

**2015 DIETARY GUIDELINES ADVISORY COMMITTEE
FIRST MEETING**

Day 2
Friday, June 14, 2013

National Institutes of Health
Building 10, Clinical Center
FAES Academic Center
9000 Rockville Pike
Bethesda, MD 20892

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2015 DIETARY GUIDELINES ADVISORY COMMITTEE

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Call to Order, Roll Call, and Opening Remarks

1

2 Richard Olson:

3 Well, good morning. Why don't we go ahead and get started. Welcome, everybody. This is the
4 second day of the first meeting of the Dietary Guidelines Advisory Committee. Just a few
5 housekeeping items. Bathrooms are obviously important part of a meeting. If folks go out the
6 back door there, there's some bathrooms just to the right. Unfortunately the fire marshal will
7 not allow us to unlock the door, so you can't come back in the door. It apparently has to do
8 with the ramp or something out there. So if you get locked out, just come back around and can
9 get back in. Also, there are bathrooms down by the cafeteria, which if you'll go all the way
10 down and then turn left, cafeteria and a lot of services, elevators, et cetera are down there. So
11 if folks need directions or get lost, we'll try to find you.

12

13 So -- and for the committee, I think Ken may have told everybody, but everybody has
14 speakerphones in front of them with a button to push it on. The red light comes on, of course,
15 and then push the button to stop. But for the committee members, when you are asking a
16 question or making a comment, please state your name prior to that. That's for transcription
17 services and then also for folks in the audience and on the webcast to know actually who's
18 speaking, because individuals in the room may not be able to see exactly who's speaking.

19 Yeah?

20

1 Female Speaker:

2 [inaudible] change that --

3

4 Richard Olson:

5 Okay.

6

7 Female Speaker:

8 [inaudible] changed it --

9

10 Richard Olson:

11 Okay, that's fine. Thanks. I'm Rick Olson, the designated federal official for the Dietary
12 Guidelines Advisory Committee. I'm going to just give a few very brief remarks to start the
13 meeting this morning and then we'll get started. We'll review a little bit the agenda for today --
14 the charge and guiding principles for the committee. The committee has heard this a couple of
15 times now. We had a fairly detailed discussion in the work group that I attended yesterday, so
16 this will be brief, but it's obviously very important for committee members to understand the
17 charge as we start, because if we get going in the right direction then we'll be much more
18 efficient and effective in time, but also for the public to understand what the federal
19 government is asking the committee to do or not to do.

20

1 Maybe just recapping a little bit from yesterday, we had Dr. Howard Koh, the Assistant
2 Secretary for Health, and then Mr. Kevin Concannon, Under Secretary of USDA, and Dr. Cathie
3 Woteki, another Under Secretary from USDA, give some opening remarks. After the session
4 was over, the work groups -- the committee divided into three work groups and had work
5 group sessions in the late morning and all afternoon, and they will report on their discussions
6 from yesterday to the full committee.

7

8 It says roll call up there. I can verify that all 15 members are here, so I don't think we need to
9 do a roll call this morning. Rob Post from CNPP and Don Wright, my boss at Office of Disease
10 Prevention and Health Promotion will talk about the history and the current use of dietary
11 guidelines in public policy, then Colette Rihane and Kellie Casavale, who are two of the other
12 co-executive secretaries to support the Dietary Guidelines Advisory Committee, will talk about
13 topic selection process. Joanne Spahn, who's the Director for the Nutrition Evidence Library,
14 will talk about the support that the NEL, the Nutrition Evidence Library, will provide to the
15 committee. We'll have a discussion among the committee on topic formation and review of
16 evidence, and then we'll have a couple presentations from Alanna Moshfegh and Jill Reedy on
17 the state of the American diet.

18

19 And then this afternoon, Barbara Millen, the chair of the advisory committee, will provide an
20 introduction to the work group organization and then we'll have work group presentations
21 based on our initial discussions that the work groups had yesterday late morning and

1 afternoon. And you can see the three work groups here. The leads for the those work groups
2 are all members of the Science Review Committee that I talked about a little bit yesterday --
3 Mim [spelled phonetically] Nelson, Rafael Pérez-Escamilla, and Alice H. Lichtenstein, and then
4 Barbara and I will wrap up in the afternoon and move forward to continuing the work of the
5 committee.

6

7 So just very briefly, Mr. Concannon talked about the charge to the advisory committee
8 yesterday and this is verbatim out of the charge, if folks haven't seen the charge before. The
9 committee, of course, has looked at this. The introductory or prologue talks about the Dietary
10 Guidelines for Americans policy document, and once again that's what the federal government
11 develops based on the recommendations and advice from the advisory committee. You'll
12 notice in there, physical activity is mentioned and the -- much of the information in the current
13 edition of the Dietary Guidelines includes information from the Physical Activity Guidelines
14 from 2008, which also comes out of our office. There's been no firm decision made, but we're
15 looking at the possibility of putting out the -- a revision of the Physical Activity Guidelines in
16 2018. So as soon as the Dietary Guidelines Advisory Committee has concluded their work, our
17 office will most likely start in to developing the dietary guidelines -- I mean the Physical Activity
18 Advisory Committee.

19

20 These are the specific items in the charge. The base to examine, of course, is the current
21 edition of the Dietary Guidelines for Americans. We're asking the committee to really study

1 those, understand them as the base, and determine if there's new scientific evidence to either
2 revise the current edition or to suggest new guidance in that policy document. Of course,
3 they'll place most of their focus on review of evidence since the last advisory committee met,
4 but if there's a new topic they may want to go further back than that. And, as we've talked
5 about, the emphasis is on food-based recommendations of public health importance for
6 Americans. And Mr. Concannon talked a fair amount yesterday morning about the Birth to 24
7 Month Project and we are planning to include that age group in the 2020 Dietary Guidelines for
8 Americans. We had some discussion yesterday in our work group concerning maternal
9 nutrition, and that is included in this edition, but the effects on the developing baby and infant
10 generally is not. There is a -- are a few things already in the guidelines concerning that, folate
11 being one, and that of course will -- is still in bounds and will remain in the guidelines.

12

13 As we've heard a lot about, the committee will be developing a report, and, as I mentioned
14 yesterday, the current -- or the last committee developed a report of about 500 pages or so, so
15 there's an awful lot of work that needs to be done. And as we've emphasized, the committee
16 gives advice and the federal government actually develops the policy, though. We've talked
17 about the two-year band -- or band -- the two-year requirement that the committee disband in
18 February of 2015 even if they haven't finished their work. So we've got a short timeline and a
19 lot of work to do.

20

1 We've developed a few guiding principles which just basically elaborate a little bit on the
2 charge, and I think we've talked most about this; emphasis on food and beverages and dietary
3 patterns, that sort of thing. And then my last slide -- nutrients, obviously, are important, but
4 we don't deal with developing values in the DRIs. And then finally I think probably the most
5 important thing for the committee to really understand is prioritization early in the process,
6 and that's what the work groups are dealing with and coming up with topics and stuff, and,
7 once again, we'll hear about that this afternoon in quite a bit of detail. But prioritization early
8 on is extremely important so that we can focus our work on the important issues that you all
9 want to address and then move forward.

10

11 So, with that as a brief introduction, I'd like to introduce Dr. Rob Post from the Center for
12 Nutrition Policy and Promotion, and then Dr. Don Wright, who's my boss at the Office of
13 Disease Prevention and Health Promotion, and they'll talk a little bit about the history of the
14 Dietary Guidelines and the practical application now. So, Rob.

15

The History and Current Use of the Dietary Guidelines in Public Policy

16

17 Robert Post:

18 Thank you very much, Rick, for the intro and I'm so happy to be here this morning and
19 yesterday, obviously, to kick off this very momentous occasion. Certainly starting the process
20 for the 2015 Guidelines is important. I -- so I have the opportunity finally to welcome the 2015

1 committee members. I am USDA's policy official that serves the process of establishing the
2 Dietary Guidelines. I'm working obviously very closely with my colleagues, Dr. Wright and Dr.
3 Olson and Kellie Casavale, in getting this momentous task done in support of the committee's
4 work, and I don't think there's a better example of teamwork across the departments when it
5 comes to this activity and all the other work that ensues subsequent to the development and
6 then the issuance of these guidelines. So it is a great example of teamwork, and we created
7 quite a little village of support for the activity. I'd like to recognize Joanne Spahn, now our
8 Evidence Analysis Library Division Director, who will be talking this morning; Colette Rihane, our
9 Lead Co-Executive Secretary from USDA; as well as Shanty Bowman [spelled phonetically], who
10 is our ARS contribution to the -- to help as a co-executive secretary, as well. So quite a
11 contingent and quite a bit of support.

12

13 So, as you've heard from my colleagues, certainly yesterday and you will today, we can't
14 express enough how important this work is. In the work of a committee essentially, it's -- the
15 critical part of the process to look at the science and determine the preponderance of evidence
16 on which we base federal policy that serves all of our nutrition-related programs in the federal
17 government. So quite an important task, and ultimately also supporting our educational
18 programming, as well.

19

20 So I'm going to talk about our historical perspectives and also the current use of the Dietary
21 Guidelines from the HH -- from the USDA perspective, and Dr. Wright will reflect on HHS. I

1 think this is a neat depiction of dietary guidance over the last 100 years. It's interesting you
2 could put it all one slide, huh? I think that does a disservice, but I'm -- it certainly saves time.
3 So we have a history at USDA of providing dietary guidance dating back to W.O Atwater and his
4 food composition tables that were published in the 1894 Farmer's Bulletin. Interesting that
5 Atwater at that time warned that the evils of overeating may not be felt at once, but sooner or
6 later they're sure to appear, perhaps in excessive amounts of fatty tissue, general debility, or in
7 actual disease. So, how prophetic. Atwater's guidance set the stage for food guides that
8 followed through the decades, from USDA's first food guide in 1916, Food for Young Children,
9 to the current policy. That's the 2010 Dietary Guidelines for Americans. On analysis, the
10 prevailing theme is that dietary guidance and recommendations have evolved to keep pace
11 with both the new research findings and the changing patterns in food consumption and
12 activity of the population.

13

14 So what are the factors that affect -- if you look back and do this analysis -- that affect this
15 evolution of federal dietary guidance? Well, one point is that the research based underlining
16 the -- underlying the dietary recommendations has expanded considerably over time. The
17 methodologies and analytical capabilities available to nutrition researchers has certainly
18 advanced tremendously. Americans' eating patterns and physical activity habits have changed
19 as we moved from an agrarian society, through the industrial era, to the information and digital
20 media age. As we depend more on food systems, there are more factors affecting our choices,

1 such as personal values, priorities, taste and cultural preferences, and changes in family
2 dynamics.

3

4 From this public health standpoint, we've moved from times when the concerns were about
5 diseases caused by nutrient deficiencies and getting adequate calories, to maintain a healthy
6 weight to the point of having -- of being concerned about illnesses promoted by over-
7 consuming energy-dense foods and relative inactivity. The food environment and the physical
8 activity environment have changed dramatically, complicating the development of guidance
9 and the way it's implemented. And sort of as a last factor, if you do this analysis, is that the
10 way we communicate and educate consumers has changed dramatically. Grabbing consumers'
11 attention to dietary guidance is increasingly challenging. Reaching all sectors, communities,
12 and audiences with actionable advice involves innovative approaches. And making the
13 recommendations sticky -- so that's the current term -- is our collective goal, and we really do
14 believe it's achievable. So in what I call the modern era of the guidelines since 1980, we have
15 experts to consider these factors and tackle these challenges to result in the best advice to
16 improve the health of Americans.

17

18 So, looking at the current state, what are the Dietary Guidelines? Well, the Dietary Guidelines,
19 as we've heard, are in fact the effort of a joint work effort between the Departments of
20 Agriculture and HHS. They provide science-based advice for apparently healthy people over
21 two years of age, and this includes people who are at increased risk of chronic disease.

1 Children under two years of age are not included because their nutritional needs -- and
2 historically it's been considered their nutritional needs and eating patterns differ substantially
3 from those that are older -- older children and adults. And so the Dietary Guidelines not only
4 establish healthy eating patterns, but also stimulate food product innovation, a very good
5 purpose, and also the process is very effective in revealing research gaps and research
6 opportunities.

7

8 The process of establishing the 2010 Dietary Guidelines for Americans was administered by the
9 Center for Nutrition Policy and Promotion, my agency, with partnership from the Office of
10 Disease Prevention and Health Promotion. So I'm going to show the orange book we've all
11 come to love and use almost every day, and of course the policy document that relates to it.
12 Having a single policy document on nutrition is important because it ensures, as we've heard
13 yesterday and will continue to hear, that the nutrition policies that we use are based on the
14 preponderance of scientific data on nutrition and health and that the federal government
15 speaks with one nutrition voice when it comes to providing nutrition education for the public.

16

17 So let's take a little bit -- a little closer look at the recent history of the Dietary Guidelines, and I
18 think this gives you a perspective and context. Prior to the 1970s, public health nutrition was
19 primarily concerned with preventing nutrient deficiencies. As the deficiencies became less
20 common, there was a growing recognition of diseases relative to the -- to dietary excesses. In
21 1977, the U.S. Senate Select Committee on Nutrition and Human Needs issued dietary goals for

1 the United States. To support the credibility of the science used by the committee, the U.S.
2 Department of Agriculture, and the U.S. Department of Health, Education, and Welfare at that
3 time selected scientists from the two departments and included expertise from the scientific
4 community throughout the country to address the public's needs for authoritative and
5 consistent guidance on diet and health.

6
7 The first edition of the Dietary Guidelines was issued in 1980. You see that here. The two
8 departments collaborated on what is known as Nutrition and Your Health: Dietary Guidelines
9 for Americans, a brochure that, in describing seven principles for a healthful diet, provided
10 assistance for healthy people in making daily food choices. Even though the recommendations
11 of the 1980 Dietary Guidelines for Americans were presented as innocuous and straightforward
12 extrapolations from the science base, there was a fair amount of controversy, and the debate
13 about the 1980 guidelines led to congressional report language that directed the two
14 departments to convene an advisory committee. And an advisory committee then was formed
15 and it was composed of a panel of scientific experts outside the federal sector that established -
16 - that was established shortly after that directive and was very helpful in the development of
17 the 1985 Nutrition and Your Health: Dietary Guidelines for Americans.

18
19 The departments made relatively few changes from the first edition, but this second edition
20 was issued with much less debate and it was widely accepted. And they were used -- these
21 guidelines -- the '85 guidelines were used for -- as a framework for nutrition education

1 messages. They were also used as a guide for healthy diets by consumers, by the scientific
2 community, as well as industry groups. In 1989, USDA and HHS established a second scientific
3 advisory committee, and that was a committee that would review the 1985 Dietary Guidelines
4 and make revisions for change. The basic tenets there in what became the 1980 -- or 1990, I
5 should say -- Nutrition and Your Health: Dietary Guidelines for Americans promoted enjoyable
6 and healthful eating through variety and moderation rather than dietary restriction.

7

8 The 1980, '85, and '90 editions of the Dietary Guidelines were issued voluntarily by the two
9 departments. With the passage of the 1990 National Nutrition Monitoring and Related
10 Research Act, a more formal process was started. And so the 1995 edition that you see here of
11 Nutrition and Your Health: Dietary Guidelines for Americans became the first Dietary Guidelines
12 report mandated by law. This act directed the secretaries to join the issue at least every five
13 years, as you've heard and probably have memorized, a report entitled ultimately the policy
14 document, Dietary Guidelines for Americans. And of course now we've issued '95, 2000, 2005,
15 and 2010 and working on the next iteration.

16

17 So, just a snapshot of each one of these and the -- and that reflection on those factors I
18 mentioned and taking into consideration the changing food environment, a changing consumer,
19 there are some aspects that I think are notable for each one of these more recent versions of
20 the guidelines. The 1995 report of the Dietary Guidelines Advisory Committee was used as the
21 foundation for the fourth edition of the Dietary Guidelines, known as Nutrition and Your

1 Health: Dietary Guidelines for Americans. The language -- or the edition continued to support
2 the concepts from the earlier editions and the language was oriented toward the total diet and
3 provided recommendations on food selection. New information included the Food Guide
4 Pyramid; at that time, we had promulgated rules on nutrition facts on food labels and so
5 information was included, as well, on that topic, and then highlights were included on good
6 food sources of key nutrients, and also a chart illustrated weight ranges related to height.

7

8 With regard to the 2000 guidelines, and we have a representative on the panel -- on the
9 committee that is experienced with this edition, earlier versions of the guidelines included
10 seven statements that were made -- or meant to be the principles of a healthy diet. This
11 version included 10 recommendations that were split into three themes: aim for fitness, build a
12 healthy base, and choose sensibly. And for the first time, physical activity was separated from
13 the healthy weight recommendation and the grains and fruits/vegetables recommendations
14 were broken out for greater emphasis, and a new guideline on safe food handling was actually
15 included.

16

17 With regard to the 2005, there was a hallmark in that -- a major departure from earlier editions
18 occurred in that a modified systematic approach was used to review the scientific literature and
19 develop the committee's recommendations. The committee also had the completed set of
20 Dietary Reference Intake reports from the Institute of Medicine to incorporate in its findings as
21 well as other World Health Organization and Agency for Healthcare Research and Quality

1 reports. As I'll show you in a moment, a lot of these reports are valuable data inputs into the
2 process. So the 2005 edition expanded to 41 key recommendations, 23 for the general
3 population and 18 for the specific -- for specific populations.

4

5 So, here we are with the current policy, which is in fact the 2010 seventh edition of the Dietary
6 Guidelines. This is the first policy document developed on a full-fledged, systematic review of
7 the literature, and here, again, we've got representatives on this committee that have
8 experienced the 2010 process. And using the Dietary Guidelines Advisory Committee's
9 technical report as a basis for the seventh edition, this policy was developed. It's a 95-page
10 policy document, compared to brochures and essentially consumer-oriented documents
11 previously. Here you had a document that encompassed the overarching concepts of
12 maintaining calorie balance over time to achieve and sustain a healthy weight and consuming
13 nutrient-dense foods and beverages more often. The policy document here included 23 key
14 recommendations for the general population and six additional key recommendations for
15 specific populations. And to assist individuals in building a healthful diet based on the Dietary
16 Guidelines, the USDA food patterns were updated, including new vegetarian adaptations, and
17 included the -- these were included in the policy document that you see here, along with
18 dietary approaches to stop hypertension, or the DASH Eating Plan. And with the 2010 Dietary
19 Guidelines for Americans, USDA and the federal government adopted an entirely new approach
20 to implementing the Dietary Guidelines, using the new MyPlate icon, which is a visual cue -- a
21 powerful visual cue to remind people to choose healthy foods at meal times and to go to

1 choose myplate.gov to learn about and apply the Dietary Guidelines for Americans, and I'll talk
2 about that in a moment.

3

4 So, with that, how are revisions made to the Dietary Guidelines? We'll hear a little bit more
5 about the process from Colette Rihane and Kellie Casavale in a minute. I've alluded to the
6 history of the Dietary Guidelines as including a first step in the revision process, and that's
7 obviously the appointment of the Dietary Guidelines advisory committees. We now have 15
8 prominent experts in the field of nutrition and health to evaluate the science base and help
9 identify if there is new science to either support changes to the current policy or that suggest
10 that new guidance should be developed. We're now in the second and longest phase of the
11 revision process, which is where you are. The Dietary Guidelines advisory committee members
12 begin to deliberate and develop the committee's report. The public will have an opportunity,
13 as we've heard, to provide comments throughout the deliberations. The culmination of the
14 work of the committee is to develop an advisory committee report, and that's submitted to the
15 Secretaries of Agriculture, and then there will be an opportunity for public comment on that
16 document. And once the report is submitted to the Secretaries, then the committee's work is
17 completed. And the third phase involves the development of the policy document, and this is
18 adhering to the science, but translating the science so that nutrition educators, nutrition
19 communicators, certainly policymakers, health professionals, and consumers can benefit from
20 their recommendations. And that's a phase that occurs subsequently. And then it's a matter of
21 implementing the Dietary Guidelines in innovative ways.

1
2 If you look at the factors and the changes to the guidelines over the years, I think a closer look
3 at the methodology for evidence review for the Dietary Guidelines is important. The evidence
4 development process for revising the guidelines has evolved over the three decades in two
5 major ways. The method for reviewing the evidence has shifted to keep up with advances in
6 the science or scientific and policy communities, and also the target audience for the
7 publication has changed. I mentioned having a consumer-oriented brochure. We definitely
8 now have a document that is geared toward the application of not only policymakers in the
9 nutrition and health area, but definitely for nutrition educators, for health professionals, for the
10 nutrition community at large. And a -- several events occurred that are important here, and
11 that is in 2001 the Data Quality Act was passed, which mandates that federal agencies ensure
12 that the quality, objectivity, utility, and integrity of the information that's used as a basis for the
13 Dietary Guidelines be established. And in that regard, and to qualify, that's why a modified
14 systematic review process was used in 2005. In 2010, a robust systematic approach was used
15 to organize and evaluate the science on which the guidelines are based. And the quality of
16 research was assessed using systematic reviews, as I mentioned, and other data analyses in
17 modeling exercises, and the committee's scientific report is a reflection of these kinds of
18 analyses and definitely reflects the preponderance and quality of the published research.
19
20 Well, in 2010, it's important to note that there were very much reflected hallmark advances in
21 the access to and the evaluation of nutrition evidence. The 2010 Dietary Guidelines process

1 represented an array of ways that information was assessed and made available, and in fact
2 more opportunities were provided for public access to the deliberations and nutrition evidence,
3 and I'm just going to briefly highlight these inputs. USDA's Nutrition Evidence Library. You'll
4 hear about that in a moment. It was established in time to support the -- in 2008, the 2010
5 Dietary Guidelines Advisory Committee. The NEL supported the committee in answering
6 approximately 75 percent of its diet- and health-related questions, and this was the most
7 rigorous and comprehensive approach ever used in reviewing the science in order to develop
8 nutrition-related recommendations for the public. In terms of another data input, an analysis
9 of the USDA Center for Nutrition Policy and Promotion helps in that it supports the committee
10 with answering questions that are posed that cannot be answered if -- by a review of the
11 available literature. It may be that the methodology that best applies to a "what if" question is
12 a modeling analysis, and the center provides the support to the committee for food pattern
13 modeling, for example, to consider the impact of a hypothetical change in the amount of -- or
14 recommended amount of a food group, such as recommending a certain amount of fish or
15 seafood in place of another protein food on other aspects of the diet. Another input in -- that
16 made this a very robust 2010 process was the dietary intake analyses. You'll hear more about
17 those in a moment, so I won't go into too much detail here. There are other inputs into this
18 process, other systematic reviews and reports that are very much a key in the committee's
19 deliberations, and they've been highlighted here and certainly in Dr. Olson's remarks earlier.
20

1 We cannot encourage enough the importance of submitting comments for the public, the
2 public comments. We've created a very open and transparent way for submitting public
3 comments through the portal at www.dietaryguidelines.gov, and so that becomes a very
4 important key component when it comes to introducing information into the process, and also
5 being able to review all the comments that have been submitted and make those comments
6 available not only to the committee but to everyone prior to a meeting.

7

8 With 2010, it was the first time that we used webcast technology to broadcast the advisory
9 committee's deliberations, and we were happy to find out not only did we have a national
10 audience but we have an international audience. And so it saved some time. In this budget-
11 conscious world, folks don't necessarily need to fly into DC, they can actually participate and
12 see the -- and hear the deliberations from anywhere globally. So we're happy for that
13 capability, as well.

14

15 So ultimately the report is -- culminates from these data inputs, and they're all very key in this
16 process. So what happens then? With regard to USDA, there are science-based policies and
17 programs that are instituted or that rely on these inputs, and ultimately the committee's
18 report. And the process involves translating -- adhering to every part and ounce of the science,
19 but putting it in plain language so that it can be easily operationalized by educators, by health
20 professionals, by nutrition communicators, and others. And it's translated and communicated
21 and amplified in so many ways; literally hundreds of programs across the departments. And I'm

1 going to quickly highlight those in -- at USDA, and you'll hear later about HHS. The Food and
2 Nutrition Service is an agency that uses the Dietary Guidelines -- we heard a little bit about this
3 from Mr. Concannon yesterday -- in several ways, including policy development, in nutrition
4 standards, and in the creation of food packages or the composition of food packages, and in
5 nutrition education. For example, the supplemental Nutrition Assistance Program, SNAP, which
6 was formally the Food Stamps Program, uses the guidelines to inform policies on benefit levels.
7 The school meals programs use the guidelines in establishing nutrition standards and meal
8 pattern requirements. The WIC Program use the guidelines in that they guide the composition
9 of the WIC food packages. And the commodity distribution programs in those programs, food
10 specifications conform to the guidelines. And I have to note, and Mr. Concannon did, as well,
11 that within FNS, the Healthy Hunger Free Kids Act of 2010, which was signed into law in
12 December of 2010, authorized the agency to make important improvements to school meals
13 that serve, what, 50 million students across our country each day. And new nutrition standards
14 for school lunch and school breakfast went into effect, and they're based and they use the 2010
15 Dietary Guidelines for Americans. We're waiting for the pending Smart Snacks in Schools rule,
16 and that, too, will be an important rule base in applying these guidelines.

17

18 When it comes to the National Institute for Food and Agriculture, it provides national
19 leadership, as Dr. Woteki explained, in -- for the community-based nutrition programs and
20 sponsors nutrition-related research, education, and extension programs. Within NIFA, the
21 Dietary Guidelines are used in strategic planning, creating research and grant opportunities,

1 delivering educational messages, evaluating program effectiveness, and also in assessing a
2 nutrition portfolio of programs. The Dietary Guidelines are also the foundation, as we heard
3 yesterday, for the expanded food and nutrition program, FNEP. Within the economic research
4 service, it conducts policy-oriented research on the food supply and it also conducts research
5 on consumer food choices and their determinants. The Dietary Guidelines are used by ERS as
6 the standard comparing actual food consumption or choices to recommendation, and ERS also
7 produces wonderful reports, like those you see here -- just examples -- that provide a snapshot
8 into the marketplace in how consumers' food choices and marketplace introductions relate
9 back to the guidelines.

10

11 With regard to the Agricultural Marketing Service, it administers programs that facilitate
12 efficient, fair marketing of U.S. agricultural products. The Dietary Guidelines are used to guide
13 decisions on purchasing products for nutrition assistance programs like the National School
14 Meals program, setting specifications for products purchased by federal feeding programs, and
15 also overseeing commodity board research and promotion programs.

16

17 Highlight on the Food Safety and Inspection Service. A healthy eating pattern is also a safe one,
18 and so the Food Safety and Inspection Service educates consumers about the importance of
19 safe food handling and how to reduce the risks associated with food-borne illness. And the
20 Dietary Guidelines' food safety recommendations are implemented through many of this
21 agency's food safety education programs and campaigns. And the Agricultural Research

1 Service, as we heard yesterday, has a mission in human nutrition to define the role of food and
2 its components in optimizing health throughout the life cycle for all Americans by conducting
3 high national priority research. The Agricultural Research Service is the main intramural
4 research agency of USDA and, as such, has a mission-driven research agenda. As we heard
5 yesterday, ARS contributes greatly to the body of research assessed by the committee, and
6 through their nutrition monitoring activities, as we'll hear, ARS monitors food composition and
7 the dietary intake or nutrient intake of Americans that's fundamental for developing dietary
8 guidance. And we'll hear a little bit more today about that.

9
10 And, last but not least, and certainly it's not to minimize any other agencies -- there are others
11 that apply the Dietary Guidelines -- but for the focus here is the Center for Nutrition Policy and
12 Promotion. It's USDA's focal agency that sets national nutrition policy by developing and
13 promoting dietary guidance that links the latest evidence-based scientific research to the
14 nutrition needs of consumers. The center has three major programs that implement the
15 Dietary Guidelines. I'll highlight -- let me just go back. I'll highlight that USDA's food plans show
16 how, in fact, at a low income or on a budget we can eat healthy and choose the right foods.
17 The food plan that's probably the most familiar is the Thrifty Food Plan, and the center does, in
18 fact, develop that, and it supports the allotments that are a part of the SNAP program. The
19 Healthy Eating Index is a measure of diet quality that assesses conformance to Federal dietary
20 guidance, and USDA's primary use of the HEI is to monitor the diet quality of the U.S.
21 population and segments of its population, including low income sub-populations. And the

1 index was recently updated to reflect the 2010 Dietary Guidelines. And, finally, the center
2 expands the reach of the Dietary Guidelines in innovative ways, and that really relates to the
3 next slides.

4

5 So, a new paradigm was chosen for the 2010 Dietary Guidelines for implementing the
6 guidelines, and we abandoned the rather complex infographic that was known as the Food
7 Pyramid, and later MyPyramid, for a whole new approach. And it is a very robust
8 communications initiative that has four pillars, and at the centerpiece is the MyPlate food icon.
9 It involves coordinated messaging, tested messages that are drawn from the Dietary Guidelines
10 -- you see those here -- and creating the how-to's to make them available and applicable
11 wherever people need to make a food decision; where they shop, where they play, where they
12 learn, certainly where they receive health care. And this can be achieved if, in fact, we have
13 partnerships. So there's a rather robust partnership program where we have 8,000 and
14 growing the number of community partners at the local and regional level. We have national
15 strategic partners and national organizations who work on an unassisted basis to help magnify
16 and amplify the Dietary Guidelines' reach to all sorts of populations and make those -- that
17 information available wherever consumers need it. We use social media. We've got a whole
18 new paradigm here, and we've created a platform that includes so many opportunities to reach
19 consumers in ways that are accessible, familiar, and efficient for them. We have our presence
20 on Pinterest these days and we certainly have a presence on Facebook. The Dietary Guidelines
21 are that accessible. And then we have interactive tools and definitely the 2.5-plus million users

1 -- registered users of the super tracker have obviously found the Dietary Guidelines and are
2 making those messages related to it sticky.

3

4 So, I've given you a lot of context. I've given you, hopefully, considerations as you move
5 forward. I've got to highlight the point that it's always a matter of building on the work of the
6 previous committee. I look forward to supporting you -- and my staff does, as well -- in your
7 work. I anticipate that looking at the current guidelines and looking for opportunities that are
8 ripe for consideration, like dietary patterns and the benefits of breakfast and snacks and eating
9 occasions and family dynamics, considering recommendations through the lens of the lifespan,
10 for example, particularly adolescents and older adults, they all seem ripe for consideration.
11 We've learned, also, so much about the food environment, so examining ways to craft
12 messages and bridge those messages, beyond quantitative information, with information that's
13 based on interventions to create the how-to's associated with those recommendations, that
14 would be great, and I think it's ripe for consideration. So, with that, I'll turn it over to Dr.
15 Wright, and thank you very much.

16

17 [applause]

18

19 Don Wright:

20 Well, good morning. First of all, thanks, Dr. Post, for that very comprehensive historical
21 perspective on the Dietary Guidelines. As kind of the new kid on the block, I certainly learned a

1 lot, and I think that probably many of the committee members did, as well. As you heard from
2 Dr. Post's presentation, the Dietary Guidelines has served as the framework for so many of the
3 programs, initiatives, communication messaging that we do in HHS and in USDA. I thought
4 what might be beneficial to all of you is to hear how we at HHS use, in a variety of ways, the
5 Dietary Guidelines as we move forward with programmatic development and with messaging.

6
7 Let me start with where I sit. As a point of introduction, I'm Dr. Don Wright, and I have the
8 privilege of being Director of the Office of Disease Prevention and Health Promotion. Our
9 mission is very clear. It's written on this slide and I'll read it to you. Lead and mobilize action to
10 improve health by establishing national health priorities and translating disease prevention and
11 health promotion science into policy and guidance and tools for a healthier nation. I think you
12 can see the alignment with the Dietary Guidelines and the mission of our office, and it's very
13 well-suited to have its co-leadership placed in this office. Let me say, as one of the lead
14 agencies for the Dietary Guidelines, we really look forward to working with USDA to further our
15 mission, which is written on this slide, as well as the mission of USDA, and perhaps more
16 importantly for improving the knowledge that the public has on nutritional content so that they
17 can make very informed decisions about the choices they make as regard -- in regard to their
18 individual diet. The mission -- the vision for our office is also mentioned at the bottom of this
19 slide. It says, "A nation in which all people live long, healthy lives." And in the context of this
20 particular presentation, I'm going to have the opportunity to share with you a number of the
21 initiatives within ODPHP that help support the vision that we have for our office.

1
2 I had an opportunity to meet many of you on Wednesday night in a meet and greet, and then
3 several of you over lunch and in coffee breaks. As it relates to the committee, I know many of
4 you have had careers that have intersected with the U.S. Department of Health and Human
5 Services in a number of different touch points. But for others of you, it may be a new
6 organization, and I want to tell you a little bit about the U.S. Department of Health and Human
7 Services. First of all, we're very large. Our budget is about \$800 billion. The work is carried out
8 within the Office of the Secretary, or what we call StaffDivs, and ODPHP is a StaffDiv. We're in
9 the office of the Secretary and in a number of operating divisions, each of which have clear
10 missions moving forward. The first one there is the Administration for Community Living, and I
11 think many of you have heard of the Administration on Aging. The new name for the
12 Administration on Aging is the Administration for Community Living. ACF, the Administration
13 for Children and Family, another large operating division; ARC, the Center for Disease Control
14 and Prevention, one of the larger operating divisions that we have in HHS; and then the Center
15 for Medicare and Medicaid Service, the largest of all the operating divisions from a budgetary
16 standpoint. We have the Food and Drug Administration; the Health Resources and Services
17 Administration, or HRSA; The Indian Health Service; the National Institute of Health; and
18 SAMSA, the Substance Abuse and Mental Health Services Administration. And I think over the
19 context of the next few minutes you're going to see how the work that you do, the Dietary
20 Guidelines, really touch nearly every one of these operating divisions in one way or another. So

1 the work that you do and will do over the next couple of years will have great impact on the
2 department as a whole.

3

4 Let me make some global comments first of all about the Dietary Guidelines. They are used
5 across the department in a number of ways and in very different ways, first of all for consumer
6 dietary guidance, I think you're aware of that; for food assistance programs; for national health
7 objectives, such as the Healthy People 2020 edition; the nutrition monitoring through the
8 NHANES Project at CDC; nutritional research and food labeling fortification through the FDA.

9 So, again, the scope of how the Dietary Guidelines affect our work at HHS is broad, indeed.

10

11 I want to move on and talk about some of the operating and staff divisions and how Dietary
12 Guidelines have actually affected their work, and let me start with the Office of the Surgeon
13 General, and it's actually one of the sister offices to our office, the Office of Disease Prevention
14 and Health Promotion. I think most of you in the audience are aware of the Affordable Care Act
15 and the impact that it had on the area of prevention. It was mandated in the Affordable Care
16 Act that a National Prevention Council be convened, and that the lead for that National
17 Prevention Council would be the Surgeon General, with her picture down at the -- in the left
18 lower corner. Let me say, the National Prevention Council for the first time takes health issues
19 and prevention issues out of HHS as the sole place for those. There are representatives from
20 across the family that sit in on the National Prevention Council, and we think that all Federal
21 departments have a role to play as we try to move prevention initiatives forward. Most of you

1 probably know that the chief work product out of the National Prevention Council has been the
2 National Prevention Strategy, and you can see the National Prevention Strategy there on that
3 slide. There were seven major priorities of the National Prevention Strategy, and I want to say
4 that two of priorities of the National Prevention Strategy actually intersect with your work, and
5 that is that of active living and healthy eating. But I also have to give the Surgeon General
6 credit and say that she has been much more interested -- has been very interested in
7 prevention and improving the health of the nation beyond the National Prevention Council. In
8 fact, in 2010 she issued the Vision for a Healthy and Fit Nation, and had seven domains of which
9 she felt we could improve the health of the nation if collectively these work together. And you
10 can see those in that particular -- in the second column there.

11

12 Well, I want to move on to the Administration for Community Living. As I said, this is the new
13 name for the Administration on Aging, and there are other small segments as a part of this
14 organization, as well. That is, it intersects with your work at the Dietary Guidelines, and most of
15 you are well aware that the Administration on Aging, or ACL now, provides meals for senior
16 citizens, for adults, and they do that through three different domains -- or three different
17 mechanisms. One is through Congregate Nutrition Services, one is through the home-delivered
18 nutrition services that we're all aware of, and then The Nutrition Services Incentive Program.
19 And I want you to be aware that, regardless of the mechanism in which seniors are provided
20 food through ACL, it is clear that the Dietary Guidelines must be adhered to in the -- in those
21 programs for the delivery of meals to senior citizens.

1
2 Well, moving on to the Center for Disease Control, I think all of you know it's a very large --
3 extremely large operating division within HHS, and clearly the Dietary Guidelines touch
4 numerous of the divisions within the Center for Disease Control, and far more than I have time
5 to go over today. But I do want to mention a couple. One is the Fruit & Veggies - More Matters
6 campaign. This was lifted directly from the 2010 Guidelines, and is a program -- or a campaign
7 to encourage individuals to have half of their plate filled with fruits and vegetables. Like FDA,
8 CDC plays a very important role as it relates to food safety, with outbreak investigations and --
9 as well as information for consumers. And they've also been very involved in a weight
10 management research-to-practice series that has been so well received. When I think about
11 the CDC and the tools that they bring to the table, one that always rises to the top is that of
12 surveillance. For those of us that spend our lives in public health, we know that we're
13 incapable of doing our job without good surveillance systems, and surveillance is just critical as
14 we understand where we are, where we want to be, and it also allows us to target special
15 populations with our messages so that we can maximize the limited resources we have moving
16 forward. In that vein, the NHANES study, out of the Center for Disease Control, is one that we
17 constantly rely on as we look at the nutritional impact of Americans across this country.

18
19 Well, let's move on to the Food and Drug Administration. They use your Dietary Guidelines first
20 and foremost as it relates to the nutrition fact labeling that you can see there in this particular
21 slide. I think one of the more valuable things that FDA does as it relates to improving human

1 nutrition is the campaign they have to educate consumers, and they do that through the Spot
2 the Block and LabelMan campaign, and I suspect many of you have heard of those campaigns
3 and I think they have been effective in helping Americans to understand the information that's
4 presented to them on the foods that they purchase each and every day. As I said earlier, the
5 Food and Drug Administrative has a strong focus on food safety and a great deal of consumer
6 information on ensuring that the food that they eat is safe, and trying to limit the amount of
7 food-borne illness that we experience within this country.

8

9 Well, let's move on to HRSA, the Health Resources and Service Administration. The one
10 initiative that I want to highlight for you out of HRSA is the Bright Futures campaign. I could
11 mention others, but the Bright Futures is a National Health Promotion and Disease Prevention
12 initiative that aims to improve and maintain the health of children and adolescents, with a
13 strong focus on families and communities. Let me say that HRSA has done an outstanding job
14 at reaching out to external stakeholders and a variety of organizations to develop special tools
15 that can be utilized at the local level by health care professionals, by public health
16 professionals, by primary care physicians, and child advocates. I'm pleased to say that over the
17 past few years Bright Futures has been widely disseminated both at the local level and the state
18 level across this country.

19

20 Let's move on into the Indian Health Service. For those of you that are unfamiliar with Indian
21 Health Service, they are charged in providing health care for the numerous tribes -- tribal

1 communities that we have across this country, and they're very focused, as well, on trying to
2 improve the health of their populations through better diets and through exercise. Let me say
3 that their -- the brochures that they create have a special emphasize to ensure that these
4 messages around healthy eating and active living really incorporate some of the traditional
5 beliefs of this particular community. And I think two examples that incorporate the Dietary
6 Guidelines are the Strengthen the Family Circle and Honoring the Gift of Children, and these are
7 actually testimonials among the Native American population of how -- of what they have done
8 to improve their eating habits and improve their active living.

9

10 Well, we'll move on to the National Institute of Health. Certainly we want to give credit to
11 those here at the National Institute of Health that logistically have made this meeting possible.
12 And without question, The National Heart, Lung, and Blood Institute has incorporated nutrition
13 messages in so many of the programs that they have, far too many to discuss here. But I did
14 want to mention the We Can campaign, and that stands -- the acronym, Ways to Enhance
15 Children's Activity and Nutrition. And this program really focused on resources for children in
16 ages eight to 13 to help them to maintain a healthy weight. The DASH Eating program, those of
17 you that worked on 2010 know that it was one of the programs that was mentioned as --
18 incorporated as a food pattern option, is out of the -- NHLBI, as well, and they've also created a
19 path -- a educational brochure on proportion distortion that shows how proportions have
20 changed over the last two decades, a really convicting area.

21

1 We'll move on to the Office of Women's Health. This is another sister office to the Office of
2 Disease Prevention and Health Promotion, and they've actually taken one of the programs that
3 HRSA created, The Body Works Program, which focuses on improving the health and activity
4 and overall health status of female adolescents. They've taken this program and created a
5 nationwide movement to promote this program and increase its uptake across the nation.

6

7 Without question, the office that my office works most closely with is that of the President's
8 Council on Fitness, Sports, and Nutrition. Their staff is frequently in our suite; our staff is
9 frequently in their suite. The missions of the two organizations align very, very nicely, and we
10 have a very complementary relationship with the President's Council on Fitness, Sports, and
11 Nutrition. I think most of you that have been around for a few years are aware of the PALA
12 challenge; that's the Presidential Active Lifestyle Award. It's been around for a number of
13 years, but now they're in PALA 2.0, we call it, or PALA+, that not only focuses on activity, but
14 nutrition. It's a six-week program in which weekly goals are set by the participants as it relates
15 to activity and nutrition, again trying to improve the overall health behaviors of the American
16 public.

17

18 The other campaign that I want to mention that has been revised recently is the I Can Do It, You
19 Can Do It campaign. And this is in its second phase and it really is -- focuses on inclusionary
20 activities for those for those adults and children with disabilities to encourage their healthy
21 lifestyles and active living.

1
2 Clearly, talking about what is being done at the federal level to improve health and nutrition
3 has to focus on the White House. The White House has been instrumental in our efforts to
4 improve or get the message out about healthy living. The first lady's campaign, Let's Move, was
5 created in 2009, and she had one major goal. And the goal of the Let's Move campaign was to
6 end childhood obesity in one generation; clearly a large challenge. And I'll have to say, over
7 that initial beginning in 2009, she's moved this program into a number of different venues: Let's
8 Move Active Schools; Let's Move Cities, Towns, and Communities; Let's Move Faith in
9 Communities. The feeling is the more -- this provides more opportunities for us to touch more
10 individuals. And I have to tell you, if you went in and reviewed each one of these Let's Move
11 campaigns, whether it's Active Schools or Museums and Gardens, the dietary guidelines that
12 y'all worked so hard on is the foundation for the information that is being provided; not only
13 the dietary guidelines, but the physical activity guidelines that I suspect many of you are aware
14 of.

15
16 Well, let me now move into the office that I have the pleasure of leading, the Office of Disease
17 Prevention and Health Promotion. We sit within the office of the Assistant Secretary for
18 Health, Dr. Howard Koh. My boss talked to you yesterday and opened the meeting. And we
19 have a very active office with four separate divisions. The first division there you can see is the
20 Prevention Science Division, and they have two major products. You're contributing to one of
21 those, the Dietary Guidelines for Americans that statutorily must be revised and updated every

1 five years; and then the physical activity guidelines, that you can see at the bottom of that
2 chart, that was created in 2008 and recently had a midcourse report. I have to say that this
3 division is very ably led by Dr. Rick Olson, and many of you had the opportunity to meet him
4 already since you arrived in Washington for this initial meeting.

5

6 We also have a health communications team, and this is led by Dr. Linda Harris. These are
7 individuals that have background in health communication, and they do an outstanding job of
8 taking very complex and scientific information and distilling it down into messages that can be
9 understood by even individuals with the lowest amount of health literacy. There's the Health
10 Care Quality division that leads the department on health care-associated infections and
11 adverse drug events, and then there's the community strategies team, signature product, all of
12 you have heard of, Healthy People.

13

14 I wanted to highlight one of the major products out of the prevention science team, and that is
15 the be -- Eat Healthy, Be Active community workshops, and it takes the Dietary Guidelines and
16 the Physical Activity Guidelines and has created a workshop series that allows us to disseminate
17 this information across the country. They're a series of six workshops, each an hour in length
18 that include lesson plans, talking points, handouts, activities, video vignettes, and even a quiz.
19 We've been very pleased with the uptake of this particular document and it's being widely used
20 across the country. And, again, it really highlights the work of this committee, the Dietary
21 Guidelines and the Physical Activity Guidelines.

1

2 Well, I told you there were two major products out of the prevention science team; one is the
3 Dietary Guidelines, which you're adding your expertise to currently, but the other is the
4 Physical Activity Guidelines for Americans and their midcourse report. You may not be aware --
5 Dr. Post gave a good historical perspective on the Dietary Guidelines, which go back decades --
6 but in reality the federal government had never issued guidelines on the amount or type of
7 physical activity that Americans should have to enjoy health benefits until 2008. There was an
8 advisory committee created, and in 2008 we released the Physical Activity Guidelines. As I
9 mentioned, it was the first time that the amount and type of physical activity was enumerated
10 for the American public. I have to say that the main idea behind the Physical Activity Guidelines
11 is that physical activity, over months and over years, results in some very significant health
12 benefits.

13

14 I did want to say that at the five-year point, the question arose, "Should we revise and update
15 the Physical Activity Guidelines along the same schedule that we have for the Dietary
16 Guidelines?" And I think a committee that looked at this did not feel that the science had
17 evolved enough to warrant a complete review of the entire guidelines, and consequently we
18 did what we called a midcourse review that was released earlier this year. And you'll see it on
19 the right side of the slide.

20

21 We decided to look at the evidence base to see what types of interventions are most successful

1 in getting young people to become more active. There were five domains that were involved in
2 this, essentially where youth live, learn, and play. It was the school and preschool environment,
3 child care, the community, the family, and the primary care setting. And there's documentation
4 on each of those settings and what the evidence says is most effective in getting individuals to
5 work.

6

7 I have to stop here just a minute and give a shout out to one of the committee members, which
8 is Mim Nelson. Mim has been just unbelievably helpful to the prevention science team. She
9 actually was a part of the group in 2008 that helped deliver the 2008 Physical Activity
10 Guidelines. She showed up two years later to help us with the Dietary Guidelines for 2010, and
11 here she's back for 2015. So, Mim, thank you for the contribution you make. I feel like I ought
12 to put you on the payroll or --

13

14 [laughter]

15

16 I want to move on to Healthy People 2020. If you've worked in public health, you know Healthy
17 People. It is one of those governmental initiatives that has stood the test of time. In reality,
18 the first Healthy People was issued in 1979. It was Healthy People 1990. It has been generated
19 every decade thereafter. For those of you that are not familiar with the Healthy People
20 initiative, it's a comprehensive set of 10-year health objectives that we follow over a decade
21 period of time to see if we're moving forward in some very important health objectives. I'll

1 have to say, over those four decades that I just mentioned we've evolved a great deal as public
2 health has changed and evolved, as new threats have been determined, but we've also grown.
3 If you went back to Healthy People 1990, you would see that there were a mere I think 250
4 objectives that we followed over a period of a decade. If you fast-forward to Healthy People
5 2020, we now have over 1,200 objectives that we're following for the nation in 42 separate
6 topic areas to see if the nation's moving forward in the manner that we want. We think that it's
7 very -- a great tool, that it provides a framework for -- across the nation and across stakeholders
8 for improvement in public health objectives. It's used certainly at the federal level for
9 policymaking, but also at the state and local level, in the private sector, as well as numerous
10 advocacy groups use Healthy People 2020.

11

12 I think that this group would be very pleased to know that one of the focal areas is nutrition
13 weight -- nutrition and weight status topic area. It is a focus area, and if you looked at the
14 objectives in that particular area, you will see that they totally align with the Dietary Guidelines
15 for Americans.

16

17 I want to say just a word about the health communications team. As I mentioned earlier, this --
18 these are top professionals that know how to take very complex health and science information
19 and to distill it down to messages that can be readily understood. Their messages are user-
20 tested, they're actionable, and they're easy to understand. The health communications team is
21 really responsible for the large web presence that the Office for Disease Prevention and Health

1 Promotion has, with the main website being healthfinder.gov. If you have not surfed
2 healthfinder.gov, I hope you'll have an opportunity to do so. We're now one of the -- I think the
3 second or third most utilized or visited website within all of HHS. This uses health literacy
4 principles to make sure that the messages that are presented in healthfinder are easy to
5 understand, again, even for those with limited health literacy. It's evidence-based science
6 around prevention and wellness. The audience for healthfinder.gov is both the health care
7 consumer and health care professional, and it helps individuals make informed decisions about
8 their own health, and hopefully change their health behaviors.

9
10 Well, before I close, I did want to just sum up just a minute. First of all, I hope that in the few
11 minutes that I had at the podium that you've had an opportunity to see the wide breadth of
12 activities, of programs, of initiatives, of educational campaigns that really rely on the work that
13 you as a committee do. You -- the work that you will do over the next weeks and months will
14 have legs and will inform much of the activities that we do at the USDA and at the U.S.
15 Department of Health and Human Services. I think, more importantly, you need to think that
16 the work that you will be doing over the next couple of years will help shape the health of
17 Americans over the next five to 10 years or longer. It really is an important task that we have
18 for you. I think all of you know that the meaningful scientific recommendations from your work
19 on this committee will ultimately be translated into a policy document, and it's that policy
20 document that will inform the activities of the numerous operating and staff divisions that I
21 enumerated today. So, again, it has great applications moving forward.

1

2 Before I close, I did want to just take just a minute to express my profound appreciation for
3 those of you that are sitting at the table. I've had an opportunity to review each one of your
4 bios, and it's clear that you have very busy lives. You have very busy day jobs, and for you to
5 take time out and share that with us, your time, your technical expertise, is just so
6 commendable. So thank you for the contribution that you've made over the last two days and
7 that you'll make over the upcoming weeks and months. Thank you so much.

8

9 I also want to express appreciation to Dr. Post, first of all for the presentation that he gave
10 today on the historical perspective of the Dietary Guidelines, but also for the strong sense of
11 collaboration that I certainly have felt between USDA and HHS. Dr. Post and I had an
12 opportunity to talk yesterday, and we really feel like the interaction between our office and his
13 office is a model for trans-departmental collaboration, and I know that we can count on that
14 moving forward.

15

16 So, again, thank you for all you've done, and I look forward to getting to know more of you over
17 the upcoming weeks.

18

19 [applause]

20

21 Richard Olson:

1 Well, thank you, Rob -- Don. We'll move forward now. Colette Rihane, one of the co-executive
2 secretaries supporting the advisory committee, and Kellie Casavale, another one of the co-
3 executive secretaries supporting the committee, will talk about the topic selection process. So,
4 Colette?

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The Topic Selection Process

1

2 Colette Rihane:

3 Thank you very much. There will be a test later over all this information that you're gathering
4 today and being given. Okay. So what we're going to do now, we're going to split this next
5 presentation between Dr. Casavale and myself. We're going to be discussing the topic
6 formation process and the topic selection process that we see that you will be using as you
7 move forward.

8

9 The handout, in addition to all the handouts you have for this presentation, these are in your
10 notebooks. They're also available online at www.dietaryguidelines.gov, as well as the -- a
11 three-page outline of the whole topic process formation that we'll be discussing.

12

13 So I want to first begin again by reiterating the scope of the Dietary Guidelines and what the
14 focus of the Dietary Guidelines Advisory Committee will be. We've covered this several times,
15 but for the benefit of the audience today we'll review this once more. The scope of the Dietary
16 Guidelines for Americans is to address food and nutrition issues that will inform public health
17 action to, number one, promote population health or wellbeing and/or, number two, to reduce
18 the significant burden of avoidable disease in the U.S. population as a whole or in the special
19 population subgroups.

20

1 The Dietary Guidelines Advisory Committee will be focusing on food groups, including the foods
2 and beverages found within them, and/or dietary patterns, particularly highlighting the
3 amounts and combinations of foods and beverages that should be consumed to promote
4 health and prevent disease. Nutrients may be considered, but the Dietary Guidelines for
5 Americans are intended to provide food-based recommendations that complement the dietary
6 reference intakes. Changes to the DRIs are, of course, out of scope for this process. Examples
7 of potential nutrient topics include nutrients of public health concern -- for instance, where
8 intakes may be too low or too high -- topics that could demonstrate how to implement the
9 DRIs, perhaps consider if some quantitative recommendations should be energy adjusted for
10 implementation, topics that could complement the DRIs -- for instance, provide guidance on
11 reasonable implementation of the DRIs in the USDA food patterns.

12

13 Additional topics which could be addressed are factors that could have a potential
14 enhancement to implement the Dietary Guidelines, for example: social, behavioral, and
15 environmental factors that may improve dietary compliance, intake, or calorie balance. Also
16 principles that ensure that the food is safe for consumption.

17

18 Do you hear feedback?

19

20 The target population for the Dietary Guidelines, again, is the general U.S. population ages two
21 and older. This includes children, adolescents, adults, and older adults. The age span from

1 birth to 24 months of age is not in this scope, as we've heard several times, as this is not the
2 primary target population at this time. The group is being addressed in a separate effort which
3 is considering topics pertinent to infant and toddler intake, such as breastfeeding, formula
4 feeding, and the introduction of foods and their relationship with infant and toddler outcomes.
5 The scope of the Dietary Guidelines Advisory Committee's work does include maternal intake.
6 This includes optimal dietary intake during pregnancy, postpartum, and during breastfeeding as
7 it relates to maternal health and pregnancy outcomes. Other pertinent subpopulations
8 including those that are at risk for nutrition-related chronic disease and/or subpopulations at
9 nutritional risk, including older adults and folks classified as being of low socioeconomic status
10 are also included.

11

12 Topics to be considered should have the potential to impact one or more food- and nutrition-
13 related health outcomes of public health concerns, and these include health outcomes
14 including body weight status, cardiovascular disease, cancer, as well as type 2 diabetes, bone
15 health, and the prevention of food-borne illness, also diet-related outcomes relevant to social,
16 behavior, environmental topics, intakes of foods, food groups, dietary patterns, nutrients of
17 public health concern, diet quality, and dietary behaviors. When selecting topics, the Dietary
18 Guidelines Advisory Committee may consider the likelihood of a review of the topic to
19 potentially inform dietary guidance, potential criteria to include a review of the current
20 evidence on the topic may inform the development of new dietary guidance for Americans two
21 years and older. A review of the current evidence of the topic may result in a change or

1 elaboration of an existing recommendation, recommendations, or recognition that a topic
2 could represent uncertainty or knowledge gap for decision-makers addressing an important
3 controversy or dilemma in public health nutrition, and it could be identified as also an urgent
4 need for guidance in a significant area of public health concern or an emerging area for the
5 public health action, or that something that may address a common practice in public health
6 nutrition for which there is no government guidance at the current time. [inaudible]

7

8 Kellie Casavale:

9 All right. Thanks, Colette.

10

11 Colette Rihane:

12 Thank you.

13

14 Kellie Casavale:

15 I'm Kellie Casavale, and I just want to mention that I'm formerly Kellie O'Connell, so if you were
16 here for the 2010 process, I'm the same person. Just got married. And I also worked for USDA
17 then, so I got married at the same time took a job with HHS. So I still get to work with the same
18 wonderful people, just have to commute now to Rockville. But I love it all the same.

19

20 Okay. So I'm just going to kind of go through some of the steps. You're going to hear a lot
21 more about this later today and as information directly from the work groups themselves, but

1 we wanted to give you some background on the process for this public meeting.

2

3 So, as was mentioned yesterday, the science review subcommittee has already been put
4 together, and that has four committee members on it. It includes the chair, Barbara Millen, the
5 vice chair, Alice H. Lichtenstein, and also our two crossover members from the 2010 committee,
6 Miriam Nelson and Rafael Pérez-Escamilla. And so they began meeting as soon as they were
7 able to, and the first thing to do was to decide how to move forward for a process. And so the
8 discussion started with developing work groups in how to go about developing topics and
9 scientific questions.

10

11 And really the approach we're going to describe today is a step forward from the process used
12 in the past. And if you're familiar with the process in the past, when you come to the very first
13 meeting, committee members have never spoken to each other and the assignments have been
14 given the first morning for all the subcommittees with the names and who's going to be on
15 them, with no indication of exactly what they're going to cover. And so what we're doing with
16 this process is taking a step backwards to help make the process more efficient, and with a
17 couple of goals; one, to help the committee so they can prioritize their topics and questions up
18 front to be more efficient so that really the resources can be spent in the areas that they see
19 the best need. And then, second, so that the government can staff their subcommittees more
20 effectively so that we can use our wonderful resources the best we can to help them
21 accomplish what they'd like to accomplish.

1

2 So, kind of in a nutshell, three work groups have been formed, and those work groups will
3 result in a collective set of prioritized questions, and then the science review subcommittee will
4 have a role where they'll organize those questions into sets and then assign them into a
5 subcommittee structure, and then those subcommittees will be then named and staffed to
6 complete that work.

7

8 So, within each work group the first thing they're doing, which they just began in their breakout
9 sessions yesterday and they'll report on later today, is to start discussing topic areas, which are
10 really just high-level categories that the committee might want to address, and then thinking
11 about what are the considerations in each of those topic areas that are important to them.

12

13 The next step from that is to then start identifying, well, what scientific questions fall under this
14 category so they could start laying out the nuances of those questions. And then for questions
15 that would require a systematic review, the step after that would be to move towards that
16 process. But first with the work groups we're going to move towards a process of prioritizing
17 the topics and questions, and so what's been proposed is a tier approach, and so the work
18 groups might identify tier one, tier two, and tier three questions where all the questions they
19 develop are very important, but there's a lot of things to consider in whether or not something
20 might be a tier one versus a tier three, and it might be something to the relevance of whether
21 or not it has a likelihood to really apply the policy at the end of the day; it might take into

1 account how much evidence there might be available, so is it really worth your time to go
2 through that -- those steps? There's a lot of different things to consider. And so these work
3 groups will be going through the process of identifying what those priorities are and how to
4 figure out what really is the top-tier questions and what are the lower-tier questions. And of
5 course, people usually want to do all of their questions, but at least that way we'll have a very
6 clear plan for where the focus is going to be.

7

8 So, the science review subcommittee will identify and determine also how to handle
9 crosscutting issues and then they'll help to finalize the prioritized list of questions. And so what
10 will happen is within each of the work groups they'll prioritize their questions, but then at the
11 science review subcommittee level they'll look at the questions across all three work groups
12 and look at how those priorities might -- would balance best across the entire committee, and
13 then let that information guide reorganization of the committee into subcommittees so that
14 the work is balanced amongst the subcommittees, is organized in a logical way, and then it's
15 staffed also in a very effective way. So based on those groupings of the review questions, then
16 a preliminary subcommittee structure will be created. That will include the name of the
17 subcommittee, the content, and also the membership. And then the plan is that that would
18 probably be discussed at the next public meeting so that all the work groups can come together
19 and discuss that subcommittee organization and their prioritized questions at the next meeting,
20 and then likely quickly thereafter the subcommittees would then begin their work at a deeper
21 level.

1

2 And so -- yep. And so we don't know how many subcommittees there'll be, but once the
3 subcommittees are formed, that's when they're really going into the deeper dive, so to speak,
4 of the work. So that's when -- if questions will be determined, if they're being answered via
5 data analyses, or they need food pattern modeling, or if they're a systematic review question,
6 the subcommittees will then really go into the details of what's needed to complete the
7 systematic review.

8

9 And so just last I just want to mention these again. Rob already did a great job of explaining
10 them, so I'm not going to spend much time, and this is really the lead-in to Joanne Spahn talking
11 about the Nutrition Evidence Library, but when the subcommittees get to that point, what
12 they'll really be doing is refining their topics so that they're targeted and answerable. And then
13 the federal staff will help to support them in all of the work that they need to be able to answer
14 their questions.

15

16 So, since the guideline should really be based on the preponderance of the current scientific
17 evidence, the primary approaches for examining the evidence are listed here, and they include
18 the systematic reviews, the data analyses or food pattern modeling analyses, and those are
19 only analyses that are requested by the committee. They're completed with staff support,
20 however. And then they also can use existing high-quality reports. So that helps to prevent
21 duplication of effort and really promote time and resource management. And they can choose

1 to consider all or just certain aspects of those reports, and those reports may fully answer a
2 question they ask or it may only be part of the answer to a question that they ask. And then
3 lastly, again like Rob mentioned, oral and written comments are received from the public
4 throughout the committee's work. And comments from the public really are important and
5 they can bring to light new issues, new approaches to current issues, and also emerging
6 evidence. So please submit your comments for the committee's consideration. And with that
7 I'm going to turn the mic over to Ms. Joanne Spahn.

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The USDA-CNPP Nutrition Evidence Library

1

2 Joanne Spahn:

3 Thank you, Kellie and Colette. I'm Joanne Spahn, and I'm the director of the USDA Nutrition
4 Evidence Library, and my goal today is to provide a little background on the Nutrition Evidence
5 Library, highlight our systematic review process and the interface between the committee and
6 the NEL staff, and since the next few months the committee will be primarily engaged in topic
7 refinement and question development, I will provide a few more details on that process.

8

9 The NEL specializes in conducting systematic reviews to inform nutrition policy and programs,
10 and the use of systematic review to develop the 2010 Dietary Guidelines was considered a
11 major improvement in the approach, and it enabled the government to meet the Data Quality
12 Act requirements.

13

14 The inaugural project for the NEL was the development -- or support of the development of the
15 Dietary Guidelines 2010. And following that process, we conducted an after-action with the
16 committee and government staff to develop and process improvements. And the committee
17 gave us a few recommendations: first, to provide a more systematic approach to question
18 development, incorporating broad input, and also looking at the policy relevance of each of
19 those questions, and organizing the workload, as Kellie mentioned, evenly across the
20 subcommittees and across the timeline.

1

2 The NEL staff has also considered carefully the 2011 IOM report on conducting comparative
3 effectiveness reviews, and we were happy that a member of the nutrition community and a
4 member of your committee aided that report development, Dr. Siega-Riz. We made some
5 modifications in our process based on those standards and also our experience over the last
6 few years in conducting systematic reviews in the area of nutrition, education, and dietary
7 patterns, and involvement in systematic review topic and question development for the birth-
8 to-24 month population, along with evolutions that have occurred in systematic review
9 methodology over the last number of years.

10

11 The NEL systematic review process provides an empirically informed framework and structure
12 to review the literature. The process efficiently elicits expert judgment and considers public
13 comments throughout the process. It leverages scientific principles for weighing the evidence,
14 for evaluating the validity and reliability of the literature, for -- it leverages group dynamics to
15 minimize bias and promotes transparency. This slide provides an overview of our process. The
16 NEL staff will assist you in development of the questions, literature, searching, screening, and
17 selection, the organization description, evaluation, and synthesis of research in order to answer
18 important food and nutrition questions and the development of research recommendations
19 and technical abstracts, which will all be posted on the NEL website once the committee report
20 is approved by the Secretaries.

21

1 The substantive work of the committee is done -- the substantive work is done by the
2 committee. The committee develops the questions and identifies the criteria that guide the
3 review of the literature. The development of the research questions is the most important step
4 of the process, and the broad nature of the system -- of the Dietary Guidelines for Americans
5 creates a challenge for this committee. Most systematic reviews are targeted at a certain topic
6 area, while the challenge that your committee has is to really cover a broad array of topics. The
7 development of optimal systematic review questions takes time and deliberation to ensure that
8 the most relevant topics are addressed and that the questions are clearly focused, appropriate
9 in scope, build a review plan that is based on the most current scientific evidence. The
10 systematic review question process development will begin in the work groups as the
11 committees evaluate what topics need to be reviewed, and they start to develop the protocols
12 to guide that development by identifying the populations of interest, the outcomes of interest,
13 and settings, et cetera.

14

15 The Nutrition Evidence Library staff will assist in the development of the questions; which is
16 done in an iterative approach. This slide just shows a number of different questions that
17 evolved. The first -- "what is the relationship between nuts and health" -- is very broad. In
18 order to review the literature we would need to know how the committee wanted to define
19 nuts, and also what specific health conditions were of primary importance for the research?
20 The second question on the slide is too specific. "What is the relationship between the intake
21 of two ounces per day of nuts over a one-month period on cholesterol?" So the likelihood of us

1 being able to identify literature that's looking at that precise exposure to nuts is not good. So
2 we want a question that is broad enough to cover the area and that clearly defines the target
3 population and the target outcomes of main policy concern. So, through the next few months,
4 the NEL will have a process that, you know, tries to elucidate what are the most important
5 populations, interventions, or exposures, comparators, and outcomes of concern.

6

7 An analytical framework will be developed as needed to provide increased details related to the
8 elements of the question. A number of analytic frameworks will be developed based on the
9 array of questions that you develop, and you may also use additional types of frameworks to
10 look at the relationships between the topics and to support the analysis of the review.

11

12 This is an example of a basic analytical framework that the NEL will use at the question level, or
13 the family of question levels, and there'll be a document that accompanies this that will define
14 a relationship of the terms that are used within the question. Following the

15 question/development phase, there's a number of other processes that the NEL will assist with
16 in order to review the literature, and the first is the literature search screening and selection.

17 And we have two librarians that will assist your work, one from USDA and one from HHS. The
18 NEL will assist you in development of inclusion and exclusion criteria that are used to guide the
19 selection of the literature that's most appropriate to answer the systematic review questions.

20 We use a number of different electronic databases, and also hand-searching processes in order
21 to identify the literature, and we use a dual process for screening and meticulously document

1 the process, and this is an example of the type of documentation that we use to document the
2 literature search process. Again, the top indicates the number of databases that might be used
3 to search a topic. We usually start with a large array of literature and then, through a screening
4 of the title, the abstract, and the full text, we really define what are the most important articles
5 to inform the group on that particular topic.

6

7 The next step is the data extraction component to the process, and this involves extraction of
8 key elements from each individual article that will answer the systematic review question, and
9 the NEL uses a grid, or, like, an Excel spreadsheet that will present the data to you for analysis,
10 and this is an example of the grid structure that we use, and it provides information about the
11 study, the characteristics of the population, the independent variable, the dependent variable,
12 and information about the quality of the articles and limitations of the literature that has been
13 considered to answer the question. The NEL does a -- has a quality assessment process that's
14 designed to look at the methodological rigor of the individual articles that are evaluated by the
15 committee. We use a NEL quality assessment tool to assess the risk of bias for primary research
16 and we'll use a validated tool called AMSTAR to assess the quality of systematic reviews. The
17 fourth step is the preparation of the evidence portfolio, which involves a narrative description
18 of the evidence, evidence tables, and synthesis along with the articles themselves. And this is
19 an example of the template that we might use to prepare the narrative description, and we will
20 work with each of the subcommittees to determine that the appropriate elements for this
21 report for the question that you're considering.

1
2 We also have a key trends document that we use that elicits information that enables the staff
3 to start to draft the synthesis, and this will ask a series of questions related to patterns of
4 agreement, similarities and differences in the studies, factors that should be considered, and
5 limitations. And we combine the input from all of the subcommittee members to help to draft
6 that synthesis, and this is an example of an evidence synthesis key trends document that we
7 used for our dietary patterns project, and, again, we will consult with the committee to tailor
8 this type of tool to the needs of the particular question that they're answering. The fifth step is
9 the development of the conclusion statement, and the NEL staff, again, will solicit input for the
10 conclusion from the committee members using the key trends document. This is an example of
11 the key trends document that was used for dietary patterns. The conclusion statement very
12 succinctly answers the systematic review question based exclusively on the evidence that has
13 been reviewed. Our conclusion statements include evaluation of the portfolio of evidence
14 based on the following elements: the quality of the research; the quantity of studies and the
15 number of subjects within those studies; the consistency of findings across the studies; the
16 impact, including both directness of relationships and precision; and generalizability across the -
17 - or the generalizability to the U.S. population. And this is an example of the conclusion
18 statement grading rubric that's used by the NEL, and we work with the individual committee
19 members to elicit judgments on each of the elements. And you can go through and see the
20 criteria that's used for each element from strong, moderate, limited, and grade not assignable.
21 The conclusion statements include the quantitative label, along with the answer to the

1 systematic review question, and this slide will show two examples of conclusion statements
2 from the 2010 Dietary Guideline Advisory Committee report. The first one: Strong and
3 Consistent Evidence Indicates that Children and Adults Who Eat Fast Food are at Increased Risk
4 of Weight Gain, Overweight, and Obesity. And the conclusion continues to provide very specific
5 information related to the body of literature that was used to answer that question. The 2015
6 committee will also use a series of key findings to provide even more detail related to the
7 conclusion statements. The second conclusion statement, again, answers a very specific
8 question and provides an indication for the strength of the evidence within the conclusion
9 statement.

10

11 And the final step of the NEL process is the identification of research needs for the future, and
12 this is an important product of the Dietary Guideline Advisory Committee's work, and finally the
13 development of a technical abstract, which very clearly provides a summary of the review and
14 the findings. The Nutrition Evidence Library Team looks forward to working with you over the
15 next number of months. This is a picture of our team at our recent cherry blossom picnic.

16 From left to right is Donna Blum-Kemelor, Patricia MacNeil, myself -- Joanne Spahn -- Jean
17 Altman, Thomas Fungwe, Julie Obbagy, Molly McGrane, Yat Ping Wong, and not shown is Nancy
18 Terry, who is the librarian from NIH who will assist us in this project. We look forward to
19 working with you and hope that our role will make your job easier and save considerable time.

20 Thank you.

21

1 [applause]

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DGAC Discussion on Topic Formation and Review of the Evidence

1

2 Richard Olson:

3 Testing. Yeah, now it's on. We reserved about 10 to 15 minutes now for the committee to
4 make comments, ask questions concerning the topic selection, prioritization, evidence, analysis,
5 et cetera. So, committee members, this is your time, and just, what I was talking about earlier,
6 please state your name before you make a comment or ask a question. Thank you.

7

8 Rafael Pérez-Escamilla:

9 I have a logistical question here. So, is the expectation that the subcommittees will be in place
10 by the second meeting, or that will be discussed at the second meeting?

11

12 Kellie Casavale:

13 Alright. Thank you, Rafael. Don't forget to say your name. [laughs]. Right, that would be
14 discussed at the second meeting. So the thought is that the science review subcommittee
15 would have a preliminary outline of how they think the subcommittees should be laid out, and
16 then you guys can discuss that at the second meeting and make any tweaks to it based on that
17 discussion, and then following that meeting, and then in a few weeks following that, we'd
18 finalize it and then we'd probably also -- we'd definitely also post it online at
19 dietaryguidelines.gov so that the public was aware of how you guys had reformed yourselves
20 and who was on each of the subcommittees.

1

2 Mary Story:

3 Mary Story. Can you just briefly describe the timeline for the systematic reviews and the --
4 mainly the timeline of when these would be completed?

5

6 Kellie Casavale:

7 Sure. This is Kellie. I think it's probably better for Joanne to answer that question. They really
8 would start after the second meeting in the fall, because that's really when -- once the
9 subcommittees are put together, you will put the systematic review details together at that
10 point, which is, you know, really the detailed process that Joann just described. And so they
11 would start there, but, Joanne, you might want to say a few words over, you know, how that
12 might fall out over the rest of their timing in preparation for the report.

13

14 Joanne Spahn:

15 This is Joanne Spahn. The first few months of the process are devoted to identifying the topics
16 and developing the questions, and part of the question development involves, you know, initial
17 development of the protocol that would be used to review the science. And so I think the
18 vision is that at the second meeting there would be discussion, prioritization, and decisions
19 made regarding the list of questions to be researched using a systematic review protocol. Then
20 the timeline for those questions would really run over the next 12 months or so, looking at
21 reporting out on conclusions at both meeting number three and meeting number four, having

1 all of the questions reviewed as a group and really finalizing the evidence grades at the fifth
2 meeting, and then the development of your report would be the subject of the fifth meeting
3 and the sixth meeting discussion. So I think that's how we would see the work flowing.

4

5 Kellie Casavale:

6 This is Kellie. I just want to clarify. There's only five meetings planned currently, so at the
7 fourth meeting you should be discussing the final conclusions of your report, and at the fifth
8 meeting you should be done.

9

10 Cheryl Anderson:

11 This is Cheryl Anderson, and I have a question for Dr. Post. At the conclusion of your
12 presentation you mentioned looking forward to having us answer questions about dietary
13 patterns as well as eating occasions, and I just wondered if you'd expand a bit more on the
14 notion of meal patterning and eating occasions?

15

16 Robert Post:

17 Mine was just to point out where I think areas are ripe for consideration, knowing how we've
18 applied, and questions that have been raised in applying the 2010 Dietary Guidelines for
19 Americans. So I think, you know, the history is we've looked at the importance of what is -- in
20 fact, what forms a healthy eating pattern, and I think that work should continue. I know we've
21 gotten a lot of questions about how this relates to lifespan needs, segments of a lifespan, so,

1 you know, I'm reflecting where, at least in the federal sector, we've gotten more questions. So
2 those might be useful sort of triggers for where, you know, new work could be considered, you
3 know, reflecting on our experiences in applying the Guidelines. And we can -- as you move
4 along, I mean, I'd be happy to reflect on what our experiences are in applying the Guidelines
5 and where there might be gaps and opportunities for additional work.

6

7 Wayne Campbell:

8 This is Wayne Campbell. Joanne, I just have a question about the -- sort of the last steps that
9 you described. Could you just review, please, the -- how the -- once the evidence is all compiled
10 and summarized, who takes the responsibilities for interpretation? In the descriptions, it's --
11 I'm just not personally clear on whether or not the final conclusion statements, and therefore
12 the interpretation of the research, is in the hands of NEL or in the hands of The Dietary
13 Guidelines Committee members.

14

15 Joanne Spahn:

16 That's an excellent question. This is Joanne Spahn. The analysis of the work is completely in
17 the hands of the committee. The committee will work upfront to develop the protocols for the
18 reviews. You'll inform the criteria for the literature searches. You'll also identify the data
19 elements that should be extracted using the data extraction grid format. So we'll provide that
20 information. It will provide some draft grids for your consideration and tailoring, based on the
21 question, then we'll ask for your -- for each of the subcommittee members' input on the

1 synthesis -- on both the approach to the synthesis and combine input from all members to a
2 draft synthesis, which will then be returned to the committee for your careful consideration
3 and refinement. So every piece of that work is informed by the committee. We're just
4 following the criteria that you have set to enable you to move forward more quickly. The
5 conclusion statements are clearly the work of the committee. We will follow your direction in,
6 you know, crafting those, and also use the rubric to support your deliberations on the
7 conclusion gradings.

8

9 Frank Hu:

10 This is Frank Hu. I have a question for Joanne. I guess this is a very practical question. Within
11 this very limited timeframe, how many systematic reviews or meta-analysis can you actually
12 do?

13

14 [laughter]

15

16 I guess, how many did you do at the last committee?

17

18 Joanne Spahn:

19 I think that Drs. Nelson and Pérez-Escamilla would both recommend that we spend more time
20 upfront really looking at prioritizing the questions, because to do a series of systematic reviews
21 over a number of different topics in 12 months is a challenge. It's difficult to give you a number

1 because it really depends on the criteria that you're using to review the literature, what the
2 year span is, and how complex the topic is. And so I think that, as we move forward, all the
3 subcommittees are aware of the timeline, and will use that, you know, timeframe to inform
4 how many questions their subcommittee wishes to evaluate.

5

6 Rafael Pérez-Escamilla:

7 This is Rafael. I very much agree with Joanne's recommendation, and I also want to ask the
8 question that I think -- because I think it is possible to make a decision on updating a systematic
9 review that was conducted for the previous committee without having to start from scratch, is
10 that correct?

11

12 Joanne Spahn:

13 That is correct. The charge is to look at the most current evidence, and so if there have been
14 systematic reviews done by the NEL, or other systematic reviews that might serve as a starting
15 point, we will definitely take advantage of that.

16

17 Miriam Nelson:

18 This is Miriam Nelson, and, Frank, just to sort of give a little bit of context, I think one of the
19 things was we actually tried in 2010 to have not so many questions, and I think we started at or
20 somewhere around 36, or somewhere around that, but actually when we -- then you dig down
21 into those questions, it became 130-some questions because you're looking at cardiovascular

1 diseases and outcome, or you're looking at diabetes, and so I just want to -- it's sort of just
2 some historical perspective on this that we have to just be very careful and prioritize, and then
3 the only thing, sort of following up on what Rafael was saying, I do think -- you know, we were
4 very careful about what -- how far we went back in the data for different questions, and my
5 sense is, looking at the report and where we may be going -- for some datasets we might only
6 go back to 2009 because that's where we stopped, but then we may have new questions that
7 have never been asked before, where then we have to decide do we go back to -- you know,
8 what date do we start from? So there may be different start dates for different questions.

9

10 Gary Foster:

11 This is Gary Foster. As I understand it, the questions will come from the subcommittee, and
12 then they'll work with Joanne and her team to refine those. Does the full committee see those
13 questions in toto, or is it just from the subcommittee to NEL, or what's that process like?

14

15 Joanne Spahn:

16 I think in the -- over the next number of weeks that the work groups will be working on the
17 development of the questions. The science review subcommittee will provide a bit of cross-
18 feeding. The main work of the committee during the second public meeting is to really look at
19 the host of questions that have been prioritized and refined by each of the work groups and
20 settle upon the full set of questions to be reviewed using the systematic review methodology,

1 and then there are other methodologies that may be used to evaluate the research in these
2 areas.

3

4 Frank Hu:

5 Frank Hu again. I just wanted to see whether we can get a copy of all the questions have been
6 proposed at last committee, and what's -- look at how many questions have been actually
7 systematically reviewed, and that would give us a base to say what new questions we will need
8 to propose and what questions that have been reviewed last time need to be updated.

9

10 Joanne Spahn:

11 We can provide that list.

12

13 Richard Olson:

14 Any other questions? Comments? Okay, it's time for a break, then. We'll break until 10:45.

15

16 [break]

17

18

The State of the American Diet

1

2 Richard Olson:

3 Let's go ahead and get started. We're going to have a couple of presentations now on the state
4 of the American diet. Alanna Moshfegh from USDA and Jill Reedy from HHS will be presenting.

5 So, Alanna?

6

7 Alanna Moshfegh:

8 Good morning, everyone. I want to, as well, welcome the Dietary Guidelines Advisory
9 Committee and thank you for your service. You have a big job ahead of you. But the group
10 that's been assembled is well qualified for this job, so we look forward to working with you over
11 the next couple of years. My task today is to talk about the state of the American diet, and I'm
12 going to try to do this in two broad areas. First I want to give a general overview of the national
13 dietary data that's available from NHANES, and you heard yesterday we call that, what we eat
14 in America, and as well give you a selection of results that will provide some insight on the state
15 of the American diet. And in doing that, I try to give you some examples of the kinds of analysis
16 that you can get from this data and that we stand ready to provide for you as you begin your
17 work.

18

19 So, first, a bit of an overview of NHANES, and Rob Post today talked about the wonderful
20 teamwork between his group and others at USDA and HHS on the Dietary Guidelines mission.

1 And let me echo that, and maybe even louder, of the wonderful teamwork between USDA,
2 specifically within the Agricultural Research Service, and our colleagues at the National Center
3 For Health Statistics who are responsible for carrying out NHANES. It's a true and wonderful
4 collaboration and I feel dear to all the colleagues that I work with at NCHS on this important
5 work. So we know that NHANES is conducted by the National Center for Health Statistics in the
6 Department of Health and Human Services. Within USDA, we're responsible for the dietary
7 intake portion within that big survey, but we do that collaboratively with our colleagues at
8 NCHS. So NHANES has been a continuous survey since 1999. Data collection is on an average
9 of about 5,000 individuals, all ages, each year -- a new 5,000 each year. And the data is
10 released every two years.

11

12 In the committee's packet, I think our slides are under tab four, but at the back I've provided
13 you a copy of this brochure on the NHANES content for you. You can also get it off of the
14 NHANES website. If you Google NHANES, you'll get right there, and you can find it. But it's an
15 excellent resource that talks about the questionnaire components, the examination
16 components, and the laboratory components that are available from NHANES from 1999 to
17 2012, and the age groups that each of the components are available on.

18

19 Now for the dietary intake portion of NHANES. We collect two 24-hour recalls on each of the
20 individuals. It's done through trained interviewers. They come into this mobile exam center for
21 their first 24-hour recall, and then about three to 10 days later they're called by telephone for

1 their second 24-hour recall. The recalls are conducted across all days of the week. We use the
2 USDA automated multiple pass method for collecting the 24-hour recalls. The method has an
3 extensive number of questions and response options for gathering this information, and it's
4 been validated both for energy and for sodium.

5
6 Now let's move to the results. The most recent data from NHANES that's available for analysis
7 is from 2009/2010. We're right now processing the 11-12 data. If all goes well, that will be
8 coming out next summer, probably not in time for your deliberations, though. So the results
9 I'm going to show you today primarily are from 2009/2010, and I've dipped back into history a
10 bit to give you just some perspective of what has been going on with some aspects of the data
11 that I'm going to show you. We've heard about what Dr. Atwater said over a century ago, and
12 was he so right, as this slide shows us. So this looks at the changes in energy intake per
13 individual per day, looking at data from 1977 to the mid 90s and to 2009 and '10. And you can
14 see from the mid-70s, late-70s to the mid-90s, on average we've increased about 150 calories
15 per day. From this about past decade, we've increased about 50 calories per day. Of course,
16 this is the same data just looking at and showing you adult males and adult females. So today
17 for adult males we're at about 2500 calories and for adult females we're just a little under 1800
18 calories.

19
20 Now, in looking at meals and snacks, this slide shows you the percent reporting meals and
21 snacks based on 2009, now 2010 data. And you can see, for each of the meals -- breakfast,

1 lunch, or dinner -- the majority of Americans are reporting each of these meals. These are self-
2 reported, self-identified by the respondent. About two-thirds of the population is having the
3 three squares, if you will, the breakfast, lunch, and dinner. About a third are having any two of
4 those three meals and 5 percent are having only one. Because lunch was the least reported,
5 even though it's by 80 percent of the population, we have looked at who are more likely to
6 report lunch by these demographics, and you can see those that are young, those that are
7 white, and those that are of the highest income status are the ones most likely to report lunch.
8
9 Now, the next series of slides are identifying what I think are three broad areas of where eating
10 patterns -- eating in general has changed for the country. The first looks at the percent of
11 energy that comes from meals and snacks. So you can see dinner gives us our greatest percent
12 of calories; a third comes from dinner. Equally, a fourth comes from lunch, and a fourth comes
13 from snacks, 17 percent from breakfast. I've highlighted and pulled out here the snacks. A
14 fourth of our energy today comes from snacks. Compared to the late 70s, that's double the
15 proportion. Now let's look a little closer at those snacking occasions. This looks at these three
16 time periods, and the green -- the very dark green and the lighter green are the leader -- the
17 smaller number of snacks that are reported, and the lighter red and the darker red are the
18 greater number of snacks. You can see in the late 70s, 40 percent of Americans were reporting
19 no snacks on any given day. Of course, today that's much less, at 4 percent. When we look at
20 the red, you can see today the majority of Americans are having at least three or more snacks
21 and 16 percent of us are having five or more snacks per day.

1

2 Now going back to the same presentation and looking at the percent of energy from food at
3 home and away from home. So for every food and beverage reported, we asked did you eat it
4 at home or away from home? So that's where this data comes from. About a third of our
5 energy is coming from food away from home. And this is double the proportion compared to
6 the late 1970s. Now, of course, food at home can also be food that has come in from a
7 restaurant or from a fast food place, as well. So when we look at data by source of food or
8 beverage, about 13 percent of our energy -- not on this slide, but 13 percent of our energy
9 comes from fast foods and about 9 percent comes from restaurants. And the last category is
10 looking at foods and beverages and the percent of energy coming from these two broad
11 groups. Today we get 20 percent of our energy from beverages, compared to the late 70s
12 where we were getting 80 percent of our energy from beverages.

13

14 Now I want to move into and look at food and beverage intakes, and to do that I'm going to
15 utilize a new application we've developed within ARS, we call it the What We Eat in America
16 food categories. We have really just finished these, and the fact sheet that you see on the right
17 has just been put on our website. What these categories do is group foods and beverages into
18 150 unique categories. Now, in our survey we have close to 8,000 unique foods and beverages
19 that we can report our data out in. So we have taken those 8,000 and grouped them into these
20 150 categories for providing an application to analyze foods and beverages as consumed in the
21 American diet. These include discrete food items where there's no disaggregation. For

1 example, pizza, a very popular food for all of us, is not disaggregated into the grains portion, the
2 dairy portion, cheese obviously, the vegetables, which are tomatoes, the meats, et cetera. This
3 just looks at intake of pizza. In your tab, you have a listing of these categories that are on the
4 right, because I know it's difficult probably for you to read off of this. There's about 36 of them
5 I think that identify all of the beverages, and the remainder total up to all of the different foods,
6 to give us 150 of these categories. They're designed to be grouped in any way researchers or
7 you would like to do them for us to provide analysis on identifying food and beverage intake for
8 the population.

9

10 So now let's get into looking at some of these select groupings that I have chosen to report out
11 for you. So I've got six broad food groups here showing the percent of individuals, all ages, who
12 have reported at least one or more foods in each of these broad groups. The dark green bars
13 here are for the '9/'10 data, and I took a look back to show you what was going on in these
14 groups in 2001 and 2002. So you can see the majority of Americans are reporting grains,
15 protein foods, snacks and sweets, mixed dishes, vegetables, and less than half of Americans are
16 reporting a fruit. The fruits here do not include fruit juice or the juice that's in fruit drinks.
17 These are the fruits where Americans have made a conscious decision to have a fruit and
18 reported it in the 24-hour recall. So it's very interesting that a little more than half of
19 Americans on any given day are not reporting a fruit. What does that data look like when we go
20 back to 2001 and 2002? Well there's some very good news here. You can see that in '9/'10
21 there's an increase in the percent of Americans that are reporting a fruit.

1

2 Now let's look at fruit just a little bit more in detail. What are the top fruits and the top
3 vegetables that were reported in '9 and '10? Again, another application you can get off of
4 these categories. So here are the vegetables in rank order based on percent reporting. This is
5 not based on mean intake. Percent reporting. Potato's the number one vegetable, followed by
6 lettuce, tomatoes, carrots, and corn. And for fruits, the number one, bananas, followed by
7 apples, oranges, grapes, and strawberries. Of course, we always want to see what is the data
8 looking at by age, by race/ethnicity, and by income status, and this shows you that for just the
9 fruit category alone. And you can see, again, if we remember a little less than half are reporting
10 fruit on any given day, and those that are least likely to be reporting fruit are teens, blacks, and
11 those in the lowest income category status. But what does that look like when we bring in the
12 2001 and '2 data? Well, the good news is is we are -- we have increased by all of these
13 breakouts and particularly for those very young children. Okay.

14

15 Now let's move to beverages. These are the six categories of beverages I have chosen to report
16 on. Milk, coffee, tea, sweetened beverages, which includes soft drinks, fruit drinks, energy
17 drinks, juice -- only 100 percent fruit juice here -- alcoholic beverages, and diet beverages. And
18 you can see more than half are reporting milk or coffee and tea, close to half reporting
19 sweetened beverages and the remainder. What's not on here is water. Eighty percent of
20 respondents reported water. Most of that was plain --bottle--, plain water, and there was some
21 for flavored water as well as enhanced waters with various nutrients in it. There's some good

1 news with this data, as well, when we look back to the '01/'02 data. You can see that there are
2 fewer individuals reporting sweetened beverages today than there were back in '01/'02, but, as
3 well, there's fewer reporting milk.

4

5 Okay, so this looks at percent reporting. Now I know probably the question in your mind is,
6 “Well, how does that relate to amount?” And so to do that I've chosen to show you these same
7 categories looking at the contribution to energy intakes. Now I know you're quickly looking at
8 that slide, you're going down to beverages, you're adding it up, and you're saying, “That's 18
9 percent. She just said 20 percent,” and that's because I've reported this data in whole
10 numbers, so it comes, adding those whole numbers up, to 18 percent. If I were to report an
11 amount beyond the decimal, we'd get to 20 percent. So we can see here the percent of our
12 mean daily energy coming from those food categories and beverages, 20 percent from mixed
13 dishes, 16 percent from snack foods and protein foods, et cetera. From sweetened beverages
14 we get 6 percent of our calories, 5 percent from milk, 4 percent from alcoholic beverages, 2
15 percent from juice, et cetera.

16

17 Now let's look at these big groupings and see what is contributing within them. For mixed
18 dishes we see that 8 percent -- about 8 percent come from meat, poultry, and seafood mixed
19 dishes and grain-based mixed dishes. Of course, grain-based mixed dishes are the pasta-type
20 products. Four percent of our energy is coming from pizza, 3 percent from Mexican and Asian
21 mixed dishes, about 3 percent coming from sandwiches, and 2 percent coming from soups. For

1 snacks and sweets, these contribute 16 percent overall of the energy on any given day. About 7
2 percent, or close to half, is coming from cakes, cookies, donuts, snack bars. Five percent from
3 potato chips, tortilla chips, popcorn, pretzels, et cetera. Two percent from candy and 2 percent
4 from other dessert items. For our protein foods, 4 percent coming from poultry, 3 percent
5 cured meats and poultry, 3 percent from plant-based protein foods. The majority of that are
6 nuts and seeds, as well as dried beans and dried peas or legumes. Two percent from eggs, 2
7 percent from beef, and 1 percent from pork. For grains, majority is coming from breads, as well
8 as bagels and tortillas. Three percent from cereals, both ready to eat and cooked. Two percent
9 from quick breads and other bread products like waffles and pancakes, and 1 percent from
10 cooked grains.

11

12 Okay, let's move down to the beverages. About two-thirds of that 6 percent of energy is
13 coming from soft drinks and a third is coming from fruit drinks and sports and energy drinks.
14 Milk is equally divided by whole, reduced, low fat, nonfat, and flavored milks, so about 1
15 percent for each of them.

16

17 Now, in the next couple of slides, I've turned to looking at nutrient intakes. This presentation
18 shows you the percent of Americans with usual intakes that are below the DRIs, or the dietary
19 reference intakes, for the estimated average requirement measure. And you can see that for
20 vitamin D and vitamin E, the majority of Americans are falling below their EAR for these two
21 nutrients. For magnesium, calcium, vitamin A, and vitamin C, it's between about a third to just

1 a little less than half. For the vitamin C column, that's at 37 percent, we assumed that all
2 people in the sample were non-smokers. That next line, which shows you 81 percent for the
3 vitamin C for smokers, we pulled out those adults who reported cigarette use and compared
4 their intake for vitamin C based on the EAR for smokers, which is about 35 milligrams higher
5 than for non-smoking adults, and you can see about a fourth of adults were identified as
6 smokers, and 81 percent of those are below their EAR for vitamin C, and then around 10
7 percent, or less, for zinc, B6, and folate.

8

9 The additional nutrients that has an EAR as well as we have in our database are listed in this
10 box, which less than 6 percent of those individuals fall below their EAR for the particular
11 nutrients. The nutrients that have asterisks by them, vitamin D and calcium, are those that
12 were identified in the 2010 Dietary Guidelines for Americans as nutrients of public health
13 concern. Now, I pulled the data to look specifically at two nutrients, iron and calcium, and look
14 at the percent of females who have usual intake below their estimated average requirement.
15 This first slide shows for iron. So overall for all individuals, it's 5 percent who have intakes that
16 fall below their particular EAR for iron. But for teenage girls and young women you can see the
17 percentages is about 15 or 16 percent, and that's somewhat driven by the EAR for iron, as you
18 can see is higher for some of those individuals. The next slide shows you the same type of
19 information but for calcium for women. Overall, 42 percent of all individuals fall below their
20 EAR for calcium, and you can see how that breaks out when you're looking just at the female.
21 About three-fourths of adolescent and teen girls fall below their EAR for calcium, and as well for

1 older women, over 50, it's at least three-fourths and up to 80 percent, again is somewhat
2 driven by the EAR for calcium.

3

4 Now, my last two slides I want to focus on dietary supplement use. Within NHANES, dietary
5 supplement use is collected two different ways. Through a questionnaire, the survey asks
6 about dietary supplement use over the past 30 days. As well beginning in 2005 and 2006,
7 dietary supplement use is asked similar to the 24-hour recall on food and beverages. We ask
8 for that particular day what exact dietary supplements were you using and how much were you
9 using?

10

11 So the data I'm showing on these next two slides are the dietary supplement use from that 24-
12 hour recall collection. So you can see, on average across the whole population about a third
13 are reporting use of dietary supplements, and it's more for young children as well as for
14 individuals as they get older and for females compared to males. The next slide takes a look at
15 the mean daily intakes of calcium from both food and beverages, which is in the bottom part of
16 the slide in that lighter orange, as well as from dietary supplements, which is on the top part of
17 the slide. Now there's lots of information on the slides, so just let me walk you through it. The
18 number to the right of each of the bars is the percent of individuals within that age/gender
19 group who reported using a dietary supplement or more dietary supplements that contained
20 calcium. Not a calcium supplement, but a supplement that contained calcium. So we went
21 through and gathered up all the calcium across the supplements that the individuals had

1 reported that they were taking. And so you can see the proportion of total dietary calcium
2 intake from food beverages and supplement at the top part of these bars. And on the very top
3 you can see the mean intake that came from supplements across the whole population on
4 average was 130 milligrams of calcium, and the mean intake that came from foods and
5 beverages was just a bit over 1,000 milligrams for calcium. This data is from tables that sit on
6 the Food Surveys Research Group website, and we have 21 additional nutrients that we have
7 this type of information on for your access.

8

9 Thank you for your time. I want to also thank Shanthy Bowman and Donna Rhodes, who are
10 two staff within the Food Surveys Research Group that I work with who guided me on what
11 should be on this presentation and helped me tremendously, as well as John Clemens and Joe
12 Goldman, who are the statisticians that did all the analysis for this presentation. You see our
13 website, as well, listed on the bottom. There's a few additional slides in the packet for you that
14 you can browse at you convenience. In closing, again, thank you for your remarks, and I
15 reiterate what Cathy Woteki said to you yesterday: we within the Agriculture Research Service
16 stand ready to assist you in any way with data analysis as you work on your task here. Thank
17 you.

18

19 [applause]

20

21 Jill Reedy:

1 Good morning. It's really a pleasure to be here with you today. My name is Jill Reedy, and I'm a
2 program director and a nutritionist at the National Cancer Institute with the Risk Factor
3 Monitoring and Methods branch. And as the name of that branch implies, our group focuses
4 on monitoring and methods, and specifically there's a large emphasis on diet assessment and
5 methodological advances for dietary surveillance and monitoring and for use in analytical
6 models with diet and other outcomes.

7

8 So I've been asked to share some insights regarding the American diet, and I think in large part
9 this is because our group at NCI provided some individual-level surveillance data analyses for
10 the 2010 committee to help provide a framework on the state of the American diet. So I'd like
11 to now explain how some of those advances in dietary surveillance were useful last time, and
12 I'd also just like to briefly provide a few methods and examples. And I think that this may be
13 relevant as you prioritize what your questions will be for the 2015 committee. And then, lastly,
14 I'll highlight some recent developments that may also be of interest for potential analyses. So
15 I'll be sharing what we did, how we did it, and some of the other things we've been up to that
16 might also be of interest briefly.

17

18 So -- we're going backwards. There we go. So, briefly then, two questions. Overall, the
19 analyses on the American diet involve these two broad questions. How is the population eating
20 relative to dietary recommendations? And to do this we -- oh, whoops, I'm sorry. I'm skipping
21 ahead here. So we had two overall questions and they were looking at these two broad

1 questions: how is the population eating relative to dietary recommendations, and what is the
2 population eating relative to recommendations? So to look at that first question, the how, we
3 went ahead and identified the proportion of the population above or below recommendations
4 of food groups and other food components based on usual intake distributions. And then to
5 look at the what is the population eating relative to dietary recommendations, to answer this
6 we identified what foods contribute to energy, to food group intakes, to other food
7 components and nutrients using as-eaten food categories. And so these data analyses then
8 helped to contribute to some of the unique aspects of the 2010 Dietary Guidelines. So, for
9 example, this was the first time that the recommendations were framed in reference to
10 population intakes. So being able to examine the proportion of the population that was above
11 or below specific recommendations really allowed for this directionality in the guidelines
12 regarding the foods to increase and the foods and food components to reduce. And then
13 another feature in the guidelines that was unique was the inclusion of the relevance of the food
14 environment and some of the data analyses on top food sources of food components, such as
15 energy, added sugars, and solid fats, helped to contribute to this by identifying potential targets
16 for changes in the marketplace and the food environment.

17

18 So, because of these methods to estimate usual intake distributions, we could provide some
19 data to look at this question: how is the population eating relative to dietary
20 recommendations? And by using a standardized approach for top food sources, we could also
21 address this question about- -- a little bit more about what is the population eating relative to

1 dietary recommendations. And this just illustrates how the appropriate methods were
2 matched to the questions to contribute to the work of the committee. And I'd like to just
3 briefly explain those methods used for answering these questions and walk through a couple
4 examples of each of those. So to look at the methods and examples. you've already heard from
5 Alanna Moshfegh about the NHANES data, and this is the data that we used to investigate our
6 questions because it can provide us with nationally representative data and nationally
7 representative findings.

8

9 So, just to briefly review, we have dietary data that's been collected from all the study
10 participants, and then all those foods and drinks reported, as you heard, are coded into a set of
11 about 8,000 food codes. And then there are several different, meaningful ways that we can
12 think about looking at that data. Intake can be characterized into nutrients, composition of
13 those foods, or, really importantly, it can be disaggregated into guidance-based food groups.
14 And you heard more I think about this earlier from Trish Britten, this approach disaggregates
15 the ingredients in each food into the different guidance-based food groups. So if you had
16 something like a yogurt, the milk in that would go -- would contribute towards milk cup
17 equivalents. If you had fat in that milk equivalent, then that fat would go towards solid grams
18 of solid fat. If there was strawberry in the yogurt, you'd have some amount of fruit cup
19 equivalents, and then additionally if there was a caloric sweetener, that would contribute to
20 teaspoons of added sugars. And then another way we can look at this data -- and again Alanna
21 talked about this, as well -- is rather than disaggregating into guidance-based food groups, we

1 can aggregate, or group them, into as-eaten categories. And this is this food categories
2 approach.

3

4 So I just want to briefly illustrate these three different ways. Again, you've already heard more
5 details about the nutrients. To estimate the nutrients, we're going to link the NHANES data to
6 the Food And Nutrient Database For Dietary Studies. There's over 140 nutrients in that
7 database, so we can get -- look at things like energy or protein or potassium. Whereas to
8 estimate the guidance-based food groups, which are so relevant for dietary guidance, we can
9 link the NHANES data with the MyPyramid equivalents database, or the MPED, which has over
10 30 different guidance-based food groups, including things like whole grains, added sugars. And
11 this database is in the process of being updated, so when it's released with the 2009 and '10
12 data, it'll be called the Food Patterns Equivalents Database. I think you've heard those terms,
13 so just trying to clarify a little bit of that terminology. And then also the food categories. Here,
14 the food categories that we used last time were the NCI food categories. There were about 100
15 different categories. Now, Alanna mentioned, USDA has come up with a What We Eat In
16 America food categories. There are about 150 categories, so it's a slightly different approach,
17 but we're moving forward with that because it's very important to sort of have the same set of
18 foods, and this is why we're grouping into things like cereal or skim milk, so there's 150
19 categories there.

20

1 So you've already heard a little bit about nutrients, so I'm not going to be talking about that,
2 but let's focus on an example here with this piece. And if the question is, "How do we eat
3 relative -- how do we eat, meaning the American population, eat relative to dietary
4 recommendations?" we want to be able to look at these guidance-based food groups because
5 the question is relevant and relative to dietary recommendations. So, specifically, we want to
6 use a method that can provide usual intake distributions. So to look at, then, how we eat, we
7 want to be able to identify the proportion of the population above or below the
8 recommendations, and to do this we want to look at this based on estimating usual intake and
9 specifically usual intake distributions. And this is relevant because we know that individuals
10 don't eat the same thing every day. So 24-hour recall is just going to provide a snapshot in
11 time, and so the NCI method was to -- developed to estimate usual intake or really the long-run
12 average daily intake of time. And this concept of usual intake is important because our
13 recommendations are intended to be met over time. And this is just a little more text on your
14 slides in your book.

15

16 So, there was a research team led by Sue Krebs-Smith at NCI that developed this method to
17 estimate usual intake distributions, and they're available for all guidance-based food groups
18 available in the MyPyramid Equivalent Database, and those were provided to the last
19 committee, and you can see many of these food groups listed here. Those are also available
20 online and documented further in the literature, but I'm just going to briefly highlight a couple
21 examples of that data, one with fruit and then another with calories from solid fats and added

1 sugars, or what you may have heard as calories from "sofas." So you've seen this figure
2 probably earlier, it's from the Dietary Guidelines -- the 2010 Dietary Guidelines, and it really
3 provides a lovely way to illustrate -- in this case the mean intake of fruit is below the goal. On
4 the x-axis you have the percent of the goal or the limit, and on the y-axis you have the
5 guidance-based food groups, or some of the guidance-based food groups, and some of the
6 nutrients of concern. And here, again -- so you can see that Americans consume only 42
7 percent of the goal for fruit, and obviously the mean is below the goal. And what the usual
8 intake distributions allow us to do is see that full distribution. And here this is an example just
9 for females ages nine to 13, you can see that on the x-axis. And then on the y-axis is the cup
10 equivalent. So for fruit, total cup equivalent's going up to zero to three cup equivalents. And
11 the recommended amount here is in red, so there's one-and-a-half cup equivalents, that's the
12 recommended amount for this age group, and then the different colored bars range from the
13 5th percentile to the 95th percentile. And so you can see in this case a few do meet or exceed
14 the goal, and we chose this as an example to help illustrate that, that it's one you can see -- one
15 of the things you can see with the usual intake distribution. But you can also see that the
16 majority of girls, between 75 and 90 percent of girls, aren't meeting the recommendation here
17 and consume less than the goal for fruit.

18

19 So let's just look at another example with calories from solid fats and added sugars. And again
20 you can see here the mean is significantly above what the limit is. It's 280 percent. If we want
21 to look at this for the usual intake distribution, then, it allows us to see a little bit more, and for

1 this we're looking at children ages two to three, and children four to eight on the x-axis, and the
2 energy -- the calories from solid fats and added sugars going from zero to 1,200 calories on the
3 y-axis. And again you see that distribution ranging from the 5th to the 95th percentiles. And
4 here the recommended levels are in red, and you can readily see that all children ages two to
5 eight are exceeding this limit, and not only do that exceed it -- you can see the extent to which
6 their -- that range is much greater. For example: for two- to three-year-olds we see the 5th
7 percentile's a little bit over 300 calories, and that goes up to well over 800 calories, and the
8 limit there in red is less than 200 calories.

9
10 So now let's go ahead and turn to another example where we're looking at the top food sources
11 for guidance-based food groups. And for the last committee we did a lot of these different food
12 categories to answer this question of what are Americans eating relative to recommendations,
13 and here we used the different food categories and identified the top food sources. And to do
14 this we identified what foods contribute to energy and food group intake, and to estimate
15 those top sources we used these different food categories and took food codes, as Alanna was
16 describing, representing similar foods and combined them into mutually exclusive food
17 categories to help provide an indication of the contribution of foods as-eaten to the intake of
18 the dietary component being studied. And it's important to keep in mind that these rankings
19 are based in part on how ubiquitously those specific foods are consumed. So foods that are the
20 richest sources are not necessarily going to be your top sources, and some foods that are very
21 commonly consumed in the population will result in a significant contribution to the particular

1 total intake of the food group or item of interest that you're looking at. And, again, just to
2 provide that written up a little bit more in the slides.

3

4 So, again, back then we used the NCI food categories, which are similar to what we're going
5 forward with, with the What We Eat In America food categories, and we created then tables for
6 the top food sources for guidance-based food groups, for energy, for key nutrients and
7 different macro nutrients and fatty acids, and then also for beverages, and those tables are
8 available online and also in the literature. And I just want to show you an example of what this
9 looks like. You can see -- again, this is a lovely figure from the 2010 Dietary Guidelines report,
10 and it provides a pie chart obviously illustrating the sources of added sugars in the diets of the
11 population over two years old, and the top 3 sources, soda, grain-based desserts, and fruit
12 drinks here. And I want to just note that this figure provides the percentage contribution, and
13 you can also think about this data as the mean contribution of teaspoons of added sugar,
14 because here we're looking at added sugars. So, for example, the top source is about seven-
15 and-a-half teaspoons per person per day coming from sodas. We also think about this as
16 calories, and that's about 120 calories per person per day, representative, based on the
17 NHANES data.

18

19 So those were just a few brief examples to help illustrate how these kinds of methods and
20 analyses could help contribute to the work of the committee, and then I'd also just like to
21 highlight some recent developments. The complete analyses of the usual intake distributions

1 really highlighted that the diet of the American population fares poorly in relation to the dietary
2 guidance. But we also find that some subgroups fare even more poorly than others, and these
3 disparities in diet and income -- or, sorry, in diet in relation to income and race/ethnicity are
4 pronounced in the United States. And Sharon Kirkpatrick [spelled phonetically] has done some
5 recent analyses looking at the usual intake distributions for the different food groups and food
6 components by income and race/ethnicity, and also looking at those top food sources also by
7 income and race/ethnicity.

8

9 NCI has also done some work to further articulate a framework for dietary patterns research,
10 and such a framework reflects this importance of the multidimensionality of diet and the
11 ongoing challenge in really capturing that multidimensionality of diet. And much of our dietary
12 patterns research that we've done at NCI has focused on index based dietary patterns or diet
13 quality indexes, because this method addresses, or at least attempts to address, this complexity
14 in diet, the multicollinearity of dietary components, and can be somewhat more readily
15 translated into dietary recommendations. And so I just want to highlight one diet quality index,
16 the Healthy Eating Index, and this is reflecting conformance with the 2010 Dietary Guidelines,
17 and the standards are based on a density basis, or each component is per thousand calories. So
18 the HEI score reflects the appropriate balance in any given mix of foods, and thus it can be
19 relevant for individual diets as well as community- and macro-level food environments. So that
20 means you can really look at any set of foods, whether it's an individual's intake or a community
21 food outlet, and that mix of food should reflect a similar balance.

1
2 So to give you a sense of that the HEI looks like, it's listed -- the different -- 12 different
3 components are listed here on the x-axis, and then on the y-axis -- although each of these
4 components are actually worth different number of points, for illustration here I've just
5 represented them as zero to 100 percent. And the first nine components that are colored in
6 blue are what are referred to as adequacy components, meaning that a higher score reflects
7 greater consumption. And the last three components, colored orange, are referred to as
8 moderation components, meaning that the higher score indicates lower consumption. And one
9 example that's been done looking at the U.S. population from NHANES 2007 to '8 data, is
10 showing that the total score is 54 points out of 100, so it's not a very good grade with the HEI,
11 out of 100 points. So this work on the HEI 2010 and with the U.S. population as well as
12 additional analyses providing usual intake distributions has been led by Patricia Guenther, the
13 USDA's Center for Nutrition and Policy Promotion. And so there's ongoing work with the HEI
14 and applying it as new data becomes available.

15
16 For -- lastly, I just wanted to mention sort of this broader context. The analyses that we
17 provided for the 2010 committee really focused on the individual level, but a key theme of our
18 group's work involves moving beyond individual behaviors to examining the food stream as a
19 whole, including the national food supply, food processing, the community food environment --
20 you've talked a lot about this already -- schools and worksites, and how that stream filters
21 down towards the individual. So, for example, with these efforts we've looked at HEI scores

1 also at the community and macro levels by examining fast food restaurants -- again, this work
2 was led by Sharon Kirkpatrick -- and then also investigating trends in the U.S. food supply using
3 loss-adjusted food supply data from 1970 to 2010, and this analysis was led by Paige Miller
4 [spelled phonetically] that follows up on Sue Krebs-Smith's initial work in the area. So, for
5 example, with the food supply data, you can see that, although hairstyles -- or perhaps just
6 having hair has changed from 1970 to 2010, the diet quality of the food supply, using a measure
7 like the HEI 2010, has really shown very little improvement. And this is an image from the video
8 on the HEI in the food supply that was done by the National Collaborative on Childhood Obesity
9 Research. So, in keeping with this broader context, a food strength figure could also further
10 illustrate the different levels, you know, moving from farm to fork, and considering food waste
11 at these different levels, as well, and also other factors that are related to other efforts relevant
12 to achieving a sustainable and ecologically responsible food system and how we might think
13 about measuring that or examining that.

14

15 So, in summary, I provided you with a few insights on the state of the American diet based on
16 some examples from analyses that we did for the 2010 committee and their efforts. And these
17 efforts contributed to helping provide some directionality for guidance-based food group
18 recommendations, and then also contributed to looking at those targets for changes in the
19 marketplace and in the food environment. And we also had some more recent examples of
20 further examining these differences and similarities between population groups, and one thing I
21 didn't mention is the 2010 had a lot of analyses just really targeting children and looking at

1 differences among different age groups for children. So that's something, also, that we can
2 look at, the different sex/age groups, and then investigating dietary patterns at the individual
3 level and at other levels of the food stream. And I do want to mention that, although the
4 examples for dietary patterns that I showed here were really based on surveillance or
5 descriptive data using surveillance purposes, we have also efforts underway to look at dietary
6 patterns with a systemic -- systematic -- sorry -- comparison between four different key diet
7 quality indices that includes the HEI 2010 and how those are associated with mortality in
8 several different cohorts -- large U.S. cohorts.

9

10 So, I think a key takeaway is that measures and methods can be adopted depending on your
11 questions of interest, and, in particular, we're aided in sort of those analytical efforts and what
12 is feasible based on the data available and by things like the MyPyramid Equivalent or what
13 will be called the Food Patterns Equivalent Database that will be released in later this year in
14 the fall. And clearly your new questions and methods and perspectives will contribute to the
15 possibilities for analyses for the 2015 Dietary Guidelines. And I really want to acknowledge --
16 there's a large group of researchers that I mentioned and that also we work with, so thank you
17 to all of these folks, as well. Thank you very much.

18

19 [applause]

20

21 Richard Olson:

1 We hadn't built into the agenda any time for questions, but I thought if the committee has
2 questions of Alanna or Jill, we'd take a few minutes right now and give you the opportunity. So,
3 yeah.

4

5 Wayne Campbell:

6 Thank you very much. That was excellent. I do have one question about when --

7

8 Female Speaker:

9 Your name.

10

11 Wayne Campbell:

12 Oh, Wayne Campbell. When you asked the question of how the U.S. population eats relative to
13 dietary recommendations, could you just explain to me what the foundation for the
14 recommendations that you were using are? What set of recommendations are -- do -- are you
15 referring to there?

16

17 Jill Reedy:

18 Right. So that's based on largely the Dietary Guidelines and the food patterns that are
19 developed through -- as part of the process through Trish Britten and those efforts, and so the
20 specific recommendations for each sex/age group, you know, like I showed the example for cup
21 -- fruit cup equivalents, one-and-a-half cup equivalence of fruit for females nine to 13. And so

1 that's based on those tables that are provided in the Dietary Guidelines that are drawn from
2 the literature.

3

4 Wayne Campbell:

5 Okay. So it's not -- it doesn't need to incorporate DRIs?

6

7 Jill Reedy:

8 That is based on the DRIs. The --

9

10 Female Speaker:

11 These are developed [inaudible] --

12

13 Wayne Campbell:

14 Okay. I'm -- I guess I'm just -- what I'm trying to do is to get a framework for if there are
15 disconnects between what the Dietary Guidelines' amounts of foods are relative to the DRIs,
16 how the disparities in quantities consumed to meet recommendations are handled, because --
17 so, for example, the amounts of food that were, you know, recommended for various -- for
18 some are very different for Dietary Guidelines versus the DRI's. Protein's a good example of
19 that. And so I'm trying to figure out where -- are you basing it based on intake or on health
20 adequacy that was established in the DRIs? Where's the -- what's the -- because we're not --
21 the committee is charged to specifically not evaluate the DRIs, but if the DRIs are the

1 foundation for the recommendations, I'm getting a little confused as to where our starting
2 point is of the recommendation.

3

4 Jill Reedy:

5 Trish, do you --

6

7 Trish Britten:

8 Yeah. Hi, Wayne. I can try to give you a little bit of an answer. This is Trish Britten speaking.
9 The -- an example of the protein foods group, the protein -- the food groups are composed of
10 foods that have a collection of nutrients in them, so there's no food group that is only looked at
11 in terms of a single nutrient, therefore there may be more protein in the total patterns than is
12 necessary to meet the RDA. However, it's also within the AMDR ranges, so that's another
13 aspect of diet we look at in terms of setting specific goals for food amounts. But because the
14 foods are a collection of various nutrients, you have to look at more than just the single amount
15 in a food. And those amounts have been altered over time for specific reasons. There are DRIs
16 that the food patterns as consumed typically by Americans do not need, and those are the ones
17 -- I think you just saw vitamin E and vitamin D as examples where even if a person consumes
18 the choices in a nutritious way, bought a range of food choices in all of those food groups, they
19 will not meet those recommendations, and that's something for the Dietary Guidelines Advisory
20 Committee to look at and, you know, make some comments on, about whether or not there
21 should be efforts to modify the food-based recommendations to change the nutrient profile of

1 the diet. But in general, the food patterns are designed to meet both Dietary Guidelines and
2 DRIs, with a couple of exceptions.

3

4 Alice H. Lichtenstein:

5 I have a question. Alice H. Lichtenstein. I have a question for Alanna. And you showed us some
6 data on the relative proportion of nutrients that were derived from supplements versus food,
7 and that's sort of the traditional way that we've been thinking about it. But now we have a
8 situation where we have a lot of fortified food, so the things like vitamin waters and calcium-
9 fortified orange juice, and, you know, those kinds of foods. Is there going to be any mechanism
10 for trying to capture the contribution of those types of foods?

11

12 Alanna Moshfegh:

13 Well in the collection, Alice, we do probe for and attempt to collect those unique types of
14 things. There has been some analysis that's been done of the national data looking at
15 contributions of foods and beverages from foods as well as additions of fortification. So if that's
16 something that the committee sees in their analysis that they would like us to go after and look
17 at, we'll be happy to work on that with you.

18

19 Frank Hu:

20 Frank Hu. So, you said that vegetable consumption is much higher than consumption of fruits.

21 So my question is that, since you included potatoes in the vegetable category -- so I don't know

1 -- I was wondering whether -- if you have done the analysis, if you put French fries aside, what's
2 the vegetable consumption look like in the general population?

3

4 Alanna Moshfegh:

5 Yes we have done that, and the potatoes account for a majority of the vegetables that are
6 consumed, French fries as well as other forms of how potatoes have been prepared. And we
7 can provide analysis for you that shows vegetables excluding potatoes, and then potatoes. So
8 that's easily done for us, and be happy to do that.

9

10 Cheryl Anderson:

11 Cheryl Anderson. I have two questions, and one has two parts, and they're both for Alanna. So
12 the first, probably more complex question, has two parts, and it's related to the slide that you
13 showed on changes in energy intake. So, first, I'm curious, are there potential shifts in
14 methodology that might be accounting for changes in intake?

15

16 Alanna Moshfegh:

17 Yes, that's an excellent question. Of course there are. We like to believe we've improved the
18 methodology for collecting dietary recalls because of technology and the science. The method
19 we're using now we think is extremely good, certainly still has room for improvement, but we
20 think it's very good. So that underlies the particular data. I would also add, though, if you go
21 back to the 70s and think about the way we were eating and how food was available to us in

1 the 70s, it was a much simpler time and the choices were much less, where today foods and
2 beverages are just everywhere throughout our day and evening on our -- on a day-to-day basis.

3

4 Cheryl Anderson:

5 And the second part of that is -- I'm not sure if you'll have that information now, but maybe you
6 could provide it with us. Is there any way to get a handle on the link to change in weight across
7 those time periods, as well, just so that we can sort of see the shifts in energy and the shifts in
8 weight?

9

10 Alanna Moshfegh:

11 Another excellent question. You can see how good this committee is. That's the beauty now of
12 the collaboration between USDA and HHS, because you have data now on 24-hour recalls of
13 these individuals as well as the battery of all the health information. So, yes, we can provide
14 that look.

15

16 Cheryl Anderson:

17 And then really quickly, to follow-up on Alice's question, in terms of vitamin D, where you
18 showed, what, 90-something percent of us falling short, did that include supplement plus
19 foods?

20

21 Alanna Moshfegh:

1 No, it did not. The slide where I showed the percent of individuals that are falling below their
2 estimated average requirement was just for foods and beverages. It did not include dietary
3 supplements.

4

5 Marian Neuhouser:

6 Marian Neuhouser. Question for Alanna. On the supplement field in the What We Eat In
7 America, how many response options are permitted? So, in other words, to what extent can
8 we determine what proportion of the population as a whole and as subgroups are taking more
9 than one supplement? And then a follow-up to that is, when you obtain the supplement data,
10 how much detail is obtained on the doses within the supplements?

11

12 Alanna Moshfegh:

13 All right. Your first question was can we look at the proportion of individuals that are taking
14 one or two or three or four. Yes, we can. And your second question was -- would you repeat
15 the second question?

16

17 Marian Neuhouser:

18 Yes. The second question is how much detail is obtained on each product used in terms of the
19 ingredients?

20

21 Alanna Moshfegh:

1 We at USDA are not responsible for that, so I'm going to brag about it. So I don't want you to
2 think I'm bragging about our work, but extensive detail is obtained. There are data files that
3 are released, extensive databases with very, very specific details about each and every dietary
4 supplement that's used. It's just -- it's a researcher's dream.

5

6 [laughter]

7

8 Mary Story:

9 Mary Story. Jill, you had mentioned that the HEI score is now being used not only at the
10 individual level, and I know you published some papers at the macro level, but could you talk
11 about what ideas you have for really now looking at the food stream in specific areas in using
12 the HEI score?

13

14 Jill Reedy:

15 So, I just mentioned that we've looked at it at the food supply level and then also sort of looking
16 at fast food restaurants, but I think you could imagine sort of populating other places within a
17 community's food environment, one of the challenges being, though, sort of the availability of
18 databases to do that. And right now, you know, it's possible to do at a place like a fast food
19 restaurant because it's food as-eaten, whereas if you were trying to get sort of the HEI score of
20 your neighborhood convenience store or a full-on market or even sort of a food cart or
21 something, if there are foods that are available there like Hamburger Helper or brownie mix or

1 something that isn't ready-to-eat, then the coding of that in the analysis becomes more
2 challenging. But I think that there are different researchers now who are looking at HEI scores
3 of food banks that we've worked with and many different sorts of outlets within the community
4 to get a handle on that, and in the case of the food bank then also making changes in the -- sort
5 of the food -- in the food bank. So, I think sort of you could think about that very broadly, but
6 those were just some examples. Does that get at the -- yeah, where that could potentially go.

7

8 Frank Hu:

9 May I ask a -- Frank Hu. May I ask a follow-up.

10

11 Female Speaker:

12 [inaudible]

13

14 Frank Hu:

15 All right. Jill, I just wanted to -- this is Frank Hu. I wanted to ask a follow-up question on HEI.

16 So you said you were comparing several different indexes.

17

18 Jill Reedy:

19 Right.

20

21 Frank Hu:

1 HEI -- what are the indexes that you --

2

3 Jill Reedy:

4 Right. So the Healthy Eating Index, the Alternate Healthy Eating Index, and The Mediterranean
5 Diet score, and the DASH scores. There are a couple different versions of that, so we're looking
6 at some of those, as well.

7

8 Frank Hu:

9 So where do those analyses stand? I guess my question is whether those data will be available
10 for the committee to use.

11

12 Jill Reedy:

13 Our goal is to get them in the literature so that they are available for you to review, so that's
14 definitely -- we're trying to finish those analyses at the end of the summer so that those papers
15 will all be available for you.

16

17 Frank Hu:

18 That's great. Thank you.

19

20 Barbara Millen:

1 A related question. Barbara Millen. What was the latest round of data collection that were --
2 that was available to the 2010 committee and what are, then, the opportunities for updating
3 that presented to this committee?

4

5 Jill Reedy:

6 Do you want to talk about that? Or do -- so for -- as far as the -- what I was showing for usual
7 intake distributions, that was using 2001 to 2004, and looking at top food sources we were able
8 to look at I think through 2005, '06. I'm looking at Kellie. Is that correct? Part of the nuance
9 there is that, as Alanna can tell you, the NHANES data will be available, you know, for specific
10 nutrients, so if we want to do an analysis there off in the years, we can become more current
11 with that, but the MyPyramid Equivalents, sometimes it just takes a little bit longer to have that
12 database released. So if we're looking at the guidance-based food groups -- so that's why I
13 didn't actually present any new data here, because the 2009/'10 Food Patterns Equivalents
14 Database will be released later this fall, so at that point the data could go up through 2009/'10
15 for your committee to consider. But I think for nutrients there might be more recent data, is
16 that right? No, sorry. Okay.

17

18 Alanna Moshfegh:

19 '9/'10.

20

21

1 Jill Reedy:

2 Okay. '9/'10.

3

4 Anna Maria Siega-Riz:

5 Hi, this is Anna Maria Siega-Riz. A question for Alanna. So, given the fact that we know that
6 only foods contribute about 10 percent to the vitamin D levels in our body, how are we taking
7 sun exposure into consideration? And the most recent article by Looker actually shows that
8 vitamin D deficiency is not as prevalent as what we had anticipated or what had been sort of
9 written about.

10

11 Alanna Moshfeqh:

12 Well, the data I presented was just from food and beverage intake, so sun exposure has not
13 been taken into consideration.

14

15 Marian Neuhouser:

16 Marian Neuhouser. Another question for Alanna. So, because I understand how the multiple-
17 pass method for collecting the recalls works, do you have locations of food consumption, you
18 know, stored in the data file? So should the committee want to ask questions or see data
19 around location for consumption of sugar-sweetened beverages, say, for certain age groups
20 such as elementary, teenagers, so forth, schoolchildren, as well as sweets, candies, cookies, et

1 cetera, would that type of data be available to the committee?

2

3 Alanna Moshfegh:

4 Yes. There's two pieces of information that will be I think helpful to you. For every food and
5 beverage reported we ask, as I said, "Did you eat it at home or away from home?" We also ask
6 for every food and beverage, "Where did you get the food or beverage from?" And there is
7 close to 30 different response options: fast food, grocery store, restaurant, school cafeteria, gift
8 from someone, et cetera, et cetera.

9

10 Kellie Casavale:

11 This is Kellie Casavale. Before we break for lunch, I just want to mention one thing regarding all
12 of these wonderful discussions on data analysis, and that is any data that the committee uses in
13 making their decisions is required to be publicly available. So if the government is doing
14 analyses, we will post them either to the dietaryguidelines.gov website, or if they're on, let's
15 say, the NCI website, we will link from the dietaryguidelines.gov website to those data for you,
16 and so you'll see as the committee is requesting this information from the government and
17 from other sources, that information will grow on our website.

18

19 Richard Olson:

20 Great. Let's break for lunch. We're running a little behind, but why don't why reconvene at
21 12:45. So we have 50 minutes for lunch. 12:45. Thank you.

1

2 [break]

3

4

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15

Introduction to Work Group Organization and Scope

1

2 Richard Olson:

3 The committee's here and so the -- we're ready to go. So I'll turn it over to Barbara Millen, the
4 chair.

5

6 Barbara Millen:

7 Thank you, Rick. So I'm going to be talking about the work group organization and the scope of
8 our activities. And as we begin our discussion as an entire Dietary Guidelines Advisory
9 Committee this afternoon, I'd like to keep a number of themes and points from the earlier
10 presentations today in mind. First, what we are here to support, as Dr. Wright articulated, the
11 mission and the vision of DHHS's Office of Disease Prevention and Health Promotion, to create
12 a nation in which all people live long, healthy lives. So that's our, you know, lofty, overall aim of
13 this 2015 deliberation.

14

15 Second, the great potential impact of what we're doing. Both Dr. Wright and Dr. Post's
16 overviews made it clear just how important the Dietary Guidelines have already been to date,
17 how many public and private systems have been affected, how many networks of programs and
18 activities that affect the health of the public have already been impacted by the -- these reports
19 up until now, and the systems that have been affected, chief among them food and agriculture,
20 health care, public health, education, and the public and private worksite systems.

1
2 I want all of us to think about how exciting it is to think about the established interagency
3 collaborations so effective to date and how they might be further inspired to achieve even
4 greater strides in population health through optimal diet and physical activity based upon our
5 2015 Dietary Guidelines. Then I want us to think about Colette -- what Kellie, Colette, Joanne,
6 and Alanna, and Jill commented on because I think that, as a couple of people said over
7 lunchtime and after yesterday's presentations, we all have to collectively breathe a sigh of relief
8 to know that we have such strong resources and such an extraordinary backup, you know, to
9 the task at hand.

10
11 So, this afternoon we begin our first deliberation as the Dietary Guidelines Advisory Committee,
12 and as I mentioned in my opening remarks yesterday, our committee is entrusted with an
13 extraordinary honor and a daunting charge to develop food-based recommendations with the
14 greatest potential to substantially impact preventable disease and to promote the health of the
15 public.

16
17 In developing the process for preparing our report to Secretary Sebelius and Secretary Vilsack,
18 this group has framed our task around three overarching themes which represent top-priority
19 areas affecting the nutritional status and related health needs and concerns of our nation, and
20 these have been -- are being tackled by three interdisciplinary expert working groups that we'll
21 hear from this afternoon.

1

2 Work group one is examining the environmental determinants of food, diet, and health. It's
3 considering the environmental influences on the public's dietary intake and physical activity,
4 such as our physical food and activity settings; the impact of state, federal, and local policies on
5 food system features, like the availability of foods and opportunities for exercise; as well as the
6 media and consumer marketing. They will also consider issues of food sustainability, the health
7 of the planet, food insecurity and accessibility, health equity, and food safety. Overall, we want
8 to be certain to make recommendations for a healthy, ecologically responsible diet, and we
9 hope to encourage the creation and expansion of environmental systems that support the
10 same.

11

12 Work group two is considering American dietary patterns and quality and their optimization
13 through lifestyle behavior change. Through this overarching theme, they will have the
14 opportunity to update and clarify our understanding of the current diet and physical activity
15 patterns of Americans -- and we heard that we've got at least four new years of data to be
16 looking at -- and also the influences of these patterns of behavior on the health through all life
17 stages. What's healthy about the way we eat and exercise? How can we harness these existing
18 habits as a foundation -- at least the good aspects of these habits, as a foundation for
19 optimizing diet and activity patterns? Where have we made strides? And we heard a little bit
20 about that this morning. Where have we made strides since 2010? Where have we fallen
21 short? Where should we focus our prevention, educational, and programming activities to

1 achieve greater health improvements? What are the best intervention activities that our health
2 care, public health, and educational systems might use to improve overall dietary quality and
3 dietary and physical activity patterns of Americans two years and older?

4

5 Our recommendations, within the context of this theme, will seek to optimize dietary and
6 physical activity behaviors of Americans for health promotion. In addition, we will seek through
7 these recommendations to engage and inspire consumers and patients, health care systems,
8 including the providers and vendors, worksites and employers, our communities, and public
9 systems to place the highest value on health and prevention through lifestyle behaviors.

10 Through a focus on methods of optimizing dietary and physical activity patterns, we also seek
11 to promote targeted behavior changes that celebrate positive improvements in behaviors and
12 perhaps establish new healthy norms in individual and population behaviors. Overall, it is a
13 lofty aim to try to shift the paradigm in health care towards an even greater focus on
14 prevention and to create new and effective personal roles for consumers in collaboration with
15 their health care advisors and public health professionals in the management of their own
16 health and wellbeing.

17

18 Work group three will focus on the overarching theme of foods, beverages, nutrients, and their
19 impact on health outcomes. They will be examining the recent research evidence and
20 determine where we need to update the Dietary Guidelines, particularly as they relate to the
21 physiologic and metabolic impacts of the complex array of components in our diet. They will

1 consider where current dietary recommendations remain sound, where they need to be
2 modified in light of the new evidence, which nutrients and dietary components pose the
3 greatest concern currently and how best to address them, and what body of new research
4 evidence exists to guide the formulation of new public policies related to foods, beverages,
5 nutrients, and public health promotion. In their deliberations, work group three will also
6 attempt to quantify the potential impact on disease risk and health of the recommended
7 dietary changes in order to best support the decisions of our policymakers. Food-based
8 methods of achieving higher levels of dietary quality, including comparison of whole food and
9 modified foods will be explored.

10

11 We seek through these deliberations to prepare recommendations on food, beverages, and
12 nutrient consumption that not only optimize nutritional status, but serve to attempt to achieve
13 the greatest impact on disease risk and overall physical and mental health and wellbeing of our
14 individuals and populations.

15

16 So in the presentations ahead this afternoon, the work groups will discuss how they have
17 organized their thinking about these overarching themes, what topics they feel are most
18 important to address, and how they expect to carry out their work over the summer. This is the
19 discussion within our advisory committee, our first thus far. We had a lot of tremendous
20 progress yesterday afternoon and I expect, as each group presents its findings, that we'll have
21 an open and lively discussion of their work, that comments and questions will be raised, and

1 that together we will inform the next steps over the summer and into the early fall. As Rick
2 mentioned this morning the work groups will continue over the summer. They'll develop and
3 further prioritize the topic areas within each of the overarching themes and they'll formulate a
4 set of scientific questions that they see as having the greatest likelihood of informing the 2015
5 Dietary Guidelines for Americans, leading to the best possible improvements in the health and
6 wellbeing of individuals and the population of the United States. Then in the fall, the
7 preliminary report of each of the work groups will be brought back here, again to full
8 committee, for public discussion and deliberations.

9

10 So let me at this point in time introduce the committees -- work groups, be it their leaders and
11 membership, and open the discussion of their reports. Work group one is Environmental
12 Determinants of the Food, Diet, and Health, and it is led by Mim Nelson -- want to raise hands?
13 The other committee members include Lucile Adams-Campbell, Steven Abrams, and Mary
14 Story.

15

16 Work group two is Dietary Patterns and Quality and Optimization Through Lifestyle Behavior
17 Change, which is being led by Rafael Pérez-Escamilla. Thank you. The other members of work
18 group two are Cheryl Anderson, Gary Foster, Frank Hu, and an Anna Maria Siega-Riz.

19

1 Work group three is Food, Beverages, and Nutrients and Their Impact on Health Outcomes led
2 by my vice chair, Alice H. Lichtenstein. Work group three's members include J. Thomas Brenna,
3 Wayne Campbell, Steven Clinton, and Marian Neuhouser.

4

5 Each work group will now discuss the scope of their work, their preliminary thoughts on key
6 topics to address, perhaps how they arrived at these current recommendations, and how to
7 approach their task in the months ahead. We will need to discuss the work of each group as
8 the full committee, as I mentioned, so let's certainly jump in as we see fit. As the discussions
9 unfold, we may, in the course of those discussions, raise topics that are cross-cutting to the
10 group and we'll want to certainly discuss those. And with no further ado, let me turn this over
11 to Mim Nelson.

12

13

14

15

16

Work Group 1: Environmental Determinants of Food, Diet, and Health
and Sustainability and Food Safety

1

2 Miriam Nelson:

3 Thank you, Barbara. This is Mim Nelson. As Barbara mentioned, our team in work group one is
4 comprised of myself, Steven Abrams, Lucile Adams-Campbell, and Mary Story. Yesterday
5 afternoon we had very lively discussion in our group, and I'm going to be presenting that today.
6 I'm going to sort of go through this fairly swiftly, and sort of open it up, then, to my other work
7 group members and then to the whole committee.

8

9 So, when we look at the ultimate goal of the Dietary Guidelines for Americans, it's to improve
10 our nation's current and future generations' health by facilitating and promoting healthy eating
11 and physical activity. And the 2010 Dietary Guidelines acknowledged that meeting this goal will
12 require comprehensive, coordinated, system-wide approaches across our nation, approaches
13 that engage every level of society and reshape the environments so that the healthy choices are
14 the easy, accessible, affordable, and desirable choices for all. And I actually think that, Jill, your
15 presentation coming just before mine couldn't have been a better sort of foundation and setup
16 for this, because when we actually look at the food supply, it perfectly matches actually what
17 we're eating, and we can see that both the healthy indexes are at a suboptimal level, and we
18 really need to be thinking about the full food stream and food systems and the full
19 environment. We also heard very clearly yesterday the charge from Assistant Secretary Koh,
20 Under Secretary Concannon, and Under Secretary Woteki to be bold and ensure that our

1 committee works to address the importance of the environment, sustainability, and food
2 systems, and that is really what -- our working group is taking that charge very seriously, to
3 really think about population health. Unlike working group two, we're very focused more on
4 the systems and population than on individual behavior change.

5

6 And I know I'm one of the lucky ones, like Rafael, to be brought back, and I'm -- it's a real
7 pleasure to be here again. And when preparing these remarks, I think that one of the things
8 that we were able to begin to do in the 2010 guidelines was to open it up to be thinking beyond
9 just individual behavior change, and chapter six in the guidelines really sort of -- it was a call to
10 action and a new chapter that was put into the guidelines, really thinking about ensuring that
11 all Americans have access to nutritious foods and opportunities for physical activity, to facilitate
12 individual behavior change through environmental strategies, and to really set the stage for
13 lifelong healthy eating, physical activity, and weight management behaviors. We -- unlike the
14 other two committees, when we look at the Orange Technical Report, there's about two pages
15 in there from which our working group is using as a foundation, but there is so much more
16 evidence that I think that was really the start of this, so I'm able to actually sort of summarize in
17 two simple paragraphs the work -- I'm not saying I didn't do anything in the 2010 Dietary
18 Guidelines, but this sort of gives you a sense of where we started from, and I think that there is
19 so much more evidence, but -- that we saw when we asked a question, "How does the food
20 environment impact health?" we saw that there was moderately strong evidence that indicated
21 that the food environment was associated with dietary intake, especially less consumption of

1 vegetables, fruits, and -- vegetables and fruits and higher body weight. The presence of
2 supermarkets in local neighborhoods and others sources of vegetables and fruits are associated
3 with lower body mass index, especially for low-income Americans, while the lack of
4 supermarkets and long distances to supermarkets was associated with higher body mass index.
5 This was -- there was decent evidence -- I think there's even stronger evidence now -- On
6 another front, there was limited but consistent evidence that suggested that increased
7 geographic density of fast food restaurants and convenience stores was related to increased
8 body mass index. So that was emerging evidence. So this was -- I'm -- there's a bit more, but
9 this was really the sort of basis from which this working group is now launching from this bit of
10 work.

11
12 Our working group is very much using the socio-ecologic model to inform our work. We believe
13 that a truly effective and sustainable improvement in the nation's health will require a multi-
14 sector approach that really applies this model. We actually also yesterday deliberated -- we
15 believe this model is outdated. We have some ideas of how to update this, because it really
16 doesn't take into account, in a sense, the issues around food justice and affordability and things
17 such as that, so -- but we believe that we really need to be thinking about access of healthy
18 food and affordable food where we live, work, play, and learn.

19
20 So, our working group deliberated yesterday and really came up with at the 50,000-foot level --
21 now, remember, we're now really creating new areas to be researching -- with the exception of

1 the first bullet here, these are sort of new areas, but five different 50,000-foot views, the food
2 environment -- I'll go into each of these a little bit more in a second -- physical activity
3 environment, agriculture/aquaculture and sustainability, food systems, and food safety. We
4 believe within our working group that the overarching themes are really to be thinking about
5 using the socio-ecologic model, to be thinking about community, culture, values, private sector,
6 policies, and then also health equity and food access.

7

8 In terms of the food environment, we really were thinking about three different main
9 environments. Physical settings such as home, early childcare, schools, workplace, recreational
10 facilities, retail, restaurants, hospital, medical facilities, other community areas, and then also
11 thinking of it from a lens of urban and rural, to just name a few. Within the media
12 environment, really thinking about marketing and screen time and marketing of foods to
13 children and adults and how that might actually influence healthy or unhealthy behaviors. And
14 then the policy environment. Within the physical activity environment, we're thinking about
15 not identical settings, but still thinking about where we live, work, play, and learn, school
16 settings, community settings, also the built environment and transportation, thinking about
17 complete streets -- there's a lot more evidence here around that -- and then also the media
18 environment in terms of pluses and negatives, as well as the policy environment. So those are -
19 - in terms of the two environments, those are the main areas that the 30,000-foot view. We
20 would recommend to the whole committee -- in terms of the physical activity environment,
21 there was a lot of work that was done in the 2008 Physical Activity Guidelines, the midcourse

1 review that was just done, and the National Physical Activity Plan has a wealth of information.
2 We would recommend to the full committee that we basically don't do reviews, but we just
3 bring that forward and summarize that in this report.

4

5 In terms of sustainability, agriculture, and aquaculture, we delved into this just a little bit
6 around seafood in the last one, but didn't actually do any searches, but for the most part really
7 what we're talking about here is the how, what, and where foods are grown, and their
8 relationship with long-term health of humans and the planet. Our goal, and I heard that from
9 Colette this morning in our charge, is to really be thinking about, you know, our generations
10 now and generations to come, and I think we need to think about both of these. This is going
11 to be a really tricky one, I think, for the committee to be looking at, but I believe there are ways
12 for us to start to frame this, and it may be an emerging area, but I think there are ways for us to
13 look at this. And actually I think it comes back to what Jill presented earlier, too, and is having
14 alignment of healthy foods and most likely those wholesome foods are probably best for the
15 planet, as well.

16

17 Next is our food -- thinking about the larger food system. The policies that influence what
18 foods are grown and what they cost, thinking about -- there's more and more evidence around
19 local and regional markets and food systems and their influence on health. There's some great
20 work in Michigan, California, and other areas that we can bring to bear. And then really how

1 are foods grown, produced, processed, distributed, and marketed, and how that influences
2 population health.

3

4 Finally, we propose to look at food safety, and I do not propose to be a food safety expert.

5 Luckily, Steve Abrams has had some expertise in that area, but we plan to actually bring

6 forward -- we would propose to the committee that we bring forward the recommendations in

7 the 2010 Dietary Guidelines that were primarily focused on food handling -- washing your

8 hands, the right surfaces, temperature -- that we bring that forward. We don't believe at the

9 moment there's any need to change that, but we would then propose that we add two new

10 areas to explore in terms of food safety, and one is around toxic components in the food

11 supply, such as potentially arsenic, pesticides, heavy metals, antibiotic resistance, GMO,

12 hormones, methyl mercury, and lead, and then also food production and distribution as it

13 relates to microbiological hazards. And potentially, because these are two new areas for the

14 guidelines, we -- and over the summer we'll be really looking further into this, but we may focus

15 it more in the area of fetal development and pregnancy and lactation as a starter. So that's in

16 terms of food safety.

17

18 I'll get back to sort of our plans for how we're going to move forward, but we did deliberate

19 yesterday. We felt there were four overarching themes that possibly should be considered in

20 all three working groups, and that is nutrition and media literacy. That was certainly a theme in

21 2010, but I think there's a lot more to be explored in that, but we believed it's not just in one

1 working group. Health disparities in all of its different components, the lifespan and transitions
2 in different age groups we felt was important, and then really thinking of a systems approach.
3 And then we had a note which we felt was -- we need to really make sure that we have -- within
4 the working groups and then ultimately in the subgroups that we have really clear coordination,
5 integration between these, and I think that will happen with good communications and --
6 because we're already -- I believe you're going to probably see within the working group some
7 overlap, and that's a good thing for right now.

8

9 Just to finish up, our work throughout the summer will be identifying experts to invite to our
10 subgroup -- our -- sorry -- working group conference calls that we'll be having every two weeks
11 to help inform our work, certainly to hear from the full committee today, and then we really
12 very, very much welcome thoughtful, evidence-based public comment to help guide our work,
13 as well, and our real goal is to evaluate the best possible evidence in these areas to promote a
14 healthy, sustainable, safe food system for Americans for generations to come.

15

16 So, at this point, I'd like to open it up to my other three working group members to provide any
17 other things that I may have missed, and then the whole committee. Thank you.

18

19 Steven Abrams:

20 Hi. Steve Abrams. I wanted to point out, related to the fetal effects, that we recognize that
21 we're not zero-to-24 and that our mission is related to maternal health. Nonetheless, maternal

1 health I also heard relates to having an excellent pregnancy outcome, so I think that we have to
2 make sure that we're in-tune with that, that we're not trying cross over into how the baby
3 should be fed, but rather we're trying to make sure that there are no components in the
4 maternal diet that would lead to an unsuccessful and unfavorable pregnancy-related outcome.
5 I think that's within the purview of this group.

6

7 Miriam Nelson:

8 Mary, Lucile, anything else to add? Okay. Thanks. Open it up to other committee members.

9 Yep? Rafael?

10

11 Rafael Pérez-Escamilla:

12 I mean, this was an excellent presentation. In terms of the food safety topics that you have
13 identified -- your group has identified, I think they are extremely important. I totally agree that
14 it makes sense to bring forward what was presented with the 2010 Dietary Guidelines, and
15 increase the value by adding the issues related to environmental contaminants in the food and
16 so on, but, as you know, the committee does not have really that type of expertise in place right
17 now. So that may be an area where it would be very useful to start thinking about which
18 agencies within the government should be invited to provide expertise, and also what do we
19 know about data sources like -- an equivalent to the data analysis that --

20

21 Miriam Nelson:

1 Yeah.

2

3 Rafael Pérez-Escamilla:

4 [inaudible]

5

6 Miriam Nelson:

7 No, no. Rafael -- yeah, very good comment, and I -- there was -- we had quite a bit of discussion
8 about exactly that, and this is where I think some of the -- our first -- actually, we've already
9 started to put our agenda together for our first call, and our work between now and then is to
10 identify the right experts, whether they're in the federal government or whether they're within,
11 you know, tier-one research universities that can really provide unbiased and very good,
12 evidence-based advice to help guide this. So that's a primary goal. Yes. Frank.

13

14 Frank Hu:

15 Yes, question regarding the type of evidence that you are going to use. So, the type of evidence
16 you are going to use is going to be very different from the typical randomized clinical trials or
17 prospective cohort studies. So most of the areas that you mention, including physical
18 environment, food environment, and policy environment, as far as I know, I mean, most of the
19 evidence, either cross-sectional, ecological, or I guess anecdotal evidence. So I don't know how
20 you are going to analyze this type of evidence to derive the evidence-based recommendations.

21

1 Miriam Nelson:

2 And my other committee members, feel free to pitch in, but I think this is -- another very lively
3 discussion yesterday was the fact that, once again, I think we'll be pushing the NEL -- looking at
4 Joanne -- in terms of the myriad sort of evidence that we can really look at to help inform some
5 of this -- I think in some of the areas with the environment and some of the other areas -- we
6 actually probably will have good -- very good evidence from decent, well-designed studies, not
7 RCTs necessarily, although there are more and more RCTs in this area, but we're going to have
8 to be looking at a variety of evidence. And I think we're going to have to be very careful about
9 how we present that, but the other is that it's not just -- you know, if you look at our areas
10 where we can look at evidence, you know, it's modeling -- I mean, there's a variety of different
11 ways that we can really look at this, so I think we're going to have to look at it all, and I think
12 some of it is going to have to be informed by some consultants and experts that we bring in as -
13 -

14

15 Barbara Millen:

16 I would --

17

18 Miriam Nelson:

19 -- to --

20

21 Barbara Millen:

1 Miriam, I'd -- yeah, sorry.

2

3 Miriam Nelson:

4 Sorry.

5

6 Barbara Millen:

7 I would add to that to say that there are certainly examples of community intervention studies,
8 you know, similar to the kinds of things that you've seen with Elderly Nutrition Program
9 evaluation, food stamp evaluation, and so forth that apply to the topic area of systems changes
10 at the community level that I think, you know, will provide a pretty reasonable body of
11 evidence.

12

13 Miriam Nelson:

14 Yes. And if I can just add on that, you know, having have had our expertise now in a decade of
15 working in the city of Somerville, you know, we now know that there are, you know, seven or
16 so cities that have had reductions in childhood obesity rates. And I think that really trying to
17 understand what -- why were they successful and what were those elements is going to take --
18 I'm not going to say original research, but I do think that there're going to be ways that we
19 should be digging into some of those best practices. So, Mary, you had [inaudible] to add.

20

21 Mary Story:

1 Yeah, that was a good question, Frank, and I think that the area of food environment is one
2 where the last five years -- that there's been major, I think, gains, and I think other areas -- and
3 we were trying to really kind of look broader at this point, but some areas like agriculture,
4 sustainability, food systems, those would be more exploratory at this point. But I think the food
5 environment is an area where, I've seen, that there's much more in the literature.

6

7 Frank Hu:

8 So, in terms of taxation -- the impact of taxation in the behavior and so on are --

9

10 [talking simultaneously]

11

12 Miriam Nelson:

13 There's research. Yeah.

14

15 Mary Story:

16 Yeah, and some of those have been done with modeling studies.

17

18 Miriam Nelson:

19 Yeah, and there's some good research in that area, too.

20

21 Mary Story:

1 Yeah.

2

3 Miriam Nelson:

4 So -- and it may end up being with the NEL that we actually have to -- I haven't thought
5 completely about this, because we've just done this yesterday, but we may have to start with
6 some exploratory questions that help to guide where is the actual evidence in looking at that
7 base. Yeah, Rafael.

8

9 Rafael Pérez-Escamilla:

10 This is Rafael. Following-up on Barbara's comment about policy related to programs, you know,
11 we know that not too long ago the WIC program changed the policy regarding to the benefits
12 and a major goal of that change was to foster the increase of consumption of fruits and
13 vegetables, and there is some research already out there documenting what has happened. So
14 I would encourage --

15

16 Miriam Nelson:

17 Yeah.

18

19 Rafael Pérez-Escamilla:

20 -- the group to consider those type of policy changes that affect federal nutrition programs or
21 state nutrition programs because the evidence is growing as to whether they work or not.

1

2 Miriam Nelson:

3 Yeah, and if it's okay with the committee -- thank you for that -- but we also think that there are
4 -- there's evidence around local policies, worksite policies -- it's not just sort of federal policies
5 that we should be looking at, and so there may be areas that we can look at that are, you know,
6 local, regional, worksite, school-wide, things such as that. So...

7

8 Alice H. Lichtenstein:

9 Alice H. Lichtenstein. I think there's some -- to echo that, I think there's some very good
10 examples that we currently have, things like banning trans-fat in New York City --

11

12 Miriam Nelson:

13 Yeah.

14

15 Alice H. Lichtenstein:

16 -- around the country, and there's some -- you know, even drawing on what we've learned
17 about smoking cessation and issues related to taxation or limitations as far as where it can
18 occur --

19

20 Miriam Nelson:

21 Yeah.

1

2 Alice H. Lichtenstein:

3 -- may also be very helpful.

4

5 Miriam Nelson:

6 You know, thinking about food systems, just to sort of put one out there that -- since you spoke
7 and linking to your committee, I mean, we were thinking about salt. I mean, you know, only 8,
8 9 percent of salt comes from the salt shaker. It's really within the food supply, and that's a food
9 systems thing, and so, you know, I think that -- and there may be policy -- you know, there may
10 be -- so there's lots of different integration here. Just -- I'm trying to give an example so that
11 people can understand that, too. So, Wayne, you had [inaudible] -- oh, sorry, yes.

12

13 Wayne Campbell:

14 Wayne Campbell. I'm -- the way that I'm understanding some of the way you presented it was -
15 - is that you're looking at environmental factors that influence on the systems and the like, but
16 I'm just curious about how the health fits in and also in your deliberations yesterday, did food
17 insufficiency and hunger come into it?

18

19 Miriam Nelson:

20 Go ahead, Steve.

21

1 Steven Abrams:

2 Yeah, I think that's very important, although the guidelines -- I mean, clearly among children,
3 there's a real problem with obesity. We know that a significant portion of American children go
4 to bed at night not being entirely certain where the next meal will come from, and there's a
5 good bit of evidence about that. So we certainly don't want to change the overall focus, but we
6 want to make sure that we fully capture food insecurity, lack of food, and ensure the real target
7 is making sure there's enough food available and we make guidelines for healthy growth and
8 focus on children at different age groups and how that would look.

9

10 Lucile Adams-Campbell:

11 And also, you know, in certain populations, you have more obesity, as well, and we have to look
12 at the access, availability, and quality of the food. So I think that's a big issue we discussed and
13 we know it's going to be cross-cutting with the other group, too, because these are similar
14 topics. But it's really important that we focus on the populations, as well. Mentioned the
15 socio-ecological factors that we talked about focusing on, looking at the -- I guess the model --
16 never mind, the model you did present -- you presented the model.

17

18 Miriam Nelson:

19 Yeah, I said we'll be using the model to frame our work, yet we believe it has some
20 shortcomings. But, Cheryl, you had a question.

21

1 Cheryl Anderson:

2 Yeah. So, along those lines in terms of access, availability, what the food supply is looking like,
3 changes in the food environment, did you give any thought to the surge of organic foods,
4 genetically modified foods, what do we know about the differences between organic versus
5 traditional growing patterns and what it means for health?

6

7 Miriam Nelson:

8 Yes. And actually a little historical piece. In 2010, we thought about it but we didn't feel like
9 there was enough evidence at the time, and I think our group feels like it -- there's probably
10 enough evidence to look at it in some way. I think we have to be careful, because I think that,
11 you know, there's evidence that organic food can be grown well and poorly, and conventional
12 food can be grown really well and really poorly. So you have to be careful there. So -- but, yes,
13 I think that is part of our plan. Yeah.

14

15 Marian Neuhouser:

16 Marian Neuhouser. One example of a policy that you might think about evaluating, if it's not
17 already on your list, is the number of cities around the country now that are now requiring
18 calorie information on the restaurant labels and so forth. And I don't know -- there's a
19 preponderance of published data in our medical literature, but there may be some data at local
20 levels that could be exploited.

21

1 Miriam Nelson:

2 Quite a bit. But isn't it part of the Affordable Health Care Act that the labeling has to be
3 national now? It's mandated. It will be. It hasn't happened yet but there's local data. Yeah.

4 Frank.

5

6 Frank Hu:

7 Frank Hu. One question I wonder if you have considered, which is about food waste, which is a
8 huge problem in this country and in -- I think in many parts of the world. So, is that --

9

10 Miriam Nelson:

11 Yeah. I'm glad you brought that up because we didn't talk about that yesterday and it's
12 absolutely a very important issue and I think we'll have to figure out how it fits within the
13 context, but I definitely think it fits within the sustainability piece, and I'm thinking about a
14 conference I did in Hong Kong last year on feeding the world in 2050, and the food waste is a
15 huge issue. So, I thank you. And actually -- I know I have about four more minutes, but one
16 question I think our group -- are there any overarching -- the 50,000-foot view that we're
17 missing -- go ahead, Gary.

18

19 Gary Foster:

20 It was more of a 50,000 feet up

21

1 Miriam Nelson:

2 Okay.

3

4 Gary Foster:

5 -- comment, but not nothing that's missing. I think just to support your subcommittee -- and I
6 think, at least from my perspective, this is relevant for the entire committee is to -- you
7 mentioned fast-forwarding from food safety and physical activity. I think that's a really good
8 thing to do given the enormous scope of work that we have before us and to maybe think
9 through as a committee what -- there have to be compelling changes in the data to really --
10 now, that's a tough process because then you have to go review the data to see if there are
11 changes, so sort of this combination of qualitative and quantitative assessment.

12

13 Miriam Nelson:

14 Yeah.

15

16 Gary Foster:

17 But I'm a little worried, just committee-wide, about the enormity of the task and with all the
18 topics that we have to consider. So, I think -- and we've talked about this some yesterday. If
19 there are systematic reviews, maybe they're updated some. But the other comment, at a
20 higher level, is that I think some of the things -- if it turns out that there aren't great data on the
21 topic, I think that's actually worth saying because I think Dr. Woteki said yesterday --

1

2 Miriam Nelson:

3 Totally agree.

4

5 Gary Foster:

6 -- very clearly that she's looking -- and others are looking for research agendas. So there's a lot
7 of anecdotal evidence or a lot of enthusiasm or lack of enthusiasm around certain topics, then
8 maybe the science just isn't compelling and I think our committee can add something to that to
9 say, you know, it is an emerging area but it's not -- it's short of us making a recommendation at
10 this point.

11

12 Miriam Nelson:

13 Completely agree, and I -- with our group, because we're starting from very little in the old
14 report, that we're going to have to start at a very high level to help prioritize, because I don't
15 think we're going to be able to do all of this justice, and so we're going to have to look at where
16 is the most evidence that we can actually draw from that will inform this? But I'm thrilled to be
17 -- and I think our -- I speak for our committee -- we're thrilled to be able to move into this area
18 because I think it relates to exactly the issues that have been brought up around, you know --
19 we've now had guidelines since 1980 and, if anything, you know, our -- we're eating more
20 poorly. So, let's try to figure out -- maybe there's some other things that we should be looking
21 at, as well. So are there any other --

1

2 Marian Neuhouser:

3 Well, this is the only thing that occurred to me that might be missing, but it's a rather large
4 topic and I'm not sure how to get a handle on it. But it relates to the health equity and food
5 access topic, and that is the large number of immigrants that we have in this country, and then,
6 of course, this applies to the applications of the Dietary Guidelines to various programs. But,
7 you know, when immigrants come to this country, you know, how they adapt to either finding
8 foods that they are used to preparing or how they transition to an American, you know, diet
9 and how that happens and what are some, you know, gaps that need to be addressed in the
10 Dietary Guidelines about helping, you know, immigrants, which make up a -- you know, a good
11 size of our population relates to your topic here about healthy food choices --

12

13 Miriam Nelson:

14 So we felt this was an overarching theme for all three working groups, and I put that in health
15 disparities. We decided not to list low-income -- you know, like, all the different health
16 disparities, but we felt immigrants and new immigrants were a very important factor to be
17 considered within that. But we felt it wasn't just our working group. We felt it should cross all
18 working groups. Steven.

19

20 Steven Clinton:

1 Yeah, Steve Clinton. This is a kind of a comment, as well, and I think, really, to compliment you
2 and the group and the staff that helped set this subgroup up as probably the most cutting-edge.
3 You know, this is the one that's moving the barrier further out than the traditional individual-
4 based recommendations of the food guide pyramid. And as we get into that realm, I'm kind of
5 curious where the vision is at the moment as to what our guidelines might look like 18 months
6 from now. Are they going to be relative to zoning laws, tax incentives --

7

8 [laughter]

9

10 -- foreign policy --

11

12 Miriam Nelson:

13 Go, Steve. Go, go, go. No. [laughs]

14

15 [laughter]

16

17 Steven Clinton:

18 -- or even Bloomberg-type regulatory --

19

20 Miriam Nelson:

21 Yeah.

1

2 Steven Clinton:

3 -- supply of the food in our cities and the nation. So, anyway --

4

5 Miriam Nelson:

6 Great. No --

7

8 Steven Clinton:

9 -- it's great. Great group --

10

11 Miriam Nelson:

12 -- I think good -- very, very [inaudible] comments. I will say I'm really trying not to think about

13 what the policies could be because --

14

15 [laughter]

16

17 -- I really want the evidence to help guide this, and I mean that. And I think there's actually

18 enough evidence out there now to start informing us around that, because we do have cities

19 and communities that have done a really good job and where things are really changing. We

20 don't have a lot of them, but we do have some of them, and from those I think we can look at

21 best practices. And I think to Frank's point, it's going to be tricky evaluating the evidence, but I

1 think we have to start somewhere, and if this committee doesn't do it, I'm really happy to be
2 able to come back and sort of help to push this effort with my colleagues. And I would say that,
3 you know, beyond our working group, other -- we completely believe -- I looked at Barbara and
4 Alice -- but that when we do go into subgroups that we want -- there's a lot of expertise around
5 this table that isn't just in our working group that we want to make sure we draw from. So --
6 yeah. Rafael.

7

8 Rafael Pérez-Escamilla:

9 This is Rafael. In terms of guidelines, I think that the policy document could include a guideline
10 recommendations to policymakers based on this evidence that consumer -- brochure,
11 pamphlet, I don't know how you call it -- would need to include --

12

13 Miriam Nelson:

14 That's right.

15

16 Rafael Pérez-Escamilla:

17 -- these guidelines.

18

19 Miriam Nelson:

20 Exactly.

21

1 Rafael Pérez-Escamilla:

2 At the end of the day, there is a guideline document or pamphlet for consumers. So...

3

4 Miriam Nelson:

5 Well, and there is. I mean, there is consumer-based stuff and then there is the policy document

6 that helps guide the federal policies, and I think -- I mean, I'm hopeful to Steve that some of the

7 evidence that we evaluate actually really gets in there and helps to inform federal policy. Thank

8 you, Barbara. Thank you, everybody. Thank you, sub-working group members, I should say.

9

10 Kellie Casavale:

11 This is Kellie Casavale. I just want to say one quick thing, and that is that the slides that the

12 committee members are presenting today -- of course, they just created these overnight, so --

13 but they will be posted at dietaryguidelines.gov next week and also sent to the committee

14 members to include in their notebooks. I just wanted to mention that to the public.

15

16 Barbara Millen:

17 Thank you, Mim. The -- work group number one obviously had a very exciting conversation

18 yesterday and has made great progress, and I will turn things over now to work group two, led

19 by Rafael Pérez-Escamilla.

20

Work Group 2: Dietary Patterns and Quality and
Optimization through Lifestyle Behavior Chan

1

2

3 Rafael Pérez-Escamilla:

4 Thank you very much, Barbara, and just for the record, I am Rafael Pérez-Escamilla and I want
5 to acknowledge the work group members that -- we collectively worked very hard yesterday, as
6 well. Cheryl Anderson from UC San Diego, Gary Foster from Temple University, Frank Hu from
7 the Harvard School of Public Health, and Anna Maria Siega-Riz from UNC.

8

9 So, the -- what I'm going to be doing is to talk to you first about the 2010 Dietary Guideline
10 recommendations that were relevant to the discussions of work group two and this is because
11 that was asked from us to consider and build upon what -- the work that was done before.
12 Secondly, I will present to you the initial scope of work that was prepared by the scientific
13 review subcommittee to get us started with that discussion, and then we'll present to you what
14 happened after we went through the several hours of brainstorming in terms of which are the
15 topics that we think should be priority areas, and we'll have time for questions and discussion.

16

17 So, as we know, we had the opposite challenge that group one had. Here, there were too many
18 recommendations already in the 2010 Dietary Guidelines that are totally relevant to the dietary
19 pattern section of the guidelines. If there was something that I'm proud of having been part of
20 the 2010 Dietary Guidelines Committee is that we pushed very, very strongly from moving the

1 focus just from individual foods or food groups to trying to push for recommending healthier
2 dietary patterns, the total diet, as we referred to it then. And the main focus was and probably
3 will need to remain related to energy balance and the obesity epidemic. So everything was
4 recommended in relationship to keeping the consumption at an appropriate calorie level.

5

6 It's also important that the guidelines do strongly recommend consumers to learn how and to
7 keep track of all the foods and beverages -- obviously beverages are part of the dietary patterns
8 -- and to make sure that collectively, over time these food choices and beverage choices end up
9 forming healthy dietary pattern. As part of the beverage consumption pattern, you know,
10 alcohol is something that was also considered from the point of view of the scope of this
11 committee because they do contribute calories and also there are healthy dietary patterns that
12 include alcoholic beverages.

13

14 The 2010 Dietary Guidelines also fully recognize the need to strongly recommend a life-course
15 approach for maintaining appropriate energy balance. You know, we spoke about pregnancy,
16 lactation, childhood, adolescence, adulthood, and older adults. We also can find in the 2010
17 Dietary Guidelines document the importance for people who are already overweight or obese
18 to have the tools to be able to consume fewer calories derived from their foods and beverages
19 and also the -- obviously the consideration that energy balance is not just determined by the
20 amount of calories consumed but also by the amount of energies expended through physical
21 activity. So, the recommendation is very clear in that document that we're both recommending

1 increased physical activity and to try to reduce as much as possible the time spent in sedentary
2 behaviors.

3

4 This was perhaps the recommendation that got me the most excited when I was working in this
5 committee, because this is related to the body of evidence that was in place by the time we
6 were doing this work relating calorie density or energy density and better weight control or
7 weight loss outcomes, and the epidemiological analysis of the relationship between energy
8 density and dietary patterns clearly show that, in terms of the real-world diets that are out
9 there, those that are low in energy density tend to be much higher in fruits, vegetables, and
10 whole grains, a much higher intake of fiber, and they tend to be lower in saturated fat and also
11 in added sugars. So, the evidence by then was fairly strong for adults, was moderate for
12 children, and also some evidence began to become available to us suggesting that lower energy
13 density diets could also lower the risk of type 2 diabetes in adults. So that made it to the policy
14 report, which made me very happy because it was an example of a simple dietary index that is
15 capturing a lot about an overall dietary pattern.

16

17 The 2010 Dietary Guidelines also covered the whole issue of what can Americans do to improve
18 their dietary intake behaviors. So, I'm not going to read each of them -- you have them right in
19 front of you in the screen -- but the important thing is that this is an area that our work group
20 was also asked to focus on, not only what is the epidemiology of dietary intake, physical
21 activity, and so on in the country, but also what do we know about what works with regards to

1 changing dietary behaviors at the individual level and how much of this was already covered in
2 the 2010 Dietary Guidelines?

3

4 So now I'm going to move onto the second topic of my presentation, which is related to the
5 original scope of work that our group was given. Essentially, this was nothing but a list of topics
6 that have been covered before and that perhaps we could start discussing, which is what we
7 did yesterday, and the first one was related to the full dietary patterns and associated lifestyle
8 factors, including physical activity, alcohol consumption, and the relationship of these patterns
9 with disease risk and, you know, metabolic and health outcomes. We also had in the original
10 scope document the consideration for the whole area of how do different dietary patterns
11 cluster, which are the foods or food groups that explain the most -- for example, in terms of risk
12 factors for overall poor health -- and to think about the application of statistical optimization
13 techniques to understand how to design dietary patterns that are healthier and can be
14 recommended because they fit well different population groups in the U.S.

15

16 We also were given the task of having a discussion about dietary quality indices and dietary
17 patterns and how these indices are behaving in terms of predicting a number of metabolic and
18 health outcomes and the presentation from Molly McGrane from the NEL was extremely
19 interesting in terms of an ongoing, systematic review that is addressing these types of
20 questions. And, again, we were asked to consider not only energy consumption but also
21 physical activity and think about inferences of energy balance. And, last but not least, because

1 we want to think about how to deal in this round of the Dietary Guidelines with understanding
2 how to recommend the public and the -- those institutions and individuals who influence their
3 dietary decisions what type of interventions are out there that could be implemented
4 effectively in different settings to change behaviors at the individual level. So that was the last
5 component of that scope of work.

6

7 So now we'll have to fast-forward and, you know, after several hours -- I think it was three or
8 four hours of discussion -- we ended up identifying four priority topics. And, again, we were not
9 given the charge to identify questions. This was the first cut, which are the priority topics that
10 we want to explore.

11

12 So, the first priority area is what I would like to refer as descriptive epidemiology of dietary
13 patterns, and underlining that, dietary patterns include not only foods but all beverages
14 consumed, as well. And this is the area where we would like to -- for the committee to consider
15 requesting in-depth analysis not only of what Americans are eating, but where are they eating
16 and how are they preparing the food that they are eating? We thought that there are at least
17 three subpopulation groups that deserve special attention. The first group would be following
18 the life-course approach to actually break down all of this descriptive information in a more
19 refined way for under-18-year-olds so that we could separate young children from school-age
20 kids -- the data for the youth. The group thought it was really important to start generating
21 better information about what is happening with the youth, with the teens in the country, and

1 thinking about pregnant women, lactating women, adults, and older adults. So we think the
2 data should be broken down as much as possible following the life-course framework.

3

4 Obviously, gender is extremely important to understand if there are gender differences at each
5 stage of the life-course and, at the very least, the third dimension that we considered was
6 ethnic/racial differences, and it would be fascinating to see if we can pick up, at the end of the
7 day, differences in overall dietary intake patterns across the life-course and across ethnic and
8 racial groups. I know it's easier said than done, but we believe this goes to the heart of what
9 the committee should be doing.

10

11 The second priority topic that we identified was the relationship between dietary patterns and
12 metabolic and health outcomes, including obesity and chronic diseases, of course, heart
13 disease, diabetes, cancer, and so on. And a lot of this work was done or initiated with previous
14 Dietary Guidelines committees. I think that 2010 Dietary Guidelines Committee has -- the
15 scientific report -- the Advisory Committee report -- the orange, thick report has very good
16 information. But we think of the microbiome as a -- perhaps an emerging topic, but we don't
17 know for sure if there is going to be a critical mass of evidence out there on, A, the relationship
18 between different dietary intake patterns and different microbiome profiles and, B, if we're
19 going to be able to really understand which microbiome profiles are held here and which ones
20 are not very healthy.

21

1 But we all know that there is some evidence out there that, for example, obese individuals have
2 a very different microbiome profile than non-obese individuals. A recent paper that received a
3 lot of press coverage was, well, what happens if we feed red meat to vegetarians who have a
4 microbiome that is different from omnivorous people in terms of harmful metabolites from the
5 microbiome. They were not produced to the same extent among those who had the
6 microbiome of vegetarians than -- compared to those who had the microbiome of omnivorous
7 individuals. And so in 90 percent of our cells are microbes, so I think it's really -- the time has
8 arrived. The technology is here to start -- or to expand the very wonderful basic research that is
9 happening out there. And this may be a new topic for which we may want to identify an expert
10 or a group of experts that could illuminate the committee on the current status of this exciting
11 area of work and their vision for the future.

12

13 A second topic related to dietary patterns and health that we thought deserves consideration
14 from a new angle this time is the whole issue of screen time. It has been consistently
15 associated with obesity, especially the literature with children is very clear, but it is not very
16 clear which are the mechanisms mediating the relationship. Is it related to dietary patterns,
17 because the kids are not eating very healthy while they watch television, for example? Or is it
18 because they're being exposed to very unhealthy marketing practices from the food industry?
19 Or is it related to physical inactivity? We think this is an indicator that captures very well the
20 combination of all of the above, that is energy balance, and that perhaps it -- we should look at
21 it from that angle this time around.

1

2 With alcohol, we know it's not a new topic. The Dietary Guidelines have included, at least for
3 some time, recommendations on alcohol intake, especially among people who are already
4 consuming alcohol; what is the upper limit that they should not exceed, and which are the risks
5 and benefits? Here we're talking about perhaps trying to do an analysis on how alcohol affects
6 dietary patterns; for example, social drinking versus what I like to refer to as cultural drinking.
7 Alcoholic beverages are a part of the traditional diets, and so on. And, also, we know that
8 alcohol has calories, it -- but -- that it can be part of healthy dietary patterns. Many
9 Mediterranean-type diets include wine and other alcoholic drinks, as we know. So, perhaps this
10 may be an opportunity to think about alcohol consumption as a determinant of dietary patterns
11 and as a component of dietary patterns, as well.

12

13 So, the third area is related to what works for individuals to adhere to healthy dietary patterns,
14 and here we are thinking about both traditional and innovative technologies that can be
15 applied in the homes, in the schools, and in, you know, the work place, and so on. But we think
16 that two emerging themes that are very important to consider: one is in terms of the use of
17 innovative information technologies to try to foster positive behavior change when it comes to
18 better selection of foods to have -- for individuals to be able to have healthier dietary patterns.
19 The whole area now is called, for example -- one, so -- area here is called mobile persuasion;
20 how to use mobile devices to send motivation and messages and reminders and so on to
21 individuals. We know that social media is being used right and left. There may not be enough

1 randomized, controlled trials yet, but this is another area where perhaps the committee could
2 think about inviting an expert that could give us a better sense of where these e-health
3 applications are going, and how much they have been, or have not been, applied to the area of
4 nutrition. Just by the presentations this morning, it seems that both CNPP and the Health and
5 Human Services are involved already with e-approaches to try to foster positive behavioral
6 change.

7

8 And the second topic, given the arrival of the Affordable Care Act and its very strong emphasis
9 on primary healthcare, I think we want to review the literature on what is known about the
10 delivery of, say, brief motivational interventions to improve dietary behaviors at the individual
11 level. I think, in the country, we've been having sometimes what I don't think is a very useful
12 debate as to whether everything is about environment and education. Information doesn't
13 matter; we just take care of the environmental issues if we're going to [unintelligible] we're
14 going to solve that problem. At the end of the day, if people don't have the knowledge -- the
15 instrumental -- the knowledge on -- not only on health benefits, but how to access healthy
16 foods and be able to perform physical activity, then that's not going to take us very far.
17 Obviously, the social-ecological model calls for both to be present.

18

19 As group one did -- and this is the fourth and last topic that we identified -- physical activity; we
20 think it's an enormously important topic, and we're extremely lucky that the country also now
21 has a Physical Activity Committee. And we think the 2008 report was excellent, that a lot of the

1 work that they did is still valid today, and, in addition, we have the midcourse review that was
2 conducted in terms of what works to promote physical activity among youth, and I think it was
3 released earlier this year. So there is very recent data in terms of -- or information from the
4 report in terms of the midcourse review.

5

6 And, last but not least, we fully acknowledge, again, that screen time is not only a marker for
7 nutrition but is also a marker for sedentary behavior and should be also conceptualized as part
8 of the physical activity section of the work our committee is about to embark on. So, this is
9 what our group wanted to share with you, and I would like first to open up the Q and A session
10 to the members from the committee who want to add or comment to anything that I just said.

11

12 Frank Hu:

13 I'm Frank Hu. Thank you, Rafael, for this excellent summary. I just wanted to mention that the
14 definition of dietary patterns is so broad. So, here, we're talking about a very generic definition
15 of dietary patterns. So, I mean, you have geographically defined dietary patterns, such as
16 Mediterranean diet, Asian diet; I mean, you have vegetarian diet versus non-vegetarian diet.
17 And in the literature, there are two primary ways to define dietary patterns: one is dietary
18 indices, like the Healthy Eating Index Jill mentioned earlier; and then there are statistical
19 masses derived -- data-driven dietary patterns using principle components and a cluster
20 analysis. So, the first question that Rafael mentioned, about when, where, and how people eat,

1 so -- it's so broad. So I think we will need to refine this question a little bit more so that we
2 know exactly what we want to look at when we approach the data analysis.

3

4 Mary Story:

5 Thank you. It sounds -- your group is really off to a great start. When you had the what, where,
6 and how people are eating, and you talked about certain demographic groups, I think three that
7 are really important and could build on the 2010, when you really focused -- had really a focus
8 on children, which I think was really good -- but I see three areas, and I'd like to know if your
9 group discussed this at all: one is adolescence, that even -- when -- Alanna, when you were
10 talking about the slides, adolescent girls are --really have poor diets. And it's so important,
11 because of an age of preconception -- nutrition and the importance of that.

12

13 And the other area is young adults, which really have been ignored; there's much more
14 research in the last five years, because this is a time when you see excess weight gain, you see,
15 you know, young adults -- this is from the age of 18 or, you know, until about 25, when they're
16 on their own for the first time. They're being marketed to heavily, they're eating more fast
17 foods than any other age group. And the last is -- group is the elderly -- the very elderly, which
18 are really increasing in the population, and I think they need to have kind of a spotlight, since
19 both physical activity and eating patterns of those that might be over 75 or 70. So, did you look
20 at -- were those groups included? [inaudible] -- is important to really target?

21

1 Rafael Pérez-Escamilla:

2 Yes, so that was number one. Life course. It includes all of them.

3

4 Mary Story:

5 Right, but you're going to have to focus.

6

7 Rafael Pérez-Escamilla:

8 Oh, which --

9

10 Mary Story:

11 Yeah, did you talk -- because if you do all of the life course -- I mean, did you talk about really
12 having a focus on certain age groups?

13

14 Rafael Pérez-Escamilla:

15 Okay, so, in terms of teens, we acknowledge that there has been very little reported on them
16 and that it was a very important group to focus on. In terms of older adults, I don't recall if we
17 had an in-depth discussion about them. I recall talking more about the issue of what those --
18 body weight and the BMI means among older adults, but I don't think we discussed older adults
19 at length.

20

21 Anna Maria Siega-Riz:

1 Hi, it's Anna Maria. I think, Mary, we were basically, in that one, really trying to understand
2 some of the descriptives, similar to what Alanna presented, but through the life course
3 perspective. But then, when we really get to look at dietary patterns and health outcomes, I
4 think we really do need to move forward from the 2010 report. There was a lot of stuff done
5 there, but then there's been more work done recently, for example, on dietary patterns related
6 to pregnant women and healthy birth outcomes. That needs to be considered. There's been a
7 lot in that area. And so I think what we were trying to do is to not necessarily replicate what it -
8 - was done in 2010, but to move forward. And for the areas where I think we should really
9 start, where the research gaps were that were already identified, and literally take those
10 questions and see have we made progress in the literature for those research gaps identified,
11 and then what other new things have come up? Clearly more people are now using different
12 methodologies for establishing dietary patterns, and I think, as we begin to look at the
13 consistency of the results of that research, that will -- I would imagine, based on my
14 understanding from what's been done, is that you'll see that there are certain, you know,
15 Western-type dietary patterns versus the prudent that are showing these consistent
16 associations. So, I think you're right in the fact that all the -- you know, the lifestyle groups are
17 very important, and we clearly haven't done enough on those three groups that you talked
18 about, especially given the fact that the elderly's becoming an increasingly important part of
19 our population.

20

21 Gary Foster:

1 Mary, I think your point about focus is well taken, and I think partly what we're thinking is in
2 the first part. In the descriptive we could get some signals about where there really are big
3 discrepancies or where there are really big problems. I think one of the concerns about picking
4 out groups a priori is that we may not have enough data in point two to link it to any metabolic
5 outcomes, but I still think the descriptive data in and of themselves would say -- for example,
6 there is or is not a problem in this particular pattern, in this particular subgroup -- is really
7 useful. I think our challenge will be with our collaborators to figure out how many identified
8 subgroups we pick in that first round, but I think the three that you mentioned are clearly
9 worth looking at, so thanks.

10

11 Mary Story:

12 Can I just add one other thing? Is -- did you talk about at all looking at the literature in family
13 meals or social eating? Because that's an area in the last five years that really has -- there's
14 much more research on, looking at the health benefits and benefits -- dietary benefits of eating
15 together versus eating alone?

16

17 Frank Hu:

18 Yeah, I think that's a good idea, and there is actually growing literature on the family meals in
19 relation to children's diet in the house.

20

21 Rafael Pérez-Escamilla:

1 And I would think that within the what works for individuals, we also thought about, you know,
2 the home, of course; know what works at -- in terms of home base and, you know, that type of
3 evidence in terms of eating together, and so on, it's very important.

4

5 Rick Olson:

6 Let me just quickly remind everybody to state their name before they make a comment.

7

8 Alice H. Lichtenstein:

9 Okay, one other thing about -- Alice H. Lichtenstein.

10

11 [laughter]

12

13 One other thing about dietary patterns -- and I think may have picked up on what Marian was
14 talking about, and that has to do with immigrant groups and how they come with certain
15 dietary patterns, and then as they stay in the United States pick up other dietary patterns and
16 more Americanized dietary patterns, and what impact that has on health status.

17

18 Wayne Campbell:

19 This is Wayne Campbell. I appreciate Dr. Hu's recognition that patterning can mean so many
20 different things. Throughout the last day-and-a-half we've heard various aspects of different
21 changes in -- or of how people eat and what they eat and how frequently they eat, and I know

1 on the one slide there, it was what, where, and how people eat, but it didn't say when people
2 ate. And I'm just -- just a comment and a question. The comment is that we're -- there's a lot
3 of interest in how -- on when people eat, either within day -- with -- among days or weeks, and
4 weekdays versus weekends, but also in longer-term eating patterns -- infradian patterns -- with
5 respect to weight control, and what are the times during the year or during the seasons or
6 whatever that people are at risk for energy imbalances?

7

8 And it seems as though, especially given the magnitude of our overweight and obesity
9 challenges in our society, that the recommendations are going to have to be not only geared
10 toward patterning for health, but health within the context of actually losing weight --
11 purposefully losing weight. And so I'm just encouraging you to consider how -- where that
12 might fit in as a priority with respect to patterning for making sure that, as people are
13 approaching weight control purposefully, that patterns of eating, patterns of physical activity,
14 and the integration of those are considered. The -- my -- so, that's my comment. My question
15 is: when talking about patterning and weight control, did your committee give thought or
16 consideration or come up about meal-skipping, snacking, those types of patterns that are
17 behaviors that lead to potentially inappropriate weight control?

18

19 Anna Maria Siega-Riz:

20 I -- Anna Maria. So, we had some debate about that, and I must admit that, having done some
21 research in this area -- and I think Alanna alluded to it, as well -- the meal patterning is

1 something that's very difficult to literally understand the implications, with the exception of if
2 they're not eating a certain number, then obviously you can make an association. But because
3 of the fact that meal patterns -- meal occasion is self-identified, okay, and when you start
4 looking at what somebody claims to eat as a breakfast versus a snack, could be very different
5 depending on who that individual is. I think it presents a lot of methodological problems. So I
6 don't think we're where we need to be, okay, yet as far as being able to say that there is a
7 certain pattern beyond the number of meals and maybe the time spacing, okay, of meals that
8 could actually contribute to weight control, unless you consider the types of foods that are
9 actually consumed at those eating occasions. So that's how we ended up getting to the food.

10

11 Frank Hu:

12 Right, so we had a lot of discussion, you know, about this issue. I mean, I agree with Anna
13 Maria. This is a complex methodological issue, but the literature, I think, is growing in terms of
14 the relationship between skipping breakfast and subsequent energy intake and obesity,
15 especially among children. So we were talking about whether -- I mean, this should be lumped
16 together with part of the dietary pattern, or there should be -- I mean, behavioral pattern. So
17 we were a bit ambivalent about how -- what -- how to put this -- which category we should put
18 this into. Perhaps we -- I mean, take a look at the literature to see how much is there and to
19 see whether this is possible to come up with evidence-based recommendations, because, as
20 you said, a lot of people use meal-skipping or different frequencies of meals as a weight control
21 strategy, but whether it works or not, we don't know.

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Gary Foster:

Just to Wayne's point about obesity, I think it's a good one and it goes to the complexity of the issues that were just discussed, as well. And I think one of the things, at least that I worry about, is in the context of a country that has at least two-thirds overweight and fully one-third are obese, the message to eat more of anything could be easily misinterpreted. So, I -- when we -- we're looking at patterns, I take your point very seriously that we have to look at the patterns in the context of an obese -- or at least two-thirds overweight country. That doesn't meant that the whole message has to be "lose weight, lose weight, lose weight," but to -- I think we could lose our focus on arguably the biggest nutritional problem across the globe trying to get into the fine points of when it's eaten, how it's eaten. Not that those things aren't important, but I worry about the relative emphasis. And we can see as we go through the data, and certain things Frank said pop up, that breakfast does seem to have some protective effect, then I think it's worth getting into. But I worry a little bit about our interpretation of the data; if we're going to get a little signal here and a little signal there. I think the bigger issue has to be around the obesity.

Miriam Nelson:

This is Mim Nelson. So, in 2010 we did do searches on breakfast and snacking, and I can tell you -- I mean, it was just -- didn't work.

1 [laughter]

2

3 But I do think it's worth potentially -- the definitions, the time -- it was like -- it was a very

4 difficult thing, because snacking on some carrots is very different than snacks -- anyway.

5 Comment -- but my comment is back to the family meal, because I do think this is a really

6 interesting area. But along those lines, I think that the evidence around parenting styles is also

7 at a whole different level. And I know there's some expertise around the table in that area, and

8 I think that that -- and I know we're not doing zero-to-12 -- -24 months, but that pallet, you

9 know, in that 2-, 3-, 4-year-old, and the parenting style, and the foods that are -- I think that's a

10 very important point. I wonder if you've thought about parenting styles at all.

11

12 Female Speaker:

13 [inaudible]

14

15 Gary Foster:

16 I don't think we discussed it. I think -- I'm not so sure there are great data in that area, but I

17 think it's one of the -- again, one of the factors that we can consider. Is that part of the how,

18 right? Is that part of the -- sort of the context around which eating occurs?

19

20 Miriam Nelson:

21 Or the context of the family, yeah.

1

2 Anna Maria Siega-Riz: So, there's -- I think there's been more growing evidence associating
3 maternal dietary patterns with children's dietary patterns, and so that might be where we could
4 get that.

5

6 Marian Neuhouser:

7 Okay. Marian Neuhouser. And if I might make one suggestion, you talked a lot about screen
8 time and had several, you know, bullets about screen time. I think the word that I was hoping
9 to hear that I didn't see until this -- well, until the last slide, which is not there anymore -- is the
10 phrase sedentary behavior, and I think when the literature searches are conducted in the
11 systematic reviews, your committee might think about using that phrase in addition to screen
12 time, because there's been a lot published just in the last year or so on sedentary behavior,
13 which is -- which encompasses more than just screen time. And I think that there's some
14 perceptions that sedentary behavior's only a problem among the kids and the adolescents, and
15 I think if you look at some of the recently published papers in the last year you'll find that it's an
16 issue among middle-aged and especially older adults, as well. And that can impact their food
17 choices, nutritional status, and gets very complex when it's interplayed with some of the
18 chronic diseases that the Dietary Guidelines are all about trying to prevent. So, people with
19 diabetes that have feet problems, they may be more sedentary. So it becomes, you know, a
20 vicious cycle. People with, you know, fractures or osteoporosis: more sedentary time. You
21 know, people with arthritis: harder to cook, more sedentary time, can't get out and walk. It's a

1 vicious cycle. So, I think if you look for that phrase, “sedentary behavior,” it might help inform
2 your committee rather than just screen time.

3

4 Rafael Pérez-Escamilla:

5 Thank you, and we did discuss sedentary behavior at length. A number of work group members
6 have mentioned exactly what you’re mentioning. At the end of the day, let’s just remind those
7 that we have to prioritize the questions that we end up developing. And when we looked at
8 the guidelines, sedentary behavior is very clearly there, and I’m not sure what would change in
9 terms of a guideline other than advising no one to be sedentary in the country. So, that’s -- but
10 we did think about it. It’s a very good example of how -- at the end of the day, we thought,
11 “Well, maybe, in terms of priorities, screen time, because it gets at both dietary and sedentary
12 behaviors, may be the best one to pick to begin with.” Yeah.

13

14 Marian Neuhouser:

15 Marian again. So -- but I think if you restrict your search -- I think my point is if you restrict your
16 searches to screen time, there may be things that you miss.

17

18 Lucile Adams-Campbell:

19 Lucile Adams-Campbell. I wanted to add onto the screen time issue, because I think you’re
20 talking about TVs, computers, and that sort. But also think about -- more recently, in terms of
21 video gaming -- the exergaming, where that’s been shown, even in adolescents and across time

1 -- you know, looking across the time span -- the lifespan, how there's a reduction in some
2 weight changes because of the exergaming. The -- you know, Wii Fit, Kinect, things like that,
3 and that's new [inaudible] what's happened before --

4

5 Miriam Nelson:

6 This is Miriam Nelson. That's in the midcourse review. That will be brought forward. So, it's
7 there, and the evidence has just been analyzed. So I think that that, as well as the sedentary
8 time -- probably we'll come forward with those, and we'll have to make a decision whether
9 sedentary time alone -- we do some searches.

10

11 Barbara Millen:

12 Barbara Millen. I think that one of the major opportunities for this group is the examination of
13 the ways in which the information from the observational data are being translated into the
14 clinical trial data. And I think that in many of the reviews, those -- that body of literature is not
15 mined sufficiently. If you get into the detail of whether or not the dietary pattern is defined in
16 an a priori sense against a guideline like DASH, or it looks at the preferred habitual dietary
17 pattern of individuals, you get some very, very interesting insights into the whole dietary
18 pattern phenomenon and effective interventions.

19

20 If you also look at techniques and strategies that are used for dietary behavior change and
21 physical activity behavior change, who's doing the intervention? What have they considered?

1 What approaches? Was it multidisciplinary? Were apps or, you know, other media used? You
2 know, there's a lot of information that exists but is not necessarily mined in sufficient detail. So
3 I really advocate that -- as those templates for the reviews are put together, that you pay
4 particular attention to how the dietary patterning and meal patterning and food preferences
5 are being translated for intervention purposes, because I think that there's a lot of potential for
6 policy development, particularly as we inform the guidelines with that information.

7

8 Mary Story:

9 I have a question -- this is Mary Story -- for Gary and your group that -- you -- I appreciated your
10 comment about two-thirds of American adults and a third of children are overweight or obese.
11 Did you talk about -- or what's your thinking about other strategies that are not diet-related,
12 but might impact diet, like sleep patterns or self-weighing for adults? Did you consider any of
13 those other non-diet areas?

14

15 Gary Foster:

16 We did, in terms of the following up on the 2010 recommendations about self-monitoring, and
17 we talked about the more recent data about -- in addition to self-monitoring intake, the
18 evidence that you suggest on self-monitoring weight. So we talked about it in that context. We
19 did not talk about sleep, but I think that's another area that, particularly in the last five years,
20 has changed significantly, probably more so in kids than in adults in terms of the strength of the
21 evidence, but I think it's probably something that we could, to the whole contextual piece,

1 again, write about what are some factors, and -- this is a -- maybe a good overlap between
2 groups one and two about is this an environmental issue, right? What's the sleep environment
3 like, the impacts, dietary patterns, or is this a -- quote, a behavioral strategy that's more at the
4 individual level? So I think it's an aspect worth considering.

5

6 Miriam Nelson:

7 This is Miriam -- Mim -- I would -- I mean, it's -- that's very new for the guidelines to think
8 about, and if there is enough evidence, especially around children, which there's -- it would be
9 very interesting.

10

11 Frank Hu:

12 As far -- this is Frank Hu. As far as I know, there are already several systematic reviews and
13 meta-analyses have been done on sleep duration and obesity in children and also adults. So I
14 think we can certainly take advantage of those existing reviews, and perhaps incorporate into
15 this lifestyle pattern as a overall umbrella.

16

17 Rafael Pérez-Escamilla:

18 Yeah, and I think -- for the first bullet here is about what works. So, hopefully, you know, once
19 we complete the list of key potential topics to include, we can then run some preliminary
20 searches to see for which ones there are RCTs that have documented efficacy or effectiveness
21 of interventions that work, because at the end of the day that's what we hope -- whether it is,

1 you know, the family eating together, or inducing better sleeping patterns, if there are no RCTs
2 -- if there are no interventions that we can document that work, I think it limits the contribution
3 that we can make.

4

5 Miriam Nelson:

6 Well, I think we have to be careful -- this is Miriam -- because there may be some elements of
7 behavior that may be hard to do RCTs on. I don't know. I think we're going to have to be very
8 careful that we only would base, you know, our evidence on RCTs, so...

9

10 Frank Hu:

11 Yeah, I agree with that. At this point, most of the data on sleep or family meals are based on
12 prospective cohort studies rather than intervention trials. So, I think -- I mean, certainly
13 establishing causality, the first step is to gather the evidence from observation analysis and the
14 why and how this will be translating to practice or interventions -- I think could be the next
15 step.

16

17 Rafael Pérez-Escamilla:

18 Yeah, this is Rafael. I'm just referring to the what-works aspect, because the idea that -- in the
19 scope of work that we had and the way we discussed it is actually what evidence-based
20 interventions practices are out there that have been shown to work? Now, we can get into,
21 you know, a whole universe of observational studies to document that there are a number of

1 influences here that future interventions need to address, but that was not the intent of the
2 discussion that we had in relationship to what works.

3

4 Gary Foster:

5 Yeah, I agree with that. I think that this area -- I think the bar should be pretty high for that
6 bucket about what works. I mean, I think that those kind of things about what works -- so, to
7 put the sleep question in context, does sleep extension enhance weight loss compared to
8 behavioral treatments without sleep extension? It's an empirical question; either there are
9 RCTs on that issue or not. And I think one way -- to your point, Rafael, I think for that bar -- for -
10 - at least for that bucket of question that there should be RCT evidence, otherwise we're going
11 to have, you know, 35 things under that. So, I'm not saying that that's the only kind of evidence
12 that should be considered, but I am agreeing with you that, when we're getting into what works
13 -- and then we're going to start talking about translating that -- that we ought to make sure we
14 have a strong empirical base.

15

16 Frank Hu:

17 It -- I think what -- when we talk about sleep and screen time, at this point we're still kind of
18 talking about overall lifestyle pattern or part of -- or relative dietary pattern, because sleep is
19 also related to energy intake and the dietary behaviors and the dietary patterns. So I think
20 that's another angle that can tie -- yeah -- behaviors -- mix screen time and sleep with dietary

1 patterns. Not in this category. Not in the what-works category. In the dietary pattern
2 category.

3

4 Anna Maria Siega-Riz:

5 I just want to -- this is Anna Maria -- I want to emphasize, Frank -- I think we're -- to me, I kind
6 of sounded us getting a little bit off topic, because I would want to know that the sleep patterns
7 is influencing the type of foods that are being consumed and/or the number of meals that you
8 can eat, because, to me, that's where the connection is, back to energy balance.

9

10 Barbara Millen:

11 Thank you, everyone. That was a great discussion, and I think I'll turn things over now to Alice

12 H. Lichtenstein.

Work Group 3: Foods, Beverages, and Nutrients and Their Impact on Health Outcomes

1

2 Alice H. Lichtenstein:

3 Okay. Well, I have the honor of reporting on work group three. In a sense, I'm the -- I'm a little
4 bit different than the prior two work group leaders, because the prior two individuals had the
5 benefit of serving on the 2010 Dietary Guidelines committee. I served on the 2000 Dietary
6 Guidelines committee. I can assure you the 2015 are not going to be your grandma's Dietary
7 Guidelines.

8

9 [laughter]

10

11 I think the scope has been expanded tremendously, and I think, actually, that's really a benefit -
12 - tremendous benefit, because not only are sort of the nitty-gritty about the food and
13 beverages addressed, but exactly how you make the changes happen and how that impacts on
14 our environment. So I think it's a really exciting endeavor. The other members of working
15 group three are J. Thomas Brenna, Wayne Campbell, Steve Clinton, and Marian Neuhouser. and
16 I suspect that after I give my presentation, they will supplement it with their perspectives.

17

18 The scope of working group three -- the primary topics areas that had been identified a priori
19 were to address issues related to the types of foods associated with favorable clinical outcomes
20 or chronic disease risk factors, types of beverages -- including alcohol, and you will notice that

1 alcohol has been mentioned by the prior two working groups, so that's really a cross-cutting
2 issue. But types of beverages associated with favorable clinical outcomes and chronic disease
3 risk factors, and then nutrient intakes of public health concern, and that would include both
4 overconsumption or under-consumption. I think traditionally we thought in terms of under-
5 consumption, but there was some discussion in the committee about potential
6 overconsumption.

7

8 Potential other topics that had been identified are gene nutrient and gene food interactions,
9 and I think this is an emerging area and we'll have to determine whether there's adequate
10 database to actually address it. We, as the other groups, started with the 2010 Dietary
11 Guidelines, and for us, because our area was more of the traditional Dietary Guidelines, there
12 were actually quite a few that were identified. And I think the challenge for us was really of
13 reviewing them and then determining which ones for which there was likely not much new data
14 and data to indicate that they should be changed, in which case we would not put a lot of
15 emphasis on them, because, clearly, we know, although there are a tremendous number of
16 resources that are available to the whole committee, there's also going to be high demand for
17 those. And then look at them also in terms of which -- it appears that there's likely that there
18 was additional data between 2010 and now, and then those that are new and emerging areas
19 that perhaps we should consider.

20

1 So, in terms of the diet recommendations that sort of fell under our rubric, there was nutrients
2 to increase -- and that's fruits, vegetables, whole grains, dairy, seafood; the variety of
3 vegetables and protein foods; nutrients of concern: potassium, fiber, calcium, vitamin D --
4 again, just to remind us that this is not related to whether individuals are meeting the ERAs or
5 RDAs, but it's related to nutrients of concern in terms of health outcomes. And then the
6 populations that there had been emphasis on in the 2010 Dietary Guidelines was pregnant and
7 lactating women, and individuals age 50 and over, and there may need to be a little bit of fine-
8 tuning on what we consider to be older adults.

9

10 [laughter]

11

12 And then, in terms of the 2010 recommendations for foods and nutrients to reduce: sodium,
13 which I think we're going to hear a lot of from a lot of different venues; replace saturated fat
14 with unsaturated fat, either poly- or monounsaturated fat, reduce trans fatty acids; refined
15 grains. The current recommendation is if you -- one consumes alcohol, consume it in
16 moderation. But I think that's sort of an expansive topic because of the issues related to
17 potential dilution of nutrient density, changes in behavior, environmental issues related to
18 availability, and then reducing calories from solid fats, which would be primarily partially
19 hydrogenated fat, animal fat, and added sugar. And then water was actually mentioned in
20 chapter five. It may be something that we should readdress or not.

21

1 So this was just a preliminary sorting. And I want to really emphasize, this was preliminary, and
2 it is totally -- everything's open for discussion. But issues that we felt it was unlikely that we
3 needed to readdress were increased fruit and vegetable intake, that recommendation. That
4 recommendation has actually, in one form or another, been in the Dietary Guidelines since
5 1980 and we're still not quite there. Eat a variety of vegetables and for pregnant women to
6 choose high heme-iron foods and foods that promote iron absorption. So that was just a quick
7 cut there.

8

9 What I'm going to spend most of the time talking about -- oh, whoops. There's two more, my
10 apologies: limit intake of refined grains and that dietary fat quality is more important than
11 quantity. So, again, those are the recommendations we felt that didn't, at least initially, appear
12 to need to be readdressed.

13

14 The issues that we felt needed to be readdressed. We actually tried to even sort them because
15 we knew there were a lot. And we understand that, again within the context of limited
16 resources, we may or may not need to prioritize. So this was just, again, sort of a first cut.

17 Issues that we felt really needed to have immediate attention was sodium, and again I think
18 that's not only going to be from the perspective of what's under currently the rubric of working
19 group three, but it's also is going to relate to dietary patterns and it's going to relate to the
20 environment.

21

1 Omega-3 fatty acids, seafood, that is -- certainly will be related to the work of working group
2 one in terms of the risk versus benefit; we're more focused on the benefit. And one of the
3 issues that I think was brought up, which is worth consideration, is the term seafood and if that
4 really communicates fish and all types of fish.

5

6 Fortified foods and beverages, and that's the impact on total consumption, and it's something
7 that we heard a little bit about in terms of what percentage of our nutrients comes from food
8 versus supplements. But now we have that intermediate category of foods and beverages that
9 we consume that are highly fortified, even things like water and sodas are -- you can get
10 fortified, and that there are some foods that are fortified with nutrients that one would
11 normally expect from a different food group. So I think those -- we need to really address some
12 of those issues and look at what's available and what's actually being consumed.

13

14 There was an issue brought up as far as trans-fatty acids, and because the distribution of
15 isomers is different in partially hydrogenated fat and ruminant fat, whether that issue would
16 have an impact on public health recommendations. Issues related to processed meat. There's
17 a lot of work that's emerging. A lot of that has to do with the cured meats and whether that --
18 those should be considered in a separate category. Issues related to dairy products. That
19 continually comes up not only in terms of full-fat versus low-fat and non-fat, but the
20 contribution of dairy products to the diet in terms of some of the nutrients of concern.

21

1 We had a fair amount of discussion about whole foods versus juice and whether there should
2 be more specificity in terms of the recommendations about whether there should be more
3 emphasis on whole fruit or whether that's not necessarily the case, and, if there was so, what
4 the impact would be on overall nutrient intake.

5

6 Issues that we felt were of medium priority -- again, just the -- this is an initial assessment --
7 was the quantity of whole grains because we also felt that was very likely to be covered in
8 working group two in dietary patterns. And I think, as we migrate from working groups to sub-
9 groups, it will be a little bit easier to address some of these issues from a cross-cutting
10 perspective.

11

12 Issues related to the last two: the 10 percent of energy from saturated fat and 300 milligrams of
13 cholesterol, it should be per day. The reason we brought that up is because those are really
14 historical numbers. And the issue is should they remain as historic numbers? Should they be
15 modified? Is there any impact on dietary patterns with those restrictions or should they be
16 stronger depending on the relationship? And there's emerging data in terms of chronic disease
17 risk factors. So that's really why they're there.

18

19 And then we did have a very small category for what we felt were low priority. In terms of
20 alcohol -- within the context of current recommendation -- quantity. Not in terms of the other

1 issues related to dietary patterns or environmental issues. And then glycemic index, which --
2 these were raised because they had been in the prior recommendations.

3

4 There were also issues that were raised in terms of new topics that should be considered. And
5 the first is food nutrients and cognitive functions. There's a tremendous amount of data that is
6 emerging in that area. I think we need to see how definitive it is, but it's something that's very
7 important to focus on.

8

9 One of the other issues that came up was GMO foods and clinical outcomes. And that really
10 seems that working group one is going to be addressing issues related to GMO foods and
11 organic, but it's something that ultimately we should be thinking about, and also think about, in
12 terms of food availability and food affordability and what impact that might have on dietary
13 patterns. And then just the whole general area of nutrient overconsumption in clinical
14 outcomes. Historically, we've always thought in terms of nutrient under-consumption and
15 essential nutrients, but we're in a new world now and we do have ULs. We've had them for
16 about 10 years. But now, again, we have nutrients coming in from nontraditional sources. And
17 for a number of the nutrients, there has -- there is some concern that there -- we may be
18 bumping up against the UL. And there may be some reason for concern for overconsumption.
19 This is something we really need to dig into the literature and see whether these are just
20 concerns or whether they're actual issues.

21

1 Additional new topics for consideration: food supplements and physical activity. Athletic
2 performance was raised as one. And, again, that may be something that's a more cross-cutting
3 issue. Sugar-sweetened beverages. Certainly over the past five years there's been a
4 tremendous amount of new data in terms of its impact on the diet, its impact on the intake of
5 other foods. So that's an issue that should probably be investigated. And then the whole area
6 of gene-nutrient interaction, gene-food interaction, overlaid with epigenetics, which we now
7 know can have an important impact on polygenetic effects. So it's something that we're really
8 going to have to investigate to see how mature that literature is. Certainly the area of
9 personalized nutrition is something that at least is in the public's mind, but we'll have to drill
10 down to see what the literature base is and whether this -- these new topics actually emerge as
11 -- in our report as potential recommendations or whether -- areas for future research.

12

13 We also talked a little bit about more general issues that would span the three work groups.
14 And we decided to record them because sometimes you try to remember them and you don't
15 always do that. And one has to do with the clinical health -- clinical outcomes versus
16 intermediate markers and risk factors and what we're actually going to look for in terms of
17 evidence and what we're going to accept in terms of evidence. And we have some recent
18 examples, one of which is sodium, where if you look at the data in terms of an intermediate
19 marker, blood pressure, you can come to different conclusions than if you look at the data in
20 terms of clinical health outcomes. And part of that is because, in the field of nutrition, we are
21 somewhat limited. We don't have the luxury of having large -- very large clinical trials with

1 drugs, where it's sort of black-and-white. You give the drug, you have intent to treat, you have
2 the resources to look out five years, 10 years, and look at clinical outcomes. There's a whole
3 range of reasons why we have much less data in terms of nutrition, but we're going to have to
4 somehow come to some resolution on that. And it may be that we're looking -- we look for
5 effects on intermediate markers for some of the nutrients or the questions that we come up.
6 For others, it might be clinical outcomes, but I think it's something we -- ultimately it's going to
7 affect all of us, and it's probably better to discuss it earlier rather than later.

8

9 And the other has to do with something that actually came up in our group, and Barry -- Gary
10 alluded to, and that has to do with recommendations to increase intake versus substitution.
11 And if you remember, the chapter was actually labeled, "Foods and Nutrients to Increase." And
12 what we really need to understand is what that means to people, because you can be
13 consuming an extremely high-quality diet, but if you consume it in excess of energy needs
14 you're going to gain weight. And I -- and that may more have to do with how we frame some of
15 our conclusions, but it's something probably all of us, the whole group, needs to think about,
16 and, again, earlier rather than later.

17

18 So that's -- those are my comments. What I'd like to do now is invite the other committee
19 members to supplement that and then hopefully we'll have a group discussion.

20

21 Wayne Campbell:

1 This is Wayne Campbell. That was a really good summary of what we discussed yesterday. One
2 thing that we did have a number of statements and comments and discussion about was just
3 around -- just to reiterate what was said earlier about what are the outcomes in health? What
4 defines health? And in some cases, the health outcomes in the chapters that we reviewed from
5 the 2010 Guidelines really focused on metabolic health and cancer, primarily. But we wanted
6 to just be aware that we were interested to see if there's science enough now to be able to
7 expand into other health outcomes, including cognitive health and mental health, physical
8 health, especially for some at-risk population groups and older individuals with respect to
9 physical health and cognitive health certainly come to mind.

10

11 Marian Neuhouser:

12 Marian Neuhouser. I don't have anything to add. I think it was a great summary.

13

14 J. Thomas Brenna:

15 Tom Brenna. I also thought it was a great summary, and I was going to make a comment about
16 it, at least an outcome that I don't recall having been addressed in previous years, which was
17 the cognitive and effective disorder idea in which there's been a lot of material that's appeared
18 in the last five years, and a lot of interest in this. And I actually think material previous to the
19 last five years has been available and hasn't been considered. I think we want to maybe look
20 above the neck in this period a little bit. And since the -- it may well be -- the brain may well be
21 the most sensitive organ to -- or bunch of organs to nutritional deficits. And there's a lot of

1 thinking around that these days. Another thing is it also is of a great deal of interest, it seems,
2 from a mere watching of the news, to see emphasis on mental health as a serious public health
3 issue.

4

5 Miriam Nelson:

6 Mim Nelson. Thanks. That was great. A couple sort of just comments in support. One is I
7 would hope, given the evidence over the last three years around sugar-sweetened beverages,
8 that that becomes really a high priority. So I would really encourage that because I think the
9 evidence is so strong now.

10

11 Alice H. Lichtenstein:

12 It's not that that wasn't a high priority. That was just a new one, which means we're going to
13 have to go back. But yes.

14

15 Miriam Nelson:

16 Okay. We did it before.

17

18 Alice H. Lichtenstein:

19 We appreciate that.

20

21 Miriam Nelson:

1 We did it before, but it -- I don't think it made it into the policy document.

2

3 Alice H. Lichtenstein:

4 Exactly.

5

6 Miriam Nelson:

7 But it's in the technical report.

8

9 Alice H. Lichtenstein:

10 Okay. So that'll be helpful. We were at looking at what had actually made it into the policy
11 document, but yes.

12

13 Miriam Nelson:

14 Okay. And I would really encourage you to revisit the 10 percent of saturated fat and 300
15 milligrams of cholesterol, what you put up there. I would really -- I think that's very historical,
16 and sometimes there's just these vestiges that are hard to shed. But maybe there's evidence
17 where there'd be time to do that.

18

19 Frank Hu:

20 Yeah, I also support that because no one really know what percentage of saturated fat they
21 have that -- I don't know.

1

2 Miriam Nelson:

3 [laughs]. Yeah, and just two sort of -- one question. Maybe I'll finish -- one comment is a lot of
4 these were very -- elements of food versus food, and I think that the -- making -- Frank, your
5 point -- really making sure that we're thinking about food as opposed to just the elements. And
6 I think that's where the coordination between the two. And finally, just was there any
7 discussion -- and I know this is highly controversial, but it's a huge thing in the news and -- well,
8 with consumers is just the influence of our very high intake of refined wheat. And what people
9 are talking about, and whether it's true or not, but gluten intolerance and celiac disease. And I
10 just wonder, to sort of help to either dispel myths or understand it better, whether -- because
11 it's such a huge issue -- whether that was considered.

12

13 Alice H. Lichtenstein:

14 That didn't come up, but I think that's an area that we should put under new areas because, as
15 you say, it's not only being discussed, but you just see a proliferation of products --

16

17 Miriam Nelson:

18 It's huge. Yeah.

19

20 Alice H. Lichtenstein:

21 -- in those terms.

1

2 Steven Abrams:

3 I was actually going to comment on that, but include not just the gluten-free diet and
4 micronutrients of concern, but also vegetarian diets, vegan diets, rapid weight-loss diets, and
5 some of those show some pretty profound individual nutrient concerns. And obviously you
6 can't cover everything, and this is -- we're not trying -- I'm not so much interested in is a
7 vegetarian diet or the health benefits of a vegetarian diet, but whether the micronutrients of
8 concern and providing some guidance in those circumstances.

9

10 Frank Hu:

11 Our group will look into that.

12

13 Mary Story:

14 Mary Story. Did your group -- you have sugar-sweetened beverages up there, but what about
15 added sugar, which is, you know, an issue that your -- of national attention these days?

16

17 Alice H. Lichtenstein:

18 Yeah, I think probably we should broaden the area to added sugars: foods and beverages. So
19 that's what we'll do.

20

21 Frank Hu:

1 Yeah, I would support that. I think this is a general umbrella of refined carbohydrates, because
2 refined carbohydrates include added sugar and sugar-sweetened beverages, of course, is the
3 major source of added sugar. It is the carbohydrate quality. That's something I think this
4 committee can contribute a lot to. And related to that, it seems that you don't think the
5 glycemic index, glycemic load, is a high priority for this committee.

6

7 Alice H. Lichtenstein:

8 At this point, it was -- the committee felt that it had been addressed in the -- with the prior
9 committee and that there wasn't a lot of new and emerging evidence. But obviously we'll have
10 to test that and do a horizon scan.

11

12 Frank Hu:

13 Right. I would advise to look into that because this is a recurring thing. If we go to every
14 nutrition meeting or even obesity meeting, it's always a pro-and-con, pro-and-con. And of
15 course, there has been new data coming out from clinical trials, from epidemiology studies.
16 And also I know there are some meta-analysis and systematic reviews happening now or being
17 conducted at this point. I think it's worthwhile to visit that because, again, it's a part of this
18 carbohydrate quality issue. I mean, this is a really big issue given what you said, that -- the
19 quality of fat, I think, is more settled, but the quality of carbohydrate is much less settled.

20

1 Another issue, I think that it's great that you put processed meat as one of the high-priority, but
2 I would include both processed meat and red meat together because in many studies they have
3 looked at both red meat and processed meat at the same time in terms of diabetes, heart
4 disease, and cancer. And also this is related to dietary patterns we talk about because many of
5 the dietary patterns, processed meat and the red meat always go together very closely. And
6 it's also related to the environmental issue you discussed in group one, because we know that
7 the climate impact of -- for livestock industry's huge and that will have a major impact not only
8 on public health but also on environment. So I think this is also a cross-counting thing for all of
9 our working groups.

10

11 Rafael Pérez-Escamilla:

12 This is Rafael. I have two questions. The first one is why did your group think you have to
13 revisit seafood? It seems it was in the high-priority. And the second one is --

14

15 Alice H. Lichtenstein:

16 No, just so -- I can only handle one question at a time.

17

18 Rafael Pérez-Escamilla:

19 Sure.

20

21 Alice H. Lichtenstein:

1 I won't remember. The reason for revisiting the seafood is because there's concern in general
2 about contaminants, and one of the issues that came up is there are some pregnant women
3 that are actually concerned about consuming seafood because of that, yet there's the issue
4 related to omega-3 fatty acids. There's a lot of emerging data on the omega-3 fatty acids, so
5 that's why it was felt that that should be re-addressed.

6

7 Rafael Pérez-Escamilla:

8 So I do encourage that committee to look at the seafood work that is presented in the orange
9 report so that they can build upon what --

10

11 Alice H. Lichtenstein:

12 We're talking about from the orange report forward.

13

14 Rafael Pérez-Escamilla:

15 Yeah. And the other question that I have, did your group discuss at all inflammation markers as
16 intermediary outcomes for any of the possible questions? And what were the thoughts about
17 it?

18

19 Alice H. Lichtenstein:

20 At this point, we did not talk about individual risk factors. So, depending on, you know, what
21 the outcome would be, but certainly inflammation, is -- you know, inflammatory markers are

1 very important intermediary risk factors, as are plasma lipids and blood pressure and for
2 hemoglobin A1C and all those kinds of things. So we'll try to be -- one -- I think we'll try to be
3 expansive in those terms. And probably it's something that we're inaudible your group also
4 because of issues related to dietary patterns. You're going to be looking at likely intermediate
5 markers, as well.

6

7 Marian Neuhouser:

8 This is Marian Neuhouser. If I could just take a step back and address the grains issue that
9 came up just a moment ago. We did have quite a lengthy discussion about the policy
10 statement that is at least half of your grain intake should be whole grains. And we came to the
11 conclusion that our charge is not to rewrite the policy, because the policy is someone else's job,
12 but we will revisit the science that will support either that policy statement remaining or a
13 different policy statement coming on. Within that discussion, we did -- Frank discussed the
14 refined grains and refined flour and so forth. So we will cover that.

15

16 Alice H. Lichtenstein:

17 Cheryl.

18

19 Cheryl Anderson:

20 Cheryl Anderson. Similar to the comment that Miriam made for work group two regarding
21 screen time versus sedentary behavior, I think here, in light of what we heard this morning with

1 the SoFAS -- solid fats and added sugars -- may think about looking at added sugars in that
2 context versus lumping them in with sugar-sweetened beverages.

3

4 Alice H. Lichtenstein:

5 So essentially to keep them separate. And one of the issues with -- Marian brought up about
6 our discussion as far as the current recommendation is at least half the grains be whole grains.
7 Looking at some of the data that can be modeled -- that can be generated more recently about
8 what the impact would be and what the impact would be on folate intake if somebody went
9 from, let's say, half of their intake of grains as whole grains to two-thirds or three-quarters.

10

11 Miriam Nelson:

12 We did that modeling at the last one, so we should just -- get that modeling because there was
13 a -- I did the folate stuff. I'm not a folate expert but I had some guidance. But we did really
14 look at the modeling for -- because that was a real concern.

15

16 Mary Story:

17 Mary Story. Did your group consider coming up with a definition of nutrient-dense and calorie-
18 dense and really having examples provided? I think this is one that's so confusing because
19 people use "nutrient-dense" all the time, but --

20

21 Alice H. Lichtenstein:

1 It's something that we hadn't discussed; however, I think it's very reasonable and I personally
2 agree with you that the concepts are quite complex.

3

4 Frank Hu:

5 Yeah, I agree with that. And, also, in terms of substitution, I think that's a really great way to
6 look at the beneficial or harmful effects of food or beverages because, as you said, we don't
7 want to add more calories on the top of our diet. So, along this line, when we talk about
8 beverage substitutions, and people always talk about substituting water for sugary beverages, I
9 don't know whether your group has talked about how to -- whether you're going to look at the
10 evidence for water consumption as a replacement for sugary beverages.

11

12 Alice H. Lichtenstein:

13 Again, it's not something that specifically came up but it's not out of the realm of what should
14 be considered. And what I alluded to was the issue of substitution, as opposed to saying, "Well,
15 add this because it's good for you. Add that because it's good for you." But in some cases, it
16 may actually be, "Don't substitute anything." In the case of fluids, we're going to talk about
17 water. But as far as food, it may be, "Don't substitute anything," because if two-thirds of
18 Americans are overweight and obese there would be an advantage to decreasing. But, you
19 know, we all know that that's not easy and that may get back to the issues related to
20 nutrient density, or particularly energy density, to be able to address some of those issues.

21

1 Rafael Pérez-Escamilla:

2 This is Rafael. In response to Mary's question about energy density, the vast majority of studies
3 do not include beverages as part of that computation of energy density, food-based, and we
4 struggled with that the last time around as to -- it's mostly for statistical reasons that they do it
5 -- that it's done that way. But that would be a good topic to discuss again.

6

7 Anna Maria Siega-Riz:

8 Oh. I -- Anna Maria. Alice, did your group at all talk about probiotics and the contribution of
9 probiotics to different types of health outcomes?

10

11 Alice H. Lichtenstein:

12 We actually assumed that that would come under the rubric of microbiome, the probiotics.

13

14 [laughter]

15

16 Anna Maria Siega-Riz:

17 Oh, that's interesting because I guess, you know, a lot of the dietary patterns haven't necessary
18 included probiotics, and so we were more interested in the dietary patterns and microbiome,
19 but probiotics being specific foods that actually had that in there. So it might be something that
20 might be an overlap between the two.

21

1 Alice H. Lichtenstein:

2 Yes. Yeah. Okay, so you're talking about the specific foods that are contributing the probiotics?

3

4 Anna Maria Siega-Riz:

5 Yes.

6

7 Alice H. Lichtenstein:

8 You know, and then, as -- I think we always have to remember that they're working groups
9 now, we're ultimately going to be sub-groups, and by bringing up all these issues now and
10 recognizing how cross-cutting they are, hopefully as we sort of reconstitute into sub-
11 committees we'll be able to address some of these issues in a really broad but multilayered
12 perspective.

13

14 Frank Hu:

15 So, Alice, a quick question regarding trans-fat. So you want to revisit trans-fat. Are you going
16 to specifically focus on dairy fat, which contains some trans-fat but different isomers?

17

18 Alice H. Lichtenstein:

19 The issue was brought up that perhaps that should be addressed in terms of ruminant fat,
20 which would include the dairy fat and meat fat and the partially hydrogenated fat.

21

1 Frank Hu:

2 So does this also include partially hydrogenated vegetable oils?

3

4 Alice H. Lichtenstein:

5 Yes. It would be partially hydrogenated vegetable oils. That's what I meant by partially
6 hydrogenated fat.

7

8 Frank Hu:

9 Right. But, I mean, in the past several years, the consumption of partially hydrogenated
10 vegetable oils or trans-fat has decreased by 80 percent because of all those regulations and
11 policies. So I don't know why --

12

13 Alice H. Lichtenstein:

14 I'll defer to the member on the committee -- the working group that felt strongly about that.

15

16 J. Thomas Brenna:

17 The thought is that the differential between the two has not been demarcated as satisfactorily
18 as at least I feel it should be, and the question of dairy fat and specifically as to whether we
19 ought to be lowering dairy fat as a result of trans in dairy fat is a -- is still an open question. And
20 that's a controversial question.

21

1 Frank Hu:

2 So your point is to look at distinction between the trans-isomers between partially
3 hydrogenated vegetable oils and dairy fat?

4

5 J. Thomas Brenna:

6 Well, that -- yeah, I mean, personally I think the trans distributions may not completely control
7 this issue, but certainly between the industrially-produced and the ruminant-produced is the
8 distinction that I would draw attention to.

9

10 Miriam Nelson:

11 This is Mim. Is that going to actually have a -- is it going affect, like, a food-based policy change
12 that we don't have right now? I'm just asking because it has reduced so much and I'm just
13 wondering if there is actually any -- one of our charges is to really look if things will likely
14 change because of it.

15

16 J. Thomas Brenna:

17 The question is do we -- as we've now reduced industrially-produced trans, do you continue to
18 reduce dairy trans? And --

19

20 Frank Hu:

1 I guess that's part of the dairy question, because we have a separate question on dairy, right?

2 So the dairy question, I guess -- yeah, is a good one. Not only dairy fat, but the type of dairy
3 and full-fat dairy, but it's low-fat dairy, and...

4

5 J. Thomas Brenna:

6 Tom Brenna again. Exactly, so full-fat versus-- or any fat, , cheese and so forth, versus non-fat
7 dairy, and that seems to me to be an open question.

8

9 Alice H. Lichtenstein:

10 And then also you can't separate it from the saturated fat because one of the major sources of
11 saturated fat in the U.S. diet is dairy fat.

12

13 Miriam Nelson:

14 But I guess I would encourage to -- I think it's a really interesting scientific question, very -- but I
15 would really encourage us to look at it from a food base versus the individual pieces there
16 because it's been sort of -- I don't know whether it's going to really affect policy, except if you
17 look at the food-based piece. But that's just my bias, so...

18

19 Wayne Campbell:

20 Yeah. Wayne Campbell. I just wanted to mention that our group really -- in many cases, we're
21 very closely looking at what the charge and the sort of -- of working group two was, because

1 with respect to food patterning, that -- and we're looking at foods, beverages, nutrients, and
2 health. There were a lot of questions about, well, who -- which group would, you know, sort of
3 carry the mantle for that one. And so I just wanted to reemphasize that when we were talking
4 about carbohydrates or proteins or fats or alcohol or whatever, and increasing or decreasing,
5 we were always mindful of what was going -- or potentially how we would interact with the
6 other group.

7

8 The second point is that we did have a number of discussions -- or included in our discussions
9 the awareness of age groups. And you mentioned, Mary, the -- earlier about sort of priority
10 areas or high-risk areas or high-risk groups, and we were mindful of this. And when you started
11 the earlier discussion about nutrient density really becomes important when you're talking
12 about groups that are either at risk for over-weight, which is the young adult, and middle -- and
13 leading into middle age, but also the elderly and they're -- and they have maybe only two-thirds
14 of their energy needs that they had when they were younger, and the resulting changes that
15 might occur that could promote metabolic or physical or body composition abnormalities.

16

17 Alice H. Lichtenstein:

18 And Cheryl.

19

20 Cheryl Anderson:

1 Cheryl Anderson. This question is about potassium and whether or not it came up in the work
2 group, particularly in light of sodium being such a high priority and the interaction between
3 those two electrolytes.

4

5 Alice H. Lichtenstein:

6 It didn't come up specifically because obviously we had a lot of topics in a short period of time.
7 However, I think it's very difficult to talk about sodium without also talking about potassium, so
8 that will ultimately be included.

9

10 Gary Foster:

11 I just have a point of clarity just for the -- and this -- Mim's comments made me think about this
12 natural tension maybe between nutrients and foods. So, clearly there are nutrients of concern,
13 but if there's a long list of nutrients of concern how does that ultimately get -- is our task to
14 translate that to food-based recommendations? Are the recommendations going to come out
15 to be "eat less of this, more of that" from a nutrient perspective? Because that's one type of
16 end point that we could strive for, or what I'm also hearing is a lot of direction to make these
17 food-based. And it's not so clear in my mind about what the ultimate end point is.

18

19 Miriam Nelson:

20 You know, the only thing I would say -- I look to Rafael -- but one of the things -- because there
21 are a number of shortfall nutrients, and I think it's really important, but one of the things we

1 did the last time that I thought was helpful is we actually looked at what's the public health
2 concern about this nutrient shortfall? And if there really wasn't a public health concern, we
3 then -- we didn't deal with it. We felt if it was a shortfall nutrient with a high public health
4 concern, then we dealt with it.

5

6 Gary Foster:

7 This is Gary again. Sorry. I guess my question is -- so what does "deal with it" mean? Does it
8 mean to deal with the nutrient directly in terms of recommendations? Or do you take that
9 nutrient, review all the literature, systematic review, and then translate that or make
10 recommendations about foods that are high or low in that nutrient of concern?

11

12 Miriam Nelson:

13 This is Miriam. What we did -- I mean, it's just -- was a way -- was we did an out -- for most of
14 these, we would do an out for the ones we were concerned about. I think it was D, folate with
15 pregnant women --

16

17 Alice H. Lichtenstein:

18 Calcium.

19

20 Miriam Nelson:

21 -- calcium --

1

2 Alice H. Lichtenstein:

3 And fiber.

4

5 Miriam Nelson:

6 But we did an NEL search, but then we also did modeling to understand the food patterns that
7 we were recommending -- was that pattern of food going to be helping with that nutrient of
8 concern?

9

10 Alice H. Lichtenstein:

11 I can give you some examples. I think calcium -- without dairy, it's difficult to get adequate
12 calcium. With something like sodium, the situation is very different because that's more of an
13 environmental factor because such a low percent is actually added, about 9 percent during
14 cooking. So I think we would have to look at each of the nutrients individually and then see
15 how they translate into food- and beverage-based guidelines or environmental guidelines or
16 dietary pattern guidelines.

17

18 Marian Neuhouser:

19 Marian Neuhouser. And along those lines, Alanna was in our session, and we did reiterate a
20 number of times that we'd be asking her and her team to provide us, you know, distributions
21 on this or that nutrient or distributions on this or that food or food group, you know, from

1 recent NHANES data. So we do intend to look to see what nutrients are of concern, if they can
2 be mapped to certain, you know, foods, either over or under nutrition.

3

4 Alice H. Lichtenstein:

5 We also have to be mindful that there may have been some shifts since the 2010 data were
6 provided in food patterns and nutrient intake patterns. So we will have to revisit everything,
7 but it'll be helpful to see what the 2010 committee did.

8

9 Barbara Millen:

10 Are there any other comments?

11

12 Alice H. Lichtenstein:

13 Well, I would like to just say, you know, I appreciate the staff support we've had to date and I
14 know we're going to get a lot of staff support in the future, and I really appreciate that and
15 looking forward to working with not only the committee members, but also all the staff.

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Barbara Millen:

Well, thank you, everybody. I know that Rick has some closing comments that he'd like to make, but I just wanted to reiterate a number of things about the next steps, but -- since I think it's really important to do so.

I know that all of the groups have -- and it should be obvious to everyone in the audience and from the federal staff who are here today, that these groups, I think in a large part because of the tremendous guidance that we've had from the -- our federal backup and support, have been able to really hit the ground running at these meetings. And I think that there was tremendous productivity in all of the groups and you've just made great strides in drilling down into these thematic areas and coming up with a good, you know, initial, maybe not-so-short list of topics at this point in time.

[laughter]

I would -- I assume that in the recordkeeping on the meeting that the topics that have been raised in the discussion will be shared back with the committee so their lists are complete, because there a number of new ideas that came out that I think are going to be important for the committees to take consideration of.

1 And then remembering the tasks ahead. I think you've already begun to explore what the
2 current 2010 report, what aspects of those -- that -- those reports -- that report does not need
3 to be examined in much greater detail. But it's also important, you know, to identify where we
4 can identify topics that really have the greatest impact on new policy, and particularly food-
5 related policy, just tying it in to the last aspect to our discussion. So that's really an important
6 reminder that I wanted to make now in closing, and that we're also going to be formulating and
7 prioritizing questions. And, again, the notion of -- in considering that task, where can we have
8 the greatest likelihood of impact on public policy going forward.

9

10 So, maybe at this point I'll pass it back to Rick before I make final final comments.

11

12 Richard Olson:

13 Well, why don't you go ahead?

14

15 Barbara Millen:

16 I was just going to adjourn the meeting.

17

18 Richard Olson:

19 Yeah, I basically was just going to close out, too. And I wanted to particularly thank the
20 committee members for joining, and I think it's going to be an exciting time. I mentioned to
21 Don, during one of the breaks, it was really fun today and yesterday afternoon to get into

1 content now and get through some of the bureaucratic or the process-type things and really get
2 rolling. So, really, thank you very much, all of y'all, for starting, and obviously we've got a lot of
3 work to do over the next 18 to 20 months. I want to thank the public for their participation,
4 too, those on the webcast, and we'll get information from today's meeting on the website
5 quickly. We'll get the transcripts out and minutes and links to the webcast and all, as well. I
6 want to thank the presenters from today. It was really very stimulating and helped, I think,
7 provide some context into where we're going and how we're going to get there. So, turn it
8 back over to you. Thanks.

9

10 Barbara Millen:

11 Okay. So, in closing, I want to again thank everyone who has agreed to participate on this
12 committee and to volunteer your very complete and overbooked time to take on this incredibly
13 important task and to share that with Alice and I in the couple of -- not-quite-couple of years
14 ahead. And I want to thank, also, all of the staff and those who presented such amazing reports
15 on the existing resources and research underway that will certainly complement our efforts.
16 And also I wanted to say that I really think we have hit a very wonderful tone in this group, that
17 everything that I think I've observed has been so collaborative, you know, between
18 investigators who obviously bring very different points of view and disciplines to the meeting,
19 and, you know, there's always the risk that, you know, things can go different directions, and
20 I'm really pleased with the very positive and collegial tone within the committee and then
21 across, you know, the different parts of government and, you know, those who are

1 collaborating with us. And I want to thank particularly Rick and Kellie for all you've done, and
2 the backup teams to all of our groups, because we couldn't have had the really extraordinary
3 discussion this afternoon were it not for all of you. So, I think that we know that there are great
4 things ahead. There's a lot of work to do. We all recognize that. I'm amazed that, as far as I
5 know, every group already knows what its schedule of meetings are between now and at least
6 the end of August, if not up until our second meeting, which -- didn't even take a doodle poll,
7 which is --

8

9 [laughter]

10

11 -- you know, pretty amazing. I don't know if anyone else on the committee has any further
12 comments or if our work group leaders do. Then I want to bid you all safe travel home, and
13 adjourn the meeting.

14

15 [applause]

16

17 [end of transcript]

18

19

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21