 that are the most helpful.

9 We're recommending them. But then that
10 next piece is, well, how you get them into the timing
11 and the frequency? How do you make that more
12 optimal? And we're -- I think from what we've
13 gathered so far, we're not at that point yet, but
14 I think that's really a good future recommendation.

15 And then another part, that our Eating
16 Frequency subcommittee always joked about,
17 is -- there's a lot of data that we're -- that we
18 think is out there from an eating frequency
19 standpoint, but the articles that are published
20 didn't report them.

21 So anybody that has -- generally,
22 anybody that has three days or -- three days of

1 eating, whether it's a food record or recalls, they
2 have the eating occasions, but when you look at the
3 publications, that wasn't their point of
4 examination, and so it was really about energy and
5 macronutrient composition and so forth.

6 And so we said there might be a lot of
7 retrospective analysis coming out from something
8 like this. But there is a lot of data, I think,
9 that's there. It's just not published in that
10 manner.

11 So even just recommending the thought of
12 thinking in terms of eating frequency, I think, can
13 be really helpful.

14 MEMBER ARD: Jamy Ard. So a couple of
15 thoughts related to this morning, and maybe some
16 integration from conversations yesterday. So I
17 think it's a big deal that we actually have
18 all-cause mortality as an outcome, and we've got a
19 really nice body of literature related to that.

20 That is the ultimate outcome. Right?
21 And I think, you know, being able to speak to that
22 in a way that, you know, has a strong level of

1 evidence behind it with regard to the grave is
2 something of an anchor point potentially.

3 And then, you know, building on that, if
4 we think of the diet pattern concept as being an
5 organizing theme that then, you know, goes from
6 that, right, it's related to a very strong outcome.
7 Positive effects, consistently in with -- and from
8 Rick's earlier question about this idea of being
9 able to quantify the dose response relationship,
10 and being able to give, you know, a sense of a public
11 health type of impact, in the same way, you know,
12 using blood pressure by 2 millimeters of mercury
13 across the population as these, you know, projected
14 large impacts on cardiovascular disease events.

15 You know, if we were able to, you know,
16 incorporate some type of assessment that says, you
17 know, we shift the population intake in this way,
18 and towards a healthier pattern, again whatever
19 it's called, then that has the potential to have
20 these types of public health impacts on
21 chronic -- nutrition-related chronic disease and
22 longevity. I think that's pretty important to be

1 able to try to get to.

2 MEMBER DAVIS: I think that it's
3 important to note that, over the course of the
4 discussion today and yesterday, that there has been
5 very limited or insufficient evidence to answer
6 many of the questions that have been posed to us,
7 and which we've been asked to address.

8 So it's very limited evidence, and so
9 this gives us an opportunity to provide the
10 scientific evidence for the questions that have
11 been posed and then to talk about the research needs
12 that the scientific community can address.

13 Where do we need to go in the next few
14 years to answer some of these questions so that
15 there will be the scientific information available
16 for the next Dietary Guidelines Advisory Committee?

17 MEMBER HEYMSFIELD: Actually, I had a
18 very similar comment, and I've been thinking, of
19 course, about frequency of eating, and I'm a
20 clinical investigator. And these are questions
21 you could answer in your sleep if you did a
22 randomized, you know, experimental study.

1 And why haven't they been done? And
2 think about that a little bit more. Who would fund
3 something like that? The USDA should put some
4 money towards doing these kinds of studies because,
5 you know, you think about really what gets funded
6 in science, basic science, molecular mechanisms and
7 so on.

8 Very hard to get funding for doing a
9 study like that. So we depend on these huge
10 observational studies that have fuzzy data in them,
11 very hard to come to conclusions, but one good
12 really careful randomized trial like this, you
13 could answer a big question.

14 And there must be some other studies out
15 there, people thinking about this a lot, with
16 time-restricted eating and so on. There is
17 some -- a lot of data coming out like that. But I
18 think that we can encourage really good, careful
19 studies coming out of this type of work. That's my
20 thought.

21 MEMBER SNETSELAAR: I also agree that
22 we need to find new places for funding, especially

1 for clinical trials. I think too -- and this is
2 echoing back to what Jamy said, but I was thinking
3 about this too before he actually mentioned it, the
4 idea of coming up with, you know, what I might call
5 some sound bites from our research, that would talk
6 about the public health impact of things that we're
7 finding, I think, is incredibly important and
8 something you should think about.

9 MEMBER MAYER-DAVIS: So -- yeah. Beth
10 Mayer-Davis here. So I have a couple of thoughts
11 about what we will sort of do with our notion of
12 dietary patterns and the hierarchy of patterns,
13 foods, nutrients.

14 And there's a couple of things I would
15 think, you know, for our Committee's consideration,
16 as we continue to look at the literature, to look
17 at the studies, but with an idea to the dietary
18 pattern, the ways of eating, for the study, which
19 may not be the focus, but to be able to say, well,
20 what does it mean that this was a study conducted
21 in Italy, this was a study conducted in a small
22 community in rural America, you know, whatever it

1 might be, so that we sort of keep in our mind, you
2 know, what some of those implications might be,
3 which is, you know, not something that can be done
4 with, you know, scientific rigor, but I think it
5 would at least help us with our thinking.

6 But we need to get to more scientific
7 rigor with regard to this notion of patterns, and
8 there's a couple of ways to do that, one of those
9 being advancing statistical methods to deal with
10 the hierarchy of nutrients, foods, and dietary
11 patterns.

12 So there have been, then, of a small
13 number of efforts towards this using methods like
14 structural equation modeling and so forth, and it's
15 very challenging. I mean, I will say that my
16 research group has tackled some of this with some
17 really smart biostatisticians, which I am not a
18 biostatistician.

19 And you know, there are some real
20 challenges with that, but I do think that that's an
21 area of research, you know, that, you know, really
22 would be very important, I think, at this juncture.

1 One thing that we can do, you know,
2 possibly in the future for the next Dietary
3 Guidelines, because there's only so much time in the
4 day for Regan's committee to work, you know, would
5 be to think about, you know, in various
6 subpopulations, particularly subpopulations at
7 especially high risk for certain diseases like type
8 2 diabetes or certain populations where food access
9 is a problem, so groups with lower socioeconomic
10 status markers, to do some modeling in those groups
11 to understand, well, what would be the foods of
12 those that are actually consumed in those
13 particularly vulnerable populations that are
14 contributing to healthy or less healthy overall
15 dietary patterns, so that you can start to think
16 about some of this work would be translated relative
17 to public health impact and effect.

18 Another kind of practical thing is to
19 think about food labels. We had some discussion at
20 the break, thinking about really the utility or
21 potentially lack thereof for a nutrient-based food
22 label, and could that be complemented by

1 or -- getting really far out there -- replaced by
2 labels that are food-based to help people in making
3 decisions about food choices that aren't grams of
4 carbohydrate, number of calories and so forth,
5 which in some individuals, that's important
6 information, you know, but just to at least
7 complement that, you know, with maybe a much more
8 food-based approach, you know, thinking about
9 wanting to, you know, provide assistance in guiding
10 people with choices towards a healthier pattern.

11 You know, because you see some -- you
12 know, if you look at labels of some of these bars,
13 you know, and people are maybe are choosing all this
14 as a higher number of grams of protein, and this is
15 replacing my lunch, so I'm going to go for that, when
16 really the second ingredient is cane sugar, you
17 know, so I mean -- and common on these labels. I
18 confess I've looked at some of the labels too.

19 But I do think that, you know, the whole
20 purpose of this Committee is about Dietary
21 Guidelines for Americans and how can we provide, you
22 know, rigorous, science-based evidence, you know,

1 towards providing guidelines about what people
2 could eat and how, you know, federal food policies
3 can facilitate improved choices for people.

4 So those are just some of my thoughts
5 about how to, you know, get to this notion of dietary
6 patterns, both from a scientific perspective and
7 also from a perspective of implementation
8 eventually.

9 MEMBER BOUSHEY: I've really
10 appreciated these ideas that everyone has come up
11 with here, and it's an enjoyable conversation to
12 listen to. I think I've gone over some of these
13 yesterday, but it just sort of screams out.

14 Our food supply is changing constantly
15 at the moment, and the Beverages group really
16 pointed that out, and I believe that we have to
17 somehow try to start a system of documenting exactly
18 what makes now a beverage, since we have more
19 beverages now that are beyond soda.

20 It's an interesting phenomena. It's
21 rather complex, but somehow, if we could get it
22 started, I think it will help moving into the

1 future, because I don't see they're going away.

2 And then with frequency of eating, I do
3 believe we have a responsibility to put in some
4 guidelines to make sure that they -- you know,
5 there's some type of -- what would make the best
6 approach to doing frequency of eating?

7 And I do think that these mobile-based
8 methods that we just talked about a little bit ago,
9 you know, they can capture the frequency of eating
10 and they also will give you a time stamp, you know,
11 and so we weren't able to get that time stamp, but
12 that's the beauty of these mobile-based methods, if
13 you're doing frequency of eating, all that can
14 indeed be recaptured.

15 No, I think that's my last one. .

16 MEMBER DEWEY: Kay Dewey. Thanks very
17 much. I wanted to comment a little bit on the point
18 made, Rick, about that, as a whole, Americans don't
19 spend a large portion of their income on food, but
20 there are people for whom it is a serious issue, and
21 I think for the healthy diets that you have looked
22 at in the Dietary Patterns subgroup, we really need

1 to look at the cost of those diets and the
2 affordability for those that are low-income.

3 Some of the key foods like seafood are
4 expensive. For nuts other than peanuts, they tend
5 to be a bit expensive. Fruits and vegetables,
6 especially fresh versions. So I think it would be
7 a nice next step to work on the costing issue.

8 Some research groups are doing that, and
9 I think it's a responsibility we have to address the
10 inequity in access to healthy diets in the U.S.

11 And then in terms of the dietary pattern
12 research as a whole, I'm thinking that it's a little
13 circular, because many of the studies have said
14 here's a healthy diet based on what we knew 10 years
15 ago, so we're going to score you on that basis.

16 And then we'll say, is that score
17 related to healthy outcomes? But that's a score
18 based on previous research, and now we might know
19 more and we might score it differently.

20 So it's a little hard for me to grasp
21 exactly how this sort of, rolling ball moves
22 forward, and one example of that is the saturated

1 fat part of the equation.

2 I think there's more research that is
3 sort of distinguishing different types of saturated
4 fat. They're not all the same, and there's some
5 interesting work on dairy fat from either milk or
6 cheese or yogurt.

7 And is it good or is it bad? Or you
8 know, how does it actually affect your body? And
9 then my favorite example is chocolate, which has
10 saturated fat, but I will maintain is a healthy
11 food, apart from the sugar.

12 And I'm just joking, obviously, but I
13 think --

14 VICE CHAIR KLEINMAN: I'm not.

15 MEMBER DEWEY: -- I think we do need
16 some research on different types of saturated fat
17 in order to really home in on our question. And
18 lastly, in terms of frequency of eating, one thing
19 I didn't hear mentioned is the issue of the
20 macronutrient distribution within each eating
21 episode.

22 So I know that, for example, for

1 pregnant women, one piece of advice is to have each
2 eating episode have a balance between fat,
3 carbohydrate and protein, that we don't all
4 carbohydrate, especially for things like
5 gestational diabetes.

6 But I haven't heard that mentioned yet,
7 and I think it's something probably the next DGAC
8 would be able to look at, but I would like to hear
9 other people's thoughts about that.

10 MEMBER DONOVAN: Sharon Donovan. I
11 guess I was thinking about, you know, the life
12 course sort of approach that we're taking, and I
13 really am supportive of that. And Jamie's gone
14 now, but her comment that, you know, our
15 teenagers, our teenage girls who are showing very
16 poor dietary patterns and intakes are our future
17 mothers.

18 And we have good biological
19 plausibility that health really begins in the womb
20 with epigenetics. As part of this Committee, we're
21 not talking at all about microbiome, and that's an
22 area that's clearly emerging.

1 By the next version, I think hopefully
2 we'll have a better understanding of how
3 diet -- because that's really at the nexus between
4 dietary intake and so many of our health outcomes.
5 And so I guess, there's kind of two comments.

6 One, as we take our life course
7 approach, I really do want us to think about, you
8 know, starting at the very beginning, which
9 involves that gestating mother and her diet and her
10 pre-conceptual health, you know.

11 There's a lot of data on that in terms
12 of obesity -- maternal obesity status and risk of
13 childhood obesity. So -- and I think our message,
14 as a government, should be that, you know, health
15 begins in the beginning, and that the healthier that
16 we could have our population and the better
17 consistent messages we can get, you know,
18 ultimately -- it may be a while before it pays
19 dividends, but we will -- we'll see that.

20 But I also want to make a comment about,
21 as we brought in B-24, in particular, and pregnancy
22 and lactation, two things. These are unique needs,

1 and so if we say that infants need a special kind
2 of diet, it's because their needs, per kilogram body
3 weight or at a specific life stage or women during
4 pregnancy, are going to be different.

5 So if we, you know, talk about different
6 foods differently in these age groups, then there's
7 a biological reason for that. So we need to
8 integrate, but we also need to understand these
9 unique needs, and we heard, for example, in the
10 elderly that maybe they're not getting enough
11 protein.

12 So you know, working that in, and so you
13 know, that's kind of where I'm thinking as we start
14 to integrate these new areas, how to integrate, but
15 also to maintain those unique needs, and how those
16 then can feed into public health recommendations,
17 and you know, programs to support -- and your
18 comment about, you know -- and mine yesterday about
19 food insecurity and thinking about the example of
20 a nice plate of salmon on it.

21 It's, like, well, how many -- a
22 lot -- that's a very expensive food for very many

1 people, you know. So I think it's our
2 responsibility to not just come up with the ideal
3 diet if it's, first of all, not palatable for many
4 people, but we can train little kids to like foods
5 too. Right? One of the systematic reviews
6 involves even exposure in utero to flavors.

7 So you know, really, I want us to think
8 broadly. And I also want to say that, you know, for
9 our committees in particular, there's a lot of
10 insufficient evidence for the specific questions
11 that we asked, but there's still a lot of other
12 government recommendations and a lot of other
13 information out there about feeding children, and
14 those will certainly be, you know, worked into our
15 discussion.

16 So we'll, you know, represent the
17 systematic reviews that we did, but we'll be working
18 within the context of the broader knowledge in these
19 areas.

20 MEMBER BAILEY: I'll echo a lot of that.
21 One thing I've been curious about is how we engage
22 people to make different food choices. So

1 consistently, across time, we've identified
2 fruits, vegetables, whole grains, legumes -- for
3 you, John -- as foods to encourage, but looking at
4 the adherence to those, Americans aren't eating
5 that way.

6 And so do we need to be working with
7 behavior specialists or other types of scientists
8 to help engage the public, especially given the
9 severity of the chronic diseases that we talked
10 about yesterday?

11 We really have to figure out some
12 strategies to get people to change.

13 MEMBER NAIMI: Tim Naimi, Boston
14 University. I think it's been a really nice couple
15 of days of meetings. I think the information we
16 heard today from the Dietary Patterns provides a
17 really nice, possibly a nice kind of a unifying
18 theme, this idea about the pattern of the
19 consumption, you know, which is really about the
20 quality of the food and more nutrient-dense foods
21 is kind of -- trumps, you know, specific nutrients
22 or specific foods, in terms of its importance.

1 And I think the good thing is that in
2 this area we do have, you know, relatively solid
3 data, not perfect, we could use some more randomized
4 trials. But -- and it's a kind of -- that thing
5 about improving the pattern sort of works well
6 across, you know, a number of different -- using a
7 life course approach, it works well.

8 When you focus on disparities, because
9 again, a lot of these problems relate to improving
10 overall -- the overall pattern of the diet quality,
11 works well across all of those. And again, it works
12 well in terms of addressing nutrients of concern,
13 fats and salt and sodium and added sugars.

14 So I think it's kind of a nice unifying
15 theme in an area about which there's pretty good,
16 kind of, scientific agreement.

17 In terms of, you know, other things,
18 though -- in terms of helping the public, you know,
19 the idea of making things very concrete for people
20 or really -- if this is kind of our approach or a
21 unifying theme, how we kind of put flesh on the bone
22 for people in terms of thinking about changes that

1 they could make.

2 But then in terms of, you know, actually
3 making changes, you know, as we know,
4 unfortunately, that knowledge is only a small part
5 of the equation, and you know, the saying that every
6 system is perfectly designed to get the results that
7 it gets.

8 The U.S. Dietary Pattern is -- you know,
9 is a perfect result of a system that, you know, is
10 based on the prices of various foods, the physical
11 availability of various foods, and all of these
12 factors.

13 And so whatever we contribute in terms
14 of a knowledge base also needs to inform how
15 policies change. Because I don't think
16 that -- telling the public is not enough to make a
17 meaningful impact.

18 MEMBER NOVOTNY: Rachel Novtony. I
19 appreciate the Committee's comments. The one
20 maybe additional area I'm thinking about is, you
21 know, as we look towards food patterning and -- or
22 challenges of how individually to do both the

1 breaking down and the putting back together and
2 thinking about the methods for that, both for
3 recommendations for research, as well as the
4 important -- for communication to the public.

5 So back to -- are we thinking of an
6 expanded definition of food groups, now calling
7 them maybe food components, and how do we name those
8 and group them, and be sufficiently expansive and
9 inclusive but not overwhelming, and find words
10 that, you know, are inclusive for different groups?
11 Something about what that looks like.

12 And similarly, I guess in that vein,
13 thinking about the term nutrient-dense, you know,
14 how do we really convey that? Is there like an
15 index we could develop, again, both for research and
16 for communication.

17 How does someone in a store identify a
18 nutrient-dense food, or -- so just some of
19 the -- both practical -- the reality is, I think,
20 they have research implications, too, the more we
21 can develop these things and even develop some
22 commonalities and methodology so that we have a body

1 of evidence to look at as we go forward. That's what
2 I'm thinking about.

3 VICE CHAIR KLEINMAN: So I really
4 appreciate the framework concept that we've been
5 passing around the table around dietary patterns,
6 and I guess would come back to looking at how these
7 patterns change over the life course and perhaps
8 some conversation about priorities of different
9 stages of the life course.

10 So we've been talking about all-cause
11 mortality, and obviously, I'm pretty interested in
12 that, although it may be too late. But if we look
13 at it during pregnancy, for example, and lactation,
14 we're really out to support mothers' health, and
15 we're out to support growth and optimal growth and
16 development in the baby.

17 If you look at it in the baby, we're
18 trying to support optimal growth and development,
19 and that may actually be the first priority, at
20 least for most parents it is.

21 And that may coincide -- we may be able
22 to do that at the same time that we promote long-term

1 health, but we should at least acknowledge that. And
2 there are natural periods of transition across life
3 stage: total dependence, independence, entering
4 school, leaving the home, entering the workforce
5 and so on.

6 And so if we could find a way to kind of
7 perhaps refine the conversation about dietary
8 patterns so that it appears that we considered it
9 as a continuous process that has somewhat different
10 priorities, although the approach may be the same,
11 and I think that is a way of relating what we're
12 talking about to the consumer, either the parent,
13 the child, or the adult consumer.

14 So I think we're moving closer and
15 closer to an integrated approach, and I really like
16 the way this is moving.

17 CHAIR SCHNEEMAN: I would agree
18 that -- I think these comments are very useful, and
19 I just hope I can figure out my notes when it's all
20 said and done, because I've been trying to capture.

21 And I really appreciate the Committee
22 being focused on their own work, but at this point,

1 thinking about that work in relationship to what all
2 of the subcommittees are doing, because at the end
3 of the day, that's where I think our report can have
4 its greatest impact, and not just each individual
5 scientific evaluation, but how does it come
6 together as a whole?

7 So I think we're ready to take our lunch
8 break at this point. And we will start the public
9 comments at one o'clock when we come back, so I think
10 that's -- that would fit well with the schedule,
11 since we had the opportunity for discussion right
12 now.

13 So those of you who will be giving -- I
14 know they're going to rearrange the room, and there
15 will be a good process where we can go through, and
16 by starting a little bit early, I know we had some
17 people on the waiting list, but we might be able to
18 include some of those.

19 I'm looking back at Eve, and she's
20 nodding her head. Okay. So we will be back and
21 starting at one o'clock. Thank you.

22 (A lunch recess was taken.)

1 (1:02 p.m.)

2 MS. DE JESUS: Good afternoon. Okay.
3 I hope everyone had a good lunch? I'm Janet de
4 Jesus and, I'm the nutrition advisor at the Office
5 of Disease Prevention and Health Promotion with
6 HHS, and I'm going to introduce our public comment
7 session for this afternoon.

8 First, I just want to thank everyone
9 that came to give public comments. We really
10 appreciate your interest and input on the Dietary
11 Guidelines scientific process. We take it very
12 seriously.

13 We review all the online comments, and
14 we're really happy to have you here in person to give
15 your comments. So individuals that have
16 registered to provide public comments will be able
17 to speak for three minutes.

18 We have 45 people on the list, and if
19 time permits, those on the waitlist will be able to
20 participate also. We have it divided among either
21 side of the room. So we'll start with number one
22 and then alternate to the other side of the room for

1 number two.

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

8 We'd appreciate that. And the
9 moderator here will call the next speaker. So
10 please be prepared when your number is called.
11 There's no opportunity for question and answer with
12 the Committee today, as usual.

13 So once you're finished, feel free to
14 either return to your seat, sit in another place,
15 or if you'd like to exit the auditorium, please do
16 in the rear of the auditorium. And on a final note,
17 this meeting is being recorded, so it will be
18 available after on DietaryGuidelines.gov.

19 So with that, I'll now conclude and turn
20 it over to our moderator for the comment session.

21 Thank you.

22 MS. BROWN: Thanks, Janet. We'll

1 begin with commenter number one, please.

2 MR. DEVIRGILLIS: Raymond DeVirgillis
3 on behalf of Infant Nutrition Council of America.
4 The Infant Nutrition Council of America represents
5 companies that research, develop, and market
6 formulated nutrition products of infants, children
7 and adults.

8 We produce over 95 percent of the infant
9 formula consumed in the U.S. We take our
10 responsibility of providing optimal nutrition to
11 infants very seriously. We support the American
12 Academy of Pediatrics' position that breast milk is
13 the preferred infant feeding option.

14 We also agree with the AAP and other
15 leading nutrition health and regulatory bodies that
16 infant formula that has been submitted to, reviewed
17 by, cleared by, and registered with the FDA is the
18 only safe, nutritious and recommended alternative
19 for infants who are not exclusively breastfed.

20 In 2019, INCA conducted an infant
21 feeding survey of over 1,200 mothers, fathers, and
22 other caregivers of infants under 12 months of age,

1 seeking insights in to their beliefs, current
2 practices, and sources of information about infant
3 feeding.

4 The survey findings underscore how
5 important the recommendations for the B-24
6 population will be in the upcoming DGAs. This is
7 a critical opportunity to provide accurate
8 information to remove any stigma associated with
9 infant feeding decisions.

10 Based on the survey findings, it is
11 evident that parents and caregivers understand the
12 benefits of breastfeeding and most often introduced
13 formula feeding due to health reasons.
14 Additionally, the following messages are
15 imperative to communicate the final Guidelines.

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

1 Number two, the 2020 DGAs must
2 communicate the importance of parents and
3 caregivers discussing their feeding options with
4 their health care provider.

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

9 Number four, for infants who are
10 exclusively breastfed, the DGAs should recommend
11 Vitamin D supplements to avoid risks related to
12 growth and development.

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

19 Finally, these DGAs must not stifle
20 infant formula innovation, as infant formula
21 companies are leaders in infant nutrition research
22 and their collective research has led to

1 significant improvements in the health of
2 formula-fed babies.

3 We hope the DGAC, USDA and HHS will
4 consider the findings of 2019 infant feeding
5 survey. While the 2020 Guidelines must be based on
6 the highest quality of science, they must also lead
7 to practical recommendations that support safe and
8 nutritious infant feeding options.

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

12 MS. BROWN: Thank you.

13 Commenter number two?

14 MS. GARRISON: Good afternoon. My
15 name is Becky Garrison, here on behalf of the
16 American Pulse Association. Thank you to the
17 Committee for your work to inform the next Dietary
18 Guidelines.

19 First, I remind the Committee about the
20 opportunity to end decades-long confusion and
21 inaccuracy over legumes, the beans and peas, in
22 parentheses, terminology used in the previous

1 guidelines.

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

7 Pulses is the most specific and accurate
8 term that should be used in the Dietary Guidelines
9 to capture the food group that currently includes
10 kidney, pinto, white, lima, and black beans, split
11 peas, chickpeas, and lentils. We ask the Committee
12 to utilize the correct pulse terminology in its
13 report.

14 Secondly, pulses offer up to nine grams
15 of protein per serving, and are a good source of zinc
16 and B vitamins plus multiple underconsumed
17 nutrients like magnesium, choline, iron and folate.

18 They are also excellent sources of
19 potassium and dietary fiber, which are two
20 nutrients of public health concern. We ask the
21 Committee to highlight pulses' many nutritional
22 benefits in its report.

1 Moreover, multiple meta-analyses have
2 found a relationship between pulse consumption and
3 positive health benefits. These studies have
4 linked pulses to a decreased risk for heart and
5 cardiovascular disease and reductions in
6 cardiometabolic risk factors like blood pressure
7 and cholesterol.

8 Pulses are also associated with
9 decreased incidence of obesity and risk for certain
10 cancers. Importantly, these studies suggest a
11 dose response relationship between pulse intake and
12 related health benefits, meaning positive health
13 outcomes are seen within an intake around three cups
14 per week, or about one-half cup of cooked pulses per
15 day.

16 In line with this, the 2005 Guidelines
17 recommended three cups per week for the general U.S.
18 dietary pattern. Unfortunately, since then, the
19 past two Guidelines have only recommended one and
20 a half cups per week for the general U.S. dietary
21 pattern.

22 No scientific justification was given

1 for this decrease in recommended servings. Based
2 on available evidence, we ask the Committee to
3 recommend at least three cups of pulses per week for
4 all dietary patterns.

5 In closing, we ask the Committee to
6 replace the confusing legumes with beans and peas,
7 in parenthesis, terminology to pulses or pulses and
8 soybeans. We also ask the Committee to recognize
9 the category's unique nutrition benefits and to
10 increase the recommendation for pulses to three
11 cups per week for all dietary patterns.

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

14 MS. BROWN: Thank you.

15 Commenter number three?

16 MR. YOUNG: Good afternoon. I am Bill
17 Young, representing the Beer Institute, a national
18 trade association representing large and small
19 domestic brewers, beer importers, packaging
20 manufacturers, agricultural producers and other
21 suppliers of goods and services to the beer
22 industry.

1 Our members produce and import more than
2 85 percent of the beer consumed in the United
3 States. We believe the Dietary Guidelines are an
4 important and useful source of information for
5 legal-drinking-age consumers who weight the
6 well-known risks and benefits of alcohol beverage
7 consumption in the broader context of a healthy
8 diet.

9 Accurate and applicable moderate
10 drinking guidance is critical in this regard. We
11 would like to raise four points.

12 First, we urge continuation of the clear
13 advice and examples provided in the 2015 U.S.
14 Dietary Guidelines. It's stated that if alcohol is
15 consumed, it should be in moderation, up to one
16 alcohol drink equivalent for women and up to two per
17 day for men. One alcohol drink equivalent contains
18 14 grams, .6 fluid ounces, of pure alcohol.

19 2015 was the first time the Dietary
20 Guidelines emphasized variability in drinks and
21 introduced them to the term, drink equivalent,
22 which we believes helps better track how much

1 alcohol they consume and sends an important message
2 that not all drinks are the same.

3 Second, we encourage the 2020 U.S.
4 Dietary Guidelines to again promote the vast
5 variability of alcohol beverages, including the
6 different in types, sizes and alcohol content of
7 beverages in the market.

8 The consuming public needs practical
9 and pragmatic information to make informed
10 decisions about the alcohol beverages they consume.

11 Third, we encourage the guidelines to
12 advise people to avoid consuming alcohol on an empty
13 stomach -- food slows the absorption rate of alcohol
14 beverages -- and to stay hydrated with water or
15 other non-alcohol beverages with consuming alcohol
16 beverages.

17 Four, the Beer Institute believes the
18 Dietary Guidelines should advise that there are
19 some people should not drink alcohol beverages at
20 all.

21 Those who are under 21, women who are
22 pregnant or have a medical or family history of

1 concern should be cautioned against drinking. Any
2 person who has a concern about consuming alcohol
3 should consult with their health care provider for
4 guidance.

5 The Beer Institute members remain
6 steadfast in their commitment to promote
7 responsible consumption and reduce harmful use.
8 Members work diligently to prevent sales to minors
9 and reduce drunk driving, and are in the process of
10 implementing the voluntary disclosure initiative
11 to provide consumers with information about
12 calories, carbs, protein, fat, alcohol content and
13 freshness dating on packaging labels, and a full
14 list of ingredients on labels or websites.

15 This work adds to our responsible
16 marketing codes, and decades of member company
17 programming, encouraging consumers to drink
18 responsibly.

19 We hope these comments will inform the
20 work of this Committee and the staffs at HHS and
21 USDA, and we look forward to your expert report.

22 MS. BROWN: Thank you. We'll now have

1 commenter number four.

2 DR. KENDALL: Karima Kendall, Calorie
3 Control Council. The Calorie Control Council is an
4 international association representing
5 manufacturers of low- or no-calorie sweeteners,
6 food and beverages, as well as manufacturers and
7 supplies of low-calorie ingredients, including
8 dietary fiber and sweetener.

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

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

21 CCC agrees with the recommendation
22 previously made that the DGAs should better reflect

1 language used in scientific literature related to
2 LNCS.

3 As noted by Committee member, Dr.
4 Richard Mattes, the terms high-intensity sweetener
5 and artificial sweeteners are not technically
6 correct. Therefore, CCC supports the proposal to
7 standardize the term low- or no-calorie sweeteners,
8 and LNCS, when referring to these ingredients.

9 As noted in previous DGAs in Committee
10 meetings, dietary fiber continues to be a nutrient
11 of concern. This fiber gap presents an opportunity
12 for the Committee to make stronger recommendations
13 about the importance of a high-fiber diet in
14 improving the health of Americans.

15 The CCC is pleased with the progress of
16 the FDA in updating its definition of dietary fiber
17 and determining those ingredients that meet this
18 definition. However, significant advancements in
19 food technology allow for fiber enrichment of a
20 variety of foods, including those that are
21 inherently low in fiber.

22 Future Guidelines should note the

1 expansion of fiber-rich options and their important
2 role in helping increase total fiber intake with
3 minimal impact on calories. As with other
4 nutrients of concern, simply meeting daily food
5 group recommendations does not guarantee adequate
6 intake.

7 We support recommendations to consume
8 more fiber from a variety of sources, including
9 fiber-enriched products, using nutrition fact
10 label and ingredient lists as a guide. We also
11 encourage the evaluation of extrinsic and intrinsic
12 dietary fibers by the same standards as both play
13 a role in dietary patterns.

14 In the evaluation we should consider the
15 role of both fibers in the diet and how they help
16 to close the fiber gap. Lastly, emerging research
17 indicates that prebiotic fibers alters the gut
18 microbiome and offers additional means to enhance
19 calcium absorption.

20 Future recommendations should review
21 dietary patterns that are broader than consuming
22 cereals, grains, fruits, vegetables, and fit into

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

6 Thank you.

7 MS. BROWN: Thank you. Now, commenter
8 number five?

9 MS. DOCKTER: My name is Berit Dockter,
10 and I represent the Healthcare Nutrition Council.
11 Thank you for the opportunity to provide comment
12 today. HNC is an association representing
13 manufacturers of enteral nutrition formulas and
14 oral nutrition supplements, parenteral nutrition
15 formulas, supplies and equipment.

16 We are committed to improving health by
17 advancing policies that address and raise awareness
18 to nutrition and its impact on patient outcomes and
19 health care costs.

20 Today, I will highlight a few points HNC
21 would like the Dietary Guidelines Advisory
22 Committee to consider when determining

1 recommendations for the Dietary Guidelines for
2 Americans.

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

11 We are concerned about the prevalence of
12 malnutrition, especially among older adults, and
13 would like you to consider setting specific Dietary
14 Guidelines for this population in order to address
15 their needs.

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

1 require a higher protein intake.

2 In order to address these nutritional
3 needs, oral nutrition supplements are often
4 recommended or prescribed by a physician or
5 registered dietitian . In some cases, people rely
6 on oral nutrition supplements as their sole source
7 of nutrition.

8 The World Health Organization has
9 published a strong recommendation that oral
10 nutrition supplements with dietary advice should be
11 recommended to older people affected by
12 undernutrition.

13 Oral nutrition supplements are used in
14 a range of ages and issues, which may include
15 failure to thrive in children, or addressing
16 sarcopenic obesity in adults. For children ages
17 one year of age and older with differentiated health
18 and nutritional needs, these products play an
19 important role in complementing the diet of a
20 specific population and can support growth and
21 development.

22 Considering all these elements, the

1 Healthcare Nutrition Council would like to
2 recommend the adoption of specific nutritional
3 recommendations for older adults, including
4 optimization of protein intake, and that the
5 Committee considers the role of oral nutrition
6 supplements as a practical way to complement the
7 diet of individuals of any age who are unable to meet
8 their nutritional needs through regular foods
9 alone.

10 Thank you for reviewing our comments
11 submitted to the docket.

12 MS. BROWN: Thank you. Now, commenter
13 six?

14 DR. LAYMAN: I'm Don Layman, professor
15 at University of Illinois. I'd like to speak about
16 the importance of flexibility in Dietary Guidelines
17 and food choices, especially related to protein.

18 The dietary reference intakes provide
19 science-based ranges for safe and adequate nutrient
20 intakes. The 2015 Advisory Committee recognized
21 the need for flexibility in diet choices.

22 They provided three examples of healthy

1 diets, including vegetarian diet, Mediterranean
2 diet, and the U.S. omnivore diet. These diets
3 provide individuals with both food and protein
4 choices.

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

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

15 There are three key facts about protein
16 that impact diet choices. The first, a daily
17 protein requirement is an absolute amount based on
18 lean body mass. Current Dietary Guidelines
19 misrepresent protein as a percentage of energy
20 intake.

21 Protein is the only essential
22 macronutrient that needs to be defined as grams per

1 kilogram body weight. Therefore, protein needs
2 are inversely related to calories. For example,
3 older and sedentary adults with reduced energy
4 needs still require at least the same amount of
5 protein, meaning the protein must be a much higher
6 percentage of total calories, perhaps at the upper
7 bound of the AMDR.

8 The other two related factors are age
9 and physical activity. Beginning in our 30s, the
10 efficiency of protein utilization to maintain
11 muscle health begins to decline, producing well
12 characterized, age-related loss of muscle mass,
13 strength, and metabolic health.

14 This age-related loss of functional
15 mobility and metabolic health can be mitigated by
16 correct choices about dietary protein and
17 resistance exercise. The worst-case scenario is
18 an older, sedentary adult consuming a low-protein
19 diet based on Dietary Guidelines expressing protein
20 as a percentage of calories.

21 I urge the Committee to continue with
22 the initiative of the 2015 Committee to recognize

1 there are multiple ways to create healthy diets and
2 to more fully integrate current knowledge about
3 protein and the full range of the AMDRs into the 2020
4 Guidelines.

5 Thank you.

6 MS. BROWN: Thank you.

7 Now commenter number seven.

8 MS. BACKUS: Good afternoon. I am
9 Susan Backus, representing the Foundation for Meat
10 and Poultry Research and Education, a nonprofit
11 organization which studies ways the meat and
12 poultry industry can produce better, safer products
13 and operate more efficiently.

14 The Foundation is managed by the North
15 American Meat Institute and is a contractor to the
16 Beef Checkoff. Meat and poultry products play an
17 important role in healthy, balanced dietary
18 patterns.

19 One of the primary benefits of including
20 meat and poultry in the diet is that consumers can
21 more easily fulfill their nutrient requirements.
22 However, the perceived lack of health benefits and

1 potential adverse health outcomes are at the center
2 of many scientific studies.

3 Among the issues further clouding the
4 debate are confusion, misinformation and a
5 misunderstanding of how meat is processed. To help
6 demystify processed meats, the Foundation prepared
7 a white paper detailing common processed meat
8 products and ingredients, as well as nutrition
9 benefits and public health implications.

10 All foods require preparation and
11 processing to varying levels, and meat may simply
12 be the primary ingredient in a product, just as
13 flour is the base ingredient in a host of cereal,
14 bakery, and pasta products.

15 Meat preparation for consumption
16 generally includes cutting meat into smaller sizes
17 and adding non-meat ingredients in cooking.
18 Generally, the main ingredients used in preparing
19 many processed meats are water, salt, nitrate,
20 phosphates, sugars, and fat, all of which are
21 recognized as safe by the Food and Drug
22 Administration.

1 Many ingredients serve multiple
2 purposes. They can be used for flavor,
3 functionality, enhanced nutrition profile, and
4 microbial safety. Several processing techniques
5 can be used when preparing these products.

6 Processed meat and poultry products can
7 be smoked, dried, cured, cooked and marinated,
8 among other processes, which can add flavor,
9 texture or can act as a preservation to extend a
10 product's shelf life.

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

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

21 In fact, there's a product center on
22 MeatandPoultryNutrition.org, which is a guide to

1 help consumers and health professionals find
2 prepared meat products fitting particular
3 nutrition profiles, like low fat and reduced
4 sodium, among other regulated claims.

5 Meat and poultry products, including
6 processed meats, provide consumers with a
7 convenient, direct and balance dietary source of
8 all essential amino acids. Processing extends the
9 shelf life to an otherwise perishable food, reduces
10 waste with the use of all cuts of meat, and provides
11 consumers with convenience, flavor and cultural
12 identity.

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

17 The Foundation will submit the white
18 paper for your consideration in February. Thank
19 you.

20 MS. BROWN: Thank you. We'll now have
21 commenter number eight.

22 DR. JACK: Good afternoon. I am Dr.

1 Maia Jack, vice president of science and regulatory
2 affairs at the American Beverage Association, ABA,
3 the trade association representing the
4 non-alcoholic beverage industry.

5 ABA strongly supports the work of this
6 Committee and is grateful for the opportunity to
7 provide input to Committee members as they begin
8 their important task of developing recommendations
9 for diets that promote health and reduce the risk
10 of chronic disease.

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

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

1 We wish to share four points. First,
2 all foods, including sugar-sweetened beverages,
3 can be part of a balanced diet. To help consumers
4 moderate the sugar they get from beverages, we are
5 offering more beverages in smaller portion sizes
6 and greatly expanded beverage options with less
7 sugar or no sugar.

8 In 2013, the Academy of Nutrition and
9 Dietetics stated that proactive, empowering and
10 practical messages that emphasize a total diet
11 approach promote positive lifestyle changes.
12 Also, in 2014, McKinsey Global Institute reported
13 that interventions like smaller portion sizes have
14 the most overall and cost-effective impact on
15 obesity.

16 We encourage the Committee to support a
17 framework that prioritizes food choice over food
18 restriction. Beverages are generally important
19 for hydration, and beverages such as juices and
20 dairy contribute important nutrients.

21 ABA supports FDA and DGAs in the 2015
22 DGAs' added sugar target of 10 percent of total

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

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

10 Second, as noted in ABA submissions of
11 May 9, July 22 and August 13, growing evidence
12 supports low- and no-calorie sweetened beverages as
13 one possible tool to assist consumers in weight
14 management.

15 Public Health England acknowledges the
16 positive role of low- and no-calorie sweeteners and
17 sugar reduction in weight maintenance, and the
18 European Food Safety Authority recognizes they are
19 of value for blood sugar control.

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

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

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

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

18 In summary, the ABA and its member
19 companies are committed to practices that provide
20 transparent and accurate information about its
21 beverages.

22 Thank you.

1 MS. BROWN: Thank you.

2 Commenter number nine?

3 MS. GRAHAM: Good afternoon. Thank
4 you for the opportunity to comment. My name is
5 Allie Graham, and I'm here today on behalf of the
6 National Potato Council, or NPC, that provides a
7 unified voice for the U.S. potato growers, and
8 represents the interests of the U.S. potato
9 industry on national issues.

10 Potatoes are a nutritional powerhouse
11 that are a good source of eight different vitamins
12 and minerals for human health, including fiber and
13 potassium, two of the nutrients of concern as
14 identified by the 2015 DGAs.

15 Research shows that potatoes can serve
16 as a springboard vegetable, meaning when served, a
17 wider variety of vegetables are consumed. Despite
18 these benefits, potatoes are classified as a
19 starchy vegetable, which has become disparaging
20 term with repercussions across federal feeding
21 programs.

22 We believe that this is based on the

1 premise that carbohydrate quality of white potatoes
2 is somehow inferior to other vegetables. In
3 studies examining specific foods within dietary
4 patterns, potatoes are sometimes placed in same
5 category as are refined grains, candies and
6 desserts, leading researchers to conclude that
7 white potatoes are not a healthy food choice.

8 Many healthy dietary patterns,
9 including Mediterranean diet, feature potatoes as
10 a staple vegetable. Because of their nutrient
11 density and evolving research in carbohydrate
12 quality, NPC recommends that the Committee
13 reevaluate the categorization of a starchy
14 vegetable and consider consumption of quality
15 carbohydrates when evaluating research within
16 systematic reviews.

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

22 Recent research in children indicates

1 that potato consumption can influence cognitive
2 performance and satiety at increased levels,
3 compared to other carbohydrates such as rice or
4 beans. NPC recommends the Committee recommend
5 potato consumption across the life stages.

6 Finally, most potato products are
7 minimally processed, with some containing as few
8 ingredients as three ingredients: potatoes, oil
9 and salt. Food processing isn't essential to
10 promote quality and safety of products, and there's
11 little research to show long term benefits of
12 limiting processed foods on nutritional status.

13 Categories within the processing
14 classification systems, like NOVA, discourage
15 healthier product innovation, because it's often
16 not possible to reformulate out of categories, such
17 as ultraprocessed.

18 NPC urges the Committee to exclude
19 studies from systematic review that focus on
20 categorization of foods solely based on processing.

21 In closing, potatoes are a
22 nutrient-rich vegetable that fit within multiple

1 healthy dietary patterns, including plant-based.

2 Given their versatility and
3 affordability, potatoes can provide much-needed
4 health benefits across socioeconomic groups. As
5 such, we ask the Committee to recognize the
6 nutritional benefits of potatoes in the 2020-2025
7 DGAs.

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

11 MS. BROWN: Thank you.

12 Next, we'll have commenter number 10.

13 MS. REINHARDT: Thank you. Good
14 afternoon. My name is Sarah Reinhardt. I'm a
15 public health dietician and a lead analyst of food
16 systems and health at the Union of Concerned
17 Scientists in Washington, D.C.

18 I want to thank the members of the
19 committee for lending your time and your expertise
20 to this process. Thank you to the staff at the USDA
21 and HHS for the hard work that you do to make this
22 process transparent and accessible to the public.

1 I know it's a lot of time.

2 The stated goal of the Dietary
3 Guidelines for Americans is to make recommendations
4 about the components of a healthy and nutritionally
5 adequate diet, to help promote health and prevent
6 chronic disease for current and future generations.

7 I'm here today to ask the Committee to
8 fulfill its obligation to protect the health of
9 future generations by evaluating the scientific
10 basis for sustainable diets and incorporating its
11 findings into the scientific report.

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

21 Though dismissed amid political
22 controversy, these findings remain relevant and

1 provide a foundation from which the current
2 Committee may draw conclusion. However, the last
3 five years have also seen rapid growth and research
4 on healthy and sustainable diets.

5 Because the present Committee was
6 precluded from updating the systematic review on
7 this topic, my colleagues at the Union of Concerned
8 Scientists and the Friedman School of Nutrition
9 Science and Policy undertook this task ourselves.

10 Closely replicating the methodology
11 described in the scientific report of the 2015
12 Dietary Guidelines Advisory Committee, we
13 evaluated the body of scientific literature on
14 dietary patterns, food sustainability, and food
15 security to identify relevant studies published
16 between July 2015 to September 2019.

17 Our results now under scientific peer
18 review include 22 relevant studies on U.S. dietary
19 patterns alone. Our results broadly support the
20 key findings of the 2000 Committee, but they
21 challenge them on one key conclusion.

22 Of nine studies explicitly comparing

1 the current average U.S. diet to the healthy U.S.
2 style diet recommended by the Dietary Guidelines,
3 a majority found that the healthy U.S. style diet
4 is not inherently more sustainable.

5 And what that means is this: If the
6 federal government publishes and promotes Dietary
7 Guidelines but disregard sustainability research,
8 the diet it recommends today would put a healthy
9 diet out of reach tomorrow.

10 In its forthcoming report, I urge the
11 Committee to review and report findings based on the
12 current body of scientific research on sustainable
13 diets, including the systematic review by the 2015
14 Committee and the recent update we've completed,
15 which will be submitted to the public record for the
16 Committee's consideration.

17 Thank you.

18 MS. BROWN: Thank you.

19 We'll now have commenter number 11.

20 DR. DUBOST: Good afternoon. I'm Dr.
21 Joy Dubost, head of nutrition at Unilever North
22 America. We appreciate the Committee examining

1 beverages in the context of dietary patterns and
2 would like to highlight two recently published
3 studies related to beverages and specifically
4 unsweetened tea.

5 First, we believe there is a gap in the
6 current Dietary Guidelines in providing clear,
7 overarching guidance and more specific
8 recommendations on beverage consumption. The
9 current Guidelines are limited by not fully
10 detailing specific types and amounts that should be
11 consumed as part of a healthy dietary pattern.

12 This would include beverages that not
13 only achieve nutrient and food group
14 recommendations, but also provide vital nutrients
15 such as flavonoids, which have demonstrated
16 clinical significance.

17 We would like to bring to your attention
18 the recently published manuscript and advances in
19 nutrition entitled, "The Role of Beverages as a
20 Source of Nutrients and Phytonutrients."

21 Based on observational studies,
22 randomized clinical controlled trials, and

1 meta-analyses, the authors highlighted the role
2 beverages can play as part of the Dietary Guidelines
3 and considered beverages not traditionally
4 included, such as those that are
5 phytonutrient-dense, including unsweetened tea,
6 which is one of the best sources of flavonoids in
7 the diet. The authors noted the multiple benefits
8 of consuming tea, including reduced risk of
9 cardiovascular disease mortality.

10 A key point brought forth is, although
11 these compounds lack a DRI, their amounts from
12 fruits, vegetables, whole grains fall short of such
13 beneficial effects.

14 Eight ounces of unsweetened tea, being
15 major contributors of these phytonutrients,
16 provide amounts exceeding that found in one cup of
17 commonly consumed fruits and vegetables. The
18 authors recommended replacing sugar-sweetened
19 beverages with unsweetened tea.

20 Considering the current mean intake of
21 added sugars in the United States is significantly
22 higher than recommendations, substitution of one

1 eight-ounce sugar-sweetened beverage with
2 unsweetened tea would bring these averages
3 significantly below the recommended added-sugar
4 limits while providing flavonoids.

5 We recommend that USDA and HHS provide
6 healthy beverage guideline, including those that
7 deliver bioactive components associated with
8 optimal health. We would also recommend a "my cup"
9 to accompany "my plate" to empower consumers to make
10 smart beverage choices.

11 Second, sponsored research by Unilever
12 was published in the Journal of Nutrients. This
13 explored tea consumption and seven other beverage
14 categories that relate to individual dietary
15 quality as well health outcomes. The findings are
16 very notable, and we'll be providing this via
17 written comment.

18 Overall we saw beverage patterns that
19 were associated with dietary choices that included
20 a significantly lowered consumption of
21 high-calorie beverages, alcohol and added sugars.

22 In addition, daily unsweetened tea

1 consumption is associated with a statistically
2 significant higher HDL and BMI in adults. We
3 appreciate your time and we'll be submitting these
4 comments in writing.

5 Thank you.

6 MS. BROWN: Thank you.

7 Next, commenter number 12.

8 MS. SILVERMAN: Good afternoon. My
9 name is Jessi Silverman. I am a policy associate
10 and registered dietitian at the Center for Science
11 in the Public Interest, a nonprofit consumer
12 advocacy organization that provides science-based
13 food and nutrition advice.

14 We led efforts to eliminate artificial
15 trans fat from the food supply, secure the nutrition
16 facts label and added sugar disclosure comment,
17 provide calorie labeling on chain restaurant menus,
18 improve school lunches, and remove sugary drinks
19 from schools.

20 On behalf of CSPI, thank you for the
21 opportunity to talk with you today about nutrition
22 for pregnant and lactating women, infants and

1 children under two years of age. CSPI's written
2 comments include our complete set of
3 recommendations regarding these life stages, and
4 today I will highlight four of them.

5 First, the best available evidence
6 supports advising women to consume a similar
7 dietary pattern during pregnancy and lactation, as
8 recommended by the 2015 Dietary Guidelines for the
9 general adult population: higher in vegetables,
10 fruits, whole grain, nuts, legumes, low-mercury
11 fish, low-fat dairy or nutritional equivalent
12 alternative, and vegetable oils and lower in red and
13 processed meats, refined grains, added sugar,
14 sodium and saturated fat.

15 Consistent with advice of other public
16 health experts, we urge the Committee to recommend
17 that pregnant women, infants and young children
18 avoid sugary drinks and other sources of added
19 sugars -- excess added sugars. Excuse me.

20 Second, CSPI urges the Committee to
21 consider minimizing the harms of mercury exposure
22 and maximizing the nutritional benefits of seafood

1 consumption during pregnancy and lactation to
2 protect the neurocognitive development of the
3 infant.

4 To balance these considerations,
5 consumer need clear, focused advice to choose these
6 fish, and don't choose these fish, such as the list
7 compiled by CSPI, referenced in our comments.

8 In addition, the EPA's current
9 reference dose for limiting mercury exposure is
10 almost 20 years old. Taking into account recent
11 scientific evidence, one-half the current
12 reference dose is the highest level of mercury
13 exposure that should be tolerated until the EPA's
14 new risk assessment is completed, particularly
15 given the developmentally sensitive nature of
16 pregnancy and lactation.

17 Third, Hispanic Americans should be
18 priority populations for tailoring prenatal folic
19 acid advice in a culturally appropriate manner.
20 Hispanic Americans experience a relatively high
21 prevalence of folic acid preventable spina bifida
22 and anencephaly.

1 While many Americans mothers-to-be
2 consume folic acid from enriched cereal grains
3 because of mandatory fortification requirements
4 for these products, fortification of corn masa
5 flour, a common staple of Hispanic Americans' diet,
6 is voluntary and rare.

7 Finally, we ask the Committee to
8 recommend safe limits on infant consumption of rice
9 cereal to protect children from exposure to
10 inorganic arsenic, which is associated with
11 impaired intellectual development.

12 More than half of infant rice cereals
13 tested by the Food and Drug Administration contain
14 inorganic arsenic at levels equal to or greater than
15 the agency's proposed limit. Caregivers need a
16 guidance to limit rice and offer other
17 iron-fortified cereal grains, as recommended by the
18 American Academy of Pediatrics, the FDA and others.

19 Thank you.

20 MS. BROWN: Thank you. Commenter
21 number 13?

22 MS. OHLHORST: Sarah Ohlhorst, on

1 behalf of the American Society for Nutrition. ASN,
2 a professional society with more than 7,000 members
3 who advance excellence in nutrition research and
4 practice, appreciates the opportunity to provide
5 input to the 2020 DGAC.

6 ASN emphasizes the importance of the
7 strength of the evidence to drive dietary guidance,
8 particularly as all new recommendations are
9 developed for ages birth to 24 months, B-24, and for
10 women who are pregnant and/or lactating.

11 Making B-24 recommendations that are
12 practical to meet the needs of today's families and
13 caregivers is vitally important, as is basing B-24
14 recommendation on the overall balance of scientific
15 evidence.

16 As the Committee looks at beverage
17 consumption, recommendations regarding the
18 importance of water consumption as part of healthy
19 dietary patterns is of particular importance for
20 these subgroups.

21 We also urge the Committee to address
22 the nutritional status of women prior to

1 conception, as well as the different nutritional
2 needs during pregnancy for age groups such as
3 adolescence and advanced maternal age.

4 Of equal importance, the Committee
5 should prioritize that practical, evidence-based
6 nutrition guidance be established for the rapidly
7 growing aging population. A recent U.S.
8 Government Accountability Office report
9 recommended that the 2025-2030 DGAs focus on the
10 nutritional needs of older adults, but we shouldn't
11 wait until then.

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

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

22 Nutrition research provides the

1 strength of the scientific evidence upon which
2 answers to the DGAC's questions can be built.
3 Therefore, ongoing and future nutrition research is
4 of utmost importance to the development of the DGAs.

5 Nutrition research will also help us
6 investigate the important research needs and gaps
7 identified by the DGAC. As a nation, we need
8 continued support for the key national sources of
9 dietary intake data, including NHANES, USDA's
10 Economic Research Service reports, and the dietary
11 reference intake, without which we cannot
12 sufficiently develop DGAs.

13 A lack of dedicated support for
14 nutrition research stifles both the development of
15 the DGAs, as well as the next generation of
16 nutrition scientists who will make up future DGACs.
17 We encourage the DGAC to reference in its final
18 report the importance and need for ongoing support
19 for nutrition research and dietary intake data to
20 continue to produce relevant DGAs.

21 Thank you.

22 MS. BROWN: Thank you. We'll now have

1 number 14.

2 MR. JONES: Good afternoon. I'm Chris
3 Jones, director of marketing and strategy, here
4 speaking on behalf of the National Pork Board and
5 the more than 65,000 U.S. pig farmers that we
6 represent.

7 As the Committee continues to work
8 toward assembling a technical report to inform the
9 2020 Dietary Guidelines for Americans, we look to
10 again offer the following considerations regarding
11 the role of lean meat, including pork, in a healthy
12 diet.

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

19 For children and adolescence, lean meat
20 offers high-quality protein to support proper
21 growth and development. A protein-rich breakfast
22 has shown to help with weight management and

1 glycemic control in adolescents, and protein foods
2 that also provide iron, zinc and B vitamins, like
3 lean meat, are crucial for active brains.

4 In adults, there's a growing body of
5 evidence that shows that lean, high-quality protein
6 like pork could benefit weight, heart health, and
7 Type 2 diabetes. During pregnancy and lactation,
8 adequate amounts of protein are crucial for a baby's
9 growth.

10 Lean pork also provides Vitamin B12 and
11 highly bioavailable iron, two more nutrients that
12 support the health of both the mother and baby
13 during this life stage.

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

20 Regarding overall dietary patterns, the
21 2015 Dietary Guidelines emphasized that these are
22 adaptable and can be tailored to individual

1 preferences to make them more attainable,
2 enjoyable, and culturally appropriate.

3 Research has shown that the DASH and
4 Mediterranean diets, for example, can be expanded
5 to include lean pork for the same positive health
6 outcomes. We would also like to highlight recent
7 research that suggest saturated fats are not
8 associated with outcomes such as cardiovascular
9 disease as we had previously believed.

10 Given this context, a nutritionally
11 balanced diet can include foods that contain
12 saturated fats, but are nutritious overall.
13 Furthermore, lean, nutrient-rich animal protein
14 such as pork can help fulfill nutrient needs, while
15 limiting the amount of calories eaten.

16 A three-ounce serving of pork is an
17 excellent source of thiamin, selenium, protein,
18 niacin, vitamin B6 and phosphorus, and a food source
19 of riboflavin, zinc, and potassium. Pork also
20 provides several important nutrients identified by
21 the 2015 Guidelines between iron, potassium and
22 vitamin B12.

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

3 MS. BROWN: Thank you. We'll now have
4 commenter 15.

5 DR. CLINTHORNE: Good afternoon. My
6 name is Dr. Jonathan Clinthorne, and I'm here on
7 behalf of Atkins Nutritionals. Today I want to
8 discuss two major points. The first is that while
9 it has been stated that the 2020 Dietary Guidelines
10 are intended for the general population, the
11 general population is not healthy.

12 Seventy-two percent of American adults
13 are overweight or obese. Fifty-two percent have
14 prediabetes or diabetes. Therefore, by excluding
15 studies from your systematic reviews that enroll
16 participants in a treatment diet, you are
17 effectively not producing guidelines for the
18 general population, something suggested by the
19 National Academies' report.

20 Ultimately, that's well over 100
21 million who are not receiving relevant eating
22 guidance. It's also important to recognize that,

1 despite the fact that the Guidelines are intended
2 for the general healthy population, they're most
3 definitely influencing nutritional
4 recommendations for people who are not considered
5 healthy.

6 Let me give some examples. The
7 Guidelines inform the school lunch programs.
8 Current data indicates that one in five school-aged
9 children has obesity, while about 20 percent of
10 adolescents are estimated to have prediabetes.

11 They also inform nutrition
12 recommendations for the Department of Veterans
13 Affairs in their feeding programs for the elderly.
14 And yet the prevalence of type 2 diabetes is higher
15 in veterans than it is in the general population,
16 and nearly one in three are considered obese.

17 Meanwhile, one in four elderly people
18 are estimated to have type 2 diabetes and 48% of
19 people 65 and older have prediabetes. The
20 Guidelines also clear inform the nutrition policy
21 for many medical associations and hospitals, and if
22 these health care providers are not guiding people

1 who have diet-related chronic diseases, then who
2 is?

3 The Guidelines are clearly being used to
4 provide nutritional recommendations for many
5 people with diet-related chronic diseases, so why
6 not make sure that these guidelines are based on
7 pertinent science?

8 My second point is that during your
9 assessment with dietary patterns, you must
10 accurately define low-carbohydrates diets in order
11 to properly account for this body of research.

12 The USDA has stated that you are
13 considering including studies where less than 45
14 percent of energy coming from carbohydrates is
15 qualifying as a low-carbohydrate diet, because this
16 is outside of the AMDR.

17 I am here to tell you that this is an
18 inaccurate characterization of low-carbohydrate
19 diets. We encourage the USDA to define
20 low-carbohydrate diets as containing less than 25
21 percent of energy from carbohydrate, or 133 grams
22 of carbohydrates per day.

1 This recommendation would be consistent
2 with the adequate intake of 130 grams of
3 carbohydrates per day set by the National
4 Academies. In conclusion, I strongly encourage
5 the Advisory Committee to focus on the good of all
6 Americans and accurately define low-carbohydrate
7 diets.

8 Thank you.

9 MS. BROWN: Thank you. We'll now have
10 commenter number 16.

11 DR. PALMER: My name is Chris Palmer.
12 I'm a physician and researcher at Harvard Medical
13 School. As we all know, we now have epidemics of
14 obesity and diabetes in this country.

15 Most people assume these problems are
16 fairly straightforward. They are, after all,
17 lifestyle diseases. They revolve around choices,
18 what people eat and, whether they exercise, simple
19 explanations with simple solutions. Eat less,
20 exercise more.

21 I'm here to tell you that it is not so
22 simple. You see, back 25 years ago, when I was a

1 young physician, I was following the Dietary
2 Guidelines to a T, eating the recommended diet and
3 exercising regularly.

4 I was meticulous about it, because I
5 wanted to avoid the fate that I saw in the hospital
6 every day, and yet the Guidelines didn't work for
7 me. I had high blood pressure and high
8 cholesterol, even though I was only in my 20s.

9 After years of the guidelines not
10 working, I was told that I had to go on medication.
11 In a last-ditch act of defiance, I changed my diet
12 to a low-carbohydrate diet.

13 Lo and behold, after three months, all
14 of my cardiac risk profile improved dramatically.
15 I have never looked back and I've remained healthy,
16 off medications, for 23 years now on this diet.

17 As a physician, I want to understand
18 what happened. Why did the Guidelines fail me, and
19 what can we do about it going forward? One clear
20 problem with past Guidelines is that they weren't
21 based on the best science.

22 They were based on correlational

1 studies, not randomized controlled trials.
2 Everyone knows that correlation doesn't equal
3 causation. I wish the past Guidelines Committee
4 knew that.

5 We also know that when diets leave
6 people feeling hungry, they are destined to fail.
7 If people often feel hungry, maintaining a normal
8 weight is next to impossible.

9 We now have science showing that hunger
10 is driven by many hormones and their effects on the
11 brain. One of these is insulin. When a brain is
12 insulin-resistant, it is hungry.

13 So what can we do about this? One
14 solution already proven to work is eating a
15 low-carbohydrate diet. You see, the science now
16 explains why this diet has worked so well for me,
17 but it is not just me.

18 As a physician, I've seen this work in
19 countless patients. I have a patient right now
20 who's lost over 150 pounds and has kept it off for
21 over four years. He's still going strong. And by
22 the way, he also has schizophrenia.

1 Most people see him as profoundly ill
2 and unmotivated, yet he did this and is still doing
3 it, because it works. With accurate and effective
4 advice, even he can maintain a healthy weight now,
5 and his cardiac risk profile improved dramatically
6 too.

7 I ask you to prioritize the science and
8 include a low-carbohydrate diet as at least one
9 option in the new Guidelines. The American
10 Diabetes Association has done this and so should
11 you.

12 Hundreds of millions of people are
13 counting on all of you to get this right.

14 MS. BROWN: Thank you.

15 Commenter number 17?

16 MR. TUMA: I'm Pepin Tuma with the
17 Academy of Nutrition Dietetics, representing more
18 than 107,000 registered dietitian nutritionists
19 and other nutrition professionals. There are two
20 related themes we'd like to underscore this
21 afternoon.

22 First, the scientific report needs to

1 provide clear, relevant dietary guidance
2 appropriate for distinct subpopulations. And
3 second, it's critical to draft the scientific
4 report bearing in mind the immense real impact for
5 work you're doing, specifically the fact that the
6 guidelines will dictate vast amounts of food
7 policy, nutrition education, and consumption
8 patterns in the United States.

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

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

1 Second, it's important to assess how the
2 recommendations in your scientific report and the
3 final Guidelines currently are and will be
4 translated into practice.

5 In the past two months alone, the GAO
6 published a report looking at nutrition assistance
7 programs intended to meet the needs of older adults.
8 And USDA proposed yet another change to the child
9 nutrition programs standards, likely to limit
10 access to an adequate amount and variety of fruits
11 and vegetables.

12 Whether it's the Child and Adult Care
13 Food Program, congregate or home-delivered meal
14 programs, National School Lunch Program or the
15 School Breakfast Program, the Dietary Guidelines
16 form the basis for these underlying nutrition
17 requirements, and it is appropriate and indeed
18 necessary to ascertain whether these programs are
19 successfully meeting the requirements.

20 Many children consume two-thirds of
21 their meals at school. Are these meals ensuring
22 children meet two-thirds of their dietary needs in

1 every way, in a healthy way? Are they helping to
2 establish healthy eating behaviors, or are we
3 moving backwards again?

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

10 We respectfully encourage your
11 Committee to identify opportunities to address
12 these issues now, enabling a more robust plan to be
13 developed and solidified in advance of the
14 2025-2030 Guidelines.

15 So whether you're tasked with
16 implementing government food and nutrition
17 programs, or you're simply just a single American
18 trying to eat right, it can be challenging to meet
19 these recommendations.

20 But the solution is not to change them
21 or throw up our hands and tacitly not agree with
22 them. The scientific report can provide clarity,

1 acting as a compass for the direction, development
2 and implementation of the federal program's
3 nutrition standards.

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

10 Thank you very much.

11 MS. BROWN: Thank you. We'll now have
12 commenter number 18.

13 DR. CARNEY: I'm Linda Carney, MD from
14 DrCarney.com. I'm a physician practices lifestyle
15 medicine on children and adults near Austin, Texas,
16 and I'm double-board-certified by ADEM and the
17 American Board of Lifestyle Medicine.

18 In my private practice, I enjoy helping
19 my patients recover from many diseases when they
20 completely stop eating animal products.
21 Overwhelming amounts of scientific evidence show
22 that the best diet is an oil-free, low-fat,

1 plant-based diet of whole, unprocessed foods which
2 powerfully reverses disease.

3 When my patients avoid eggs, dairy,
4 seafood, and other meats, they reverse multiple
5 sclerosis, diabetes too, high blood pressure, heart
6 disease, and asthma, which I myself reversed when
7 I began eating an oil-free vegan diet.

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

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

19 As you teach America what a healthy diet
20 is for each age, after weaning off breast milk, note
21 that the Academy of Nutrition and Dietetics writes
22 that low-fat vegan diets are healthy for every age.

1 I served as medical director for the
2 employees of Whole Foods Market, who came through
3 Rip Esselstyn's Engine Two Immersion, proving to
4 corporate American that they could save money on
5 health care costs.

6 After just one week of eating an
7 oil-free, plant-based diet without meat, dairy or
8 eggs, my staff measured the Whole Foods Market
9 employees at the beginning of the week and at the
10 end of the week, and we saw cholesterols come down
11 a hundred points in just five days.

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

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

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

9 Unless USDA takes a clear stance against
10 animal products, Americans will get sicker and
11 sicker, despite our spending more per capita of our
12 gross domestic product on health care.

13 Save America. Save our health, USDA.
14 Please ditch dairy. Mooooove meat off the menu.

15 MS. BROWN: Thank you. Next we'll have
16 commenter number 19.

17 DR. FRANTZEN: Good afternoon. I'm
18 Lana Frantzen, and I proudly represent our dairy
19 farmers of America, and I have done so for the last
20 20 years. I feel very passionately about working
21 for dairy farmers and with Dairy MAX, our regional
22 dairy council.

1 I want to start with the most important
2 point that I want to share with you all today, and
3 that is, dairy is essential in life. We know that
4 when we look at the nutrient package that dairy
5 delivers, it's -- there is no other.

6 When I think about the current Dietary
7 Guidelines, we look at the fact that real cow's milk
8 is in over 94 percent of all American homes, and we
9 also note that the goal moving forward is to connect
10 the benefits with all cultures and help people
11 understand the unique nutrition that dairy
12 delivers.

13 I have my PhD in nutrition. I have 25
14 years of experience in nutrition education. I was
15 raised in San Antonio, Texas, not far from here
16 where, unfortunately, type 2 diabetes is prevalence
17 within our Hispanic community.

18 We need to all work together to ensure
19 that the Guidelines are reaching those who need them
20 most. Cardiovascular disease and type 2 diabetes
21 is prevalent in our U.S. population. African
22 Americans and Hispanic Americans may be at an even

1 higher risk.

2 Dairy is essential for three reasons.

3 First, the intake of dairy foods is associated with
4 the reduced risk of cardiovascular disease, type 2
5 diabetes, and lower blood pressure in adults.

6 With a focus on health disparities, the
7 National Medical Association and the National
8 Hispanic Medical Association support three
9 servings of dairy a day as a way to decrease the
10 nutrient intake shortfall.

11 When we look at milk, cheese, and
12 yogurt, they deliver a variety of nutrients,
13 specifically three of the nutrients of public
14 health concern. Three servings of dairy will
15 deliver up to 70 percent of the vitamin D and
16 calcium, and 30 percent of the potassium in our
17 diet.

18 And lastly, we know there's decades of
19 science to support the health benefits of dairy.
20 There was a study published this week in Nutrients
21 that illustrates a simple, realistic dietary change
22 at the population level consisting of the

1 recommended three servings of dairy a day could
2 result in over \$12 billion in health care cost
3 savings.

4 Despite those benefits, I know there is
5 a lot of misinformation on lactose intolerance. My
6 father and my brother are both lactose intolerant.
7 Let's be clear that if lactose intolerance is
8 confirmed, that health care providers --

9 MS. BROWN: Thank you.

10 DR. FRANTZEN: -- can support -- thank
11 you.

12 MS. BROWN: We'll now have commenter
13 number 20. Okay. Can we move to commenter number
14 21?

15 DR. DODDS: Good afternoon. My name is
16 Dr. Michael Dodds, and I'm whole health lead
17 scientist at Mars Wrigley, and an adjunct professor
18 at UIC College of Dentistry in Chicago.

19 On behalf of Mars Wrigley, I provided
20 oral comments to the Dietary Guidelines Advisory
21 Committee at the July meeting. I thank USDA and HHS
22 for the opportunity today to provide highlights of

1 new research on the effectiveness of chewing
2 sugar-free gum as a preventive oral health practice
3 to protect teeth, important to intake of fruits,
4 vegetables, whole grains, and other healthy foods.

5 This research is germane to the protocol
6 for the evidence review that the subcommittee on
7 Data Analysis and Food Pattern Modeling
8 cross-cutting working group will conduct to
9 describe and evaluate current prevalence of
10 nutrition-related chronic health outcomes,
11 including dentition.

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

16 The evidence I will present today
17 supports adding sugar-free gum for 20 minutes after
18 snacks or meals to this list. Dental caries is one
19 of the most common of all chronic conditions in the
20 United States.

21 NCHS estimates that nearly nine percent
22 of children two to four years of age and over 25

1 percent of adults suffer from untreated decay.
2 Fluoridation of water supplies and improvements of
3 lifestyles have helped reduce caries prevalence,
4 but national rates of tooth decay continues to
5 present a major public health concern.

6 Tooth loss has been associated with loss
7 of ability to consume fibrous, nutrient-dense
8 foods, and impaired social functioning.
9 Therefore, dental diseases have a detrimental
10 effect on quality of life, health and well-being in
11 both childhood and older age.

12 A new systematic review has found
13 evidence reinforcing effectiveness of sugar-free
14 gum in helping to improve oral health. This
15 research was independently carried out by the
16 faculty of dentistry at King's College London with
17 financial support from the Wrigley Oral Health Care
18 Program.

19 It examined differences in levels of
20 caries in adults and children who chew sugar-free
21 gum compared with non-chewing controls. Results
22 found that chewing sugar-free gum significantly

1 reduced caries incidence, giving a preventive
2 fraction of 28 percent, compared to 24 percent
3 preventive fraction for fluoride toothpastes and
4 fluoride supplements.

5 This research is the most robust
6 systematic review conducted to date into the
7 effectiveness of sugar-free gum in reducing caries
8 incidence. Results reinforce the growing body of
9 evidence highlighting an important role for chewing
10 sugar-free gum in improving oral health, especially
11 for the growing number of people who snack
12 frequently.

13 As the subcommittee begins its review of
14 the health outcomes, we request inclusion of the
15 research articles analyzing this meta-analysis.
16 Oral health preventive practices have significant
17 dietary benefits for all Americans by updating
18 Dietary Guidelines to reflect how changing eating
19 behaviors is having a renewed emphasis on
20 preventive measures such as brushing, flossing, and
21 the use of sugar-free gum after snacks and meals.

22 USDA can create the basic guidance for

1 nutrition and dental professionals, along with
2 community practitioners, for the population with
3 alarmingly high dental problems. I thank you for
4 the opportunity to provide these comments.

5 MS. BROWN: We'll now have commenter
6 number 22.

7 DR. ERIKSEN: Good afternoon. I'm Dr.
8 Nancy Ericksen. I'm representing myself. First,
9 thank you for allowing me to make comments this
10 afternoon and thank you for your hard work.

11 As a maternal-fetal medicine doctor, I
12 continue to see the rate of obesity and other
13 chronic diseases escalate among pregnant women
14 every year, leading to ever-increasing adverse
15 maternal outcomes, pregnancy outcomes, including
16 maternal death.

17 The maternal mortality rate in the
18 United States is currently the highest of all the
19 developed nations, with many of causes of death
20 directly or indirectly the result of obesity,
21 hypertension and cardiovascular disease.

22 In other words, they are all potentially

1 preventable causes of death. As you know, the
2 United States is currently in a health care crisis,
3 with seven out of the 10 leading causes of death
4 attributed to lifestyle, leading to skyrocketing
5 and unsustainable health care costs.

6 The number one killer of Americans,
7 heart disease, has already been shown to be
8 reversible by a high-fiber, whole food, plant-based
9 diet, consisting of more than 60 grams of fiber per
10 day.

11 This same high-fiber diet has also been
12 shown to substantially reduce the risk of obesity,
13 diabetes, hypertension, stroke and cardiovascular
14 disease, and recently there's been two
15 meta-analyses that show there's a dose response to
16 fiber.

17 One of which was published two years ago
18 shows that consumption of 50 grams or more of daily
19 dietary fiber can reduce your risk of colon cancer
20 by 50 percent.

21 The other shows that for women consuming
22 15 grams or more per day can increase their

1 risk -- or lower their risk for
2 estrogen-receptor-positive breast cancer by 15
3 percent.

4 In other words, if they consume more
5 than 60 grams per day, they can reduce that risk by
6 60 percent. And this same diet has also been shown
7 to reverse diseases like obesity, diabetes,
8 cardiovascular disease and others.

9 Yet currently the Dietary Guidelines
10 only recommend 25 grams per day of fiber for women,
11 and 30-34 grams per day for men, only half of what
12 is really required to make a substantial impact on
13 reducing disease and reversing disease.

14 And as we know, it's not just the
15 calories or the micronutrients or the
16 macronutrients. It's how those calories are
17 packaged. High-fiber diets have been shown
18 repeatedly to both prevent and reverse disease.

19 And quite frankly, I became
20 board-certified in lifestyle medicine recently
21 because I want to send a message to patients that
22 a high-fiber diet is really optimal for their

1 health, but they're confused.

2 So I'm appealing to you as the Dietary
3 Guidelines in the next season to increase the
4 requirement for daily dietary fiber to a level at
5 which we can actually prevent and reverse disease.

6 This esteemed Committee is at an
7 historic crossroads today. Each of you has the
8 ability to advance the health care of all Americans
9 by simply stating in the Guidelines, we recommend
10 a high-fiber diet for all Americans.

11 MS. BROWN: Thank you.

12 Commenter number 23.

13 DR. GOLDNER: Hello. My name is Dr.
14 Brooke Goldner, and I'm a board-certified
15 physician, and I specialize in disease reversal
16 using nutrition. Now, before I became a doctor, I
17 actually was a patient.

18 I was diagnosed at 16 years old with
19 lupus. I had stage four kidney failure. I had
20 blood clots that caused mini-strokes. I endured
21 years of chemotherapy and steroids just to survive.

22 Now, all I ever learned never helped me

1 with my health. It was always about survival. I
2 did three years of genetic research at Carnegie
3 Mellon. I went to medical school. I was chief
4 resident.

5 And yet I still needed medicine to
6 survive. Twelve years, I was sick. And then 15
7 years ago, I changed my diet to a plant-based diet
8 and got rid of dairy, no animal products, and within
9 three months, the lupus was gone.

10 I have been healthy for 15 years with no
11 sign of disease. I've had children, and I've
12 dedicated my life to this, and over the past decade,
13 I have helped thousands of people reverse lupus,
14 rheumatoid arthritis, multiple sclerosis,
15 diabetes, heart disease, number-one killer, all by
16 getting them to stop eating meat and dairy and eggs
17 and focus on vegetables and high-nutrient plant
18 foods, and the results are consistent and they are
19 profound.

20 As a doctor, my colleagues can attest to
21 the fact that we are chasing down an epidemic of
22 disease that we cannot hope to catch up to or

1 overtake, because people are getting sicker with
2 every meal they eat.

3 But you can make that difference.
4 Because people don't know who to trust, but if the
5 Dietary Guidelines say that people should be
6 focusing on a plant-based diet full of vegetables
7 and fruits, and they should be limiting or
8 eliminating meat and dairy, eggs, they will have at
9 least the right information to start making better
10 decisions.

11 And so both as a doctor that is
12 desperately trying to save lives, and as a former
13 patient who has almost died many times because I
14 didn't have this information, I beseech you to take
15 this seriously.

16 This decision about what's recommended
17 to the public about what they eat should not be based
18 off of what's good for industry. It should be based
19 on what's good for human health, and there are
20 people who are suffering and dying right now from
21 the lack of this information.

22 So I ask you to take that seriously.

1 The literature is clear, and the results we see are
2 true. When you eliminate meat, dairy, and eggs,
3 people's health gets better, so please recommend a
4 plant-based diet. Encourage people to limit or
5 eliminate animal foods, so that you can save lives.

6 Please help me with this mission. I
7 appreciate your time. Thank you for your
8 attention.

9 MS. BROWN: Thank you.

10 We'll now have commenter number 24.

11 DR. HEANER: Hi. My name is Dr.
12 Martica Heaner, and I am a nutrition professor at
13 Hunter College, part of the City University of New
14 York, and I've also been a research scientist
15 studying obesity at Columbia University.

16 Last year, Canada released their
17 Dietary Guidelines and took bold steps
18 de-emphasizing the role of dairy. Currently, the
19 USDA not only recommends low-fat dairy, dairy is
20 granted special status as one of our five major food
21 groups.

22 Dairy should not be granted special

1 status. At best, it should be a sometime food, like
2 sugar-sweetened beverages. Dairy foods from
3 animals are problematic for a variety of reasons for
4 a majority of the population.

5 Milk is the perfect biological compound
6 for baby cows, but milk is not designed for humans.
7 If the Committee advises that humans -- adult
8 humans, especially, should consume milk,
9 logically, they should recommend breast milk from
10 humans, not from cows or animals.

11 Milk does contain nutrients: fats,
12 carbohydrates, protein and micronutrients. The
13 Guidelines have addressed the problems with
14 saturated fat by recommending low-fat dairy.
15 However, problems that people experience with the
16 other two macros have not been addressed
17 sufficiently.

18 An estimated 50 million Americans are
19 lactose-intolerant, including up to 90 percent of
20 Hispanics, African Americans and Asians. In
21 addition, an estimated 10 percent or so of people
22 have allergies to milk proteins or other compounds

1 in the milk products.

2 This prevalence may be higher because
3 many people do not realize that many of their health
4 symptoms or conditions like acne, migraines, pain
5 from arthritis, allergies, asthma can be caused by
6 or exacerbated by the dairy they consume daily.

7 I used to eat dairy every day and loved
8 it. I didn't realize it was causing my asthma. I
9 was on two inhalers a day. My doctor told me it was
10 my one cat. It was only when I had an anaphylactic
11 reaction and truly nearly died -- I couldn't
12 breathe -- to one sip of milk, that I realized how
13 toxic dairy is.

14 I gave up dairy, and my asthma
15 disappeared. I have not used inhalers in seven
16 years. I now have five cats, no asthma. There is
17 no denying that dairy contains nutrients.

18 It is a healthy food for cows, after all.
19 It's high in protein and calcium. If you look at
20 the research, though, you'll find that hay is also
21 high in protein and calcium. However, just as with
22 dairy, humans have a hard time digesting hay.

1 I urge the Committee to remove dairy as
2 its own food group, and to de-emphasize it as a
3 dietary recommendation. There are great profits
4 to be made from dairy, and I understand we have
5 concern for the farmers, but with new technology,
6 all industries evolve, and many dairy farmers are
7 starting to produce plant milks, plant cheeses --

8 MS. BROWN: Thank you.

9 DR. HEANER: -- and growing vegetables.

10 MS. BROWN: Thank you.

11 We'll next have commenter number 25.

12 MR. MARTINEZ: Good afternoon. My
13 name is Tony Martinez, and I'm from Ossining, New
14 York. I'm an attorney. I am a type 2 diabetes and
15 heart disease patient in remission through a
16 ketogenic carnivorous diet, and I'm also a
17 candidate for the New York State Senate in my
18 district, because I'm very concerned on these
19 issues.

20 I had a heart attack on March 29, 2014,
21 and I have recovered through diet alone. I'm
22 basically on a ketogenic carnivorous diet for five

1 and a half years, and I now have saved over \$24,000
2 in prescription drugs that I otherwise would have
3 required had I not put my condition into remission.

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

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

14 And these guidelines that you're going
15 to be putting together have to take into account
16 options that the majority of this country is not
17 healthy, metabolically healthy.

18 So we need to have options, and to give
19 you one -- to give you some input on how impactful
20 this is in my state, right now, diabetes costs the
21 state of New York on Medicaid dollars alone over
22 \$1.5 billion.

1 That's for the neediest group of
2 community in our state, people who really need
3 health care. And the budget, the Medicaid budget,
4 right now is in a deficit of \$6 million. And our
5 Governor, Governor Cuomo, has announced in his
6 budget statement, he's going to cut \$2-1/2 billion
7 across the board if the legislature doesn't do one
8 of both of two things, raise taxes or cut services
9 on their own, and nobody likes that, and nobody
10 needs to be in that position.

11 We need some flexibility. So the fact
12 that I've been able to save over \$24,000 in
13 prescription drug costs, just by following a
14 ketogenic carnivorous diet, which works for me.

15 And just for the record, if I can
16 clarify, the most nutrient-dense food are
17 animal-based; they're not plant-based. So we need
18 options, and we need to temper our passions about
19 imposing our views on everybody.

20 We just need options. So I ask the
21 Committee for that consideration. Thank you.

22 MS. BROWN: Thank you. We'll next have

1 commenter number 26.

2 DR. WALLACE: Good afternoon. My name
3 is Dr. Taylor Wallace, and I'm providing comment on
4 behalf of myself as principal at Think Healthy
5 Group, and an affiliate professor at Department of
6 Nutrition and Food Studies at George Mason
7 University, as well as a decade-long researcher in
8 the area of flavonoids.

9 My travel here today was provided by
10 Unilever; however, I did not accept honoraria for
11 financial incentive for these comments, which are
12 mine alone.

13 Research on flavonoids and other
14 bioactives have exploded over the past decade.
15 Our lab alone published numerous peer review
16 manuscripts highlighting the role of various
17 flavonoids subclasses in the prevention of
18 cardiovascular disease, the number-one killer of
19 Americans.

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

1 pressure.

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

8 Certainly, higher intakes of fruits and
9 vegetables help to promote health and protect us
10 from disease incidence, but these effects are
11 solely due to their essential nutrient contents,
12 but also their bioactive contents.

13 In particular, tea drinkers have been
14 shown to have up to 20 times the flavonoid intake
15 of non-tea consumers. Using the National
16 Academies' standards, our group recently published
17 a systematic review of nearly 40 prospective cohort
18 studies on tea flavonoid consumption and
19 cardiovascular disease events and mortality.

20 We found linear dose response
21 relationships of tea intake on all-cause mortality,
22 cardiovascular mortality, cardiovascular events,

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

8 No adverse effects of flavonoid intake
9 were noted among the hundreds of studies included
10 in these systematic reviews. For once, the
11 epidemiology and clinical trial data are
12 consistent, and it's time that nutrition policy
13 reflects these findings.

14 We must begin to give guidance to
15 Americans around the consumption of dietary
16 bioactive compounds, such as flavonoids. And
17 finally, to the Committee, on behalf of myself and
18 everyone else here from Washington, D.C. today,
19 thank you for giving us the opportunity to come and
20 comment somewhere nice and sunny.

21 Houston has been lovely.

22 MS. BROWN: Thank you. We do want to

1 announce that we'll do three more comments, and then
2 we'll take a brief break, and so we'll do three more,
3 beginning with number 27.

4 DR. CHAWLA: Good afternoon. My name
5 is Dr. Bandana Chawla. I'm also a physician, and
6 I'm happy to see so many other physicians here
7 because they're passionate about the health of
8 their patients and their community.

9 I am triple board-certified in internal
10 medicine, hospice and palliative medicine, and now
11 the new evidence-based field of lifestyle medicine.
12 I've been practicing here in the Houston area for
13 over 20 years.

14 For the sake of my patients' health and
15 the health of everyone in our American community,
16 I urge this Committee to inform the public and
17 explicitly state the hazards of processed meats in
18 the new Guidelines.

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

1 World Health Organization has determined that
2 processed meat is a major contributor to colorectal
3 cancer, classifying it as type one carcinogenic to
4 humans. Just one hot dog or a few strips of bacon
5 consumed daily increased cancer risk by 18 percent.

6 The World Cancer Research Fund and the
7 American Institute for American Cancer Research
8 have also found that the evidence on processed meat
9 and cancer is clear-cut.

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

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

19 Those who consume the most processed
20 meat also have an increased risk of death from
21 cardiovascular disease, according to a National
22 Institute of Health study of more than half a

1 million people.

2 Experts from Harvard University
3 recommend that Dietary Guidelines exclude red and
4 processed meat in favor of plant-based foods for the
5 benefit of human health and the environment,
6 according to a publication from the American
7 Diabetes Association.

8 Researchers reassessed the health
9 impacts of these foods and found close associations
10 between red and processed meat consumption and
11 diabetes and increased mortality.

12 The evidence is clear, and the general
13 public needs this Committee to educate and empower
14 them. It is USDA's obligation to encourage the
15 American people to eliminate processed meat from
16 their diet so they can reduce the risk of several
17 illnesses, and hence the suffering --

18 MS. BROWN: Thank you.

19 DR. CHAWLA: -- that results from them.

20 Thank you.

21 MS. BROWN: Next, we'll have commenter
22 number 28.

1 DR. CHAWLA: Hi. I'm Dr. Munish
2 Chawla. I'm representing myself. I'm a
3 board-certified physician in radiology and
4 lifestyle medicine. Thank you very much for the
5 opportunity to speak here today.

6 The USDA Guidelines are not just
7 important for lay citizens but are important for the
8 National School Lunch Program, which helps guide
9 the nutritional adequacy of the meals that are
10 served at our schools.

11 With the current epidemic of chronic
12 diseases in our society such as diabetes, heart
13 disease, and obesity, and in particular, childhood
14 obesity, these Dietary Guidelines are more
15 important than ever.

16 The 2015-2020 Guidelines do a great job
17 of informing the public that it is important to
18 focus on a healthy eating pattern. As per the
19 current Guidelines, this healthy eating pattern
20 includes a variety of vegetables, fruits, whole
21 grain, low-fat dairy, and proteins, and
22 furthermore, it is specified that a healthy eating

1 pattern limits saturated fat and sodium.

2 This statement should be applauded,
3 since we have clear evidence which shows saturated
4 fat increases our cholesterol, which is an
5 important risk factor for heart disease. The
6 largest contributor of saturated fat in the
7 American diet today is dairy.

8 So dairy should not be part of My Plate.
9 This should be replaced with water. This will not
10 only reduce saturated fat in the diet, but it will
11 decrease the overall calories in the meal, which is
12 crucial, given the current obesity epidemic.

13 Supporting figures in the current
14 Guidelines which use My Plate as a teaching tool
15 also indicate that we should decrease consumption
16 of saturated fats, sodium and added sugars.

17 It would be extremely helpful for
18 Americans if specific foods were mentioned, so it
19 is clear what foods should be avoided. A clear
20 statement which states, greatly reducing the
21 consumption of mixed dishes, such as burgers,
22 pizza, pasta with meat sauce, would greatly reduce

1 the amount of saturated fat and sodium in the meal.

2 Other similar statements, such as
3 reducing consumption of cakes, pies, cookies, and
4 pastries, would greatly reduce the consumption of
5 saturated fat, refined grains, and sugar. I would
6 also urge that a more clear example of healthy
7 choices be given.

8 A well balanced meal such as tofu with
9 vegetables served with rice and a garden salad would
10 be far superior to the currently highlighted meal
11 of spaghetti with meatballs.

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

19 Thank you for your time.

20 MS. BROWN: Thank you. We'll next have
21 commenter number 29, which will be the last before
22 a 10-minute break.

1 MS. EIGES: Good afternoon. My name is
2 Amy Eiges, and I'm here representing myself and
3 millions of people who have faithfully followed the
4 Guidelines, only to find themselves in poor health.

5 Year after year, diet after diet, I ate
6 according to the government's recommendations to
7 lose weight but found it impossible to sustain. It
8 left me chronically hungry, morbidly obese, and
9 prediabetic.

10 Over and over, I was told that eating
11 everything in moderation, calories in, calories
12 out, following the Guidelines was the answer, and
13 it wasn't working because I must be doing it wrong.

14 I needed more self-control and more
15 willpower, and it was all my fault. When my mother
16 died suddenly from congestive heart failure, a
17 direct result of type 2 diabetes, I woke up and
18 clearly saw my future.

19 Devastated by her death, I realized if
20 I didn't try something different, I would suffer the
21 same fate. So a few years ago, imprisoned in a body
22 with a seemingly insurmountable 200 pounds to lose,

1 I did some research, and discovered a very
2 low-carbohydrate ketogenic diet.

3 I started eating real whole foods,
4 protein, vegetables, dairy and fats to satiety. I
5 don't eat when I'm not hungry. I don't count
6 calories. It's that simple. No gimmicks, no
7 fads, no special products.

8 To date, I have lost 173 pounds. I have
9 reversed prediabetes, and my cardiovascular health
10 is vastly improved. Triglycerides cut in half,
11 cholesterol great. I have successfully reclaimed
12 my health by not following the Guidelines, and I'm
13 far from alone in this.

14 Thousands of us are following a
15 low-carbohydrate plan after finding out we could
16 not depend on the harmful advice we were given. Our
17 trusted medical community, following the
18 Guidelines, has failed us.

19 It was not that we were fat, sick, and
20 lazy. We were fat, sick, and misinformed. If just
21 one of many "experts" I saw over the years had looked
22 at the rigorous science, I and countless others like

1 me might not have been tortured for decades.

2 I might have had the life I was meant to
3 live. What so few are aware of is the Guidelines
4 are not for people who are metabolically unwell,
5 those with prediabetes, high blood pressure,
6 diabetes, obesity, heart disease, which altogether
7 is a staggering 88 percent of this country.

8 The Guidelines are only for the
9 remaining 12 percent whose bodies are metabolically
10 flexible enough to handle more than half of their
11 calories in carbohydrates and six servings of
12 grains a day.

13 But what about the rest of us? What are
14 you offering those of us who became sick and damaged
15 under your watch? A true and proper definition of
16 low carb is under 25 percent of calories. Anything
17 more, and the benefits are greatly reduced.

18 If this option had been available to
19 countless doctors over four decades of trying to get
20 healthy, they would have been able to offer me a
21 solution that actually works.

22 What most doctors won't know is that

1 this option is safe and effective unless you allow
2 it to be one of the approved dietary patterns.
3 Until then, their hands are tied and we all get
4 sicker with the one-size-fits-all option.

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

11 MS. BROWN: Thank you. Okay. We will
12 take a 10-minute break, so convene at 3:40 -- 2:40
13 Central Time. And we'll talk with commenter number
14 30.

15 (A short recess was taken.)

16 MS. BROWN: We'll ask everyone to begin
17 taking their seats. Please take your seats. Okay.
18 Thank you. Commenter number 30.

19 DR. SCHMIDT: Hi. My name is Dr.
20 Darren Schmidt. I spoke to you in July in D.C. I
21 focus on nutrition in my practice, my private
22 practice for 23 years at The Nutritional Healing

1 Center of Ann Arbor.

2 My clinicians and I have seen 60,000
3 nutrition visits in the last five years. I want to
4 tell you about my patient Yael Rosner, a former Ms.
5 Israel, who had been struggling with her health.

6 She says to me, I must admit that I was
7 sure I was being healthy since I was following the
8 U.S. Food Pyramid. I became prediabetic, had
9 neuropathy in my feet, hypertension, overweight and
10 bloating.

11 When you had me switch to a low-carb
12 diet, I started to sleep better and longer, my feet
13 stopped hurting, my blood pressure dropped 20
14 points, and my blood glucose dropped 40. I'm
15 losing pounds and people are complimenting me and
16 I'm happier.

17 So I'm not surprised at this. I've had
18 thousands of patients over the years have great
19 results with the low-carb diet. Jeremy Martin had
20 spondylitis for 10 years. Painkillers ruined his
21 gut.

22 He took Cipro, which destroyed his

1 tendons and nervous system. Years of eating
2 high-carb foods was his cause, and now with the
3 low-carb diet, he's off all medications, pain-free,
4 down 60 pounds, and he's smiling again.

5 These patients switched their diet to
6 the opposite of the current Dietary Guidelines.
7 Why is there such a discrepancy between the
8 Guidelines and these great results? Well, let me
9 explain it like this.

10 Do you remember the six steps of the
11 scientific method that we all learned in grade
12 school? Here they are. Step one, make an
13 observation. Step two, form a hypothesis. Step
14 three, test that hypothesis with an experiment to
15 see if it's actually true or not. Four, analyze the
16 data. Then report the data. Then other
17 scientists have to replicate it.

18 Epidemiology is only the first two steps
19 out of six. It is certainly missing the
20 experiment. Therefore, it is an incomplete
21 scientific process. It is mostly just survey.
22 This includes the Blue Zones, Loma Linda,

1 Seventh-Day Adventist, EPIC data, Okinawa, Eskimo,
2 and NHANES.

3 It is your charge by the law that you
4 have to use the preponderance of science. It takes
5 all six steps of the scientific method to qualify
6 as science, not just the first two steps, like an
7 epidemiological survey. The majority of your
8 studies you are using are incomplete regarding
9 scientific method.

10 Therefore, they are not science and need
11 to be discarded, per the jurisdiction of the law
12 that you're operating. We need diversity in the
13 Guidelines. There is no one diet for all. The
14 low-carb diet has to be an option in your report,
15 just like the American Diabetes Association did.

16 There are 100 clinical trials,
17 experiments, actual science that proves the
18 low-carb diet is safe and effective. Please add at
19 least one line in your report that says a low-carb
20 diet of 25 percent or less of calories from
21 carbohydrates is a safe and viable option, because
22 it is.

1 This is your opportunity to reverse 40
2 years of non-scientific guidelines, and it would be
3 two scientists to finally resolve our nation's
4 health problems. And please don't make me have to
5 come back in five years to repeat myself. Add the
6 low-carb option now. Thank you.

7 MS. BROWN: Thank you. Commenter
8 number 31.

9 MR. HAZARD: My name is Tyler Hazard,
10 and I'm providing testimony on behalf of Compassion
11 in World Farming USA, an international animal
12 protection and environmental organization.

13 According to the U.S. Department of
14 Agriculture and the Department of Health and Human
15 Services, the goal of the Dietary Guidelines is to
16 "promote health and reduce risk of chronic disease
17 for current and future generations."

18 I'm here today to emphasize it is
19 impossible to meet that objective without
20 dedicated, evidence-based consideration of the
21 environment impacts of our current food system.

22 There is global recognition that food

1 choice has devastating consequences for our
2 environment, from greenhouse gas emissions to soil
3 degradation to water pollution.

4 There's also global recognition that
5 the worst types of food for our delicate and
6 deteriorating ecosystems are in fact animal
7 products, chiefly dairy and meat, products that we
8 as Americans massively overconsume, in some cases
9 on levels three to four times the global average.

10 If we continue our over-reliance on
11 animal protein, agriculture alone will catapult us
12 past two degrees warming by 2050, at which point
13 scientists warn of catastrophic consequences
14 including, to this Committee's prior concern,
15 within our food supply.

16 We know that an intensifying climate
17 with more frequent severe weather and distribution
18 channels inundated by sea level rise will see reduce
19 food yields, quality, safety, accessibility and
20 stability, creating a landscape of food insecurity
21 across the globe, the effects of which will
22 disproportionately impact women, children and

1 elderly and be worse for lower-income families and
2 communities of color.

3 Further, that we know that alongside
4 increased rates of food insecurity, the climate
5 crisis will increase mental health and stress
6 disorders, infectious disease, and chronic
7 illness, risking the rapid deterioration of our
8 nation's health, which stands in direct opposition
9 to your objective.

10 Due to this alarming reality, the United
11 Nations Intergovernmental Panel on Climate Change
12 has repeatedly called for a global reduction in
13 animal product consumptions, and in three separate
14 special reports in the last year alone, have called
15 for a transition towards plant-based diets,
16 specifically noting the national Dietary
17 Guidelines as a key opportunity to shift public
18 consumption.

19 From a health perspective, we ought to
20 already advise more plants and less meat, as
21 countless studies demonstrate the short- and
22 long-term benefits of plant-based diets on

1 individual health, specifically in areas of
2 cardiovascular disease, type 2 diabetes,
3 colorectal cancer and all-cause mortality, the very
4 health issues we've been selected to study.

5 We are living in an unprecedented time
6 of climate emergency, where millions of
7 schoolchildren across the country flee their
8 classrooms and take to the streets to combat
9 government inaction, in fear where the planet will
10 leave them if we fail to address this issue, if we
11 fail to stave off our pending crisis, if we fail to
12 lead our kids with a regenerative food system that
13 enriches nature rather than depleting it. Make no
14 mistake: we are failing these children.

15 So I ask you to follow the precedent of
16 our forward-thinking allies at the United Nations
17 and countries like Canada and France, who have
18 recently adopted Dietary Guidelines that recognize
19 critical link between food consumption and human
20 health and long-term food security, and I ask you
21 to follow the precedent of your Advisory Committee
22 predecessors who in 2015 --

1 MS. BROWN: Thank you.

2 MR. HAZARD: -- who had the courage and
3 foresight to acknowledge --

4 MS. BROWN: Thank you.

5 MR. HAZARD: -- that a rabid
6 consumption of animal products will inevitably --

7 MS. BROWN: Your time is up.

8 MR. HAZARD: -- push us past planetary
9 boundaries will be strained --

10 MS. BROWN: We will move to our next
11 commenter, commenter number 32.

12 DR. BRENNAN: I'm Tom Brenna. I'm now
13 at the Dell Medical School, The University of Texas
14 at Austin, where I'm a professor of pediatrics, of
15 chemistry, and of nutrition. I'll add my welcome
16 to Texas for all of you.

17 I'm presenting on behalf of myself and
18 a number of coauthors who I'll mention in a moment.
19 Five years ago, I was in my last years of 28 years
20 on the active faculty at Cornell in the Nutrition
21 Department, and I was a member of the Dietary
22 Guidelines Committee.

1 I found that oral comments meeting to be
2 most interesting, as I'm sure you are. My main
3 reason for being here is to bring your
4 attention -- bring to your attention a
5 peer-reviewed journal -- a peer-reviewed paper in
6 a journal, "Prostaglandins, Leukotrienes and
7 Essential Fatty Acids," that is intended to answer
8 the two seafood questions on the relationship of
9 seafood consumption in pregnancy or in childhood on
10 neurocognitive development.

11 Taking advantage of the new procedure
12 this year, early posting of questions, a group of
13 13 scientists including myself, senior scientists,
14 all academic researchers, I'll note, with expertise
15 in psychiatry, child development, toxicology, and
16 all with an interest in nutrition, came together in
17 a grassroots effort, a grassroots voluntary effort,
18 and we can report no financial conflicts of
19 interest.

20 The NESR protocols are transparent and
21 enable anyone to replicate them. We faithfully
22 replicated -- or at least that was our intent, to

1 faithfully replicate the NESR systematic review
2 process, with kind advice from the NESR staff before
3 we started.

4 Our results are on the DGAC comments
5 website, along with our comments and the papers were
6 posted, and they are open access. We did all the
7 work ourselves. We had no staff, no grad students,
8 no post-docs. We did it all ourselves. You know
9 how much work that would be.

10 You'll see familiar information when
11 you look at the papers. You'll see analytical
12 framework searches, evidence tables. Listening
13 yesterday, I was not surprised and gratified to say
14 that we've come to very similar conclusions with the
15 Seafood committee.

16 I think we can help each other. If you
17 look at our paper, you will see not only support for
18 the conclusions that were mentioned yesterday, but
19 you'll also see including documenting moderate
20 evidence for benefit and moderate evidence for no
21 harm, and we support that designation.

22 Our paper also may be of value in

1 evaluating dose response. We did convert units and
2 worked on that. So I thank you very much for your
3 attention and wish you luck in the work in front of
4 you.

5 MS. BROWN: Thank you. We'll now move
6 to commenter number 33.

7 MS. JANUS: I'm Erin Janus,
8 representing myself.

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

19 So I'm not going to stand here and talk
20 about the many negative health consequences of
21 dairy. I'm here to bring up something else that
22 pertains to dairy that's often grossly ignored and

1 overlooked, and that is ethics.

2 The ethics of dairy has been undermined
3 by the dairy industry for decades, resulting in very
4 little knowledge about the animals who are used and
5 exploited to produce our beloved dairy products.

6 It's because of this that the average
7 person is entirely oblivious to the standard
8 practices that make up dairy production. For
9 example, the average person does not know that all
10 dairy cows are repeatedly inseminated, year after
11 year, against their will, just to make them produce
12 milk.

13 The average person does not know that
14 every mother cow is separated from her baby calf
15 after just a few hours at birth in order to prevent
16 her baby from drinking her milk. And the average
17 person does not know that all mother dairy cows are
18 eventually sent to a slaughterhouse where they are
19 hung upside down and their throats are slashed open,
20 all while still alive.

21 By the way, for any of you who cast any
22 doubt, everything I just mentioned is standard

1 practice, legal, certified humane, and commonplace
2 will all U.S. dairy operations, not just some.

3 So at what point will decision-makers
4 recognize that dairy cows are not commodities or
5 units of property, but rather they are highly
6 sensitive, intelligent, emotional beings who
7 deserve a life that is free from exploitation and
8 human violence?

9 When will it be recognized and accepted
10 that these unethical practices are completely
11 unnecessary to make healthy food choices in our
12 daily lives?

13 I hope that with all the current and
14 previous expert recommendations to remove dairy
15 consumption, advising against dairy consumption
16 and to remove it from the Guidelines, with Canada
17 being a prime example of how a civilized nation can
18 remove dairy from their Dietary Guidelines while
19 still providing healthy recommendations, that the
20 Advisory Committee will not only recognize that we
21 can be healthy without consuming dairy products,
22 but that it ought to be removed on the basis --

1 MS. BROWN: Thank you for your comment.

2 MS. JANUS: -- of ethics? Thanks.

3 MS. BROWN: We'll now move to number 34.

4 MS. JARDINE: Hello. My name is
5 Margaret Jardine. I am a dietitian and a diabetes
6 educator. I work at a large county hospital in
7 Dallas, Texas. I am here on behalf of myself.

8 Thank you for the opportunity to provide
9 my comments and expertise. When I first became a
10 dietitian 25 years ago, I rarely saw a person -- over
11 25 years ago, I rarely saw a person with class III
12 obesity. Now I see it daily.

13 I see younger and younger people with
14 type 2 diabetes on numerous medications, people who
15 should be in the prime of their lives and the peak
16 of their productivity.

17 The epidemics of obesity and diabetes
18 should be considered a national tragedy. I believe
19 this Committee should put the health of the American
20 people at the forefront of the Guidelines by
21 presenting evidence-based information about
22 disease prevention.

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

7 I have several recommendations I
8 believe the Committee should consider. First, be
9 specific about the foods to limit in order to reduce
10 disease.

11 Instead of recommending Americans limit
12 saturated fats, trans fats and sodium, the
13 Guidelines should recommending limiting or
14 eliminating red meat, processed meat, poultry and
15 cheese.

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

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

10 I think you would be hard pressed to find
11 a non-industry-funded study that demonstrates
12 animal products reduce disease. I have submitted
13 some articles of evidence supporting my statement
14 for your convenience.

15 Thank you so much for your time.

16 MS. BROWN: Thank you.

17 Next we'll move to commenter number 35.

18 MS. WELLAND: My name is Diane Welland,
19 and I am the nutrition communications manager for
20 the Juice Products Association. JPA is a trade
21 association representing processors, growers,
22 packers, suppliers, and distributors to the juice

1 industry.

2 We support the current Dietary
3 Guidelines for Americans stating that 100 percent
4 juice introduces beneficial nutrients to the diet
5 and, in appropriate amounts, can be included in a
6 healthy dietary pattern.

7 Several new studies confirm juice's
8 positive role in the diet. They are in adults an
9 NHANES analysis study published in Nutrients in
10 October 2019, showed that 100 percent fruit juice
11 consumption is associated with a 10 percent higher
12 healthy eating index score than non-juice
13 consumption.

14 The higher HEI score was due to higher
15 intakes of whole fruit and total fruit and lower
16 intakes of added sugar, saturated fat and sodium.
17 Juice drinkers also had significantly higher
18 intakes of calcium, vitamin D, potassium, thiamin,
19 folate, vitamin B6 and vitamin C, with the first
20 three nutrients considered nutrients of concern by
21 the 2015 Dietary Guidelines.

22 Adults who consume 100 percent fruit

1 juice have lower body mass index, lower body weight,
2 a 22 percent lower risk of being overweight or
3 obese, and a 27 percent lower risk of metabolic
4 syndrome, compared to non-consumers.

5 Similar results related to diet quality
6 and nutrient intake have been found in children.
7 An August 2019 study in Frontiers in Nutrition found
8 that, in children, high-quality diets had more
9 milk, more water, and more juice than lower-quality
10 diets.

11 There's also no significant
12 relationship between 100 percent juice and body
13 weight status in children. In addition, a 2019
14 scientific review in Nutrition Reviews showed 100
15 percent juice adds a significant number of
16 bioactives to the American diet without negatively
17 impacting weight status or chronic disease risk.

18 Group bioactives include carotenoids,
19 polyphenols such as flavonoids, and more. The
20 review looked at polyphenols derived from fruit and
21 100 percent fruit juice. It showed it's similar to
22 coffee and tea.

1 Fruit and fruit juices have been
2 identified as major polyphenol contributors in the
3 diet. The data suggests bioactive found in fruit
4 and fruit juice may have the potential to positively
5 impact human health.

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

12 Given these new data, JPA recommends the
13 following: 100 percent juice should continue to be
14 part of the fruit and vegetable group and considered
15 a major beverage for consumption; the DGA should
16 acknowledge that, like fruits and vegetables, 100
17 percent fruits contains beneficial plant compounds
18 known as bioactives; it should be encouraged for
19 good health; and the final policy document should
20 recommend that Americans consume a diet containing
21 a variety of fruits rich in bioactives, and include
22 mention that fruits and vegetables and 100 percent

1 juices are primary sources of bioactives.

2 Thank you.

3 MS. BROWN: Thank you. We'll now have
4 commenter number 36.

5 DR. OTTO: Thank you for the
6 opportunity to present the views of the American
7 Heart Association. My name is Marcia Otto. I'm an
8 assistant professor at The University of Texas
9 School of Public Health and a member of the
10 nutrition committee.

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

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

22 AHA recommendations, just like the

1 current Dietary Guidelines, focus on a healthy
2 dietary pattern, rather than a single nutrient,
3 ingredient or food. While admitting nutrient
4 needs is important, focusing on the overall dietary
5 pattern may help the consumers translate
6 recommendations into action when choosing what to
7 eat.

8 We encourage the Committee to keep the
9 focus on healthy eating patterns when it develops
10 its report. There are three elements of
11 heart-healthy dietary patterns that I'd like to
12 address today.

13 First, dietary fats. The Guidelines
14 should recommend replacing intake of saturated fat
15 with unsaturated fats, particularly
16 polyunsaturated fats, as such replacement is
17 associated with lower risk of heart disease.

18 Replacing saturated fats with
19 carbohydrates, however, especially refined
20 carbohydrates and sugars, does not lower heart
21 disease risk.

22 Second, the Committee should consider

1 lowering the current recommendations for added
2 sugars. Many adults and children have very little
3 room in their diet for empty calories, and we need
4 to go lower than 10 percent in order to have a
5 healthy diet while meeting their essential nutrient
6 needs.

7 Added sugars intake is associated with
8 poor cardiovascular health in children at levels
9 far below current consumption in the United States.

10 Third, we understand that the Committee
11 is not examining sodium at this time, but the
12 Guidelines must incorporate the new dietary health
13 reference intake. The first is specific to chronic
14 disease risk reduction and include recommendations
15 to lower consumptions of key sources of sodium,
16 particularly processed foods.

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

21 MS. BROWN: Thank you. We understand
22 commenter number 37 cancelled, but we'll pause to

1 confirm.

2 (No response.)

3 MS. BROWN: And we'll move to
4 commenter number 38.

5 MR. FRYE: Good afternoon. I'm Cary
6 Frye, senior vice president of regulatory affairs
7 at International Dairy Foods Association in
8 Washington, D.C. IDFA is a membership
9 organization that represents dairy cooperatives
10 and processors who make the nation's milk and dairy
11 products.

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

20 USDA and HHS continue to hold that
21 American children and adolescents over four years
22 old are not consuming the recommended amounts of

1 dairy. Lactose-free and reduced lactose products
2 offer these nutritional benefits for consumers who
3 have sensitivities to lactose, and are accessible
4 today in any supermarket, making moot the arguments
5 that people who have sensitivities to lactose must
6 adopt a non-dairy diet.

7 Lactose-reduced milks account for 5
8 percent of milk sales, and virtually all cheeses are
9 lactose-free. Disappointingly, this Committee,
10 as well as American consumers, have been subject to
11 misleading claims about dairy products.

12 These false claims have confused and
13 scared the public, using weak studies based on
14 questionable scientific methods, and preyed on the
15 media's preference for controversy.

16 Since the last DGAs, three things have
17 occurred that should cement dairy's place in future
18 recommendations.

19 First, health organizations, including
20 the Academy of Nutrition and Dietetics, the
21 American Academy of Pediatrics, and the American
22 Heart Association, recommended children ages one to

1 five consume just two beverages: cow's milk and
2 water.

3 Second, dietary advice in other
4 countries have recommended full-fat dairy products
5 as part of healthy dietary patterns. Third,
6 several meta-analyses indicate that there is no
7 negative effect on heart healthy when consuming
8 dairy, no matter whether these dairy products are
9 full-fat or low-fat.

10 IDFA's members have three requests for
11 the Committee. First, dairy should continue as a
12 separate group in the 2020 Dietary Guidelines for
13 Americans.

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

18 And third, the Committee should embrace
19 the evidence showing dairy foods at all fat levels
20 are part of a nutritious diet. We appreciate the
21 opportunity to provide these oral comments and ask
22 the Committee to consider the science presented in

1 our written comments.

2 Thank you.

3 MS. BROWN: Thank you. Commenter 39?

4 Do we have -- okay.

5 We will move then to commenter number
6 40.

7 MR. NGUYEN: Hello. I'm Minh Nguyen.

8 I'm a registered dietitian with the Physicians
9 Committee for Responsible Medicine, a nonprofit
10 nutrition advocacy organization.

11 I'm a native Houstonian. In fact, I did
12 my dietetic internship right here in the Texas
13 Medical Center across the street, at Texas Women's
14 University. So I welcome y'all to my hometown, and
15 also thank you for listening to our comments today.

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

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

8 Low-carbohydrate diets tend to result
9 in reduced intake of fiber, a underconsumed
10 nutrient; and increased intake of animal protein,
11 cholesterol, saturated fat, all of which are
12 overconsumed by Americans and a risk factor for
13 mortality and cardiovascular disease.

14 A prospective cohort study and
15 meta-analysis published in the Lancet Journal in
16 2018 investigated the association between dietary
17 carbohydrate intake and mortality, and the
18 researchers found that mortality increased when
19 carbohydrates were exchanged for animal-derived
20 fat or protein, and mortality decreased when the
21 substitutions were plant-based.

22 Research shows that a low-carbohydrate,

1 high-protein diet is not helpful and leads to poor
2 endothelial function, higher C-reactive protein,
3 which is a marker of inflammation; stiffer
4 arteries, higher cardiovascular risk, higher
5 cardiovascular mortality, higher cancer mortality,
6 and just higher overall mortality.

7 Unlike a low-carbohydrate diet, a
8 plant-centered diet high in complex, unrefined
9 carbohydrates from whole plant foods have proven to
10 reverse heart disease and signs of early-stage
11 prostate cancer in randomized controlled trials.

12 I encourage the Committee to set
13 guidelines that follow the science. Make it clear
14 to Americans what foods should they be consuming
15 more of; mainly, more minimally processed plant
16 foods, such as fruits, vegetables, whole grains,
17 and legumes.

18 I also encourage the Committee to make
19 it clear which foods Americans should be eating less
20 of, namely animal-based foods such as meat, dairy
21 and eggs. Thank you for the opportunity for me to
22 speak today.

1 MS. BROWN: Thank you.

2 Commenter number 41.

3 MR. JOHNSON: Hi, everybody. I'm Guy
4 Johnson, executive director of the McCormick
5 Science Institute, and perhaps, not unsurprisingly
6 today, I have one word for you, flavor.

7 Or if you prefer, we could use the word
8 that Dr. Mattes has been using, palatability.
9 Whatever you call it, 86 percent of consumers,
10 according to IFIC's latest data, think it's the most
11 important factor that they have in determining what
12 foods to buy and eat, which makes it one of the
13 biggest barriers to the consumption of healthier
14 foods, but I'm here to tell you that it does not need
15 to be that way.

16 You can add flavor to healthy foods
17 without sugar, fat, salt or calories in a variety
18 of ways. Take spices and herbs, for example.

19 There are controlled intervention
20 studies that show that spices and herbs can increase
21 the consumption of fruits and vegetables in a high
22 school cafeteria setting by 15 to 20 percent.

1 Spices and herbs have helped
2 free-living adults lower their sodium intake by
3 almost 1,000 milligrams a day over a five-month
4 period. And spices and herbs can compensate for
5 the loss of flavor or palatability in foods that
6 have reduced in saturated fat by 60 to 65 percent
7 and added sugar by a third.

8 And I'm here with some good news.
9 There's a brand-new study conducted in France that
10 shows that a pulse hummus-type appetizer with
11 cumin, ginger, shallots and a little bit of garlic
12 reduced the loss in palatability of a 50-percent
13 reduction in sodium.

14 And there's more research on the way.
15 So the current Dietary Guidelines do a pretty good
16 job of starting out on this by recommending that
17 spices and herbs be used to flavor foods, rather
18 than salt.

19 But we've got a long way to go. The data
20 you presented yesterday shows that a lot of people
21 are not meeting the Dietary Guidelines. And so I
22 think flavor is your best shot at making it happen.

1 So what I'm going to ask you to do, when
2 you're writing a report, think of yourselves as not
3 only scientists, which obviously you are, but
4 consumers, which you also are, and look for ways to
5 use the Guidelines to remove some of those barriers
6 to healthier eating.

7 Maybe even make it fun, like Dr. Boushey
8 said yesterday, and I think we can do it, even with
9 those burgers and sandwiches.

10 Thank you very much.

11 MS. BROWN: Thank you. We'll now have
12 commenter number 42.

13 MS. MCGUIRE: Good afternoon. My name
14 is Jennifer McGuire, and I am a registered dietitian
15 with expertise in nutrition communication. I work
16 for the National Fisheries Institute and spend much
17 of my time following the latest seafood science, and
18 translating it for media, fellow health care
19 professionals, and families.

20 The studies about the beneficial role in
21 seafood in brain development and health, as well as
22 heart health, have been captured in your literature

1 review, and speak for themselves. So I'm not going
2 to get into that.

3 Instead, today I'm going to focus on
4 what the science says about the quantifiable impact
5 of Americans' low seafood consumption on public
6 health.

7 Starting at the beginning, pregnant
8 women in this country eat less than two ounces of
9 seafood per week. This is less than one-quarter of
10 the 2015 Dietary Guidelines' recommendation to eat
11 eight to 12 ounces or two to three servings of
12 seafood each week during pregnancy. So how does
13 that translate into health impacts?

14 Based on data from the FDA's net effects
15 of eating commercial fish assessment, the very low
16 amount of seafood a pregnant women in the U.S.
17 currently eats contributes 0.7 points to her baby's
18 IQ.

19 While that's certainly better than
20 nothing, she can boost her baby's IQ by 3.2 IQ points
21 by eating the recommended amount of seafood.

22 Unfortunately, the low seafood intake

1 that most expecting moms eat in this country leaves
2 2.5 IQ points on the table per baby, for a
3 population-wide loss of about 9.5 million IQ points
4 annually.

5 Moving on to the impacts of seafood
6 deficiency on heart health, a December 2019 study
7 published by Plos Medicine estimated the annual
8 heart disease and type 2 diabetes costs in the U.S.
9 associated with suboptimal intake of 10 food
10 groups.

11 These included things like fruits,
12 vegetables, seafood, nuts and seeds, grains,
13 sugar-sweetened beverages, sodium, all of the food
14 groups that y'all are looking at.

15 Researchers found the second-largest
16 contributor to costs is low consumption of seafood
17 omega-3s, accounting for \$1.27 billion in heart
18 disease costs per year.

19 Researchers conclude the mean
20 consumption of seafood in the U.S. is extremely low,
21 and thus there is much to gain from an increase to
22 ideal levels of consumption.

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

5 Thank you.

6 MS. BROWN: Thank you. Commenter
7 number 43.

8 MR. DIAMOND: Good afternoon. My name
9 is Larry Diamond. I am a health coach and
10 researcher from Austin, Texas, and I want to paint
11 a picture of January 2013, seven years ago, what my
12 health state was like at that time.

13 I had been morbidly obese for well over
14 20 years, my entire adult life. I had all five
15 markers of metabolic syndrome. I was constantly
16 hungry, and I was also constantly tired.

17 And I had an epiphany. What if, instead
18 of the cause of my obesity being eating more and
19 moving less, what if that was a result of the diet
20 that I was following? And I was very much following
21 a high-carb recommended Dietary Guidelines of real
22 foods.

1 But for me, that was keeping me
2 constantly in a state of high insulin. I had blood
3 sugar swings. So I was hungry every few hours. I
4 remember not being able to go as much as I wanted
5 to, more than a few hours, without eating.

6 And I had a family. I had advanced
7 degrees. Like many, many Americans, why couldn't
8 I stop eating? So I decided to delve into that
9 aspect of my life, and I found that low-carb,
10 real-food diets, between 50 grams and 130 grams,
11 created a condition called fat adaptation, that was
12 the breakthrough that saved my life.

13 And at the time, seven years ago, I had
14 a newly adopted daughter with my wife, and I did not
15 think that I would be alive today. So what is fat
16 adaptation, and why should a low-carbohydrate
17 option included in the Dietary Guidelines?

18 Fat adaptation means that, during the
19 day, we run on free-fatty acids and ketones. Those
20 are clean-burning fuels for organs. You spare
21 glucose for the few cells that need it in the brain,
22 the red blood cells.

1 You have steady blood glucose. You
2 reverse metabolic syndrome. My trigs over HDL went
3 from seven to well under one. You're never hungry
4 because you have access with your own body fat at
5 all times.

6 So my family is healthy. My wife lost
7 70 pounds. I lost 120. We're terrifically
8 energetic. Please include this option for all
9 Americans. Thank you.

10 MS. BROWN: Thank you.

11 We'll move to commenter number 44.

12 DR. EYTAN: Good afternoon. My name is
13 Ted Eytan, and I'm a family medicine specialist
14 residing in Washington, D.C., here on behalf of The
15 Nutrition Coalition. I have no ties to
16 pharmaceutical, food or device manufacturers,
17 because screening for conflicts of interest is
18 important.

19 It's amazing to be here in 2020, because
20 I grew up with the first Dietary Guidelines in
21 Phoenix, Arizona. I remember how my family
22 responded to the mass media messages and how

1 dramatically the food environment changed.

2 For me, I was calorie-restricting as
3 early as age 12, unable to control my weight or
4 appetite, and this is not normal. Kids, indeed all
5 of us, should feel satiated from eating a
6 nutrient-dense, minimally processed food diet, and
7 we should exist at a normal weight without much
8 thought, and then lead long, productive, healthy
9 lives.

10 It is now 2020, and when someone says
11 they're eating healthy, we don't know what that
12 means anymore. It might seem like a group like ours
13 wants one specific dietary pattern endorsement in
14 the 2020 DGA.

15 This is not the case. Our goal is that
16 nutrition policy be based on rigorous scientific
17 evidence. We care that the recommendations that go
18 out to all Americans be trustworthy, reliable, and
19 up to date.

20 The process for reviewing the science
21 needs to be based on an accepted state-of-the-art
22 methodology like GRADE or Cochrane. With

1 grade-limited evidence as you showed yesterday, it
2 would be proper both to not issue recommendation or
3 issue a weak recommendation, which would allow
4 health professionals to tailor their care to the
5 needs of the people they serve.

6 We only have to remember the reversals
7 on dietary cholesterol and low-fat diet to be
8 reminded that caution is far better than
9 overstepping what the science reliably tell us. We
10 applaud you for considering a greater range of
11 dietary patterns as well as types of dietary fats
12 in the topics and questions under review.

13 These include importantly the continued
14 caps on saturated fats. These fats have been
15 tested in rigorous clinical trials on tens of
16 thousands of people in studies funded by the NIH,
17 yet no Dietary Guidelines committee has ever
18 directly reviewed them.

19 They are excluded from your review
20 because they took place prior to 1990. Nineteen
21 systematic reviews including these trials have been
22 published since 2010. Please include this data in

1 your review.

2 This is gold standard data, and it
3 should not be ignored. Yesterday, we saw the
4 horrific data regarding the metabolic health of
5 Americans. Have you given up on the idea that the
6 DGAs should reduce chronic illness instead of
7 accept its increased prevalence?

8 Quoting the 2015 Guidelines: "These
9 Guidelines embody the idea that the healthy eating
10 pattern is not a rigid prescription but rather an
11 adaptable framework in which individuals can enjoy
12 foods that meet their personal, cultural and
13 traditional preferences."

14 This is what we need, a true range of
15 dietary patterns based on rigorous clinical trial
16 evidence. This would be a DGA we'd all be proud of.
17 We're here to eliminate metabolic illness with you.

18 Thank you.

19 MS. BROWN: Thank you.

20 Next, commenter number 45.

21 DR. MILLER: My name is Dr. Debra
22 Miller, and I'm the senior vice president for

1 scientific and regulatory affairs at the National
2 Confectioners Association, or NCA. We thank the
3 DGAC for this opportunity to appear before you
4 today.

5 NCA is the leading association
6 representing the U.S. chocolate and candymakers.
7 I likely do not need to tell you all, but consumers
8 love the products that our members produce.

9 In these brief comments, we would like
10 to provide some insight on our special and unique
11 category and outline our industry's voluntary
12 efforts to help consumers manage their calorie and
13 sugar intake.

14 We also strongly encourage the DGAC to
15 recognize the key role that portion control and
16 portion balance must play in the 2020-2025 Dietary
17 Guidelines.

18 So despite an array of consumer
19 education efforts, including mandatory nutrition
20 labeling and, more recently, restaurant menu
21 labeling, obesity remains the nation's most
22 critical nutrition issue.

1 Over the past four decades, researchers
2 have documented that the sizes of meals, snacks, and
3 beverages have increased rather dramatically. One
4 promising and, we think, underutilized strategy for
5 taking this issue is to help consumers to understand
6 and consume appropriate-sized portions.

7 The importance of portion control is
8 recognized by leading authorities including the
9 American Heart Association, the American Cancer
10 Society, and the CDC. Emphasis on portion control
11 allows individuals to enjoy the foods that they love
12 within the context of a balanced diet.

13 Chocolate and candy products are
14 unique. They have long been associated with
15 gifts, holiday traditions, family celebrations
16 and the like. Consumers appreciate the unique role
17 that chocolate and candy can play as an occasional
18 treat in a happy and balanced lifestyle.

19 They further understand that these
20 treats generally contain some sugar. Because our
21 members understand the connection that consumers
22 have to the products we make, our industry is

1 committed to helping consumers manage their calorie
2 and sugar intake, while still enjoying their
3 favorite treats.

4 To that end, in 2017, the confectionary
5 industry launched the Always a Treat Initiative.
6 As part of this initiative, over the next few years,
7 consumers will see more options in smaller-sized
8 packages and innovative new products.

9 We are proud to make this commitment
10 with the Partnership for a Healthier America, who
11 will help us track our progress and verify this a
12 meaningful initiative.

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

17 According to NHANES data, most
18 Americans have candy about two or three times a
19 week, for about 40 calories, and about five grams
20 of added sugar per day from those confectionary
21 items.

22 Thus the average amount of candy can fit

1 into the U.S. dietary -- the daily value for added
2 sugar. While our industry understands that the
3 Dietary Guidelines on added sugar is important, we
4 also believe that incorporating --

5 MS. BROWN: Thank you.

6 DR. MILLER: -- a treat on occasion is
7 important as well.

8 MS. BROWN: Thank you. With
9 additional time, we'll move to commenters on the
10 standby list originally, beginning with number 46.
11 No? Forty-seven?

12 DR. GUSTIN: I'm Dr. Anthony Gustin.
13 I'm a sports medicine and functional medicine
14 clinician from Austin, Texas, and I've seen
15 firsthand the power of nutrition in practice.
16 Using my clinical experience I've scaled a
17 whole-food, low-carb platform that over 45 million
18 people have engaged with.

19 Results have been incredible.
20 Thousands of people have used real-food, low-carb
21 diets to fix insulin resistance, diabetes, obesity
22 and more. I'm not against real-food

1 carbohydrates, rather for the recognition and
2 inclusion of low-carb, defined as 25 percent or less
3 of total calories from carb as a dietary option for
4 people who may benefit from it.

5 Over 60 percent of Americans have
6 chronic disease and could benefit from this
7 approach, and the current 45 percent guideline
8 won't be enough to turn their health around. I have
9 full confidence that when the Dietary Guidelines
10 are refreshed, we will collectively be intelligent
11 enough to incorporate the results from hundreds of
12 low-carb studies that we've seen in the last five
13 years, much like the ADA has done recently.

14 More concerning to me is when you
15 recommend a healthy, low-carb nutrition pattern,
16 where the energy will come from. If you reduce
17 carbs, you have to increase fat. However, the
18 current Guidelines demonize saturated fat and
19 promote polyunsaturated fat.

20 I understand the concern that saturated
21 fats lead to heart disease. When you look at the
22 science, it just doesn't hold up. This is not too

1 dissimilar to the old recommendations for
2 cholesterol that didn't pan out.

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

12 Saturated fats are stable in the body
13 and not easily oxidized. They're used for things
14 like energy metabolism, hormone production, cell
15 membranes, nervous system maintenance and more.
16 Saturated fats are naturally found in both animal
17 and plant foods, and the majority of fat in breast
18 milk. The best food for a developing human is
19 saturated fat.

20 Humans do not lose the ability to use
21 saturated fat after childhood. Polyunsaturated
22 fats, by comparison, are highly reactive molecules.

1 They are many carbon double bonds
2 reacting violently with oxygen, like firecrackers
3 in the body. This peroxidation cascade results in
4 highly toxic compounds, mitochondrial and DNA
5 damage in oxidation of LDL particles.

6 Polyunsaturated fats come from heavily
7 processed seeds going into oil. This process takes
8 massive machinery and many chemicals. No human in
9 history was ever able to eat the nutrient-void
10 processed fat from thousands of seeds until the last
11 100 years.

12 I agree with the stance of this
13 Committee that people should be eating
14 nutrient-dense whole foods. The reality is real
15 foods highest in nutrition per gram are those that
16 include saturated fat.

17 Reducing polyunsaturated fat by
18 allowing saturated fat shouldn't be controversial.
19 You are literally replacing nutrient-void,
20 chemical-rich processed fake foods and industrial
21 seed oils with natural, nutrient-rich whole foods
22 that have saturated fat.

1 There doesn't need to be a target for
2 saturated fat, rather a removal of the current
3 limitation, much like how the cholesterol
4 limitation was dropped from the current Guidelines.
5 This will allow people to get the most amount of
6 nutrition per gram of food, while minimizing toxic
7 seed oils.

8 Please make the right call and drop any
9 limitation to saturated fat, much like you did with
10 cholesterol in 2015. Thank you.

11 MS. BROWN: Thank you. Commenter 48.

12 MS. MULLER: Hello. My name is
13 Michelle Muller, and I am co-founder of Little
14 Spoon, an early childhood nutrition company, for
15 birth to eight years. Thank you to the Committee
16 for lending your accessibility to the public today.

17 For quick context, I've been building
18 Little Spoon for more than three years, launching
19 our delivery service for cold-pressed organic baby
20 food nationally in 2017. We offer a comprehensive
21 nutrition solution, taking into account where
22 children are developmentally and in their

1 starting-solids journey, and then provide
2 recommendations for a full baby food meal plan.

3 In 2019, we launched a line of vitamins,
4 probiotics and homeopathic remedies for an
5 additional layer of health support. At Little
6 Spoon, we know quality nutrition is critical during
7 the first years of life to set up a lifelong healthy
8 relationship with food.

9 As such, I have three areas I recommend
10 this Committee focus on as they write the Guidelines
11 for the next generation: spoon feeding, variety,
12 and limiting processed foods.

13 In the last public meeting, Dr. Kay
14 Dewey, the chair of the Birth to 24 Months
15 Subcommittee, stated that the Committee will be
16 looking more to what to feed and what not addressing
17 how to feed infants and toddlers, which I hope you
18 will all reconsider.

19 At Little Spoon, we strongly believe
20 that parents should choose spoon feeding over pouch
21 feeding. Pouches can be a convenient, on-the-go
22 option for those in-between snack moments and

1 special medical cases, but there is mounting
2 research suggesting pouches can hinder healthy
3 development of eating skills.

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

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

16 We know there is not one magical
17 superfood, but rather a variety of foods that
18 provide a nutritional punch when consumed together.
19 Serving babies complementary foods from all colors
20 of the rainbow is a great way to ensure they are
21 receiving a myriad of nutrients.

22 Avoiding processed foods is also a must,

1 so we strongly believe that a baby's first bite of
2 food should be a fruit or a vegetable, instead of
3 overly processed cereals like rice or oatmeal.

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

10 In the adult nutrition guidelines, the
11 USDA recommends whole vegetables, fruits and
12 grains, and recommends to limit added sugars, salt,
13 saturated and trans fats, ingredients solely found
14 in processed foods.

15 Please consider that how baby and
16 toddler food is processed matters. The heat
17 processing that most shelf-stable brands use are
18 rendering the food commercially sterile, lacking
19 vitamins and nutrients, all critical for healthy
20 development.

21 This is not to say we should ban
22 shelf-stable baby food, but the fact that it's 2020

1 and there is no transparent recommendation on the
2 benefits of feeding babies fresh food over --

3 MS. BROWN: Thank you.

4 MS. MULLER: -- commercially sterile
5 food is creepy. Thank you.

6 MS. BROWN: Thank you for your comment.

7 Next, we'll move to 49. Forty-nine? No? Fifty?

8 Do we want to go next on that side, then, 51?

9 Fifty-two? Okay. We've got one, commenter 52.

10 DR. ALI: I've been a practicing
11 cardiologist for about 30 years, and I have served
12 in several leadership positions at Baylor College
13 of Medicine and HCA Houston Health Care.

14 For the first 24 years of my practice,
15 I advised my patients to follow a low-fat, healthy
16 whole-grain diet, with emphasis on fruits,
17 vegetables, and a reduction in animal food, sugar,
18 and saturated fat.

19 My patients did not improve on this
20 diet, despite being disciplined and following my
21 recommendations. I saw them gradually becoming
22 prediabetic or diabetic, increase their weight and

1 worsen their cholesterol. Many progressed to
2 overt heart disease.

3 It was a dreadful experience to go to my
4 office, because I felt I was ineffective and
5 increasingly reliant on medications that made their
6 lives worse.

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

11 I come across over 100 patients on a
12 weekly basis. I have seen patients in their 70s,
13 80s and 90s improve on a low-carb diet and
14 intermittent fasting. One practice reinforces the
15 other.

16 Not only have I seen 30 to 50 pounds of
17 weight loss, I have consistently seen them improve
18 their blood sugar, their blood pressure, and their
19 cholesterol quality.

20 They've been able to stop many
21 medications, diabetic, blood pressure, and
22 lipid-lowering medications. This has been a

1 transformative experience for me. My patient
2 interaction is reinforced on a daily basis by our
3 collective victory in their health.

4 I constantly hear them talking about
5 being satiated and having control over their hunger
6 on a true low-carb diet, which should mean less than
7 20 percent of calories coming from carbs.

8 Let us not forget that as humans our
9 brain is 1,000 grams bigger than our closest ape
10 ancestor. This is because we ate nutrient- and
11 calorie-dense animal food and learned the art of
12 cooking.

13 I humbly submit that a low-carb diet is
14 a paradigm whose time has come for DGA to include
15 it as an option.

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

21 Thank you.

22 MS. BROWN: Thank you. Commenter 53?

1 MR. REYNOLDS: My name is Doug
2 Reynolds, representing Low Carb USA. After
3 discovering the concept of carbohydrate
4 restriction and reversing my own health issues, I
5 established Low Carb USA to provide a platform for
6 others to learn what I did not know until I was 51.

7 It's important to recognize that this
8 field has a growing mountain of rigorous clinical
9 trial evidence behind it. While we applaud the
10 initiative of the Committee for proposing to add a
11 low-carb dietary pattern to the 2020 Guidelines, I
12 do have grave concerns about the current proposed
13 definitions for that pattern.

14 A threshold of 45 percent of calories
15 from carbs doesn't even come close to defining a
16 low-carb diet. A separate analysis of the
17 scientific literature, looking only at studies
18 below 25 percent, is encouraged, because this is the
19 upper limit of the threshold.

20 More important would be to
21 additionally define a ketogenic subcategory
22 advising 10 percent or less. The differences you

1 will see in each of these groups is vast.

2 At levels below 25 percent, we eliminate
3 sugar and processed carbohydrates and basically
4 just eat real food, which results in enormous
5 improvements in general health. Low Carb USA
6 established a panel of advisors of highly respected
7 scientists and physicians from around the world,
8 and in May 2019, we published a set of clinical
9 guidelines for therapeutic carbohydrate reduction
10 as an intervention for use by physicians.

11 This identifies a number of low-carb
12 categories with thresholds defining grams of carbs
13 as opposed to percentages. The two lowest of these
14 are very low-carb ketogenic, which is less than 30
15 grams, and low-carb ketogenic 30 to 50 grams.

16 It's at these levels that the magic
17 happens. In other words, significant metabolic
18 changes occur, including drastically reduced
19 levels of inflammation, resulting in reduced
20 chronic disease.

21 There are now hundreds of thousands of
22 documented clinical cases with the reversal of many

1 chronic diseases, like type 2 diabetes,
2 non-alcoholic fatty liver disease, all thought
3 previously to be incurable. And every day, we hear
4 about more.

5 The truth is that adding the currently
6 proposed low-carb pattern will do far more harm than
7 good. The Dietary Guidelines are supposed to be
8 only for healthy people, but this is only about 12
9 percent of the population.

10 The reality is that the Guidelines are
11 highly influential in establishing the food
12 policies of most institutions, like hospitals,
13 schools and our military, and they set the gold
14 standard for clinical trials.

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

20 I hope you will recommend guidelines
21 with a true range of dietary patterns for all
22 Americans, including the vast majority of us

1 struggling with the diet-related diseases, not just
2 a tiny elite portion.

3 Thank you.

4 MS. BROWN: Thank you. Next on this
5 side, commenter 56?

6 DR. NGUYEN: Hello. My name is Dr.
7 Tiffany Nguyen, and I'm a general pediatrician in
8 the Houston area, working at Texas Children's
9 Pediatrics for the last 16 years.

10 I would like to speak from my experience
11 with the pediatric population and urge the
12 Committee to put a greater emphasis on fiber.

13 Here's why. Constipation and obesity
14 are two of the most common problems I see in my
15 practice. In fact, a high percentage of my
16 patients with abdominal pain are merely suffering
17 from constipation, and more than 30 percent of my
18 checkup visits reveal patients in the overweight or
19 obesity range.

20 Increasing fiber intake is a proven,
21 simple, and practical approach to help remedy these
22 problems. In a study by Schmier and others in 2014,

1 increasing fiber intakes by three grams in just half
2 of the U.S. population may relieve enough
3 constipation to save an estimated \$12 billion in
4 health care costs. Basically just reaching for an
5 extra apple or a banana a day is all it takes.

6 Recent expert studies revealed more
7 than 40 percent of kids have obesity by their late
8 teens, and it's predicted that by the year 2030,
9 about half of the population will have obesity.

10 Obese patients are at increased risk of
11 developing many medical problems, including
12 diabetes, hypertension, high cholesterol, stroke,
13 osteoarthritis requiring hip and knee
14 replacements, and even certain cancers.

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

20 Parents often come into my practice
21 expressing their concern that the children are not
22 getting enough protein in their diet, and yet

1 studies show that more than 97 percent of Americans
2 do get enough protein, but in contrast, more than
3 97 percent of Americans do not get enough fiber.

4 Fiber deficiency then is the more
5 practical concern. A recommendation from the
6 Committee can boost public awareness and promote
7 increased fiber intake. Increased need for fiber
8 will compel business and agriculture to supply its
9 demand.

10 Together we can respectfully align
11 science, medicine, food industry, and public
12 education to promote a healthier and happier
13 lifestyles and drive down health care costs.
14 Although an apple of day may not keep the doctor
15 away, it's a simple step towards better health for
16 our community.

17 Thank you.

18 MS. BROWN: Thank you. Commenter 57?

19 MS. MOHAMEDSHAH: Hello. I am Farida
20 Mohamedshah with the Institute of Food
21 Technologists, IFT. IFT is a global organization
22 of nearly 16,000 individual members from more than

1 100 countries.

2 IFT brings together the brightest minds
3 in food science, technology and related professions
4 from academia, government and industry to solve the
5 world's greatest food challenges. We believe that
6 science is essential to ensuring a global food
7 supply that is sustainable, safe, nutritious and
8 accessible to all.

9 We appreciate the opportunity to
10 provide input on the 2020 Dietary Guidelines for
11 Americans, DGAs. IFT underscores the importance
12 of ensuring that the recommendations regarding food
13 and nutrient intake are evidence based.

14 We urge the Committee to continue the
15 focus on evidence-based healthy eating patterns,
16 such as those identified in the 2015-2020 DGAs, that
17 epitomize a healthy diet, support food-based
18 dietary recommendations to meet nutrient needs, and
19 recognize that all food groups and foods, including
20 processed foods, can be part of healthy eating
21 patterns.

22 It is also critical that the recommended

1 healthy eating patterns allow consumers to have
2 enjoyable eating experiences and meet their
3 personal, cultural, lifestyle, and budgetary
4 needs.

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

10 It is important to recognize that fresh
11 and locally grown foods alone are insufficient both
12 in the amount and distribution to meet the nutrition
13 requirements of the growing and diverse population,
14 or the particular needs at each life stage, at all
15 socioeconomic levels.

16 Hence food processing is crucial.

17 Through the application of food science
18 and technology, food processing helps transform raw
19 food materials and ingredients into a variety of
20 safe, nutritious, palatable, accessible,
21 convenient, and affordable foods that are available
22 year-round.

1 Although in some instances, food
2 processing may reduce some nutrients, in others it
3 increases long-term retention and bioavailability
4 of some nutrients and food components.

5 For example, processing makes the
6 important antioxidant lycopene more available from
7 canned rather fresh tomatoes. Food fortification
8 and reformulation are proven to address nutrient
9 concerns such as additional vitamin D or reducing
10 the use of food components such as added sugars.

11 Yet without food safety and
12 sustainability, efforts to improve nutrient and
13 diet quality may be ineffective. IFT urges that
14 the Committee and the Departments of Agriculture
15 and Health and Human Services engage food
16 scientists and technologists in the deliberation
17 process.

18 Their insights and diverse ranges of
19 expertise are critical to the discussion of healthy
20 dietary patterns and implementation of at-scale
21 solutions that address consumer acceptance, taste,
22 convenience, affordability and accessibility.

1 In addition to nutrition and food
2 science, it is critical to address consumer
3 dynamics and behavior as germane drivers --

4 MS. BROWN: Thank you.

5 MS. MOHAMEDSHAH: -- for consumer
6 adoption of nutritious food products --

7 MS. BROWN: Thank you for your comment.

8 MS. MOHAMEDSHAH: Thank you.

9 MS. BROWN: We'll next move to this
10 side, commenter number 58. Thank you.

11 DR. SMIGEL: Yes. Thank you. My
12 name's Dr. Jacob Smigel. I'm an emergency
13 physician, board-certified in emergency medicine,
14 and I've been working in the hill country outside
15 Austin, Texas, for the past five years or so.

16 I had a little bit of a Doc Hollywood
17 experience going out there I think, and it's been
18 beautiful. But I find that I'm doing different
19 work than maybe I'd imagined I would do or that you
20 imagined I would do.

21 Most of my time is spent not treating
22 emergencies as you might imagine them, like falling

1 off of scaffolds, or run over by cars, but rather
2 dealing with the acute presentation of chronic
3 disease, non-life-threatening heart attacks,
4 strokes, diabetic complications, hypertension, for
5 instance.

6 And that really comes to no surprise to
7 you, because it's actually truly the bread and
8 butter of emergency medicine. And I've had an
9 interesting nutrition since medical school. I got
10 a modicum of nutrition training in medical school.

11 It got excited and it made me curious,
12 and I've been asking patients what they think about
13 nutrition or what they think about healthy diets?
14 And what I can ascertain from five years of spending
15 time in Burnet, Texas -- and I'm representing those
16 people here today -- is that most people's
17 perception of diet has to do with three facts that
18 they're sure of: protein is good, got to get your
19 protein; all carbs are bad; and bananas have a whole
20 lot of potassium in them. That basically sums up
21 their nutritional knowledge of most people.

22 And furthermore, there's a disconnect,

1 because when I ask them, do you think the foods that
2 you're eating could make you sick? They say, oh,
3 yeah. Do you think maybe changing the foods that
4 you eat could make you well? I don't know. They
5 don't seem to think so. There's a clear disconnect
6 there for me. And that's why I think we need clear
7 public health messaging, the clearer the messaging
8 the better.

9 This works in regards to public smoking
10 or smoking campaigns or wearing seatbelts or safe
11 sex practices. This is how we change the health of
12 the public. And I'm here today to urge you for
13 clear messaging regarding the optimal diet for
14 human health.

15 I note from the 2015 Guidelines, for
16 instance, a notation that there's strong evidence,
17 from mostly prospective cohort studies but also
18 randomized controlled trials, having shown that
19 eating patterns that include lower intake of meats
20 as well as processed meats and processed poultry are
21 associated with reduced risk of cardiovascular
22 disease in adults.

1 Moderate evidence indicates that these
2 eating patterns are associated with reduced risk of
3 obesity, type 2 diabetes, and some types of cancer,
4 the scourge of the ER, if not all health care
5 professionals.

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

16 MS. BROWN: Thank you. Could we have
17 commenter 59? Sixty?

18 MR. LEAR: Good afternoon. I am Al
19 Lear, director of science and research for the
20 International Bottled Water Association, IBWA.
21 Water, including tap, filtered and bottled, plays
22 a vital role in supporting nutritional health.

1 IBWA applauds the 2015 Dietary
2 Guidelines for recognizing the importance of water
3 in a healthy diet, and we were glad to see inclusion
4 of water as a topic under beverages by the 2020
5 Dietary Guidelines Advisory Committee.

6 Scientific research shows that drinking
7 water positively influences overall well-being and
8 supports a number of healthy bodily functions and
9 organs. The Centers for Disease Prevention and
10 Control's Drinking Water Fact Sheet recommends that
11 drinking enough water every day is good for overall
12 health.

13 As plain drinking water has zero
14 calories, it can also help with managing body weight
15 and reducing caloric intake when substituted for
16 drinks with calories. We were glad to see that the
17 2020 Dietary Guidelines will include a focus on
18 children from birth to 24 months, because the
19 development of chronic diseases starts at an early
20 age, and so do good drinking habits.

21 Consistent with CDC recommendations,
22 consumption of breast milk or infant formula, along

1 with the introduction of water for children between
2 six and 12 months old, is encouraged. As the
3 Committee reviews the hydration needs for all age
4 groups, IBWA urges special consideration for
5 hydration requirements for adults 65 and older.

6 Proper hydration is an important
7 consideration for the well-being of everyone, but
8 it is of increased importance for older adults, as
9 noted in the National Center for Health Statistics
10 Data Brief, which notes that previous studies have
11 shown that adults aged 60 and older are among the
12 most vulnerable to dehydration.

13 In terms of consumer education, the
14 importance of water in a healthy diet is recognized
15 by 48 countries throughout the world, who promote
16 water consumption in the nutritional guidance
17 graphics.

18 However, water is noticeably absent in
19 the most prominent educational tool that the United
20 States Government uses to promote a healthy diet,
21 the My Plate nutritional guidance graphic.

22 Water, in addition to the presence of

1 dairy, should be included on the My Plate
2 nutritional graphic, since it is critical to good
3 health.

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

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

20 MS. BROWN: Thank you. We'll move to
21 our last commenter before closing remarks, number
22 61.

1 DR. McADAMS: Good afternoon. I'm Dr.
2 Molly McAdams. I'm a rancher and steward of the
3 land. I'm also a PhD-level scientist, a
4 businesswoman, and the mother of a teenaged
5 athlete.

6 My family's Texas ranch, which is about
7 90 miles north of here, has operated and provided
8 beef to Americans since the 1830s. Across the
9 human lifespan, beef is a great-tasting,
10 nutrient-rich food that plays an important role in
11 any healthy diet, including healthy pregnancies,
12 growth and development of children, adults who want
13 to maintain strength and energy, older Americans
14 who want to age vibrantly.

15 Beef delivers great nutrition as a
16 single-ingredient real food that people enjoy
17 eating. As a supporter of the National Cattlemen's
18 Beef Association and through the Beef Check-off,
19 I've proudly contributed to scientific research
20 about this nutrient-rich food.

21 And thanks to cattle-raising practices,
22 beef is leaner than ever before. Over 20

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

7 We don't need to cut back on beef intake
8 to get a healthier diet. Rather, we should eat more
9 nutrient-rich foods and less empty calories.

10 History and science have shown that limiting meat
11 doesn't help people eat better and can actually lead
12 to overconsumption of refined carbs, as well as
13 foods high in added sugars and sodium.

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

19 I'm a former grocery executive who led
20 product development and health and wellness. I can
21 tell you that America's favorite protein food is
22 beef. What a great opportunity, because beef pairs

1 perfectly with foods people aren't eating enough
2 of, like vegetables and whole grain.

3 In fact, many Americans would benefit
4 from getting more nutrients like protein, iron, B
5 vitamins and choline, all of which are easily found
6 in beef but are not as easily found in plant foods.

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

16 MS. BROWN: Thank you. That concludes
17 our oral public comments, and we'll now move to
18 closing remarks.

19 CHAIR SCHNEEMAN: Great. Well, on
20 behalf of the Committee, thank you to everyone for,
21 first of all, preparing the comments, doing them in
22 a very timely manner, and thinking about the needs

1 of the Committee.

2 We appreciate your being here, and we
3 appreciate the effort that you've made with those
4 comments.

5 I once again want to thank the staff at
6 the Children's Nutrition Research Center, where
7 we've been hosted for the last two days, that we
8 really have enjoyed being here, and we've really
9 enjoyed the support from that staff.

10 Likewise, to the USDA and HHS staff, who
11 really support the work of this Committee but also
12 made sure that this meeting went forward in a very
13 efficient and productive way. So thank you to all
14 of you, to helping the Committee meet its goals,
15 meet its targets.

16 I would remind people that, in terms of
17 comments, the comment period is open until the
18 Committee finishes its work, but we would encourage
19 you to submit comments by February 7 to have the
20 greatest impact in terms of the work ahead of the
21 Committee right now.

22 And I would also remind folks -- I

1 commented earlier, and I just remind you again that
2 the website often will have additional information
3 about the protocols, how we're defining things
4 within those protocols, any modifications that
5 we've had to do, and as the Departments identify
6 areas where further information is needed under the
7 frequently-asked questions to help the public
8 understand the process that we're using, that that
9 information is there. And either sign up to be on
10 the listserv for the Dietary Guidelines, but check
11 back on that website if you're looking for
12 information, just to get what's latest and what's
13 current.

14 And with that, I thank my Committee
15 members for your diligence, your hard work, for
16 paying attention through two long days, and
17 actually a day of subcommittee meetings before
18 then.

19 And I'll turn it back to Dr. Stoody.

20 DR. STOODY: Thank you. And yes, thank
21 you to members of the Committee for what has been
22 a very productive meeting. It really worked out

1 that this timing, I think, was the right time to
2 bring everybody together, so thanks for those
3 productive conversations in those subcommittee
4 meetings, and the public discussion as well.

5 I think, as Tim said, there was very nice
6 discussion over these two days. So thank you for
7 that. Thanks to the members of the public and the
8 public commenters, who joined us as well.

9 And if we can go to the slides? Kevin?

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

15 In case -- if you would like to refer
16 back to information from this meeting, we will post,
17 as we always do, the recordings from this meeting,
18 as well as the presentations, minutes, and
19 transcripts.

20 And we'll get that information up as
21 quickly as possible, and we will send a notification
22 out through our listserv. If you sign up for our

1 listserv, we'll be sure to notify you when that
2 information is available.

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

10 So that meeting will occur on Monday,
11 May 11. It will be webinar only, and we'll provide
12 more information about that as we get closer.

13 So as Barbara mentioned, we do try to
14 keep our website up to date, and if you're
15 interesting in signing up for our listserv, go to
16 DietaryGuidelines.gov.

17 At the bottom of the page, there is a
18 link that says "Stay Updated." You click on that,
19 you can sign up for the listserv.

20 As Barbara did too, of course, in
21 addition to thanks to the Committee members, we do
22 like to take a minute to thank the many staff who

1 are involved in this process. And these are
2 individuals who support the nutrition evidence
3 systematic reviews. They support the data
4 analysis with staff from across USDA and HHS;
5 additionally, the food pattern modeling analyses.

6 These individuals help process the
7 about 17,775 public comments that we've received to
8 date. They help support the keeping transparency
9 at front of mind with updating
10 DietaryGuidelines.gov.

11 There are just so many elements, and one
12 of the things that we rarely do is public meetings,
13 and everybody kind of develops new skills to make
14 it happen. So thank you for that.

15 I do want to note, as we've said, this
16 was -- we have not had a meeting like this outside
17 of the D.C. area in 25 years, and we contacted our
18 ARS affiliates in a couple of different locations.

19 Houston was just awesome. They
20 were -- just the staff was -- sent us pictures. I
21 mean, it's like we'd never been here, but it's like
22 we had. So they thought of every single detail.

1 And there are two staff members in
2 particular that we would like to recognize, and they
3 are Perry Rainosek and Adam Gillum, and if you'll
4 come down here very quickly?

5 (Applause.)

6 DR. STODY: We have certificates of
7 appreciation to both of them, signed by Under
8 Secretary Lipps, on behalf of FNCS, for your support
9 of making this meeting a success and your really
10 huge attention to detail.

11 So thank you.

12 (Applause.)

13 DR. STODY: Yeah. Thank you. So
14 with that, that's a wrap. And with that, we'll
15 adjourn for today, and we look forward to seeing you
16 at our next meeting in March, in Washington, D.C.
17 Thank you.

18 (Whereupon, at 3:57 p.m., the meeting
19 was adjourned.)
20
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22

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Before: 2020 Dietary Guidelines Advisory Committee

Date: 01-24-20

Place: Houston, Texas

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