

UNITED STATES DEPARTMENT OF AGRICULTURE

IN RE:)
)
DIETARY GUIDELINES)
ADVISORY COMMITTEE MEETING)

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1 P R O C E E D I N G S

2 CHAIRMAN GARZA: Good morning. I am Bert Garza.
3 I have the privilege of chairing this group, and I want to
4 take the opportunity to thank each of you for coming this
5 morning. We have a full three days ahead of us and
6 certainly appreciate the interest that your presence
7 represents.

8 I want to also publicly thank the committee
9 members who have been hard at work in getting ready for this
10 meeting. There have been several comments about this being
11 one of the hardest working committees in the history of the
12 dietary guidelines, so that is a real testament to each of
13 you because in fact certainly the other previous committees
14 have worked very diligently as well.

15 Before moving on to hearing from those of you that
16 have registered to testify this morning, and that is somehow
17 too stringent a term; at least to comment and share your
18 views with us, I think it is important for me to review with
19 you the rules and procedures we are going to be following.

20 There is an electronic timer that you have by the
21 microphone. The green light will go on as you speak. The
22 yellow light will come on two and a half minutes into your
23 presentation, and then at the red light there will be a
24 gong, and then the floor will open from underneath.

25 (Laughter.)

26 CHAIRMAN GARZA: So I would advise that you step
27 off that platform quickly. The consequences, I am told, are
28 not pleasant. Shanthy has provided for the opening platform.

29 Through all of this, we have as a committee five

1 broad objectives in mind for the next three days. The first
2 is to hear from you and to have an opportunity to evaluate
3 the information that will be presented from your oral and/or
4 written presentations.

5 We also will be hearing from a number of invited
6 guests today and tomorrow, and so the committee will be
7 looking very carefully at the information that they bring
8 us.

9 It also gives us an opportunity to update for each
10 of the working groups that have been involved with various
11 of the guidelines, since our last meeting, an opportunity to
12 update the entire committee on the review of their work. It
13 gives us an opportunity to assure the committee the
14 opportunity to review various options that are under
15 consideration that are based on information that has been
16 reviewed by each of the working groups to date.

17 Thus, I want to stress that we are still in the
18 information gathering stage of our deliberations. We still
19 have at least two more meetings, possibly even three, but I
20 do not think that three will be necessary. Nonetheless, we
21 have at least two more before we reach any final
22 recommendations.

23 Lastly, we would like by the end of the three days
24 to reach a consensus regarding the format of our report to
25 the Secretary and to begin the development of outlines that
26 address each of the report's sections.

27 All of this process and achieving these aims and
28 in the presentations we are about to hear, I would like to
29 ask each of you to concentrate or focus your attention

1 primarily on information that has been obtained since 1995.

2 To the extent that we need additional information
3 from previous studies to help interpret that context, that
4 is great, but our primary goal is to evaluate information
5 that has come up since 1995, not necessarily to second-guess
6 the scientific judgements that have gone before us.

7 Certainly if there is data that would cause us to
8 relook at some of those judgements we ought to, but our
9 principal focus should be assessing data that has been
10 developed since the last guidelines were formulated.

11 With that very brief introduction, I would like to
12 ask any of the committee members if they would like to add
13 anything before we turn to the first organization that will
14 be presenting?

15 If not, then let's begin. Again just to refresh
16 everybody's mind in case the horror of it caused you to
17 forget, you have three minutes. The orange light comes out
18 at two and a half, and then the red light comes on at three.

19 Our first presenter is Ms. Kathryn Carroll. I
20 would ask that you please state your name clearly, the
21 organization that you are representing, because those
22 individuals that are transcribing need to make that part of
23 the record.

24 MS. CARROLL: Sure. Can you hear me? I am Kathy
25 Carroll with the American Dietetic Association.

26 The American Dietetic Association commends USDA,
27 HHS and the Dietary Guidelines Advisory Committee for their
28 work on the Year 2000 Dietary Guidelines for Americans. We
29 recognize the difficulty of adhering to the science while

1 providing understandable and applicable messages in an
2 increasingly complex and confusing environment.

3 We urge the committee to continue to base the
4 guidelines on sound scientific evidence. We stand ready to
5 assist in translating that science from the textbook to the
6 table. Our written comments provide additional detail to
7 augment these verbal ones.

8 ADA feels strongly that variety should remain the
9 cornerstone of the guidelines. Because a variety of foods
10 are needed for health, it is vital that the total diet be
11 emphasized. We urge the committee to state that all the
12 guidelines are important. One does not take precedence.

13 The guidelines should reinforce the importance of
14 grain, vegetable and fruit consumption, but not to the
15 exclusion of other nutrients and foods, such as non-fat and
16 low-fat foods within the dairy and meat/meat alternative
17 groups.

18 ADA feels strongly that optimal nutrition and
19 physical activity can promote health and reduce chronic
20 disease. Physical activity goes hand in hand with sound
21 nutrition, and the guidelines should continue to reflect
22 this interrelationship.

23 Advice on serving sizes should be strengthened and
24 reinforced throughout. The guidelines should encourage
25 achievement and maintenance of a healthy weight through
26 expanded information on serving sizes and portion control in
27 a variety of settings, including restaurants.

28 ADA feels strongly that eating well is more than
29 nutrient selection. The importance of pleasure and

1 emotional satisfaction should be acknowledged throughout as
2 well.

3 ADA concurs with the 1995 guideline on alcohol,
4 which includes a balance of positive and negative effects of
5 drinking. We urge the committee to explore the risks and
6 benefits of moderate alcohol consumption among those at
7 higher risk for certain diseases.

8 ADA supports the language in the 1995 guidelines
9 on supplements and recognizes some subpopulations may
10 require supplementation to meet certain nutrient needs.
11 Research continues to show that most Americans can lead
12 healthy lives by eating a variety of foods and being
13 physically active.

14 In addition, the current legislative and
15 regulatory environment governing dietary supplements lacks
16 sufficient controls. A separate guideline, regardless of
17 the message, could prove very confusing to consumers and
18 potentially unsafe if misunderstood and misapplied.

19 Given the scope of consumer concern about food
20 safety, ADA urges the committee to consider adding food
21 safety messages in an informative, but not alarming, way.
22 In light of the need to keep the number of guidelines
23 manageable, we do not support a separate food safety
24 guideline, however.

25 ADA is ready to assist in developing
26 scientifically based and consumer focused guidelines. We
27 look forward to working with government agencies and other
28 organizations such as the Dietary Guidelines Alliance
29 inputting the dietary guidelines into practice.

1 CHAIRMAN GARZA: Thank you.

2 Ms. Margo Wootan?

3 MS. LEIBMAN: I am Bonnie Leibman from Center for
4 Science in the Public Interest.

5 The sugar guideline needs more strengthening than
6 any other because the advice is weak, and intakes of sugar,
7 added sugars, are going through the roof. Added sugars now
8 comprise 16 percent of the average American's calories and
9 20 percent of the average teenager's calories.

10 The guideline should make a clear distinction
11 between foods rich in added sugars versus fruits and low-fat
12 dairy products which are rich in naturally occurring sugars,
13 but are associated with a lower risk of disease.

14 In contrast, foods rich in added sugars displace
15 healthy foods as illustrated by the steep rise in soft drink
16 consumption and steady fall in milk consumption. Analyses
17 of USDA's 1987-88 data indicate that adults age 25 to 50 who
18 consume the most added sugars are less likely to get the RDA
19 for iron, zinc, calcium, vitamins E, B6, B12, thiamine,
20 riboflavin and niacin than those who consumer lower,
21 moderate amounts of added sugars.

22 The high sugar consumers would probably also have
23 fared worse for folate, Vitamin A and Vitamin C if that
24 analysis had not lumped fruit sugars in with added sugars
25 and if the analysis had used current sugar intakes, which
26 are higher than they were in the 1980s.

27 Foods rich in added sugars also contribute to the
28 nation's epidemic of obesity because they are typically
29 calorie dense. Furthermore, recent studies suggest that

1 people may not compensate for the calories in liquid foods
2 like soft drinks as well as for the calories in solid foods.

3 An analysis of NHANES III found that overweight
4 boys and girls consume a greater percentage of their
5 calories from soft drinks than normal weight children. For
6 years, the sugar industry has argued that high sugar
7 consumers are skinnier, but that relationship is probably
8 confounded by age.

9 Foods rich in added sugars also contribute to
10 heart disease because they raise triglycerides more than
11 other carbohydrates, at least in the growing fraction of the
12 population that is insulin resistant.

13 The guidelines should tell the public how much
14 added sugar is moderate. Like the food guide pyramid, it
15 should urge people to "limit added sugars to six teaspoons a
16 day if you eat about 1,600 calories, 12 teaspoons at 2,200
17 calories, or 18 teaspoons at 2,800 calories."

18 The sodium guidelines should elaborate on the
19 evidence that salt raises blood pressure, especially the
20 evidence from clinical trials. The guidelines should also
21 point out that one out of two Americans age 60 or older has
22 high blood pressure, and millions more have higher than
23 optimal blood pressure, which raises the risk of heart
24 disease and stroke.

25 The guidelines should also urge people to look for
26 foods labeled healthy, like Healthy Choice and Campbell's
27 Healthy Request soups. FDA allows healthy foods to contain
28 no more than 480 milligrams per serving. That regulation
29 has single-handedly given consumers an alternative to high

1 salt soups, processed meats, frozen dinner and other foods.
2 The success of these brands show that if it has to, the food
3 industry can cut sodium levels and maintain taste.

4 We suggest changing the title of the fat guideline
5 to choose a diet low in fats, especially saturated fat,
6 transfat and cholesterol. The text should explain which
7 foods contain transfat and also explain that ground beef is
8 a major source of saturated fat in the average American's
9 diet, and ground beef labeled 80 percent or 85 percent lean
10 is still high in saturated fat.

11 Finally, the guidelines should address the
12 extremely high levels of salt, sugar and sodium in
13 restaurant foods. The tips in each guideline --

14 CHAIRMAN GARZA: I am afraid I have to interrupt.

15 MS. LEIBMAN: Okay. Well, anyway.

16 CHAIRMAN GARZA: Sorry.

17 MS. LEIBMAN: That last sentence you can read.

18 Thank you.

19 CHAIRMAN GARZA: That is much kinder than the
20 platform opening beneath your feet.

21 MS. LEIBMAN: Okay. Thanks.

22 CHAIRMAN GARZA: Council for Responsible
23 Nutrition?

24 MS. DICKINSON: This is a contest to see who can
25 talk the fastest.

26 I am Annette Dickinson with the Council for
27 Responsible Nutrition. CRN is a trade association of
28 dietary supplement manufacturers whose members manufacture a
29 large fraction of the dietary supplement products available

1 to you in supermarkets, drugstores, discount department
2 stores, health food stores, direct sales and mail order.

3 In 1998, we submitted extensive comments urging
4 the Dietary Guidelines Committee to recognize nutritional
5 supplements as an important tool in assuring desirable
6 intakes of key nutrients. We provided copies of our
7 publication, Optimal Nutrition for Good Health, Benefits of
8 Nutritional Supplements.

9 Today we want to remind the committee of the
10 importance of fairly recognizing the contribution of
11 supplements and draw your attention to two new developments
12 in this area. One is the formation of a national campaign
13 on folic acid. The other is the recent development of a new
14 food guide pyramid for seniors which features a pennant on
15 top to flag the importance of supplementation of some
16 specific nutrients.

17 The National Campaign on Folic Acid, under the
18 leadership of the March of Dimes and the CDC, is launching a
19 major campaign to make all women of childbearing age aware
20 of the importance of folic acid in preventing neural tube
21 birth defects. But, as we all know, awareness is only one
22 part of the puzzle. The key is to change behavior.

23 Another goal of the National Campaign on Folic
24 Acid is to create an environment in which taking a
25 multivitamin with folic acid everyday becomes the community
26 norm, along with improving dietary folate intake and using
27 foods fortified with folic acid.

28 We have provided copies of the draft advertising
29 copy and the brochure being developed by the National

1 Campaign on Folic Acid, and we urge you to include language
2 in the guidelines which are consistent with these messages.

3 The second development we wish to highlight
4 briefly is the publication this month in the Journal of
5 Nutrition of a new food guide pyramid for seniors developed
6 by researchers at Tufts.

7 The guide is a departure from other pyramids in
8 that it sits on a base of water, eight glasses a day
9 recommended for everyone, but especially seniors, emphasizes
10 whole grains over refined grains, focuses on richly colored
11 vegetables rather than pale vegetables, and is topped by a
12 pennant flagging the importance of several nutritional
13 supplements for seniors, specifically calcium, Vitamin D and
14 Vitamin B12.

15 We urge this committee to consider these advances
16 as you think about dietary guidelines for the year 2000. As
17 emphasized by both of these developments, nutritional
18 supplements are achieving a level of acceptance which should
19 make it easier for this Dietary Guidelines Committee to move
20 forward with language in the year 2000 revision which
21 specifically acknowledges supplements as an important source
22 of nutrients which are difficult to obtain from diet alone.

23 Thank you.

24 CHAIRMAN GARZA: Thank you.

25 The Dietary Guidelines Alliance?

26 MS. SOWA: Good morning. I am Jeanne Sowa, Group
27 Director of Consumer and Marketing Services for the American
28 Dietetic Association, but today I am here on behalf of the
29 Dietary Guidelines Alliance to provide a consumer

1 communications perspective to your deliberations.

2 Four years ago, 17 organizations from the food
3 industry, the health community and the Federal Government
4 joined forces to promote the Dietary Guidelines for
5 Americans. The result is the Dietary Guidelines Alliance, a
6 public/private partnership with the mission of supporting
7 the guidelines by helping consumers incorporate them and
8 making them actionable in their everyday lives.

9 We applaud the Advisory Committee's dedication to
10 continue to base the guidelines on sound science and
11 consensus. Many in this room agree that consumers are still
12 confused about how to use the guidelines. Repeatedly we
13 hear appeals to communicate the guidelines in meaningful and
14 motivating ways.

15 Our experience working with the 1995 guidelines
16 and conducting consumer research show that consumers need
17 nutrition messages that are simple and practical. There is
18 a large gap between what consumers say and what they do
19 about eating and physical activity.

20 Consumers want more healthful lifestyles, but real
21 or perceived obstacles of time, confusion, fear of giving up
22 foods get in their way. We've also learned that consumers
23 do not want to hear nutrition speak. They want empowering,
24 useful messages and tips that resonate with their core
25 values.

26 Based on this research, the Alliance launched a
27 broad scale campaign for consumers called It's All About
28 You. The campaign was designed for consumers by consumers,
29 and they shaped the core messages, these being -- be

1 realistic, be adventurous, be flexible, be sensible and be
2 active. These messages are designed to motivate positive
3 change.

4 For the past two years, the American Dietetic
5 Association has made these messages the cornerstone of our
6 National Nutrition Month campaigns, and soon we will see the
7 messages and the food guide pyramid on the \$2 food stamp
8 coupon book. We are completely a nutrition education tool
9 kit that includes a unique owner's manual for the body.
10 Again, consumer research is shaping and evaluating the kit.

11 I wish to leave you with these thoughts as you
12 review the Dietary Guidelines for Americans. First, the
13 Alliance pledges to continue its support of the dietary
14 guidelines, and, secondly, we urge the Advisory Committee
15 and all of us in the nutrition and health communities to
16 listen to what consumers are telling us. They say give us
17 positive, simple and consistent dietary messages that we can
18 understand and use throughout our lives.

19 Thank you for your interest.

20 CHAIRMAN GARZA: Thank you.

21 Geiger & Associates?

22 MS. GEIGER: Good morning. It is a pleasure to be
23 here. I am Constance Geiger, president of Geiger &
24 Associates, a food labeling, health communications and
25 government affairs consulting firm, and assistant research
26 professor, Division of Foods and Nutrition, University of
27 Utah.

28 I appreciate the opportunity to be here today to
29 share the results of the Dietary Guidelines for Americans

1 focus group study, which was funded by the International
2 Life Sciences Institute's Human Nutrition Institute and upon
3 which comments and advice was given to me by both USDA and
4 the Department of Health and Human Services.

5 This research was a follow-up to the questions
6 from the 1995 dietary guidelines, which I was asked to
7 address at that time. One, what would be the effect of a
8 two-tiered information approach on consumer attitudes and
9 comprehension, and, two, how would consumers react to fewer
10 dietary guidelines?

11 There was concern about consumer perception at
12 that time. Therefore, this research examined consumers'
13 reactions to and understanding of the bulleted headlines of
14 the dietary guidelines as a whole and then each individual
15 guideline. And then we also looked at consumers' reactions
16 to potential changes in the guidelines and alternative
17 wording for some of those, and, thirdly, consumers'
18 reactions to three different formats for the dietary
19 guidelines. The committee has a full copy of the report,
20 which is being prepared for publication.

21 In terms of some of the selected results,
22 consumers are confused by several of the guidelines'
23 messages. First, the message to maintain or improve your
24 weight does not make sense to them.

25 Second, to some focus group respondents the term
26 balance with respect to high-fat foods conveys permission to
27 balance high-fat foods with other high-fat foods instead of
28 balancing -- that was quite of interest to us. Instead of
29 balancing low-fat foods with high-fat foods.

1 Consumers are also frustrated because they think
2 dietary advice should be restrictive, but they do not
3 believe the advice is realistic or achievable, and they do
4 not appear to understand how to apply the dietary guidelines
5 to an eating pattern. Respondents are also receptive to
6 changes in the guidelines as long as they are supported by
7 research, so you can make changes.

8 The respondents reacted to three different formats
9 for the guidelines based on the deliberations of the
10 previous Dietary Guidelines Committee. Again, I was asked
11 to address those in 1996.

12 Most respondents do not care for the current
13 format; that is the list of the seven statements -- you have
14 those formats in the handout I just passed around -- because
15 it provides too much information. It cannot be read quickly
16 and does not hold their interest.

17 The two-tiered format is considered easier to
18 read. People like the grouping by importance. The final
19 format is the most preferred. Short, and easy to follow are
20 most important. It contains the most important information.
21 Almost all of the guidelines could be better communicated to
22 the public, and the format of the guidelines could be
23 changed to make them more useful to consumers.

24 Thank you for considering our comments today.

25 CHAIRMAN GARZA: Thank you.

26 International Food Information Council?

27 MS. BORRA: Good morning. I am Susan Borra from
28 International Food Information Council. We are a nonprofit
29 organization based here in Washington, and our mission is to

1 communicate science-based food safety and nutrition
2 information. Our programs are supported by the broad based
3 food and beverage industry.

4 We do support the Dietary Guidelines for
5 Americans, but when we look at government data, that data
6 shows us that only one percent of Americans are eating
7 according to food guide pyramid recommendations. Therefore,
8 that tells us that we all must work together to make the
9 science-based recommendations much more useable for
10 consumers so that they can improve their diets and
11 ultimately their health.

12 At IFIC, we conduct both quantitative and
13 qualitative research, consumer research, in order to assist
14 in understanding their concerns and behaviors regarding food
15 nutrition and food safety. Last August, IFIC conducted
16 consumer focus groups with adult women about dietary
17 guidance messages. We were especially interested in their
18 perceptions about dietary fats. We discovered the
19 following.

20 While we knew consumers would tell us if they were
21 confused, which they did, we were amazed at the extreme
22 guilt, worry and fear evoked about their diets and those of
23 their families. Guilt about eating habits results from
24 feelings that they are not doing what is expected of them or
25 what is right. Worry and fear emerge from thinking about
26 the effects of not eating a healthy diet. Other feelings
27 include helplessness, anger, deprivation and frustration.
28 That is what they told us.

29 Next we shared the dietary guidelines' message,

1 choose a diet low in fat, saturated fat and cholesterol.
2 Consumers interpreted this message as no fat, no taste, no
3 enjoyment and not attainable. Most felt this meant a diet
4 with as little fat as possible, which was an unrealistic
5 prospect for them.

6 Now, by simply substituting the word moderate, as
7 in choose a diet moderate in fat, saturated fat and
8 cholesterol, this promoted common sense and responsible
9 choice. These consumers believed that a moderate-fat diet
10 was motivational and doable, while a low-fat diet was not
11 achievable.

12 By encouraging a moderate rather than a low-fat
13 diet, we may be more effective in building consumer
14 confidence that they can indeed achieve a healthful diet.
15 Moderation works with consumers.

16 Similarly, consumer research on sugars found that
17 adults believe that a healthy diet can include sugar-
18 containing foods in moderation, a concept that reflects
19 current dietary advice.

20 Looking toward the future, consumers want
21 information about how foods can promote optimal health. The
22 committee really has an opportunity to help Americans
23 understand functional foods, foods that promote health
24 benefits beyond basic nutrition. This will provide
25 consumers with additional choices to meet dietary goals.

26 The committee is also considering including food
27 safety in the guidelines. Our research shows that consumers
28 want diet and health messages that incorporate safe food
29 handling. With escalating interest in food safety

1 fundamentals, along with nutrition, the committee can
2 provide leadership to empower consumers to handle food
3 properly via the guidelines and other nutrition education
4 vehicles.

5 I thank you for the opportunity this morning.

6 CHAIRMAN GARZA: Thank you.

7 Klugman?

8 (No response.)

9 CHAIRMAN GARZA: National Food Processors
10 Association?

11 MS. APPLEBAUM: Good morning. I am Rhona
12 Applebaum with the National Food Processors Association.
13 NFPA is the principal scientific and technical trade
14 association representing the food-processing industry.

15 As a scientific trade association, NFPA strongly
16 supports the need for scientifically based dietary
17 guidelines designed to promote the health and well-being of
18 Americans. The dietary guidelines must be based on the best
19 current science, and I underscore current science. If not,
20 they run the risk of being nothing more than folktales.

21 These guidelines are too important to the health
22 of our nation to be based on anything less than the best
23 current science available, and we applaud the Chair in his
24 direction to the committee to focus on information 1995 and
25 on.

26 In addition to the guidelines being science-based,
27 NFPA considers it essential that the guidelines be easily
28 understood, easily managed and motivational. Until
29 consumers understand the advice, are convinced of the

1 benefits the guidelines can deliver and incorporate them
2 into their daily lives, the guidelines will continue to be
3 ineffective. Consequently, it is imperative the guidelines
4 trigger action by consumers.

5 The question before us is how can the guidelines
6 evolve from mere recommendations to motivational tools?
7 NFPA recommends strongly that the committee request the
8 government agencies to review the literature for any
9 research that enumerates criteria needed to produce
10 behavioral change in consumers.

11 This information, if it exists, should be combined
12 with findings from the work of the Dietary Guidelines
13 Alliance, as well as others, in order to prompt behavioral
14 changes in consumers. In the absence of such research, we
15 strongly urge it be undertaken as soon as possible.

16 In addition, the guidelines in their current form
17 do not adequately provide Americans with a priority listing
18 of targeted recommendations to serve as a foundation for a
19 healthful diet and lifestyle. The laundry list of
20 recommendations is simply too unwieldy, too difficult for
21 consumers to manage as part of their busy and hectic lives.

22 To facilitate acceptance and internalization of
23 these recommendations by consumers, NFPA urges the committee
24 to employ a two-tiered approach to presenting the dietary
25 guidelines. The first tier, the foundation, would include
26 those guidelines judged most important. The second tier
27 will include those less critical.

28 In our view, the first tier would consist of three
29 guidelines, those being -- eat a variety of foods, engage in

1 physical activity to maintain or improve weight, and choose
2 a diet with plenty of grain products, fruits and vegetables.
3 These three guidelines set the foundation for consumers who
4 can then advance to the second tier of guidelines.

5 Time constraints permit me to focus on only one
6 other guideline, the guideline on salt and sodium. In
7 brief, NFPA believes this should be removed. Current
8 science does not support a policy of universal sodium
9 restriction for healthy, normotensive Americans to prevent
10 hypertension and reduce the risk of cardiovascular disease.

11 In conclusion, NFPA believes the dietary
12 guidelines provide important public health messages to
13 consumers. We believe they should be scientifically based,
14 easily understood, easily managed and trigger behavioral
15 change.

16 To sum up, they should be short, sweet -- yes, we
17 also have issues with the guideline on sugar, but that is
18 commentary for another day -- and, most important,
19 motivational action items.

20 Thank you for this opportunity to address these
21 important issues. We will provide more substantial input on
22 these issues in our written comments. Thank you.

23 CHAIRMAN GARZA: Thank you.

24 The Nebraska Association of Family and Consumer
25 Sciences?

26 (No response.)

27 CHAIRMAN GARZA: Physicians Committee for
28 Responsible Medicine?

29 (No response.)

1 CHAIRMAN GARZA: Society for Nutrition Education?

2 MS. PENNINGTON: Good morning. My name is Jean
3 Pennington. I am president of the Society for Nutrition
4 Education. The Society is pleased to address the Dietary
5 Guidelines Advisory Committee, and we are proud to have
6 three SNE members among you.

7 The mission of SNE is to promote healthy,
8 sustainable food choices. The vision is healthy people and
9 healthy communities. We provide forums for nutrition
10 educators to exchange and share innovative ideas,
11 disseminate research findings and advocate for public policy
12 concerning nutrition education programs and food service
13 programs.

14 SNE members are a diverse group, holding positions
15 in academia, government and private industry in the U.S. and
16 other countries. We translate the science of nutrition into
17 practical messages and communicate those messages to target
18 audiences, including students, patients, clients, parents,
19 families, other educators, and policymakers.

20 Our members are effective in encouraging behavior
21 change so that nutrition messages become incorporated into
22 healthier lifestyles. Because of the diverse views of SNE
23 members, we will not make comments on individual guidelines,
24 but wish to make general comments regarding the
25 communication of nutrition messages to the public.

26 First, we recognize that the dietary guidelines
27 must be based on sound science and understand that science
28 evolves and changes. We urge the committee to be willing to
29 adapt the guidelines' messages to match the evolving science

1 and to have the message tested on audiences diverse in age,
2 ethnic group and educational level to determine if the
3 intended meanings are correctly interpreted.

4 Second, we encourage the committee to review not
5 only nutrition science research, but nutrition education
6 research, such as the papers published in the Journal of
7 Nutrition Education, to have a better understanding of how
8 population groups understand and interpret nutrition
9 information.

10 Third, we know well that imparting information is
11 not sufficient to change patterns or behavior related to
12 eating or physical activity. We request that the committee
13 design the guidelines for people at varying stages of
14 readiness to make behavior change and to address the
15 environmental as well as the personal supports for behavior
16 change.

17 Fourth, we ask that you look at the nutrition
18 education tools that have been developed and tested by
19 nutrition educators to determine what works and identify
20 potential barriers to behavior change. Lastly, we ask that
21 you focus on messages that are active, practical and
22 positive.

23 SNE members rely on the dietary guidelines as a
24 primary educational tool to convey nutrition information to
25 the public. We offer two items for your use. One, we have
26 prepared a list of papers published in the *Journal of*
27 *Nutrition Education* and other journals over the past five
28 years that relate to message interpretation, behavioral
29 modification and educational tools.

1 Secondly, we have a list to obtain quick response
2 from our members. We would be pleased to put any questions
3 or requests that the committee might have and provide timely
4 responses from a wide range of nutrition educators.

5 We thank you for considering our comments and wish
6 you well in your deliberations.

7 CHAIRMAN GARZA: Thank you.

8 Dairy Management, Inc., the National Dairy
9 Council?

10 MS. CRAIG: Good morning. My name is Suzanne
11 Craig. I am a registered dietician responsible for
12 nutrition and health promotion for the National Dairy
13 Council.

14 Since its founding in 1915 by the nation's dairy
15 farmers, the National Dairy Council has funded nutrition
16 education and nutrition research projects and provided
17 health professionals with nutrition information based on
18 sound sciences. References for all my remarks are found in
19 the written version of our comments.

20 Ladies and gentlemen, our nation is in a calcium
21 crisis. As many as seven out of ten pre-teen and teen girls
22 and six out of ten preteen and teen boys in the United
23 States are not drinking their milk. As many as nine out of
24 ten adult women in their childbearing years are not getting
25 enough calcium.

26 Many of us have experienced teenagers growing
27 seemingly overnight. Children put on 15 percent of their
28 adult height during their teen years. That could be nine to
29 ten inches. What is not so visible is that 45 percent of

1 their bone density mass is forming as well. Bone density
2 formation continues until about 35, provided there is
3 adequate calcium in the diet.

4 Recognizing the critical need for calcium during
5 the growth years, a National Institutes of Health expert
6 panel a few years ago recommended that calcium consumption
7 be increased. The National Academy of Sciences increased
8 their recommendations for calcium two years ago.

9 Calcium is also essential in disease prevention.
10 Osteoporosis is a painful and crippling disease that affects
11 25,000,000 Americans, and it is not just a woman's disease.
12 We are finding that one out of five men will also get
13 osteoporosis.

14 Higher intakes of milk and other dairy foods
15 during childhood are linked with greater bone density and a
16 reduced risk of hip fractures and osteoporosis in later
17 years, and recent research is also showing that milk and
18 calcium helps in reducing hypertension. It has been found
19 that a diet rich in low-fat dairy foods and fruits and
20 vegetables may be an alternative to drug therapy for some
21 people with hypertension.

22 Other research indicates dairy foods may prevent
23 colon cancer, kidney stones and lead intoxication. Milk and
24 other dairy foods are rich sources of calcium, along with
25 other essential nutrients, including vitamin D essential for
26 nutrition for calcium absorption.

27 Use of supplements to meet calcium needs is a
28 pharmacological rather than a natural dietary approach.
29 Many calcium supplements do not contain vitamin D. Diets

1 with adequate amounts of dairy foods also provide
2 significant amounts of riboflavin, complete protein, zinc,
3 potassium, vitamin A, magnesium and vitamin B6. Milk and
4 dairy foods are readily available in all communities.

5 On behalf of the National Dairy Council, thank you
6 for this opportunity to provide comments today.

7 CHAIRMAN GARZA: Thank you.

8 The Egg Nutrition Center?

9 MR. MCNAMARA: Good morning. I am Donald
10 McNamara, the Executive Director of the Egg Nutrition
11 Center. I thank the committee for the opportunity to
12 address the role of dietary cholesterol and heart disease
13 risk.

14 Clinical studies show that dietary cholesterol
15 really has only a small effect on plasma cholesterol levels
16 in most people. In 166 cholesterol feeding trials in 3,498
17 subjects, the average plasma cholesterol response was a 2.3
18 milligram per deciliter change in plasma cholesterol for 100
19 milligram change in dietary cholesterol. This response is
20 shown to be independent of dietary fat type and amount and
21 of the patient's baseline plasma cholesterol level.

22 However, we recognize there are individuals who
23 are sensitive to dietary cholesterol. It is estimated that
24 15 to 25 percent of the population has the inability to
25 compensate for a dietary cholesterol challenge. That would
26 indicate that 100 milligrams per day of dietary cholesterol
27 changes plasma cholesterol by four milligrams per deciliter
28 in that 20 percent of the population who is sensitive, but
29 only 1.5 milligrams per deciliter in the 80 percent of the

1 population who is insensitive.

2 It has been suggested that dietary cholesterol
3 contributes to heart disease risk independent of its effects
4 on plasma cholesterol. Recent reports from the seven
5 country studies, the Framingham heart trial, Mr. Fidd and
6 the Lipid Research Clinic's prevalence trial, all support no
7 significant relationship between dietary cholesterol and
8 plasma cholesterol levels or heart disease incidents.

9 Analysis of the nurses' health study, the health
10 professionals' follow-up study, the alpha-tocopherol, beta-
11 carotene cancer study also report no significant
12 relationship between dietary cholesterol and cardiovascular
13 incidence. There is no consistent evidence supporting an
14 independent effect of dietary cholesterol.

15 The question is whether dietary cholesterol
16 restrictions are needed for the general population since
17 half the population has cholesterol levels below 200, and 75
18 percent of those with cholesterol levels above 200 are
19 insensitive to dietary cholesterol.

20 While dietary cholesterol does have a
21 statistically significant effect on blood cholesterol
22 levels, the epidemiologic data indicate that this has little
23 biological importance. This is the conclusion drawn in 17
24 of 27 dietary guidelines from other industrialized
25 countries, which do not include dietary cholesterol
26 restrictions.

27 An emphasis on dietary cholesterol diverts
28 attention away from effective dietary changes, while
29 limiting the contribution of low-fat, high-cholesterol

1 products such as eggs to the nutrient value of the diet.

2 With regard to eggs, international data of
3 cardiovascular mortality and per capita egg consumption
4 indicate a significant, but negative, relationship. NHANES
5 III shows that eggs provide more nutrition than calories
6 with high-quality protein and 22 different vitamins and
7 minerals.

8 Exclusion of eggs from the diets from growing
9 children, the elderly and low-income families can negatively
10 impact the nutrition well-being of these subgroups. I
11 believe the evidence shows that undue restrictions of
12 dietary cholesterol, and indirectly eggs, have little
13 benefit and potential concerns.

14 Thank you.

15 CHAIRMAN GARZA: Thank you.

16 National Cattlemen's Beef Association?

17 MS. YOUNG: Good morning. My name is Mary Young.
18 On behalf of the National Cattlemen's Beef Association, it
19 is a privilege to participate in today's discussion. I will
20 highlight the nutrient contributions of red meats to the
21 diet of today's consumers.

22 Red meats are one of nature's most nutrient dense
23 foods. A three-ounce serving of beef contributes less than
24 10 percent of calories to a 2,000 calorie diet. Yet it
25 supplies more than 10 percent of the RDAs for protein, iron,
26 zinc, niacin, vitamins B6 and B12, and does so in a highly
27 absorbable form.

28 Of red meat's nutrient contributions, iron often
29 is most trumpeted, perhaps because iron deficiency is the

1 most common nutritional deficiency in the United States,
2 affecting 7.8 adolescent girls and women of childbearing age
3 and 700,000 children who are one to two years old.

4 In a CDC report on preventing iron deficiency,
5 scientists wrote, "In children, iron deficiency causes
6 developmental delays and behavioral disturbances, and in
7 pregnant women it increases the risk for pre-term deliveries
8 and delivering low birth weight babies."

9 Hemiron, found only in the meat group, is two to
10 three times more absorbable than non-hemiron found in plant-
11 based foods, and hemiron in cooked red meat can be as high
12 as 70 percent, while white meat is less than 25 percent.

13 Deficiencies in zinc are equally prevalent.
14 According to USDA's 1995 CSFII, only 26.7 percent of
15 Americans are meeting the dietary requirement for zinc.
16 Deficiencies can delay cognitive and physical development
17 and decrease immunity, among other things. Since nearly
18 half of the most highly available zinc in the food supply
19 comes from the meat group, it is not surprising that studies
20 have linked deficiencies to meatless diets.

21 Red meats also are a significant source of vitamin
22 B12, contributing 62 percent of this nutrient to the food
23 supply, while plant sources, including soy, contribute very
24 little physiologically active B12, and B12 deficiencies can
25 be extremely serious.

26 The Bogalusa heart study shows red meats enhance
27 diet quality. The percentage of individuals meeting at
28 least two-thirds of the RDA for key nutrients was greatest
29 among those in the upper quartile of meat consumption.

1 There is a perception that Americans overconsume
2 meat. However, few people actually meet minimum needs.
3 Data from CSFII reports that on average, Americans eat 2.6
4 ounces of red meat daily. It is often what is missing from
5 the diet that has long-term health implications.

6 The meat industry agrees Americans need to consume
7 more whole grains, fruits and vegetables, but not at the
8 expense of foods like red meat that provide key nutrients
9 deficient in American's diet.

10 It is also important to note that red meat
11 contributes functional components such as selenium and
12 conjugated linoleic acid to the diet. According to the
13 *Journal of the American Dietetic Association*, beef is the
14 number one source of protein, B12 and zinc in the diet.

15 In conclusion, in a very small package, red meat
16 plays a major role in meeting the nutrient needs of
17 Americans, which demonstrates the essential nature of
18 including red meat in a varied diet.

19 Thank you.

20 CHAIRMAN GARZA: Thank you.

21 National Pork Producers Council?

22 MR. HENTGES: Eric Hentges, National Pork
23 Producers Council.

24 Fat, saturated fat and cholesterol are integral
25 components of all meat and meat products. Nature put them
26 there. Currently, 25 percent of total caloric intake comes
27 from the discretionary fat at the pyramid tip. Meat and
28 poultry fat contribute 9 percent of the total caloric
29 intake.

1 It is common, even in scientific circles, to hear
2 saturated fats are animal fats. However, the predominant
3 fatty acid class in meat is monounsaturated, accounting for
4 half of the fatty acid composition. Furthermore, one-third
5 of meat's saturated fatty acid content is stearic acid.
6 This is important because stearic acid does not elevate
7 serum cholesterol.

8 The December 1994 supplement of the *American*
9 *Journal of Clinical Nutrition* on stearic acid documents the
10 lack of effect stearic acid has on serum LDL cholesterol
11 concentration. The review also suggests a lack of effect of
12 stearic acid upon thrombosis and coagulation factors.
13 Despite this evidence, for regulatory purposes stearic acid
14 is still classified with saturated fatty acids known to
15 elevate serum cholesterol.

16 The meat industry has supported numerous research
17 projects since the mid 1980s that look at meat's inclusion
18 in an NCEP step one diet. Most recently, abstracts from the
19 latest studies have been published in the *Journal of the*
20 *American College of Nutrition*, October 1995, *American*
21 *Journal of Clinical Nutrition*, July, 1997, and *Circulation*,
22 October, 1998.

23 Like the many studies before them, these recent
24 studies document that a step one diet plan containing lean
25 beef and pork in servings consistent with the food guide
26 pyramid can be effective in lowering serum lipids. Current
27 research also is discovering that meats, not just plant
28 foods, contain functional properties.

29 I am referring to conjugated linoleic acid or CLA,

1 a natural derivative of the fatty acid, linoleic acid.
2 Initial interest in CLA was in CLA's anticarcinogenic
3 effects. In animal studies, as little as .1 percent CLA in
4 the diet was sufficient to cause significant reduction in
5 mammary tumors. Recent interests have turned to CLA's
6 influence on body fat accretion. Studies with mice, rats,
7 chicks and pigs have shown decrease in body fat accretion
8 and increase in lean muscle.

9 Finally, with feeding, breeding and fabrication,
10 the industry has reduced the amount of fat in the fresh meat
11 case by 31 percent for pork and 27 percent for beef.
12 Currently, 24 percent of lunchmeat purchases are low-fat
13 products. These changes resulted in complete overhauls of
14 USDA's nutrient database for these products.

15 In conclusion, these data do not support any
16 substantial change to the fat intake guideline, significant
17 changes to the content or quantification of the guideline.
18 The recommendations --

19 CHAIRMAN GARZA: I am afraid I have to interrupt.

20 MR. HENTGES: -- are not scientifically justified.
21 Thank you.

22 CHAIRMAN GARZA: Physicians Committee for
23 Responsible Medicine?

24 DR. BARNARD: Good morning. Please review our
25 letters of support from the Congressional Black Caucus,
26 former Surgeons General Joycelyn Elders and C. Everett Coop,
27 Martin Luther King, III, Jesse Jackson, Jr., --

28 CHAIRMAN GARZA: Please identify yourself.

29 DR. BARNARD: I am sorry. I am Dr. Neal Barnard,

1 as listed in the program.

2 -- Mohammed Ali, Alice Walker, leading physicians
3 and many minority health organizations.

4 Since 1916, federal food guides have promoted
5 dairy products, but in the 1960s and 1970s research
6 established that most members of racial minorities are
7 unable to digest the milk sugar, lactose.

8 Lactose intolerance occurs in more than 50 percent
9 of Hispanic Americans, 70 percent of African Americans and
10 Native Americans, and 95 percent of Asian Americans, but in
11 only about 15 percent of Caucasians. African Americans are
12 not only much more likely than whites to have lactose
13 intolerance. When it occurs, they are much more likely than
14 affected whites to have pain, diarrhea and bloating.

15 Dairy industry research studies suggest that
16 spacing out dairy products during the day and consuming them
17 with other foods can reduce the problem, but what they avoid
18 pointing out is that many people still have serious
19 symptoms.

20 Nearly half of their research participants have
21 dropped out, presumably due to symptoms, and their research
22 has largely excluded African Americans. Indeed, African
23 Americans have also been excluded from nearly every calcium
24 and milk study due to better bone density and lower rates of
25 osteoporosis.

26 Milk consumption is in fact poor protection
27 against osteoporosis. In the Harvard nurses' health study
28 of 78,000 women followed prospectively for 12 years, those
29 who got the most calcium from dairy products had slightly,

1 but significantly, more fractures compared to those who
2 drank little or no milk, even after adjustments for weight,
3 menopausal status, smoking and alcohol use.

4 A 1995 study of 10,000 elderly women reached
5 similar results, as have other studies. Studies suggesting
6 any benefit of milk have often been confounded by vitamin D
7 supplemented to milk.

8 Dairy products should be considered optional and
9 in no way superior to other calcium sources, such as green,
10 leafy vegetables, beans and other legumes or fortified fruit
11 juices for those who may choose them.

12 Our second key point is that diet related diseases
13 take a disproportionate toll among minorities, despite the
14 fact that nutrient intakes are similar. Diabetes prevalence
15 is high among minorities. Prostate cancer is especially
16 common among African Americans, yet the current guidelines
17 promote the very meat and dairy diets that increase the risk
18 of these problems in the first place.

19 Stronger dietary guidelines are essential. For
20 example, ischemic heart disease rates are high among middle-
21 aged African Americans and Hispanic women. Diets adhering
22 to the guidelines clearly foster heart disease progression,
23 while vegetarian diets promote disease reversal.
24 Hypertension also takes a disproportionate toll, yet African
25 Americans who switch to a vegetarian diet cut their risk in
26 half.

27 Those who may wish to reduce their risk of disease
28 by increasing their use of vegetables, fruits, whole grains
29 and legumes or by reducing or eliminating the use of meats,

1 dairy products and fatty foods should be encouraged to do so
2 by the federal dietary guidelines. The guidelines have
3 unintentionally --

4 CHAIRMAN GARZA: I have to interrupt.

5 DR. BARNARD: Thank you very much.

6 CHAIRMAN GARZA: Thank you.

7 Before moving on to the next speaker, I have a
8 brief question to staff. Have we had anyone register that
9 wants to make a presentation, Shanthy, to the committee that
10 was not preregistered? I am trying to look at time and see
11 how we are going to be.

12 DR. BOWMAN: I don't think there's any one else.

13 CHAIRMAN GARZA: No one that you are aware of?

14 DR. DWYER: Dr. Garza, I had been contacted from
15 Dr. William Grant earlier, who is not listed here.

16 CHAIRMAN GARZA: So we only have one then. Okay.

17 Looking at how we have been using time, I am going
18 to stop just for a few minutes to ask the committee if they
19 have any questions of anyone that has spoken previously?

20 I will be taking questions after every five
21 presenters because I think we are going to have the
22 flexibility in time.

23 Johanna?

24 DR. DWYER: I had a question for Donna Leibman.

25 CHAIRMAN GARZA: She just left.

26 DR. DWYER: The question was simply if corn syrup
27 is what has gone up, then why talk about teaspoons because
28 that is not how we eat or drink corn syrup?

29 CHAIRMAN GARZA: Okay. Are there any other

1 questions?

2 Shanthy? Shiriki?

3 DR. KUMANYIKA: The presentation from the consumer
4 research of the Alliance, I want to clarify whether the
5 responses of consumers are to the pyramid or to the
6 guidelines themselves because I think there is confusion
7 about how to interpret some of the things on the pyramid,
8 but that's not actually our domain so I would just ask
9 people to clarify that whenever it is appropriate.

10 FEMALE VOICE: Yes. The clarification is what is
11 on the guidelines.

12 DR. KUMANYIKA: On the guidelines? Okay.

13 FEMALE VOICE: Yes.

14 DR. KUMANYIKA: Thank you.

15 CHAIRMAN GARZA: Dr. Lichtenstein?

16 DR. LICHTENSTEIN: With respect to the comments
17 from the Council for Responsible Nutrition, I would like to
18 point out that written in the text for that pyramid that was
19 recommended for older individuals with the flag on the top
20 for supplements, that was clearly stated as optional and
21 that one needs to consider various conditions that are more
22 prevalent in the elderly like achlorhydria and the impact on
23 B12 absorption, so it was not recommended for everyone.

24 CHAIRMAN GARZA: Any other comments or questions?

25 If not, everyone understood Dr. Shiriki's comment
26 about distinguishing between the pyramids and the
27 guidelines. It is the purview of this committee to make
28 recommendations to both departments related to the
29 guidelines, but in fact we do not formulate the pyramid.

1 The pyramid is based on the guidelines, but it is
2 totally in the purview of the Federal Government. They do
3 not rely on us theoretically at least on advice for the
4 construction of the pyramid itself. It is the teaching tool
5 for the guidelines.

6 I think I have that correct. I will turn to both
7 agencies to make sure.

8 DR. KENNEDY: Do you want a response on that?

9 CHAIRMAN GARZA: Yes. I think that needs to be
10 clarified.

11 DR. KENNEDY: I always present it as there are
12 three parts to how the pyramid is developed. Number one,
13 Dr. Garza is absolutely right. It is the most recent
14 Dietary Guidelines for Americans.

15 Secondly, it is also the nutrient needs, and,
16 thirdly, it is looking at current consumption patterns,
17 trying to deviate in the least possible way in meeting
18 nutrient needs in dietary guidelines.

19 I bring that out because as we talk in global
20 forum, I mean clearly there are an infinite number of
21 combination of foods that could be used to meet both our
22 dietary guidelines and nutrient needs, but it is anchored to
23 the current consumption patterns of Americans.

24 CHAIRMAN GARZA: Thank you.

25 We will move on. USDA Human Nutrition Center for
26 Aging at Tufts University?

27 MR. BLUMBERG: Good morning. I am Jeffrey
28 Blumberg, a professor in the School of Nutrition, Science
29 and Policy and a researcher at the John Meiere USDA Human

1 Nutrition Research Center on Aging at Tufts University.

2 In addition, since last year I have served as a
3 member of the Scientific Advisory Board of the Egg Nutrition
4 Center, a resource for scientifically accurate information
5 on egg nutrition supported by a cooperative agreement
6 between the American Egg Board and the United Egg Producers.

7 Among older Americans, there is an increased risk
8 of malnutrition and evidence of subclinical deficiencies
9 with a direct impact on physiologic function. Critical risk
10 factors of malnutrition among older adults are their
11 declining need for energy due to a reduction in the amount
12 of lean body mass and a more sedentary lifestyle.

13 Decreasing energy intake with advancing age has
14 important implications for the diet in terms of protein and
15 micronutrients. There is a substantial gap between nutrient
16 consumption common among older adults and the recommended
17 intakes from diets associated with health promotion and the
18 prevention of chronic disease.

19 New dietary guidelines sensitive to the needs of
20 the elderly should emphasize the value of high-quality
21 nutrient dense foods. Eggs are a nutrient dense food. A
22 single egg can provide 10 percent of the requirement for
23 protein and serve as a rich source of several vitamins, for
24 example, providing 15 percent of the riboflavin, 8 percent
25 of the vitamin B12 and 6 percent of the vitamin D and folate
26 required by older adults, all in about 70 calories.

27 Eggs are also a good source of bio-available
28 lutein and zeaxanthin, two carotenoids associated in recent
29 research with a lower risk for age-related macular

1 degeneration.

2 Eggs also present a number of features which make
3 them a sound part of a balanced diet for most older adults.
4 They are lower in cost than most other animal protein foods
5 and so can be served occasionally as an alternative to meat,
6 poultry or fish to keep a food budget affordable.

7 The single serving packaging of eggs makes them
8 convenient to store and prepare, especially for older people
9 who live alone. Eggs are also easy to chew so that older
10 adults with dental problems and/or dysphasia will experience
11 less problems eating them than meat or poultry.

12 Importantly, eggs are perceived by many older adults as a
13 welcome part of a traditional American diet and thus not a
14 food choice where compliance with recommendations is
15 difficult.

16 Eggs are a significant source of dietary
17 cholesterol, and the impact of egg consumption must be
18 considered by those with levels of serum cholesterol which
19 place them at risk for heart disease. However, it is
20 important to recognize that people who eat eggs are
21 consuming a complex food, one that has high-quality protein,
22 various mono and polyunsaturated fatty acids, micronutrients
23 and carotenoids.

24 Specifically restricting only one food, that is
25 eggs, in the Dietary Guidelines for Americans would
26 discourage people from any consumption despite their value
27 as a nutrient dense food.

28 The reputation of eggs as a significant factor for
29 heart disease for all Americans is not founded in scientific

1 fact, and recommendations that they be avoided by everyone
2 are misguided. Eggs can readily be incorporated into a
3 healthful diet and help increase the nutrient density of the
4 diet.

5 Thank you.

6 CHAIRMAN GARZA: Thank you.

7 American Obesity Association?

8 MR. DOWNEY: Good morning. I am Morgan Downey,
9 and I am the Executive Director of the American Obesity
10 Association. It is a pleasure to be here today and
11 hopefully help you with your work.

12 The American Obesity Association was founded in
13 1995 to advocate for the interests of persons suffering with
14 obesity. By today's date, we have nearly 22 percent of the
15 adult American population is obese. Over half is overweight
16 and incurs the risk of obesity. Twelve to 14 percent of
17 children suffer with obesity.

18 I appear before you today much like Mark Twain
19 might have observed that everybody talks about obesity, but
20 nobody does anything about it. That is certainly the case
21 in Washington.

22 Obesity is second only to tobacco as the leading
23 cause of preventable deaths in the United States, and it is
24 responsible for over 300,000 to 500,000 preventable deaths
25 each year.

26 It is also a major contributor to nearly 30
27 chronic diseases. Those include osteoarthritis of the knee
28 and hip, rheumatoid arthritis, birth defects, breast cancer,
29 cancer of the esophagus and gastric cardia, colorectal

1 cancer, endometrial cancer, renal cell cancer,
2 cardiovascular disease, carpal tunnel syndrome, chronic
3 venous insufficiency, daytime sleepiness, end stage renal
4 disease, gallbladder disease, gout, heat disorders,
5 hypertension, impaired immune response, etc., down to Type
6 II diabetes.

7 The full complement and description of the current
8 medical literature is in your materials of statements we
9 have provided.

10 We have several recommendations. One, we believe
11 the dietary guidelines should recognize that obesity is the
12 overwhelming dietary influence on major chronic disease.
13 Two, the dietary guidelines should prioritize their
14 recommendations to Americans to correct what we see as a
15 false equality among all recommendations.

16 We also believe that the literature would support
17 our belief that obesity is the major contributor to chronic
18 disease in America and thus should receive major attention
19 in a prioritization of the guidelines.

20 We believe that the section on weight should be
21 retitled Achieve a Healthy Weight. The current title,
22 Balance the Foods You Eat With Physical Activity, Maintain
23 or Improve Your Weight, is unclear, awkward, and I believe
24 does not directly affect the primary issue for some 22
25 percent of Americans, which is that they need to lose
26 weight.

27 Finally, we believe that the dietary guidelines
28 should be identified as being for adult Americans, and a
29 separate dietary guideline should be established for

1 children.

2 We believe that the recommendations should include
3 a body mass index chart, not the current height and weight
4 chart in the guidelines. That would be preferable, but not
5 entirely adequate. We would recommend proceeding further to
6 develop a profile based on a further consideration of the
7 effects of weight.

8 Thank you.

9 CHAIRMAN GARZA: Thank you.

10 Georgetown University Center for Food and
11 Nutrition Policy?

12 MS. STOREY: Good morning. My name is Maureen
13 Storey. I am a faculty fellow with the Georgetown
14 University Center for Food and Nutrition Policy.

15 The key point I would like to make before this
16 committee is also provided in written testimony submitted to
17 you by me and several of my colleagues, namely Drs. Robin Wu
18 and Richard Forshi. I would also like to acknowledge my
19 graduate student, Alexis Weaver, without whom we would not
20 have these data.

21 Over the last several months, a great deal of
22 media attention has been turned to the issues of obesity
23 among children and carbohydrates as a chief villain in
24 keeping our children and adults from having a healthier body
25 weight. While this is a great media story, our data suggest
26 that that is exactly what it is, a story, a fairy tale.

27 To get to the point, we recently examined the
28 association between several dietary components and other
29 variables on the body mass index of children ages six to 11

1 years. In our study, we used the Continuing Survey of Food
2 Intakes by Individuals, CSFII, and performed bivariate and
3 multivariate regression analyses to determine the
4 association between children's BMI and these independent
5 variables. There were 1,230 records from the children in
6 the study.

7 These independent variables may also be
8 categorized as those that are not modifiable and those that
9 are modifiable. The nonmodifiable variables included
10 gender, age and race. The modifiable independent variables
11 included total energy intake, total fat, carbohydrate and
12 protein intake, added sugars intake, servings of milk and
13 television hours watched.

14 The bivariate regression analysis showed that
15 children's BMI was not correlated with total energy intake,
16 total carbohydrate intake or added sugars intake. We found
17 a very small, but significant, correlation between
18 children's BMI and total fat intake and hours of TV watched.
19 However, only .4 percent of the variation in the children's
20 BMI was predicted by total fat intake, and only 1.4 percent
21 of the variation in BMI was attributable to TV hours
22 watched.

23 The multivariate regression analysis showed that
24 combining seven variables, including three dietary
25 components, total energy, total fat and added sugars, with
26 age, race, gender and TV hours explained only 6 percent of
27 the variation in children's BMI.

28 In the multivariate model, BMI was positively
29 correlated with age. This is no surprise. African American

1 children had higher BMIs than other children. BMI increased
2 by two-tenths of a BMI unit as TV hours watched increased.

3 To conclude, these data show that no single
4 dietary component, including total energy, total
5 carbohydrate and added sugars intake, contributes to
6 increased BMI among children.

7 Based on our study, the Georgetown University
8 Center recommends that the language regarding the importance
9 of physical activity be strengthened.

10 CHAIRMAN GARZA: I apologize. I have to
11 interrupt.

12 MS. STOREY: Thank you.

13 CHAIRMAN GARZA: National Coalition for Promoting
14 Physical Activity?

15 MR. DAVIS: Good morning. I am Mike Davis,
16 Executive Vice-President of the American Alliance for
17 Health, Physical Education, Recreation and Dance, which
18 represents over 60,000 educators.

19 I am pleased to be here today to represent the
20 interests of the National Coalition for Promoting Physical
21 Activity. NCPPA combines the force of more than 154
22 organizations in our efforts to inspire Americans to lead
23 physically active lifestyles that enhance their health and
24 quality of life.

25 Eight leading national organizations serve on
26 NCPPA's board of directors, including my organization, the
27 American College of Sports Medicine, the American Cancer
28 Society and the American Heart Association. Together we are
29 dedicated to addressing the need to increase the physical

1 activity of all Americans in response to the 1996 Surgeon
2 General's report on physical activity and health.

3 As the committee members know, this landmark
4 report of the Surgeon General was issued since the last
5 review of the U.S. dietary guidelines. We applaud the 1995
6 advisory committee for recognizing the importance of
7 physical activity and weight maintenance and for including a
8 guideline addressing the need to balance the food we eat
9 with physical activity.

10 We look forward to the current committee's review
11 and strengthening of these physical activity recommendations
12 in light of the Surgeon General's report, the National
13 Institutes of Health consensus development conference on
14 physical activity and health, and the National Institutes of
15 Health clinical guidelines on the identification, evaluation
16 and treatment of overweight and obesity in adults.

17 We encourage the committee to craft
18 recommendations that more strongly convey the role of
19 physical activity in preventing obesity, assisting in weight
20 maintenance and reducing chronic disease risk.

21 We know physical inactivity to be a major national
22 public health problem. The Surgeon General's report
23 established that nearly half of Americans 12 to 21 years of
24 age are not vigorously active on a regular basis. More than
25 60 percent of American adults are not regularly physically
26 active, and 25 percent are sedentary. Yet, as the Surgeon
27 General also points out, physical activity reduces the risk
28 of premature mortality, mortality in general and of coronary
29 heart disease, hypertension, colon cancer and diabetes in

1 particular.

2 Therefore, the Surgeon General recommends that all
3 Americans include a moderate amount of physical activity on
4 most, if not all, days of the week. The NIH consensus
5 development conference reinforced these findings.

6 We encourage the Dietary Guidelines Advisory
7 Committee to consider including this recommendation in the
8 revised guidelines. Clearly, when an estimated 97,000,000
9 adults --

10 CHAIRMAN GARZA: Excuse me. I apologize. I have
11 to interrupt.

12 MR. DAVIS: Thank you.

13 CHAIRMAN GARZA: Rutgers University, The
14 Nutraceuticals Institute?

15 MR. LACHANCE: Thank you. I am Paul LaChance,
16 professor of Food Science and Nutrition at Rutgers. I
17 happen to be the Executive Director of the Nutraceuticals
18 Institute also.

19 I have a couple of points I just want to get
20 across which are I think important, and that is that I think
21 that we need to reduce the number of dietary guidelines down
22 to probably five or do a two-tier thing.

23 I am suggesting daily nutrient dense foods,
24 particularly fruits, vegetables, legumes, seeds and nuts,
25 along with basic cereal grain products. Look for fortified
26 foods, especially if dieting, skipping meals or experiencing
27 changing nutrient requirements.

28 Control body weight through proper selection of
29 foods and daily activity, minimally walking briskly two

1 miles a day. I think we should push details. Choose
2 desserts and snack foods that are moderate in saturated fat,
3 sugars or salt, and, if you drink alcohol, do so in
4 moderation.

5 One of the reasons I am hoping that would come out
6 and emerge out of this is that when the pyramid is evolved
7 that the new base would be fruits, vegetables, legumes,
8 nuts, because that is where all the phytochemicals are.
9 That is where all the immunological data is telling us that
10 we have a lot to gain from.

11 I mean, we are talking about hundreds of studies
12 showing decreased heart disease, decreased cancer if people
13 consume fruits and vegetables, legumes and cereal grains, so
14 I think we should put the emphasis there because that is
15 where the data is.

16 The other point I would like to point out to you
17 is that obesity correlates almost perfectly with the amount
18 of dollars spent eating away from home. The USDA has just
19 recently released some data showing that there is a 6
20 percent increase in percent calories from fat looking at
21 what they do at home relative to what they do when they eat
22 out.

23 When we eat out, our value system is we want value
24 for our dollar. When we are at home, we may have a healthy
25 guideline kind of idea in our head, but we disinhibit our
26 inhibition, if you will, with that concept.

27 Another point that I think I would like to keep
28 reinforcing in the document is in addition to food
29 fortified, that vitamin supplements serve and provide an

1 advantage in thwarting morbidity and mortality of chronic
2 disease. I have always been an advocate of that, so I am
3 not changing my tune. I really think that that is important
4 to do.

5 In the long run, I think what we are talking about
6 is what C. Everett Coop has pointed out with his colleagues,
7 that as much as 70 percent of disease and associated cost
8 can be modified by dietary means. I think we ought to start
9 moving down that road as soon as we can with very direct
10 approaches. Be daring.

11 Thank you.

12 CHAIRMAN GARZA: Thank you.

13 Are there any questions or comments from the group
14 to any of the last five speakers?

15 DR. GRUNDY: I have one --

16 CHAIRMAN GARZA: Dr. Grundy?

17 DR. GRUNDY: -- question of the last speaker.

18 You said there have been hundreds of studies
19 showing the benefit or epidemiologic association with fruits
20 and vegetables. Could you provide us with that list of
21 those studies? Do you have those references?

22 MR. LACHANCE: I have those references. They are
23 available. A couple of different books have tabulated them.
24 We can send that to you.

25 DR. GRUNDY: What would you say is the single best
26 study to prove that of the hundreds?

27 MR. LACHANCE: The single best would be a
28 difficult thing to point to. There are so many of these
29 devoted to overseas, multicountry studies. There are

1 several country studies. There are regional prospective
2 studies.

3 You know, every type of study is giving us this
4 positive stuff. I mean, there are a few exceptions.
5 Obviously we are talking about, you know, 130 positive and
6 maybe ten or 20 more that do not show anything, but I still
7 think that is a very powerful direction in terms of the
8 delivery of it says fruits and vegetables.

9 I think it is phytochemicals and micronutrients
10 myself, but we do not have the data to support that since we
11 translated it by tunnel vision back to vitamin A or, you
12 know, some nutrient that we were aware of at the time.

13 CHAIRMAN GARZA: Okay. Any other comments or
14 questions from the group?

15 All right. The American Bakers Association?

16 MR. LINEBACK: I am David Lineback presenting
17 testimony on behalf of the American Bakers Association,
18 which is a national trade association representing the
19 wholesale baking industry.

20 I encourage you to look at the written comments
21 because we will not have time to develop many of those this
22 morning. Based upon data, it has been recognized in our
23 recommendations on dietary guidelines that the foods
24 consumers need in the greatest number, the grain foods,
25 should be the base of a healthy diet.

26 However, the USDA's healthy eating index for 1994
27 to 1996 indicated Americans are barely eating the
28 recommended number of servings of grains, averaging a little
29 over six servings per day. Recommendations to consume six

1 to 11 servings from the grains group is well supported.
2 Data used in developing the guidelines emphasizes the
3 contribution grain foods have to total nutrient intake.

4 Grain products such as enriched white breads and
5 rolls are nutritionally fundamental. They are recognized as
6 sources of B vitamins and other antioxidant nutrients,
7 folate, potassium, calcium, iron, protein and magnesium.

8 In addition, enriched grain products such as
9 breads, rolls, bagels and crackers, including whole grain
10 crackers or daily staples that contain fortification, are
11 emphasized by dietitians and nutritionists as a healthy,
12 low-calorie, low-fat sources of essential vitamins,
13 nutrients and dietary fiber.

14 Recent studies have indicated that bread products
15 provide an important component of fiber in the diet of many
16 Americans, and, of course, other grain bases add to that.
17 Some recent studies indicate that yeast bread is the single
18 largest contributor, about 14 percent, of fiber in the diets
19 of children ages two to 18. The folic acid found in
20 enriched grain products protects against neural tube birth
21 defects, as we know. It may help protect against some heart
22 disease and certain cancers.

23 Data has indicated that fortification of grain
24 products, such as breads, cereals and flour, will enable
25 nearly 50 percent -- some will say as high as 70 percent --
26 of women ages 11 to 50 years old to ingest a minimum of 400
27 micrograms of folic acid per day.

28 Grain products since World War II have been
29 responsible for most of the increases in key nutrients, such

1 as thiamine, riboflavin, iron and niacin in the diet, and,
2 after dairy products, grain-based foods are the second best
3 source of calcium in the diet.

4 Unfortunately, there are many who would like to
5 recommend against the consumption of enriched grain
6 products. This would be unfortunate. It sends a mixed
7 message to consumers and adds to the confusion about good
8 nutrition. Research data indicate that the grain-based
9 foods play major roles in our diet, and there is no evidence
10 that there is any negative aspects to the consumption of
11 such products.

12 On behalf of the American Bakers Association, I
13 would like to point out for all of us who work in the field
14 that the grain-based foods offer consumers a wide range of
15 convenient, affordable and enjoyable food products which we
16 eat.

17 Therefore, I encourage the committee to maintain
18 the current dietary recommendation of six to 11 servings of
19 bread and other grain-based foods per day as a foundation of
20 a healthy diet. I think we can realize that grain-based
21 foods play a major role.

22 Thank you.

23 CHAIRMAN GARZA: Chilean Fresh Fruit Association?

24 MR. GRANGER: Thank you for the opportunity to
25 give testimony. I am Curtis Granger, Executive
26 Vice-President, Chilean Fresh Fruit Association. I oversee
27 the strategic marketing of all imported fruit to the United
28 States from Chile.

29 Chile has been providing the United States with

1 fresh fruit for more than 30 years. Chile is the primary
2 winter source of fresh table grapes, peaches, plums,
3 nectarines, pears, raspberries, apricots and cherries. It
4 is North America's largest summer provider of kiwi fruit, as
5 well as a major supplier of apples, blueberries and
6 blackberries.

7 In reference to the dietary guidelines for fruit
8 consumption, my purpose here today is twofold. First, to
9 present some of the research showing that the overall fruit
10 consumption is low and seasonally lower in winter.
11 Secondly, this research will highlight the need to
12 strengthen the dietary guidelines, focusing on effective
13 communication messages to educate the public and achieve the
14 current pyramid recommendations.

15 The first research as shown here is the healthy
16 eating index. It is a summary measurement of how well
17 Americans conform to the dietary guidelines. It is the real
18 scorecard on food consumption measured against the dietary
19 guideline recommendations.

20 Of the ten diet components measured in the healthy
21 eating index, the lowest score is fruit at 3.9 out of ten
22 points. Eighty-three percent of Americans are not meeting
23 the USDA's recommended of two to four servings per day.
24 Fruit consumption annually is at one and a half servings,
25 half the recommendation.

26 Chile conducted the further analysis of the latest
27 CSFII 1994-1996 data to determine fruit intake by age, sex
28 group, and by season of the year. For females, each group
29 is broken down into recommended servings, annual average and

1 by quarter.

2 The chart shows no single age group meeting the
3 minimum fruit recommendation in any season of the year. In
4 fact, fruit consumption is lowest in the winter months. The
5 male fruit consumption shows the same results. There is not
6 a single age group meeting the recommendation, children
7 included, in any season.

8 These findings present an opportunity to
9 strengthen the dietary guidelines for the year 2000. The
10 1995 committee challenged future committees to be more
11 effective in communicating current scientific thought and to
12 insure that dietary guidelines respond to current
13 consumption issues.

14 The current guidelines should be updated to
15 address the current problems found in consumption data. The
16 guidelines should inform Americans of the healthy eating
17 index. Knowing the score is the first step in implementing
18 changes in the diet.

19 In conclusion, we urge the committee to include
20 the healthy eating index in the year 2000 guidelines. This
21 scorecard should be used in conjunction with recommendations
22 as a performance measure. It will serve as an effective
23 communication measure to educate the public and to achieve
24 behavior modification.

25 Finally, in response to the extreme lack of fruit
26 consumption, the dietary guidelines should urge Americans to
27 double -- and I repeat, double -- their current fruit
28 consumption.

29 Thank you for your time and consideration.

1 CHAIRMAN GARZA: Thank you.

2 Dole Food Company?

3 MS. DISOGRA: Good morning. My name is Lorelei
4 DiSogra, and I am Director of Nutrition and Health for Dole
5 Food Company. For the last 20 years, I have been
6 professionally involved in the area of nutrition and cancer
7 prevention and one of the principals in creating the Five a
8 Day for Better Health Program.

9 Dole Food Company is one of the founding members
10 of the national Five a Day for Better Health Program, and we
11 are committed to developing effective technology-based
12 nutrition education programs to encourage children to eat
13 five to nine servings of fruits and vegetables a day. Our
14 educational programs are used in more than 50 percent of all
15 elementary schools in the United States today.

16 Today, I am here to recommend a stronger and more
17 prominent guideline on fruits and vegetables, a guideline
18 that emphasizes the overwhelming scientific evidence that
19 eating five to nine servings of fruits and vegetables a day
20 improves health and reduces the risk of chronic diseases.

21 Dr. Elizabeth Pivonka, who will speak to you very
22 shortly, will provide the overwhelming scientific research
23 in this area.

24 We just completed an analysis of the 1997 MRCA
25 survey of children's eating habits. What children ages six
26 to 12 eat is appalling and clearly not conducive to good
27 health in this country.

28 This chart illustrates children's eating patterns
29 compared to the USDA food guide pyramid. Children are only

1 eating 2.4 servings of fruits and vegetables a day, less
2 than half of the five that are recommended. These results
3 are consistent with USDA's 1996 CSFII data if remove the
4 french fries and potato chips from the USDA data from the
5 vegetable category.

6 Allow me to share some alarming statistics from
7 this recent survey with you. At breakfast, less than half
8 of all children drink 100 percent fruit juice. At lunch,
9 children are twice as likely to eat french fries than any
10 other vegetable.

11 Children hardly eat any nutrient dense, dark green
12 leafy or yellow/orange vegetables. Potatoes are one-third
13 of all vegetables consumed by children at dinner. Children
14 seldom eat fruit for dessert, and they eat very few fruit
15 and vegetable snacks.

16 You will also notice from this chart that
17 children's diets are exploding with fat and sugar. For the
18 health of all Americans, both children and adults, fruits
19 and vegetables should be at least one-third of the total
20 food eaten on a daily basis.

21 I am recommending that the Dietary Guidelines
22 Committee first position fruits and vegetables as the
23 foundation of a healthy diet by creating a separate
24 guideline for fruits and vegetables. Please separate us
25 from grains. This guideline should be prominent and
26 emphasize the unique nutrient contribution that only fruits
27 and vegetables make to a healthy diet.

28 Second, emphasize that Americans make fruits and
29 vegetables, in addition to other plant-based foods, the

1 center of their plate. Some foods, such as fruits and
2 vegetables, are in fact more healthy than others. This must
3 be communicated clearly. Guidelines recommending variety,
4 balance and moderation are just not specific enough anymore
5 and do not communicate anything to the American public.

6 Third, recommend that all federal food and
7 nutrition policies --

8 CHAIRMAN GARZA: I apologize for having to
9 interrupt. You are out of time.

10 MS. DISOGRA: Thank you very much.

11 CHAIRMAN GARZA: Thank you.
12 Farm Animal Reform Movement?

13 MR. HERSHAFT: Good morning. My name is Alex
14 Hershafft, and I am the president of FARM, a national public
15 interest organization promoting plant-based eating.

16 According to the latest figures from the Centers
17 for Disease Control and Prevention, 2,314,690 Americans died
18 in 1996. Nearly 60 percent, or approximately 1,376,000, of
19 these deaths were attributed to diseases linked conclusively
20 to consumption of meat and other animal products. Not one
21 death in America has been linked to consumption of grains,
22 vegetables and fruits.

23 The current edition of Dietary Guidelines for
24 Americans devotes four pages to touting a diet with plenty
25 of grain products, vegetables and fruits, and seven pages to
26 a diet low in fat, saturated fat and cholesterol, yet the
27 document fails to recommend the vegan diet, which abides
28 zealously by these recommendations. In fact, it cautions
29 vegan consumers to get proper amounts of iron, zinc, calcium

1 and vitamins B and D.

2 Ladies and gentlemen, let me ask you. How many
3 vegans die each year in America from shortages of these
4 nutrients, and where are the warnings in the guidelines to
5 consumers of meat and other animal products about proper
6 amounts of saturated fat, cholesterol, hormones, nitrites,
7 dioxin, benzopyrene, benzaldehyde, methylcholanthrene, E.
8 coli, salmonella, campylobacter, listeria, clostridium and
9 staphylococcus?

10 My personal guess is that the current guidelines
11 are guided less by science than by the politics of fear
12 instigated by the swift retribution visited by the meat
13 industry on the U.S. Senate Select Committee on Nutrition
14 and Human Needs in 1977. The committee's guidelines call
15 for Americans there to recommend reduced meat consumption.

16 This distinguished committee has an opportunity to
17 redeem this sorry record. As we enter the new millennium,
18 Dietary Guidelines for Americans 2000 should reflect the
19 science rather than the politics of nutrition. The
20 guidelines should recommend a gradual, but steadfast,
21 transition to a vegan diet with no qualifications, no
22 apologies.

23 Thank you.

24 CHAIRMAN GARZA: Thank you.

25 Great American Meatout 1999?

26 MR. PRYOR: Good morning. My name is David Pryor.
27 I am the National Director of America's largest annual
28 grassroots diet education campaign, the Great American
29 Meatout, now in its fifteenth year.

1 Culminating on the first day of spring, the Great
2 American Meatout campaign brings together thousands of
3 caring people across this nation to stage over 2,000
4 educational events focused on helping friends and neighbors
5 quit the meat habit for at least one day and explore a more
6 wholesome and less violent plant-based diet.

7 Meatout draws massive support from consumer,
8 environment and animal protection advocates, as well as
9 health providers, meatless food manufacturers and educators.
10 They believe the consumer is entitled to a one-day respite
11 from the relentless barrage of meat industry propaganda in
12 schools, in the media and in the streets.

13 While it is estimated that only five or six
14 percent of the population is currently vegetarian, growth
15 estimates for new vegetarians are in the 100,000 per month
16 range. This trend is particularly prevalent among teens.
17 The acceptance and growth of demand for vegetarian products
18 among mainstream public can probably best be reflected in
19 the 50 to 150 percent growth rates of manufacturers who
20 produce these products.

21 A major strategy for this year's Great American
22 Meatout campaign is to encourage mainstream supermarket
23 chains to step up their introduction of nonanimal-based
24 product selections in all appropriate areas of the store.
25 That includes a greater selection of meat alternatives,
26 nondairy/nonegg-based pastas, breads, cereals, baking
27 supplies, etc., and nonanimal ingredient personal and health
28 care products.

29 Reports from our coordinators in the field suggest

1 that American consumers are confused about nutritional
2 advice. It is time for the health communities and the
3 government to stop kowtowing to economic/political interests
4 of the meat industry and start speaking in one clear,
5 unambiguous voice.

6 We ask this committee to strengthen its commitment
7 to get Americans off the meat habit and on a more wholesome
8 plant-based diet.

9 Thank you.

10 CHAIRMAN GARZA: Are there any questions or
11 comments related to any of the five previous speakers? Dr.
12 Lichtenstein?

13 DR. LICHTENSTEIN: This is for the gentleman from
14 the Chilean Fresh Fruit Association.

15 Is it safe to assume the data that you gave to us
16 was limited to fresh fruit consumption and not to all fruit
17 consumption?

18 FEMALE VOICE: No. It is all fruit consumption as
19 was listed in the pyramid grouping for fruit.

20 DR. LICHTENSTEIN: So that is canned, frozen,
21 dried?

22 CHAIRMAN GARZA: All fruit?

23 FEMALE VOICE: All types.

24 DR. LICHTENSTEIN: Thank you.

25 CHAIRMAN GARZA: Dr. Dwyer?

26 DR. DWYER: On that same analysis, do those
27 differences by season reflect price?

28 FEMALE VOICE: Price? No, it didn't reflect
29 price.

1 DR. DWYER: I am just wondering if --

2 FEMALE VOICE: No.

3 DR. DWYER: -- the reasoning was --

4 FEMALE VOICE: It is year-around availability of
5 fruit.

6 DR. DWYER: Thank you.

7 CHAIRMAN GARZA: Dr. Murphy? I looked everywhere
8 but to my right and to my left.

9 DR. MURPHY: I would like to ask Dr. DiSogra about
10 the one-third of the children's diets from fruits and
11 vegetables. Do you mean by calories or by grams? How are
12 you calculating that?

13 MS. DISOGRA: Well, we just did something. We
14 looked at the pyramid, and if you take away the top, which
15 is the fats and oils used sparingly, and you just look at
16 the number of servings, so assuming kids, okay, so we took
17 the low ends of the servings, six servings of grains, five
18 servings of fruits and vegetables, two or three dairy, two
19 or three meat.

20 You get a total of 15 servings of healthy foods
21 you are supposed to eat everyday. One-third, five out of
22 15, is fruits and vegetables. That is how. Very simple.

23 DR. MURPHY: So it is servings?

24 MS. DISOGRA: Servings.

25 DR. MURPHY: Thank you.

26 MS. DISOGRA: The pyramid is supposed to represent
27 a healthy diet, is it not?

28 DR. MURPHY: Right.

29 CHAIRMAN GARZA: Are there any other questions or

1 comments?

2 I am going to ask is it Ms. Finalli?

3 MS. FINALLI: Finalli.

4 CHAIRMAN GARZA: We are going to take a break now,
5 and we will reconvene -- you have a generous Chair -- in 20
6 minutes instead of the 15 that we were allotted.

7 I hope this does not represent the triumph of
8 optimism over experience once again, but let's try and
9 reconvene at 11:00 a.m.

10 (Whereupon, a short recess was taken.)

11 CHAIRMAN GARZA: We had a light exchange with Dr.
12 Grundy. He led a minimutiny at the break. He said we were
13 promised 30 minutes. What did you do with our other ten? I
14 said all right. I must have misread the agenda. I just got
15 back and realized I was tricked.

16 (Laughter)

17 CHAIRMAN GARZA: He is from Texas, and I am from
18 Texas, so between two Texans it is all right. We will just
19 mark this one down for our next exchange.

20 DR. DECKELBAUM: Lunch is four hours.

21 (Laughter)

22 CHAIRMAN GARZA: See what happens when you set a
23 bad example for a New Yorker?

24 DR. DECKELBAUM: I am from French Quebec.

25 CHAIRMAN GARZA: Well, to a Texan it's up north.
26 All right. Let's continue then with that to the
27 Humane Society of the United States.

28 MS. FINALLI: Hello. I am Mary Finalli, senior
29 researcher in the Farm Animals and Sustainable Agriculture

1 Section of the Humane Society of the United States.

2 Americans eat far too much fat, saturated fat,
3 cholesterol and protein, the majority of which, and in the
4 case of cholesterol all of which, come from animal products
5 in the form of meat, including poultry and fish, dairy
6 products and eggs.

7 These substances are closely associated with the
8 leading causes of death and disease in the United States,
9 including heart disease, cancer and stroke. Additionally,
10 animal products are the primary sources of acute foodborne
11 disease and death from bacterial contamination.

12 The medical dollar cost of meat consumption alone
13 is conservatively estimated to be as much as \$60 billion
14 annually in direct health care costs and hundreds of
15 billions of dollars in indirect costs such as lost work
16 time.

17 We are glad that vegetarian and vegan diets were
18 acknowledged as being diets suitable to good health in the
19 last revision of the federal dietary guidelines. However,
20 if the government is sincere in its intent to provide sound
21 and current dietary guidance to consumers, it needs to more
22 than acknowledge the suitability of vegetarian and vegan
23 diets. It needs to advocate their adoption.

24 For example, according to the Food and Drug
25 Administration, 25 grams of soy protein a day may reduce the
26 risk of heart disease. Twenty percent of the American
27 population is said to have elevated cholesterol levels.
28 Over 50,000,000 people in the U.S. could benefit from
29 increased soy consumption. This is an excellent example of

1 the positive and meaningful guidance the federal dietary
2 guidelines should include.

3 According to the American Dietetic Association's
4 position on vegetarian diets, scientific data suggests
5 positive relationships between a vegetarian diet and reduced
6 risk for several chronic degenerative diseases and
7 conditions, including obesity, coronary artery disease,
8 hypertension, diabetes mellitus and some types of cancer.

9 Studies indicate that vegetarians often have lower
10 morbidity and mortality rates from several chronic
11 degenerative diseases than do nonvegetarians. Vegetarian
12 diets have been successful in arresting coronary artery
13 disease, and vegetarians tend to have a lower instance of
14 hypertension than nonvegetarians.

15 Type II diabetes mellitus is much less likely to
16 be a cause of death in vegetarians, and the incidence of
17 lung and colorectal cancer is lower in vegetarians. A
18 vegetarian diet may be useful in the prevention and
19 treatment of renal disease, and breast cancer rates are
20 lower in populations that consume plant-based diets.

21 The American Dietetic Association states that
22 vegan diets are appropriate for all stages of life,
23 including during pregnancy and lactation. They satisfy
24 nutritional needs of infants, children and adolescents and
25 promote normal growth. Vegetarian diets can also meet the
26 needs of competitive athletes.

27 The American public should be advised to reduce
28 their dietary consumption of animal products. The federal
29 dietary guidelines can help accomplish this by stating more

1 effectively the hazards of animal products and by revising
2 its position on vegetarian and vegan diets from that of mere
3 acknowledgement of their suitability to promotion of their
4 healthful advantages.

5 Thank you very much.

6 CHAIRMAN GARZA: Thank you.

7 National Pasta Association?

8 MS. MCMAHON: Good morning. I am Kathy McMahon
9 with Edelman Public Relations, and I would like to thank the
10 committee for the opportunity to testify this morning on
11 behalf of my client, the National Pasta Association.

12 The NPA is the trade organization for the U.S.
13 pasta industry composed of manufacturing, industry supplier
14 and allied industry representatives. It is involved in a
15 number of activities that serve to promote the use and
16 benefits of American-made dry pasta providing leadership in
17 the development of public policy, collecting data and
18 information on pasta production and disseminating
19 information concerning the value, nutrition and quality of
20 pasta.

21 At this time we would like to share our
22 perspective on the grain foods and carbohydrate issues
23 raised at the open meeting of the committee last September.
24 Our comments stress the importance of placing evolving sound
25 science into practical context.

26 We hope that you will carefully scrutinize the
27 totality of the body of evidence and consider the
28 implications that changes in the dietary guidelines might
29 bring to messages that are targeted to an already confused

1 consumer.

2 Our comments fall under two categories, the
3 current consumer environment and the state of misinformation
4 on the role carbohydrates and grain foods play in healthful
5 eating and the limited body of evidence that is driving this
6 consumer misinformation.

7 When we look at the current state of the consumer
8 environment, we hope that you will keep in mind consumers'
9 knowledge and attitudes to provide the appropriate context
10 especially in this area. According to the 1997 Wheat Foods
11 Council survey, while 75 percent of consumers agree that
12 complex carbohydrates are good for you, another 45 percent
13 also agree high protein/high carbohydrates diets can help
14 them lose weight.

15 In the 1997 American pasta report, close to 50
16 percent of those who hear about high-protein diets have
17 changed their behavior, and really only 10 percent polled
18 knew the current recommendations for what they should be
19 consuming for grain foods.

20 Consumers are swayed by books like *The Zone Diet*
21 *Sugarbusters*. These popular diet books have captured
22 headlines for overextending the limited research base and
23 taking the science too far. We are concerned that the
24 discussion here and the outcomes from the committee could
25 inadvertently fuel the fire where the science has become
26 pseudoscience in the lay press.

27 Under a limited body of evidence, dietary
28 recommendations to keep dietary guidelines of carbohydrate
29 at 55 percent of total calories have been revisited and not

1 changed by the most recent report of the joint FAO/WHO
2 committee.

3 As a specific example, we would like the committee
4 to take a serious look at the science behind the glycemic
5 index as a rating for carbohydrate foods. It appears that a
6 carbohydrate like pasta is predominantly resistant starch
7 and does not act like other grain foods.

8 What does this mean? Is it possible that although
9 it is refined it acts like a grain food? We ask the
10 committee to consider these kinds of things in considering
11 what the implications are going to be for guidelines for
12 consumers.

13 Thank you.

14 CHAIRMAN GARZA: Thank you.

15 People for the Ethical Treatment of Animals?

16 MS. PARK: Good morning. My name is LeeAnn Park.
17 I am with People for the Ethical Treatment of Animals.

18 There is no credible doubt any more that
19 vegetarianism is the healthiest dietary choice. America's
20 top three killers, heart disease, cancer and stroke, have
21 been conclusively linked to meat consumption, as have a
22 variety of other illnesses, including diabetes, osteoporosis
23 and obesity.

24 Sadly, it is the children who are paying the
25 biggest price for our nation's addiction to chicken nuggets
26 and high-fat hamburgers. For their sake, we urge the
27 committee to strongly recommend vegetarianism in the new
28 dietary guidelines.

29 Almost any five year old can master the basics of

1 good nutrition. Eat a variety of fresh fruits and
2 vegetables, beans and whole grains. Unfortunately, the
3 government has not done nearly enough to educate consumers
4 about the health benefits of a plant-based diet.

5 In the current dietary guidelines, which promote
6 the consumption of meat, dairy products and eggs, foods
7 known to be high in saturated fat and cholesterol and which
8 contain absolutely no fiber, undermine the healthful
9 vegetarian message altogether.

10 Unfortunately, companies like McDonalds and Oscar
11 Mayer, the Joe Camels of the food industry, have no qualms
12 about selling our children down the river by promoting their
13 artery-clogging animal products. The average American child
14 is bombarded by 10,000 food commercials every year. These
15 ads are not promoting apples or broccoli, but rather a
16 nutritionist's worst nightmare -- fast food, sugary cereals,
17 soft drinks and candy.

18 By the time they are two years old, kids know who
19 Ronald McDonald is, and more of them can recognize the
20 golden arches than the Christian cross. It is little wonder
21 then that 41 percent of schoolchildren in America have
22 elevated blood cholesterol levels or that in the last three
23 decades the number of children who are overweight has more
24 than doubled.

25 In fact, one-quarter of American kids are
26 clinically obese, weighing 20 percent or more than their
27 ideal body weight. These extra pounds put children at risk
28 for diseases typically associated with adults, everything
29 from heart disease to Type II diabetes and arthritis.

1 According to research cited by Dr. Neal Barnard,
2 author of *Food for Life*, vegetarians are on average 10
3 percent leaner than the typical meat eater. Studies
4 published in the *Journal of the American Dietetic*
5 *Association* have shown that the main sources of fat in
6 children's diets are meat and dairy products. All that
7 unhealthy food leaves little room for healthful fare like
8 fruits and vegetables.

9 A National Cancer Institute study found that 30
10 percent of children eat less than one serving of vegetables
11 a day and that 50 percent eat less than one serving of
12 fruit. Of course, most children would never eat meat in the
13 first place if adults did not concoct myths about where
14 animal foods come from.

15 In a *Rocky Mountain News* article, one nine-year-
16 old boy told a reporter, "I thought meat was made out of
17 something else. I didn't know about the cow." That is
18 hardly surprising. Ronald McDonald tells kids that
19 hamburgers grow in hamburger patches.

20 Other companies also hide from children the
21 horrific suffering and abuse animals endure on today's
22 factory farms. Oscar Mayer, for example, sends its colorful
23 Weinermobile car across the country to convince kids that
24 eating pigs is fun and that singing about ham and sausages
25 can make you rich and famous. Were children to see where
26 hotdogs really come from, they would be deeply traumatized
27 and never touch meat.

28 CHAIRMAN GARZA: I am sorry.

29 MS. PARK: Thank you.

1 CHAIRMAN GARZA: Produce Marketing Association?

2 MR. SILBERMAN: Good morning, Mr. Chairman,
3 members of the committee. My name is Bryan Silberman, and I
4 am the president of the Produce Marketing Association. I
5 would like to thank you very much for the opportunity to be
6 here this morning.

7 PMA is the largest worldwide, not-for-profit trade
8 association representing more than 2,000 organizations that
9 market fresh fruits and vegetables from seed to supermarket.
10 I am delighted to have some of those members with me today.

11 Also having been present at the birth of the
12 national Five a Day for Better Health program, I have a
13 personal interest in seeing an ongoing improvement in the
14 diet of American consumers.

15 PMA agrees with the advice on fruit and vegetable
16 consumption that has been part of previous versions of the
17 dietary guidelines. Now we believe we have to look to your
18 leadership for even stronger counsel about the health
19 benefits of fruits and vegetables in the Year 2000 Dietary
20 Guidelines for Americans.

21 Our interest in this issue is very strong because
22 we believe fruits and vegetables should be the mainstay of
23 the American diet. We know from scientific studies and the
24 recommendations of many credible health authorities that you
25 will hear about more later that greater consumption of
26 fruits and vegetables does help consumers reduce the risk of
27 many diseases, such as cancer, heart disease, diabetes,
28 obesity and more.

29 There are four simple requests I have for you

1 today. First, we seek your unequivocal endorsement that for
2 healthy consumers, including children, eating whole foods is
3 the best way to get the nutrients needed to maintain health.
4 Popping pills is no substitute for a proper diet.

5 Secondly, we ask you to strengthen your dietary
6 guidance by increasing the prominence of fruit and
7 vegetables. Eating five servings of fruit and vegetables a
8 day is a laudable but only a minimal start. We ask that you
9 strengthen or preferably separate the advice about
10 increasing fruit and vegetable consumption from that
11 currently linked with grains.

12 Making fruits and vegetables the food of choice
13 can help consumers implement most of the guidelines you
14 present. Therefore, our third request is that in each
15 guideline, where appropriate, you specifically mention how
16 fruit and vegetables can help consumers achieve that
17 specific objective.

18 Fourth, we ask your support in making your
19 guidelines the rule for government feeding programs. The
20 benefits of such action will continue to be felt for
21 generations as children learn to make good food choices, and
22 the less fortunate among us gain greater access to fresh
23 produce. Why should our government's feeding programs not
24 follow our government's dietary advice?

25 Ladies and gentlemen of the committee, the
26 scientific evidence is in. The time for action is now.
27 Simply put, it is time to move fruit and vegetables from the
28 side of the plate to the center.

29 We applaud your efforts. We thank you for this

1 opportunity. Thank you.

2 CHAIRMAN GARZA: Thank you.

3 Produce for Better Health Foundation?

4 MS. PIVONKA: Good morning. My name is Elizabeth
5 Pivonka, and I am the president of the Produce for Better
6 Health Foundation, a national nonprofit organization devoted
7 to increasing the consumptions of fruits, vegetables, fresh,
8 canned, frozen, dried and 100 percent juice among Americans
9 for their better health. We work in partnership with the
10 National Cancer Institute on the Five a Day program.

11 As a starting point, regarding the guideline that
12 states choose a diet with plenty of grain products,
13 vegetables and fruits, we ask you to consider a new
14 guideline for just fruits and vegetables. Americans are
15 much better at including more grains in their diets than
16 fruits and vegetables.

17 Grouping grains, fruits and vegetables almost
18 makes them sound interchangeable, and we know that they are
19 not. By separating fruits and vegetables, we can emphasize
20 their importance in and of themselves. However, in addition
21 to a separate guideline for fruits and vegetables, we ask
22 that the committee consider placing fruits and vegetables
23 and other plant-based foods at the core of the dietary
24 guidelines. We are not alone in this request.

25 I would like to present to you, the Advisory
26 Committee, this petition. This petition is signed by
27 hundreds of researchers and health organizations across the
28 country, including the American Cancer Society, the American
29 Diabetes Association, the Boys and Girls Clubs of American,

1 the American Institute for Cancer Research, AARP, the
2 American Public Health Association, the Center for Science
3 in the Public Interest, Shape up America, schools of
4 medicine, cancer research centers, state and local
5 departments of health and many others.

6 It reads, "An overwhelming body of evidence
7 strongly supports increased consumption of fruits and
8 vegetables to reduce the risk of chronic diseases,
9 including, but not limited to, many types of cancer, heart
10 disease and stroke.

11 "The Year 2000 Dietary Guidelines will determine
12 the direction of nutrition education for the next century.
13 As such, the revised guidelines should reflect the
14 established and ever increasing research behind the key role
15 that fruits and vegetables play in the diet.

16 "We, the undersigned, strongly urge the Year 2000
17 Dietary Guidelines Advisory Committee to position fruits and
18 vegetables, in addition to other plant-based foods, as the
19 core of America's diet and facilitate educating Americans to
20 make fruits and vegetables the center of their plate."

21 A copy of the petition with all supporting
22 signatures is attached to our written comments, along with a
23 summary document outlining the latest research that has
24 accumulated on fruits and vegetables and their importance in
25 the reduced risk of disease. That document is in your
26 folder, and I encourage you to take a look at that. It is
27 literature searched through the month of January of this
28 year.

29 Placing fruits and vegetables at the core of the

1 guidelines can help the public understand how easily other
2 elements of the guidelines can fall into place. With this
3 in mind, the Foundation has additional requests which are
4 outlined in our written comments.

5 I would also like to say that as nutrition
6 communicators, we have done a great job with the message,
7 "All foods can fit." Unfortunately, we have not adequately
8 communicated the more important fact that some foods are
9 clearly more healthful than others. The new guidelines
10 should refine the variety message to emphasize the most
11 healthful, nutrient dense foods.

12 We believe the new guidelines will greatly help
13 improve the health status of Americans in the next century
14 if, and only if, they reflect the science-based evidence of
15 the health value of nutrient rich foods like fruits and
16 vegetables in a clear, dramatic form.

17 Thank you.

18 CHAIRMAN GARZA: Thank you.

19 Are there any questions or comments the group
20 might have for any of the five speakers?

21 Okay. Let's move on then to United Poultry
22 Concerns, Inc.

23 MS. DAVIS: My name is Karen Davis. I am
24 delighted to be here today. My name is Karen Davis again,
25 United Poultry Concerns president, and I am here to offer
26 the following comments in regard to the proposed revised
27 guidelines, Dietary Guidelines for Americans.

28 The revised guidelines should recommend a plant-
29 based, nonanimal-based vegan or vegetarian diet. The

1 guidelines should promote the positive health benefits of a
2 vegan diet.

3 The conservative annual cost estimate of human
4 illness caused by the seven best known, most prevalent
5 foodborne pathogens is anywhere between \$5 billion and \$10
6 billion or more per year. The USDA Economic Research
7 Service has in its own studies identified meat and poultry
8 as the primary sources of these pathogens and has said that
9 they are in fact the result of consumption of meat, poultry,
10 seafood, dairy products and eggs.

11 Regarding antibiotics, which have not really been
12 brought out here today, but should be, a University of
13 Maryland study that was reported by the British journal,
14 *Lancet*, and summarized in *The New York Times* on February 26
15 of this year, states that bacteria are resistant to the most
16 powerful antibiotics used to treat infections in people and
17 that they have been found in chicken feed, raising concerns
18 about the threat to human health from the overuse of
19 antibiotics in humans and in animal agriculture.

20 Ironically, the overuse of antibiotics such as
21 fluroquinolones in humans is in large part an effort to
22 treat food poisoning, such as campylobacteriosis and
23 salmonellosis and E. coli infections derived from the
24 consumption of animal products, including poultry, beef,
25 dairy, and eggs.

26 The overuse of antibiotics in animal agriculture
27 is an effort to compensate for the overcrowding, filth and
28 overstressed immune response imposed on animals who are
29 forced to live in systems that are making them sick.

1 The use of antibiotics as growth promoters in
2 these animals predisposes these animals to metabolic
3 diseases that in turn require the use of more antibiotics,
4 and a vegan diet would eliminate this pathogenic recycling
5 of disease organisms and overuse of antibiotics to cope with
6 them, unsuccessfully I should add.

7 The revised Dietary Guidelines for Americans
8 should promote a vegan diet. A vegan diet will reduce human
9 illness and human health care costs. It will eliminate the
10 animal waste management problem that we are faced with. It
11 will eliminate the unwholesome and unethical confinement of
12 animals, itself a major cause of diseases in humans and
13 nonhumans, including both wild and domestic animals.

14 It will encourage the manufacture and development
15 of nutritional plant-based foods and promote human culinary
16 and food processing creativity, as well as human health.
17 This is an opportunity for us.

18 I should say in conclusion that anybody who really
19 would visit an egg factory or a poultry house and saw the
20 absolutely filth --

21 CHAIRMAN GARZA: I apologize. You are --

22 MS. DAVIS: -- that these animals live in, would
23 not even consider these things as a healthy diet.

24 Thank you.

25 CHAIRMAN GARZA: Thank you.

26 The next group is the Vegetarian Nutrition
27 Dietetic Practice Group of the American Dietetic
28 Association.

29 MS. REESER: Good morning. My name is Cyndi

1 Reeser, and I am the past Chair of the Vegetarian Nutrition
2 Dietetic Practice Group of the American Dietetic
3 Association, hereafter referred to as the VNDPG.

4 The VNDPG views the fifth edition of the U.S.
5 Dietary Guidelines for Americans as a unique and historic
6 opportunity to strengthen our national commitment to promote
7 health and prevent disease. The dietary guidelines can and
8 must reach for higher outcomes than have been achieved in
9 the past.

10 Government surveys indicate that the prevalence of
11 overweight has increased for nearly all age, ethnic and
12 gender groups since 1980. This may be explained in part by
13 the exceedingly large portions served in restaurants.

14 We also know that fat and saturated fat intake
15 both declined only one percent from 1989 to 1996. Only 33
16 percent of the population over two currently meets goals for
17 fat intake, and only 36 percent of the same population meets
18 the goal of five or more servings of fruits and vegetables
19 per day. Vegetarian eating patterns tend to be lower in
20 caloric density and fat and higher in fruits and vegetables
21 and fiber.

22 The VNDPG are just a committee to revise and
23 strengthen dietary guidelines so as to make it an even more
24 effective and powerful tool for health promotion in the
25 hands of the consumer. We make the following
26 recommendations:

27 Strengthen guidelines for achievement and
28 maintenance of healthy weight by clarifying and expanding
29 information on serving sizes of foods and portion control,

1 especially for restaurant and take-home meals.

2 Update and expand information on the well-
3 documented protective benefits of a vegetarian diet,
4 including phytochemicals and antioxidants. The VNDPG stands
5 ready to assist the committee by providing this
6 documentation from the scientific research as needed.

7 Provide information on alternative sources of
8 calcium for those who avoid consumption of dairy products.
9 Provide information on plant sources of protein for those
10 who avoid consumption of animal foods. Finally, expand
11 emphasis on ethnic and cultural diversity in the food
12 supply.

13 Thank you for the opportunity to testify today.

14 CHAIRMAN GARZA: Thank you.

15 The Vegetarian Society of the District of
16 Columbia?

17 MR. BALCOMBE: Members of the panel, thank you for
18 the opportunity to comment. I did bring a helper today.

19 My name is Jonathan Balcombe. I am a biologist
20 with a Ph.D. in Animal Behavior. I have been a vegetarian
21 for 20 years and practically vegan for the past ten. I come
22 representing the Vegetarian Society of the District of
23 Columbia, a fast-growing group whose members have doubled to
24 about 800 members in the last few years.

25 I am also accompanied by my four-year-old daughter
26 whose hand I just stepped on -- my apologies, Emily -- who
27 has been a vegetarian and practically vegan since her birth.

28 I would like to comment briefly on two relevant
29 issues, both from the perspective of a parent. I apologize

1 that I may be flogging a dead carrot, because several of
2 these issues have been brought up with the past few
3 speakers.

4 First as a general comment, I urge you to
5 recommend that the dietary guidelines under your purview go
6 beyond the current acknowledgement that vegetarian diet is
7 adequate to meet the nutritional needs of Americans. These
8 guidelines ought to strenuously urge Americans to replace
9 meat-derived protein in their diets with plant-based
10 protein.

11 Not only does a vegetarian diet provide more than
12 adequate nutrition, it provides numerous benefits to the
13 traditional meat-based diet most Americans consume today.
14 Vegetarians are markedly less likely to suffer from heart
15 disease, cancer, and stroke than their meat-eating
16 counterparts. Vegetarians are also much less prone to
17 obesity, as you have already heard, and tend to live years
18 longer.

19 It is also worth mentioning from an economic
20 standpoint that the above diseases of affluence not only
21 take a huge toll on American lives, but a huge economic toll
22 as well due to the cost of treatment, which amounts to tens
23 of billions of dollars annually.

24 Second, I wish to comment briefly on the national
25 school lunch program. The national school lunch program is
26 generous in principle, but unhealthy in practice. A 1993
27 survey by the USDA found that national school lunch program
28 meals averaged 38 percent of calories from fat. This is
29 eight percentage points higher than the government's maximum

1 recommended dietary daily intake of fat, which, in the view
2 of many medical experts, is already much higher than it
3 ought to be.

4 A 1991 analysis found that 90 percent of the foods
5 the USDA bought from industry for the national school lunch
6 program were butter, cheese, whole milk, beef, pork, and
7 eggs. All of these foods are loaded with fat, cholesterol
8 and sodium.

9 Being a middle-class child, my daughter will
10 probably not likely need to resort to the national school
11 lunch program for the support that it provides, but, for the
12 sake of those who do, please recommend an overhaul of the
13 national school lunch program to emphasize plant-based
14 protein in the place of the high-fat/low-fiber fare that
15 currently dominates it.

16 Emily, do you want to make a comment? No.

17 Thank you for the opportunity to comment.

18 CHAIRMAN GARZA: Thank you.

19 The Wheat Foods Council?

20 MS. SLAVIN: Hi. My name is Joanne Slavin. I am
21 a professor at the University of Minnesota, but here I am
22 speaking on behalf of the Wheat Foods Council, which is a
23 nonprofit organization formed in 1972 to help increase
24 public awareness of grains, complex carbohydrates and fiber
25 as essential components of a healthful diet. The Council is
26 supported voluntarily by wheat producers, millers, bakers
27 and related industries.

28 The U.S. dietary guidelines are well recognized as
29 dietary recommendations based on scientific evidence and

1 serve as a valuable educational tool in helping consumers
2 understand how to enjoy a variety of foods in moderation as
3 part of a healthy diet.

4 I would like to discuss the third recommendation
5 today. Choose a diet with plenty of grain products,
6 vegetables, and fruit. Grains are the base of our diet
7 because they provide complex carbohydrates, fiber, protein,
8 phytochemicals, vitamins, and minerals.

9 The current recommendation that Americans consume
10 six to 11 servings from this group is supported by the fact
11 that grains provide a range of nutrients, are well liked,
12 and offer convenient products that people find enjoyable.

13 As certain segments of the population may need
14 more calories and nutrients, such as athletes, growing
15 children, childbearing women and low-income families, it
16 makes sense that additional calories will come from this
17 grain group.

18 Therefore, it is important to maintain the current
19 dietary recommendations at six to 11 servings of grain foods
20 a day with at least three of these servings coming from
21 whole grains. Currently American are barely meeting the
22 recommended grain servings, consuming about six and
23 two-thirds servings per day. Daily intake of whole grains
24 is much less, less than one serving per day.

25 In addition to fiber and B vitamins, whole grains
26 contain a wide range of phytochemicals that help protect
27 against heart disease, as well as colorectal and breast
28 cancer.

29 Therefore, we support the American Dietetic

1 Association's recommendation that consumers include at least
2 three servings of whole grains per day as part of the six to
3 11 recommended grain servings.

4 Please note that I said as part of the recommended
5 grain servings. It is important to underscore the point
6 that by encouraging the public to consume more whole grains,
7 we should not discourage them from consuming adequate
8 amounts of enriched and fortified grain products. While
9 studies have shown positive effects from consuming whole
10 grains, there is no scientific evidence that indicates
11 consumption of enriched and fortified grain products has
12 deleterious health effects.

13 We urge you to recognize that enriched grain
14 products play a key role in helping consumers include
15 recommended amounts of folic acid, iron, and fiber in the
16 diet.

17 In the October issue of *Pediatrics* this year,
18 researchers found that yeast bread was the single largest
19 contributor to fiber in the diets of children. In addition,
20 the researchers reported that ready-to-eat cereals were the
21 top contributors of folate in children's diets.

22 In a January 1999 *Journal of the American Dietetic*
23 *Association* study looking at folic intake from fortified
24 grain products in low-income women, the researcher concluded
25 that most subjects would be able to get the goal of 400
26 micrograms of folic acid exclusively through intake of
27 fortified enriched grain products.

28 Finally, the committee should consider the
29 importance of taste in consumers' food selection and

1 consumption needs. Taste is a major reason people give when
2 choosing a food, and taste affects their attitudes about
3 eating healthfully.

4 People enjoy eating enriched grain products.
5 Additionally, as a mother of three school-aged children, I
6 appreciate the convenience of these products. We need to --

7 CHAIRMAN GARZA: I apologize for interrupting, but
8 your time is up.

9 MS. SLAVIN: Thank you.

10 CHAIRMAN GARZA: Sugar Association?

11 MR. KEELOR: I am Richard Keelor, president of the
12 Sugar Association, and pleased to be here on behalf of this
13 country's sugar cane growers and refiners, sugar beet
14 growers and producers.

15 We believe the current science supports the
16 moderate use of sugar and other nutrient sweeteners as part
17 of a healthful diet, and we recommend that revised
18 guidelines continue and extend the focus on total diet that
19 was established in 1995. Sugars are not stand-alone foods.
20 They should not be in a separate guideline.

21 As you know, the science pertaining to sugars has
22 not changed significantly since the 1995 guidelines advised
23 choosing a diet moderate in sugars. More recently, the
24 report referred to earlier, the FAO/WHO report on
25 carbohydrates, reconfirmed the scientific consensus on
26 sugars finding no evidence of a direct involvement of sugars
27 in the etiology of lifestyle-related diseases.

28 A basic issue involving sugar and other sweeteners
29 is the overall nutritional quality of the diet. Much

1 attention has been paid to the theory that if you eat a lot
2 of added sugars you might not get the necessary
3 micronutrients. I emphasize that is just a theory because
4 there is no validated evidence that the intake of added
5 sugars actually reduces the nutrient adequacy of the
6 American diet.

7 We ask you to remember one important truth.
8 People do not eat sugars. They eat foods. It is impossible
9 to separate the sugars from the foods that contain them.
10 Some sugar-containing foods are nutrient dense. Others are
11 not. We believe it is far more meaningful to advise
12 Americans to evaluate foods and diets on their nutrient
13 profile and not on their sugar content.

14 The Department of Agriculture currently has a
15 mechanism for measuring diet quality that does exactly that,
16 the healthy eating index. As you know, its components are
17 total fat, saturated fat, cholesterol, sodium and variety
18 and, of course, the five pyramid food groups. Sugar intake
19 is not a criteria, apparently on the realization that if a
20 diet meets these ten important measures, the amount of sugar
21 in the diet will not be disproportionate.

22 This is exactly the approach the dietary
23 guidelines should follow with respect to sugars. Current
24 sugar science supports dietary guidelines emphasizing total
25 diet without singling out a specific ingredient, such as
26 sugars.

27 As the healthy eating index illustrates, the
28 amount of sugars in the diet is secondary to observing more
29 important priorities. Moreover, focusing on core advice

1 would make the dietary guidelines memorable to consumers and
2 enhance the likelihood that Americans will actually
3 understand and use them.

4 Thank you.

5 CHAIRMAN GARZA: Are there any comments or
6 questions of the five previous speakers? Dr. Dwyer?

7 DR. DWYER: Several of the speakers mentioned \$5
8 to \$10 billion in foodborne pathogens.

9 MS. DAVIS: Yes. I believe that was me.

10 DR. DWYER: Have you thought at all about
11 recommending safer handling of these items rather than
12 outright elimination?

13 FEMALE VOICE: Are you speaking to me? I am the
14 one who cited those figures --

15 DR. DWYER: Yes.

16 MS. DAVIS: -- from the USDA Economic Research
17 Service study that was published in 1995.

18 Safer handling can only, you know, deal with a
19 problem that preexists and goes back to the deplorable
20 conditions in which the animals are actually living -- .

21 You can clean up a mess that began back here, but
22 we are saying clean it up back here by, you know,
23 eliminating the raising of animals period for nutrients that
24 we do not need animals in order to obtain and be healthy.

25 CHAIRMAN GARZA: Any other comments or questions
26 to any of them?

27 All right. Our next speaker is from the
28 University of Toronto, Faculty of Medicine.

29 MR. ANDERSON: Hi. I am Harvey Anderson. I am a

1 professor at the University of Toronto in nutritional
2 sciences. I apologize to the committee. I have only given
3 you ten copies of handouts with tables backing up the one-
4 page statement that I provided on sugars intake and dietary
5 guidelines.

6 I would just like to make a couple of points. One
7 is, of course, that since dietary guidelines came into
8 effect, we have increased carbohydrate intakes substantially
9 from 43 percent to 51 percent. The interesting thing is
10 that total sugars intake is increasing more slowly than
11 total carbohydrates.

12 Now, the problem that I want you to focus on is
13 the estimates of added sugars. The added sugars, based on
14 the USDA report, 1986, defines added sugars as mono and
15 disaccharides, which is the precise definition of sugars.

16 If you use the USDA database for the NHANES III,
17 which we have done, and I would like to thank Deborah Keist
18 and Huang Swang at Michigan State for doing the number
19 crunching and ILSI Human Nutrition Institute for providing
20 the money.

21 You will see that substantially higher estimates
22 of added sugar intake are made. The problem is one of
23 definition. The USDA teaspoon estimates and serving size is
24 based on sweeteners, and many sweeteners contain polymers of
25 glucose, not mono and disaccharides. That is a fundamental
26 difference, and right at the moment it is very hard to
27 define precisely added sugars by the right definition of
28 mono and disaccharides.

29 Thank you.

1 CHAIRMAN GARZA: Salt Institute?

2 MR. HANNEMAN: Good morning. My name is Dick
3 Hanneman. I am president of the Salt Institute. We
4 represent salt manufacturers and are here to testify in
5 favor of a scientifically based set of guidelines and to
6 remind you that there is a lot of new science with regard to
7 salt over the last five years.

8 In fact, I was reading a book and got a great
9 quote from John Locke I thought maybe you would find
10 interesting. "It is ambition enough to be employed as an
11 under laborer in clearing the ground a little and removing
12 some of the rubbish that lies in the way of knowledge." I
13 would like to try to do that in the short minutes I have
14 with me.

15 For the last 20 years, healthy Americans have been
16 trying to improve their diets using Federal Dietary
17 Guidelines for Americans, and they have been told that one
18 of seven key behaviors is choosing a diet moderate in salt
19 and sodium.

20 The claim purpose has been to curb excess sodium
21 consumption and reduce the risk of cardiovascular events.
22 The current strategy fails on both counts and should be
23 abandoned. Better targets and strategies are available, and
24 persisting in a focus on sodium prevents effective pursuit
25 of more effective approaches.

26 I am sorry that you will not be hearing from the
27 experts who you discussed last time as coming before you. I
28 think it is good that your subcommittee did attend an NHLBI
29 workshop on salt and sodium, which gathered and discussed a

1 lot of the science.

2 I would like to make three points in my remaining
3 time. One is that Americans are consuming an average amount
4 of sodium in the world and that that is an amount which has
5 remained unchanged for probably the entire century.

6 Second point is that studies have now examined the
7 motivating assumption that lowering dietary sodium will
8 reduce the incidence of heart attack and stroke and
9 cardiovascular disease. All the studies have concluded that
10 there is no benefit of reducing dietary sodium. Some have
11 found increased risks. Some have not found increased risks,
12 but none of them have found a health benefit of reducing
13 dietary sodium.

14 Finally, there was reference earlier to the DASH
15 diet, Dietary Approaches to Stop Hypertension, a program
16 developed by the National Heart, Lung and Blood Institute,
17 which emphasizes the fruit and vegetable diet which has been
18 much discussed this morning, but more than double the
19 benefit in blood pressure lowering was achieved by adding
20 low-fat dairy products to that diet. We strongly recommend
21 that to you.

22 I have handed out a copy of a chart which very
23 briefly shows that a salt reduction diet, the far left
24 column, will reduce systolic blood pressure by six-tenths of
25 one millimeter.

26 Compare that going across with the various groups
27 so that the yellow chart, fruits and vegetables, is 2.8,
28 about four times, and then you get to 5.5 or double the
29 fruits and vegetables when you have the addition of low-fat

1 dairy, and then for the subgroups of African Americans who
2 are at particular risk for hypertension, 6.8, and
3 hypertensive at 11.4.

4 A separate guideline for salt and sodium should be
5 eliminated --

6 CHAIRMAN GARZA: Mr. Hanneman, I am afraid your
7 time is over.

8 MR. HANNEMAN: Thank you very much for your
9 attention.

10 CHAIRMAN GARZA: The American Institute of Wine &
11 Food?

12 MR. BEAUCHAMP: Thank you. My name is Gary
13 Beauchamp. I am the Director of the Monall Chemical Census
14 Center in Philadelphia, the first institute devoted to basic
15 research in smell and taste, and I am also a board member of
16 the American Institute of Wine & Food, for whom I am
17 speaking today.

18 I want to talk to you briefly about an issue that
19 has been mentioned, as far as I know, only once today, and
20 that is that food gives us pleasure. That is something we
21 have to concern ourselves with.

22 We want to recommend that the importance of taste
23 and flavor and pleasure in diet and eating be included in
24 the text guideline explaining eat a variety of foods. This
25 recommendation is also supported by the Food and Culinary
26 Professionals, a dietetic practice group of the American
27 Dietetic Association.

28 The flavor of foods and beverages is important in
29 considering health recommendations for the American diet for

1 two reasons. First, it has been demonstrated in a large
2 number of studies that the primary attribute which consumers
3 choose a food is its taste or flavor. This is the case even
4 in health oriented individuals.

5 A recent study of 3,000 individuals showed that
6 even among people who do not smoke, do not drink beyond
7 moderation, exercise routinely, eat a healthful diet, watch
8 their weight, they still rate taste as the most important
9 determining factor in the foods they consume.

10 Foods and beverages that are not palatable or do
11 not taste good might be consumed once or a few times for
12 reasons of health or advertising, but over the long run if
13 they are unpalatable they will fall from the diet. Foods
14 that taste good and provide enjoyment become a part of an
15 individual's regular diet, and frequently eaten foods have
16 the greatest impact on health and well-being.

17 There is a second important reason that foods and
18 beverages should be flavorful. Flavor has been demonstrated
19 to stimulate a cascade of enzymes involved in absorption and
20 utilization of nutrients. For example, flavors are involved
21 in the stimulation of exocrine and endocrine pancreas
22 secretions, the best example of this being insulin.

23 These neurally based or cephalic phase effects are
24 thought to optimize digestion and absorption of foods and
25 beverages. Indeed, recent studies have shown that flavor
26 can improve nutrient metabolism in humans.

27 In summary, it is imperative for those who wish to
28 insure that our diets are nutritious that they also consider
29 that they be flavorful. Other countries acknowledge this.

1 We know the French are particularly concerned with taste.
2 Indeed, they teach the importance of taste in formal courses
3 in primary school. Other countries such as England, Japan,
4 Vietnam and Thailand include the importance of taste in
5 their guidelines. The United Kingdom's first guideline is
6 enjoy your food.

7 No food, no matter how healthful, will provide
8 benefit if it is unpalatable and thus unconsumed.
9 Palatability and taste guide food and beverage selection,
10 intake and utilization. Consumers have told us loudly and
11 clearly that flavor is paramount in the enjoyment of food.
12 As such, its importance should have a prominent place in our
13 recommendations for a healthy diet.

14 Thank you.

15 CHAIRMAN GARZA: Thank you.

16 Center for Science in the Public Interest?

17 MR. HACKER: Good morning. I am going to address
18 alcoholic beverages. I am only going to make a couple of
19 very -- excuse me?

20 CHAIRMAN GARZA: Identify yourself.

21 MR. HACKER: My name is George Hacker, and I
22 direct the alcohol policies project at Center for Science in
23 the Public Interest.

24 I am going to address the alcoholic beverage
25 portion of the dietary guidelines and only make a couple of
26 points and allow the committee to look at our submitted
27 comments for the remainder of those points.

28 Principal in terms of the caution I would like to
29 bring to the committee today is that the dietary guidelines

1 should not be permitted to be exploited to encourage alcohol
2 consumption or the initiation of consumption.

3 The fact that the Bureau of Alcohol, Tobacco and
4 Firearms just three weeks ago approved a label that talks
5 generally about the health effects of wine consumption has
6 been so distorted in the media to suggest that that label
7 actually provides consumers information about the potential
8 benefits of moderate alcohol consumption should be a warning
9 to this committee that any language that suggests benefits
10 for alcoholic beverages can be and will be distorted for
11 commercial purposes. It has been done in the past, and I
12 think it is inherent upon this committee to ensure that it
13 not occur in the future.

14 Secondly, I would like to point out that even
15 providing this committee with hundreds of research reports,
16 all the evidence in the world about the benefits of moderate
17 alcohol consumption will not change the fact that alcohol is
18 America's leading and most destructive drug. It is
19 addictive to eight to 10 percent of its users and causes
20 untold problems, more than 100,000 deaths each year and \$160
21 billion of economic damage.

22 As you will note in our written submission, we
23 question the use of the word moderate and moderation in
24 defining how people should use alcohol principally because
25 most people will not get copies of this document and will
26 not have the definition that is provided. We suggest a
27 specific quantity be referred to where moderation is now
28 currently used, particularly in the Advice for Today.

29 Lastly, we believe that it is time to get rid of

1 the gratuitous rhetoric in one sentence of the guideline
2 that suggests that alcohol beverages have been used to
3 enhance the enjoyment of meals by many societies throughout
4 human history. We question why that same language does not
5 appear in the salt section, the fat section and the sugar
6 section because certainly those consumables have enhanced
7 the enjoyment of meals for many centuries as well, probably
8 longer even than alcohol.

9 We also question, and we think that it might be
10 appropriate if one suggests the enhancement of meals, that
11 alcoholic beverages have also been used for centuries to
12 enhance inebriation, the prospects for sex --

13 CHAIRMAN GARZA: Mr. Hacker, I apologize, but your
14 time is over.

15 MR. HACKER: Okay. Thank you.

16 CHAIRMAN GARZA: Multinational Business Services,
17 Inc.?

18 MR. FROMM: Good morning. My name is Charles
19 Fromm. I am with Multinational Business Services, and I am
20 here on behalf of the Miller Brewing Company.

21 I am not going to address the somewhat
22 controversial issue of health benefits for alcohol.
23 However, I would like to discuss the very important issue of
24 measurement, specifically the definition of one drink, which
25 is currently stated in the guidelines as a 12-ounce beer, a
26 five-ounce glass of wine or 1.5 ounces of 80 proof distilled
27 spirits. We believe that that definition is both
28 misleading, and it is inaccurate. Therefore, it needs to be
29 significantly revised or stricken altogether.

1 First of all, it is misleading. If you look at
2 it, and I have attached a list of some 30 specific drinks
3 that contain more than 1.5 ounces, and I think that common
4 experience bears this out that the amount of hard liquor in
5 a mixed drink is quite variable, and in many cases, if not
6 most cases, it contains more alcohol than the 12-ounce beer,
7 which I will get to in a minute.

8 That list contains very common drinks -- gin and
9 tonic, margarita, martini, screwdriver, whiskey sour, on and
10 on -- that contain well over 1.5 ounces, so we are already
11 skewing the one-drink term in favor of the distilled spirits
12 component.

13 Secondly, and that is this thing, there are on the
14 market now a number of "single serve" drink beverages. I
15 purchased this one about two blocks away standing right
16 between a beer and I think a wine cooler. Twenty-one
17 percent alcohol. This is a 6.8 ounce bottle, so you can see
18 how that translates.

19 By saying that we have one drink, if we are
20 recommending one drink or two drinks, when we have products
21 on the market like this that does not reflect reality if
22 that is what we are recommending in the guidelines.

23 So what do we do? We would suggest that a
24 statistical survey be commissioned either by USDA or HHS to
25 take a look at the many different products and come up with
26 a different matrix. Rather than simply call them one drink,
27 let's look at what is in one of these versus some of the
28 other drinks and not just limit the definition of one drink
29 to beer, wine, and all distilled spirits.

1 Failing that, as the previous speaker suggested,
2 let's come up with a specific number. We address
3 nutritional guidelines with respect to salt, with respect to
4 fat, in terms of grams. Why are we not doing the same thing
5 with respect to alcohol? Instead we have this gross
6 surrogate, which, as I said, is inaccurate and misleading,
7 and we attempt to say that that is what we are recommending.
8 If it is 15 to 30 grams, let's say 15 to 30 grams.

9 Lastly, it is inaccurate even as stated. Even if
10 it is not changed, it is inaccurate now because the math is
11 wrong if you do it. If you do the math, you are implying
12 that .6 ounces is what is recommended as one drink. That
13 necessarily implies that the beer is a 5 percent beer, which
14 is not the U.S. norm. Therefore, we would recommend if
15 nothing else that you change the distilled spirits component
16 to 1.5 ounce.

17 Thank you very much.

18 CHAIRMAN GARZA: Are there any comments or any
19 questions to any of our speakers? Dr. Weinsier?

20 DR. WEINSIER: I have one. Was it Dr. Beauchamp
21 who spoke from the American Institute of Wine and Food?

22 MR. BEAUCHAMP: Yes.

23 DR. WEINSIER: Help me. I think I appreciate your
24 comments about the importance of flavor of food and
25 enjoyment of food by the consumer, but for the Dietary
26 Guidelines Committee help me understand.

27 Are you implying that flavor is an innate
28 characteristic of a food such that our committee can
29 consider development of a guideline around the flavor of

1 food? What are you trying to leave us with in that regard?

2 MR. BEAUCHAMP: If I had an hour, I could answer
3 that question.

4 Basically what I am suggesting is that from
5 whatever defines what is a good flavor, and that is a very
6 complicated issue which I and many people have written much
7 about, but if the flavor is not good, people will not
8 consume it. No matter how healthy you think it is, if it
9 does not taste good --

10 DR. WEINSIER: I understand that, but from the
11 standpoint of our trying to develop guidelines around
12 individual foods, how do we use this information to alter
13 the guidelines? What is your suggestion?

14 MR. BEAUCHAMP: Our suggestion is that in the
15 section where it says eat a variety of foods, you include a
16 statement that amongst the variety it has to be foods that
17 are flavorful. That I think will stimulate industry to
18 develop --

19 DR. WEINSIER: But that gets back to my question
20 of is flavor an innate characteristic of foods so we can say
21 eat foods that are flavorful?

22 MR. BEAUCHAMP: There are some aspects of flavor
23 that are innate characteristics.

24 CHAIRMAN GARZA: Dr. Lichtenstein?

25 DR. LICHTENSTEIN: I have a question for the
26 gentleman from the Salt Institute. You indicated that the
27 addition of fruits and vegetables and I guess it is low-fat
28 dairy products resulted in a decrease in blood pressure.

29 Are you sure that it is actually the addition of

1 those foods that result in the decrease in blood pressure,
2 or could it be the displacement of other foods? When you
3 add foods to the diet because of energy levels, you have to
4 sort of displace other things.

5 MR. HANNEMAN: It was a feeding study.

6 DR. LICHTENSTEIN: I understand the study. I am
7 familiar with the work. I am just saying do you know it was
8 the addition of those components, as opposed to the
9 displacement? By necessity, they had to displace other
10 foods from the diet.

11 MR. HANNEMAN: A diet high in fruits, vegetables,
12 and low-fat dairy produced the results.

13 DR. LICHTENSTEIN: Okay.

14 MR. HANNEMAN: I would add that the DASH diet was
15 not sodium restrictive, so the sodium does not explain the -
16 -

17 CHAIRMAN GARZA: Dr. Dwyer?

18 DR. DWYER: Just to follow up on that, what was
19 the average amount in the DASH diet because it was fed?

20 MR. HANNEMAN: In sodium?

21 DR. DWYER: Yes.

22 MR. HANNEMAN: Between 3,000 and 3,100 milligrams.

23 DR. DWYER: So it was fairly low sodium?

24 MR. HANNEMAN: 3,500 is what we consider the
25 normal diet, so it is low average.

26 DR. DWYER: Thank you.

27 CHAIRMAN GARZA: Dr. Dwyer, and then we will go to
28 Dr. Kumanyika. Go ahead.

29 DR. DWYER: I wanted to get back to this handout

1 from Dr. Anderson. I am not sure I got your point.

2 I gather what you are saying is that the teaspoon
3 business is difficult because of the fact of mono and
4 disaccharides? You are dealing with stuff that is in water
5 or syrup?

6 MR. ANDERSON: Yes. On the last page of your
7 handout you have the definition. The point that I am trying
8 to make is that we cannot estimate at the moment with any
9 sense of accuracy added sugars intake using any of these
10 database because we do not have the database that will let
11 us do it.

12 We tried to do it using the USDA food pyramid
13 serving size approach for which they have -- . The problem
14 with that, it is often recipe based so if you take bread
15 there is a lot of sugar going into bread. It is assumed it
16 is consumed.

17 Of course, we know that yeast shoots out the sugar
18 that is in the bread, so by the time it is consumed, and if
19 you start doing comparisons about the estimated USDA sugars
20 in food compared with the analytical, you will often find
21 that the added sugars by their estimation exceeds the total
22 carbohydrates in some foods or the total sugars in some
23 foods, so there is something fundamentally wrong that we
24 cannot use that database until we get it sorted out.

25 My point is that at the moment, estimates of added
26 sugar, true estimates of added sugar consumption, are
27 difficult to obtain. We have to do a lot more work to go
28 back and determine whether there has been a change since the
29 1978 national food consumption survey, of which FDA then did

1 all the hard work to find the sugar content of foods, and
2 then they tested it based on the definition of mono and
3 disaccharides.

4 When you get to sugars as syrups -- from syrups --
5 or sweeteners from syrups, I remind you that many of those
6 that added the sugars -- as sweeteners, but for their
7 functional properties, for example -- as soup, dried soup
8 mix, is there because it contains the polymers of glucose,
9 which are hygroscopic. That is not sugar consumption.

10 DR. DWYER: Tell me, though, how big are the
11 errors? Are they like 10 percent?

12 MR. ANDERSON: Well, if you do the comparisons, as
13 you will see in the table, if you use the USDA approach
14 versus you can go back to the mono and disaccharides, you
15 get an estimated average for consumption of added sugars of
16 12 percent versus 16 percent.

17 I would say that that difference from 12 to 16
18 percent is due to definitions, not due to consumption of
19 mono and disaccharides or sugars. That is what we have to
20 sort out before you can make any judgment about where we are
21 in sugars, added sugars.

22 CHAIRMAN GARZA: Okay. Dr. Kumanyika?

23 DR. KUMANYIKA: My question is also on the salt
24 slide. I am assuming that the first four bars come from
25 DASH, which was a feeding study, so the question is whether
26 --

27 MR. HANNEMAN: No. I am sorry?

28 DR. KUMANYIKA: I am sorry. The last four.

29 MR. HANNEMAN: Yes, the last four.

1 DR. KUMANYIKA: Right. The question is are you
2 then comparing weight reduction and sodium restriction also
3 from feeding studies?

4 MR. HANNEMAN: The first two bars, which are the
5 trials of hypertension prevention.

6 DR. KUMANYIKA: Okay.

7 MR. HANNEMAN: These two.

8 DR. KUMANYIKA: So these data are not actually
9 comparable? I mean, you would have to take a feeding study
10 to look at the effect size for sodium?

11 MR. HANNEMAN: In essence, they are separate
12 studies. The trials of hypertension prevention, as I know
13 you well know, over three years examined the intervention of
14 a low-salt diet and a weight reduction diet, a combination
15 of those diets.

16 DR. KUMANYIKA: No, I did not know. The point is
17 that I mean usually you compare data from similar types of
18 studies, and the DASH where they gave people all the food
19 and they got a certain effect is different from a study in a
20 free living population. If that is what you are doing, it
21 affects your effect sizes.

22 MR. HANNEMAN: I certainly concede that point.
23 That is correct.

24 DR. KUMANYIKA: Okay.

25 CHAIRMAN GARZA: Dr. Grundy?

26 DR. GRUNDY: I wanted to ask Harvey one more
27 question.

28 Your points are well taken and very interesting,
29 but what does that have to do with us here? I did not quite

1 get the point.

2 MR. ANDERSON: Well, the issue is I think someone
3 referred to earlier -- a comment on added sugars in dietary
4 guidelines at all, and that is where I got into this years
5 ago with the Canadian one. Why have a guideline unless you
6 have the support in terms of data that -- ?

7 That is the background, and then with the new data
8 I thought well, it would be interesting to see whether
9 consumption has in fact changed over the past ten years
10 because there is an assumption that it has. Let's get the
11 data.

12 That is why we turned to the USDA serving size,
13 and then it started to look like there was something wrong
14 in terms of those estimates. That is where I am with it
15 now, but I think, you know, if it has increased then there
16 is a judgment that there is a problem, but if you look at
17 those tables I can show you data where BMIs are associated,
18 elevated BMIs, with the higher fat diet or BMIs with the
19 higher carbohydrate and total sugars and also the added
20 sugars, but I still say you have to be careful with that
21 added sugars data.

22 DR. GRUNDY: So you think that term, added sugars,
23 is inappropriate or unnecessary?

24 MR. ANDERSON: That is the message at the moment.

25 CHAIRMAN GARZA: Dr. Johnson?

26 DR. JOHNSON: I just wanted to be crystal clear,
27 Dr. Anderson. Are you arguing that added sugar intake has
28 not increased?

29 MR. ANDERSON: Yes.

1 DR. JOHNSON: Okay. I am wondering how you --

2 MR. ANDERSON: Well, let me just say that --

3 DR. JOHNSON: --jibe that with --

4 MR. ANDERSON: Let me just go back. I would argue
5 that you cannot use the existing data and use the USDA food
6 serving size in teaspoons to determine whether added sugar
7 intake has increased in 20 years or not. That is our
8 problem right now, and we are trying to take a look at that.

9 DR. JOHNSON: Okay. Can we use the data that says
10 that the number one source of added sugar for all age and
11 gender groups is carbonated beverages and that carbonated
12 beverage consumption and production has increased
13 dramatically over the last decade?

14 MR. ANDERSON: You can rank sources of added
15 sugars. Again, in that case, yes. I mean, that is
16 reasonable. That is where the source is.

17 DR. JOHNSON: Okay. Thanks.

18 MR. ANDERSON: But for other food products, it
19 would not be perhaps -- in terms of the quantities.

20 DR. LICHTENSTEIN: Dr. Anderson again. Are you
21 saying that the percent of calories from added sugar has not
22 increased over time, using whichever system you used to
23 estimate it, or the number of grams of sugar has not
24 increased with time?

25 MR. ANDERSON: Now we get into whether you can
26 really estimate total quantities. I guess I have a little
27 more faith in percentages.

28 Again, as you look at the NHANES data and you do
29 use the USDA database, you find an increase in nutrient

1 intake with an increase in quantity of servings. When you
2 take it on a percentage basis and look at nutrients, you
3 sort of get a U-shape curve, which all just keeps telling us
4 moderation and variety in both ends puts you in the middle
5 where you have a healthier diet.

6 Again, I hesitate to say how much the true added
7 sugars by the same definition as the FDA used in the 1986
8 report, how much that change has occurred. I suspect it is
9 quite small, but that is my opinion until we get some more
10 quantitative data.

11 CHAIRMAN GARZA: Are there any other questions or
12 comments?

13 All right. Let's move on. National Council on
14 Alcohol and Drug Dependence?

15 MS. KAYSON: Good morning. I am Sarah Kayson. I
16 am the Director for Public Policy at the National Council on
17 Alcoholism and Drug Dependence. NCADD was founded in 1944,
18 and our mission is to reduce the incidence and prevalence of
19 alcoholism and other alcohol related problems.

20 NCADD has used the current dietary guidelines in
21 many different ways, and we look forward to using revised
22 guidelines that are based on the latest scientific research
23 and that are as specific as possible about both the risks
24 and potential health benefits about drinking at moderate and
25 heavier than moderate levels.

26 We strongly urge you to develop a guideline that,
27 based on science, is not used as permission to drink. There
28 are two sentences in the current guidelines that give us
29 pause and that we strongly urge you to address.

1 We hope that you will eliminate the reference to
2 alcoholic beverages enhancing the enjoyment of meals for a
3 couple reasons. One, basically it is rhetoric, and it is
4 not based on science. I think if you asked the children of
5 a heavy drinker or an alcoholic if the alcohol that is being
6 consumed at their meal is enhancing it, I think the answer
7 would be no. Also, as has been pointed out, that kind of
8 language is not included in any other section of the
9 guidelines.

10 We also would ask you to be more specific about
11 the sentence that describes moderate drinking as being
12 associated with lower coronary heart disease. The revised
13 guidelines must eliminate the term "some individuals" and be
14 much more specific about which populations according to
15 scientific research might benefit from moderate drinking.

16 Unfortunately, alcoholics and other heavy
17 drinkers, of whom there are over 14,000,000 in the United
18 States, are most likely to be misled by that kind of
19 information that suggests that drinking might be good for
20 them.

21 We also support the inclusion of a definition of
22 moderate drinking and the list of the five groups of people
23 who should not drink under any circumstances. There should
24 be, in addition to some others, but specifically two
25 additions.

26 One, the National Institute on Alcohol Abuse and
27 Alcoholism recently came out with research that demonstrated
28 that the early use of alcohol in the adolescent and teen
29 years greatly increases the chance of alcoholism or other

1 alcohol related problems in life and also that to change the
2 moderate drinking definition for men over the age of 65
3 because of changes in body composition. Moderate drinking
4 should be lowered.

5 We would also just like to add that NCADD's
6 Medical Scientific Committee, along with the American
7 Society of Addiction Medicine, encourages language that they
8 came up with a couple years ago that says that no alcoholic
9 should be encouraged to drink, and alcoholics by definition
10 cannot drink moderately.

11 It is critical that the revised version of the
12 dietary guidelines not be a document that can be used as an
13 endorsement to drink alcohol for health benefits. Alcohol
14 consumption is still the third leading cause of preventable
15 death in the United States, and for most people the risks
16 far outweigh any potential benefits.

17 Thank you.

18 CHAIRMAN GARZA: Thank you.

19 Wine Institute?

20 MR. ELLISON: I am Curtis Ellison, a professor at
21 Boston University. While I was asked by the Wine Institute
22 to comment, my comments are my own and do not necessarily
23 reflect the Wine Institute, Boston University or National
24 Institutes of Health that supports me mainly.

25 Four points. There is no question of the
26 importance of alcohol in preventing coronary disease and
27 stroke, partly through an increase in HDL cholesterol. In a
28 new population based report, which we will be giving
29 shortly, later this month, we found that alcohol consumption

1 is by far the main lifestyle factor affecting HDL
2 cholesterol, which protects against heart disease.

3 The second point is that there is growing evidence
4 that moderate alcohol consumption may enhance other aspects
5 of a healthy lifestyle, including vitamins and other
6 components of the diet. In the handout that you are
7 getting, Figure 1 is from the nurses' health study showing
8 that higher levels of folate are associated with lower
9 coronary heart disease deaths.

10 However, the protection was many times greater
11 among drinkers, about 80 percent, than among abstainers
12 where there is only 15 percent. The Leon Diet heart study
13 similarly showed that vitamin E levels in the plasma relate
14 better to wine consumption than to vitamin E intake.

15 I will not dwell on the adverse effects. I do
16 include in the handout the results of my recent study of
17 Framingham women looking at the effects on breast cancer.
18 The adjusted risk ratios, as you will see in Table 1, are
19 less than one for each category.

20 These are light drinkers. Most of them average
21 less than a drink a day, but in many studies, including the
22 nurses' health study, at a level of one drink a day we do
23 not see an increase, and if there is any increase at one
24 drink a day it is sure minimal.

25 The last point is total mortality. We can talk
26 about effects on various diseases and states, but as
27 epidemiologists we are pretty good at determining whether
28 someone is dead or not, and we can count the live and the
29 dead bodies, and we can see that people who in the U.S. it

1 seems about 21 percent lower mortality rates for moderate
2 drinkers than it is for people who do not drink.

3 The Figure 2 of your handout is from the
4 Copenhagen heart study where they found that individuals
5 consuming one to six drinks per week had the lowest death
6 rates. The bars in that figure show the number of excess
7 deaths attributable to alcohol consumption. In other words,
8 those are more deaths in each of the categories that would
9 not have occurred if these people were drinking at one to
10 six drinks per week supposedly.

11 You will notice that the number of deaths
12 attributable to too much alcohol are considerably less than
13 the number of deaths attributable to not drinking,
14 presumably increased deaths, on the basis of coronary heart
15 disease.

16 I include in Tables 2 and 3 of your handout some
17 calculations we are doing to apply such data to the U.S.
18 population, and you will see from that that individuals who
19 consume alcohol moderately do have a longer life expectancy.
20 It has been shown in the U.S. about a three percent longer
21 expectancy than nondrinkers.

22 I trust that future dietary guidelines will be
23 based on sound scientific data.

24 CHAIRMAN GARZA: I apologize for having to
25 interrupt you, but --

26 MR. ELLISON: Yes.

27 CHAIRMAN GARZA: -- your time is over.

28 MR. ELLISON: Thank you. I hope that your
29 guidelines will be balanced and give information that will

1 give us both the adverse and beneficial effects.

2 Thank you.

3 CHAIRMAN GARZA: Klugman?

4 (No response.)

5 CHAIRMAN GARZA: Nebraska Association of Family
6 and Consumer Science?

7 (No response.)

8 CHAIRMAN GARZA: Physicians Committee for
9 Responsible Medicine?

10 MR. MILLS: My name is Dr. Milton Mills. I
11 apologize for not being here when my name was initially
12 called, but I spent the night working the coronary care unit
13 over at Fairfax Hospital taking care of the business end of
14 our dietary guidelines.

15 What I want to talk to you about today is racial
16 bias in U.S. dietary guidelines. Every national health
17 survey for the last 30 years has shown that minority groups
18 in this country consistently fare worse in terms of both
19 prevalence of chronic diseases and their death rate from it.

20 When you look at the traditional diets consumed by
21 the minority groups that make up our nation's population,
22 African Americans, New World Hispanics, Asians and Native
23 Americans, they are all consistently plant-based diets with
24 low levels of fat and animal foods, yet when you look at
25 studies done within these groups as they consume a western
26 diet, again you see that they consistently have more
27 disease.

28 It turns out that African Americans have higher
29 levels of LP delay. We know that Pima Indians have the

1 so-called thrifty genes, and we also know from migrant
2 studies that as Asian populations begin to consume a western
3 diet, their level of chronic disease skyrockets.

4 What this suggests is that these groups have
5 genetically adapted to a plant-based, low-fat, low-animal-
6 food diet. When these groups revert back to their
7 traditional diets, again their levels of chronic disease
8 fall. Their levels of high blood pressure, etc., also
9 decrease.

10 I want to suggest to you that for the Dietary
11 Guidelines Committee to continue to encourage the
12 consumption of large amounts of animal foods and a fairly
13 high-fat diet in these groups constitutes nothing short of
14 racism.

15 You do not have to drag a person behind a pickup
16 truck to kill them through racism. Both the person who dies
17 from a lynching and the one who dies from premature chronic
18 disease are equally dead. I urge you to please change these
19 guidelines to reflect what we know from good science.

20 I just cannot help but also note that it seems
21 that the under represented minority groups in this country
22 are also under represented on this committee.

23 Thank you.

24 CHAIRMAN GARZA: Mr. William Grant?

25 (No response.)

26 CHAIRMAN GARZA: The American School Food Service
27 Association?

28 MS. RIGBY: Good afternoon. I am Suzanne Rigby.
29 I am with the American School Food Service Association. I

1 am the Director of Nutrition and Education. Thank you for
2 letting me be an add on this morning.

3 A little bit about ourselves. We are a membership
4 association. We represent 60,000 people who work for child
5 nutrition programs. We are primarily interested in the
6 national school lunch program and the school breakfast
7 program. A little statistics. Nationwide, the national
8 school lunch program feeds 26,500,000 lunches; the breakfast
9 program, 7,000,000 breakfasts.

10 Another fact. We are the only consumer feeding
11 program that has been federally mandated to follow the
12 Dietary Guidelines for Americans. That is one of our
13 standards that we do menu planning for, and it is because of
14 this that we are here to ask that when doing any altering of
15 the current dietary guidelines that you do consider and make
16 them practical, obtainable and user friendly.

17 We are very proud to be able to use the standard
18 in doing our programs, but we have a little problem. While
19 the standard has been mandated for us to use, you cannot
20 mandate students' preferences. While you can lead a horse
21 to drink, you cannot force it to drink.

22 What we are finding, as has been testified here to
23 you, there is this gap between what we should be doing, what
24 we know is good, and what preferences are. Real world
25 today, students are coming to us with choices. They are not
26 the captive audience that we used to have. Those choices
27 today include whether to take that offering and eat that
28 offering or whether to wait until school is dismissed and
29 hit the other things that come closer to their preferences.

1 For this reason, we are asking that we -- you --
2 make sure that the dietary guidelines are attainable for us
3 to be able to truly meet this standard.

4 Thank you.

5 CHAIRMAN GARZA: Thank you.

6 Are there any comments or questions of any of the
7 previous four speakers? Dr. Meir?

8 DR. STAMPFER: Yes. I had a question for the
9 National Council on Alcohol presenter.

10 One of the recommendations you made was to lower
11 the definition of moderate for older men. I wonder if you
12 could give us any citation with clinical end points that
13 that should happen?

14 MS. KAYSON: I cannot, but Dr. Gordis, I believe,
15 from NIAAA later can.

16 CHAIRMAN GARZA: We will reserve the question for
17 Dr. Enoch then.

18 DR. STAMPFER: Okay. My second question was you
19 ended saying that the risks outweigh the benefits. Were you
20 referring to all alcohol or just moderate as defined by the
21 guidelines?

22 MS. KAYSON: All drinking. That overall that the
23 risks outweigh the benefits of drinking.

24 CHAIRMAN GARZA: Dr. Shiriki?

25 DR. KUMANYIKA: My question is for the School Food
26 Service Association.

27 The issue of preferences of children, is it the
28 inability within the school food service to create the kind
29 of foods that children will prefer, or is it the actual

1 composition of the guidelines?

2 In other words, are you saying that the type of
3 foods children prefer will always be out of line with the
4 guidelines or that within your resources you are not able to
5 prepare foods that children will prefer that meet the
6 guidelines?

7 MS. RIGBY: The first path is probably the more
8 real one. Until we are able to, through nutrition
9 education, experience or whatever, be able to alter those
10 taste preferences for things that are more healthful, there
11 will be this disparity.

12 Students come to us already molded. Their
13 environment outside of school is helping to reinforce
14 whatever their preferences are, so it is more that the
15 second path.

16 We are working very hard with tools that USDA is
17 providing for us to alter prep methods and whatnot, the
18 purchasing of foods. We are working a great deal with
19 industry to improve, to help reduce fat without losing too
20 much of the flavor, but really the first factor that we have
21 this little package of food preferences coming to us, and
22 until that is over that is where the problem is.

23 DR. KUMANYIKA: Thank you.

24 CHAIRMAN GARZA: Any other questions or comments?
25 Dr. Grundy?

26 DR. GRUNDY: Dr. Ellison said something about
27 there is a 22 percent reduction in total mortality in people
28 that drink a couple of drinks a day. Is that right?

29 MR. ELLISON: This was the article by -- the

1 American Cancer Society study of about 500,000 Americans.
2 The total mortality found in --

3 DR. GRUNDY: That is hard to believe. Even our
4 best drugs for treating coronary heart disease and all
5 cannot do that. That sounds like that would be a powerful
6 drug. Is that possible?

7 MR. ELLISON: It is possible.

8 DR. GRUNDY: How? How is that possible?

9 MR. ELLISON: Well, I think recent studies on
10 strokes show up to a 50 percent reduction in stroke with
11 moderate drinkers versus nondrinkers. I am just reporting
12 the data. The reason that --

13 DR. GRUNDY: What might be the mechanism? I mean,
14 we do not have any plausible mechanism to explain such an
15 approach.

16 MR. ELLISON: Not yet.

17 DR. GRUNDY: I realize what you are saying, but I
18 mean, what would be the bottom line? --

19 MR. ELLISON: -- heart disease and stroke --

20 DR. GRUNDY: Then you would have to have an
21 enormous reduction in morbidity -- . Is that possible?

22 CHAIRMAN GARZA: I think Dr. Grundy is referring
23 to is it platelet aggregation that is affected? Can you
24 give us a biological mechanism through which morbidity would
25 be affected and, therefore, mortality?

26 MR. ELLISON: In most studies diabetes is reduced.
27 Heart disease is reduced -- cholesterol, platelet
28 aggregation, -- effects, so there are many, many effects. I
29 think that this is an observation, not a -- . -- moderate

1 drinkers in comparison -- .

2 CHAIRMAN GARZA: So that a 20 percent reduction,
3 the comparison for that were nondrinkers?

4 MR. ELLISON: Yes.

5 CHAIRMAN GARZA: Not the general population.
6 Okay.

7 DR. LICHTENSTEIN: Around that same point, a
8 question for Dr. Ellison.

9 That figure that you pointed out to us, Figure 2,
10 is quite compelling where there is it looks like a 2.75
11 percent higher risk in women that do not drink any alcohol
12 at all of mortality related to those who drink one to six
13 drinks.

14 Not having read that specific paper, are there any
15 other characteristics of the individuals that do not drink
16 versus the ones that were moderate drinkers that might also
17 contribute to something as dramatic like that? I think that
18 that also might get Dr. Grundy's question.

19 MR. ELLISON: The usual comparison has been
20 nondrinkers, and it has been pointed out that nondrinkers
21 may include ex-drinkers who have higher mortality, but it is
22 in essentially every study between Great Britain and the
23 United States.

24 If you limit it to only lifetime nondrinkers, and
25 we have done this in Birmingham, you still see a slight --
26 of higher mortality.

27 DR. LICHTENSTEIN: But is there any relationship
28 between other health related behaviors that might also
29 contribute?

1 MR. ELLISON: Yes. Yes. This is --

2 DR. LICHTENSTEIN: Like which ones?

3 MR. ELLISON: It said in particular that moderate
4 drinkers probably exercise more and eat a healthier diet and
5 many other things, but this is what causes gray hair for an
6 epidemiologist is trying to adjust for the other lifestyle
7 factors as best you can.

8 It seems that the findings are so consistent
9 throughout the world in many different cultures that light
10 to moderate drinking does have a health benefit in terms of
11 total mortality.

12 CHAIRMAN GARZA: Dr. Grundy?

13 DR. GRUNDY: I guess the question there is cause
14 and effect. I mean, if it is associated, it would not
15 justify a recommendation. If it is a causal factor, then it
16 would.

17 I guess that is the question I am asking. Is
18 there a causal relation, or is it just an association?

19 MR. ELLISON: I think the mechanism by which
20 alcohol affects coronary disease, that has been worked out
21 very well. The -- is one of the most important things we
22 can do to lower our coronary risk, if you will.

23 DR. GRUNDY: I do not know that, actually. I wish
24 I did, but I do not.

25 CHAIRMAN GARZA: Dr. Deckelbaum? You are standing
26 up.

27 DR. DECKELBAUM: Most of the statistics we have
28 heard this morning are on people beginning in their forties
29 and up. Is there data available on the effects of moderate

1 alcohol intake in adolescents and in the twenties on
2 morbidity outcomes?

3 MR. ELLISON: There are many studies, as I am sure
4 you will hear from other speakers, of adolescents and the
5 mortality -- and so forth. I am talking of diseases related
6 in mature individuals.

7 This is not referring, although a recent study by
8 Siekto of strokes in Manhattan found that -- he found the
9 same 40 to 50 percent reduction in stroke rates for people
10 between 35 and 64, and other studies have shown that you do
11 see some beneficial effect from the earliest effects.

12 At any age you see some effects against the
13 chronic diseases. These are not diseases that affect
14 adolescents obviously.

15 DR. DECKELBAUM: Again, at a young age,
16 adolescents and twenties and early thirties, do the risks
17 from accidents, which I was not including in my question
18 initially, but I will include now, I would presume, and
19 correct me if I am wrong, far outweigh any potential
20 benefits?

21 MR. ELLISON: Absolutely. Yes.

22 CHAIRMAN GARZA: Dr. Ellison, are the putative
23 benefits of alcohol that you described cumulative over a
24 lifetime?

25 Does one have to start drinking at an early age in
26 order to be able to accrue those benefits, or are they more
27 acute so that in fact if you had a drink this week and you
28 have an MI, you are more likely to survive it?

29 MR. ELLISON: Some of the effects of alcohol are

1 quite transitory. The effects on platelet aggregation --
2 probably only last 24 to 36 hours. We think that is the
3 explanation that some in Europe, the French, for example,
4 consume alcohol on a regular basis, but they do not have
5 these long periods -- .

6 It may be that most Americans drink on the
7 weekends. They do not drink on Sunday and Monday, which the
8 leading time for heart attacks is Monday morning, which may
9 be the rebound phenomenon of heavy drinking on the weekend.

10 Studies from Harvard and Stanford show that
11 consumption of a single amount of alcohol spread out across
12 the week is by far the healthiest.

13 CHAIRMAN GARZA: Other comments or questions?

14 If not, I would like to thank all of the speakers
15 for not rebelling too loudly as you were gaveled off the
16 podium.

17 We are going to reconvene at 2:00 p.m. where we
18 will have two invited experts to come speak to us. Thank
19 you again.

20 (Whereupon, at 12:30 p.m. the meeting was
21 recessed, to reconvene at 2:00 p.m. this same day, Monday,
22 March 8, 1999.)

23 //

A F T E R N O O N S E S S I O N

2:03 p.m.

1
2
3 CHAIRMAN GARZA: Good afternoon. Welcome to the
4 afternoon session. We have two guests which have been
5 invited to make two separate presentations to us this
6 afternoon.

7 The first is on issues related to alcohol and
8 health, and we are very fortunate that Dr. Enoch Gordis, the
9 Director of the National Institute on Alcohol Abuse and
10 Alcoholism of the NIH, was able to join us this afternoon.
11 We will have approximately 20 minutes and then ten minutes
12 for questions from committee members.

13 I will remind members of the audience that you are
14 welcome to listen, but unless asked to address a specific
15 issue by one of the committee members, we are unable to
16 entertain discussion from other than individuals on the
17 committee.

18 Dr. Gordis?

19 DR. GORDIS: Thank you very much, and thank you,
20 Dr. Garza and Dr. Stampfer, for the invitation to join you
21 today on a topic which is of great interest. I want to talk
22 about the scientific issues which underlie the discussion on
23 incorporating the topic of alcohol health benefits in the
24 dietary guidelines.

25 We start with three things: A large
26 epidemiological literature relating moderate drinking to
27 reduced coronary mortality and, to a lesser extent, coronary
28 morbidity; two, a group of biological mechanisms which are
29 proposed to explain the alleged protective effect; and,

1 three, the concept that encouraging the American population
2 to drink moderately for the alleged health benefits would be
3 in the interest of public health.

4 These are the three main things we are beginning
5 with, and on those I want to touch. I will suggest that the
6 evidence for them is in many instances incomplete and
7 contradictory, that important topics other than mortality
8 are hardly discussed, and that a recommendation whose
9 effect, if any, is likely to be increase in per capita
10 consumption has major risk for our society. That is going
11 to be the bottom line.

12 I am not asserting that all claims about benefits
13 and their explanations are wrong. What I am asserting is
14 they all contain serious problems and opposing evidence
15 which make them a poor foundation for an important public
16 policy shift.

17 We begin with the first item, the epidemiological
18 literature. The French paradox, as you all know, was the
19 paradox which involved a low ischemic heart disease death
20 rate combined with a high intake of saturated fats and other
21 things that are not good for you. This is one of the things
22 which got this whole field rolling.

23 Let me point out some ambiguities in the French
24 paradox. I will just highlight them because I just have a
25 few minutes. The first is that in the 20-year period
26 between the 1960s and 1980s, the per capita of consumption
27 of alcohol went down, and so did the coronary death rate in
28 France. Furthermore, a recent analysis indicated that
29 alcohol related deaths almost compensated for the ischemic

1 deaths, which were allegedly averted.

2 Now, this whole issue of the tradeoff calculation
3 I will address in another context at the end of my talk, but
4 I think it is important that despite the fact that the low
5 ischemic death rate in France is undoubtedly correct that
6 there are some issues here which make the waters a little
7 bit muddier.

8 On issues of cross-sectional analysis, you have
9 probably heard before there are no longitudinal studies, as
10 far as I know, over a variable in time. We do not know
11 about the life histories of the individuals and the country-
12 by-country comparisons. We essentially have population
13 generalizations, not knowing which segment of the population
14 is the one affected by the drinking.

15 Finally, another thing which is heavily missing in
16 all this data is the issue of patterns of drinking because
17 even if one describes somebody as having 14 drinks a week,
18 which is a common way of talking about it, it makes a hell
19 of a lot of difference as far as many of the social and
20 medical consequences whether those are two drinks a day or
21 seven on a Saturday night in a period of two hours. That is
22 true also for drinking during pregnancy. These average
23 numbers can see a lot of problems.

24 Another problem about the epidemiology is that all
25 segments of society, even if the benefit is there, are not
26 equally benefitted. For example, the young people are in
27 the highest danger from deaths from violence, trauma and
28 highway accidents. They are not in danger of dying of
29 coronary artery disease.

1 Older folks are less tolerant of alcohol. They
2 are taking many medications, and a fall for them is
3 disastrous, propelling them frequently into a nursing home,
4 which is their last stop. Furthermore, it is not clear that
5 those without risk factors gain anything even from the
6 alleged protective effect of alcohol.

7 The whole issue of longevity is not usually
8 discussed, but apparently it is a very minor increment, if
9 at all, even if aside from the alcohol issue coronary artery
10 disease was eliminated completely.

11 Another very serious issue in the epidemiology of
12 this issue is the issue of confounders. That is, is the
13 alcohol a surrogate for something else, but not accounting
14 for the phenomenon in itself?

15 Now, much of this large literature has not
16 addressed these issues at all. However, the better papers
17 have, but not uniformly so. Smoking is the commonest well-
18 done analysis of a confounder; exercise much less so. Diet
19 and saturated fats and vegetables and omega 3 fatty acids
20 are generally poorly done. In fact, one can see accidental
21 confounders tabulated in papers whose goal was really not
22 that, but yet it illustrates the problem.

23 Issues of socioeconomic status are sometimes
24 analyzed and sometimes they are not. So there is a variety
25 of things which have been analyzed with various degrees of
26 quality, but not uniformly so, which again makes the whole
27 issue somewhat less certain than some of the spokesmen for
28 the matter have addressed.

29 As far as wine is concerned, aside from wine as a

1 specific beverage as against the other two, a question which
2 has been raised seriously in several reports is, is it the
3 wine itself or who it is that is drinking the wine?

4 That is, people who drink wine generally tend to
5 be those of a better educated, higher socioeconomic level.
6 They are working out in health clubs and eating tofu and all
7 that, and so is wine simply the wine which is doing the
8 trick, or is it a surrogate for the educated, healthier
9 lifestyle? There is some reason to think that that is part
10 of the answer. This question of a lifestyle for which
11 alcohol or wine is a surrogate is much less pertinent to
12 beer and spirits.

13 Now the issue of the so-called J-curve and who are
14 the abstainers. I guess you have heard all about the J-
15 curve in these discussions. Is that correct, Dr. Stampfer?
16 It has been discussed, the idea that the abstainers, if you
17 draw a J -- imagine drawing a J here -- of mortality here
18 versus dose, the lowest dose and mortality is at one or two
19 drinks a day, say. It is actually a good deal lower, but
20 the abstainers have a somewhat higher mortality, hence the
21 name J curve.

22 Most studies have shown this. Some have not, but
23 a lot hinges on this J, and I should point out that in some
24 of the better papers the protective effect, if it is
25 attributable to alcohol, occurs at far less than the
26 recommended so-called moderate drinking dose. It is
27 something like two or three drinks a week, not two drinks a
28 day.

29 Getting away from this, a lot hinges on this J

1 because if the J is not correct and the abstainers really
2 have a lower death rate than the people drinking moderately,
3 a lot of this topic would probably not even be discussed at
4 all.

5 Now, one of the criticisms with the J, which I
6 think the researchers have disposed of well, is the issue of
7 the sick quitters. Those who believe that the J is
8 essentially sort of fraudulent say that the abstainers
9 really include groups of people who either stopped drinking
10 because they were alcoholic or had to stop drinking for
11 medical reasons, so they were destined for an earlier or
12 higher rate of mortality. Therefore, the abstainers are a
13 self-selected group of people who were sicker.

14 This so-called sick quitter thing, however, I
15 think has been addressed fairly by the researchers who were
16 maintaining the protective effects of alcohol, so I think we
17 can dismiss that as a criticism which has been laid to rest.

18 New questions have been raised about the abstainer
19 group. For example, aside from the so-called sick quitters,
20 abstainers -- by the way, 30 percent of American adults are
21 abstainers. I think many people do not realize that.

22 The abstainers include two categories. One we
23 might call religious or ideological abstainers, those who do
24 not want to do it for reasons which have to do with their
25 beliefs and what life is all about, and the other group of
26 abstainers are those who generally tend to be loners, do not
27 have firm social networks and so on.

28 In general, people who have extensive networks of
29 friends and social relationships tend to be protective

1 against all sorts of mortality. A few papers have looked at
2 this; not many.

3 Therefore, I would say as far as the
4 epidemiological data goes, the association between mortality
5 and alcohol I think is clearly there, but its explanation is
6 not clearly there, and there is even some question about the
7 J curve as far as the abstainers are concerned.

8 Let me move on to the second point; that is, the
9 proposed biological mechanisms. I am going to discuss four.
10 The first is the higher level of high-density lipoproteins
11 which is seen in chronic drinkers. Now, if high density
12 lipoproteins were the cause of atherosclerosis, then
13 probably if we are going to get the benefit of this effect
14 we would have to be drinking for many years, including the
15 young years when people are at risk for deaths other than
16 coronary artery disease.

17 Even now in the face of increasing new kinds of
18 research on atherosclerosis involving cytokines and reactive
19 oxygen species and all sorts of genetic things, it is not
20 even clear that HDL is responsible for coronary artery
21 disease, but rather it is a parallel event which is going on
22 along with it. In any case, if it is not causative then we
23 are piling one uncertain effect on top of another.

24 The second arena in which biological explanations
25 have been suggested are those in coagulation mechanisms,
26 blood clotting. The general theory is that alcohol reduces
27 the tendency to clot. Therefore, the thrombotic event,
28 which is the one previous -- just antecedent -- to the
29 myocardial infarction, is being reduced.

1 Much of the animal data here -- by the way, you
2 should look at the papers carefully -- is in very high
3 continual doses of alcohol. However, one area where there
4 is some decent evidence, I think, is in the issue of
5 platelet aggregation, which is an event which is in hours
6 before the infarction, not over a period of years.

7 When the platelets aggregate, that sets off in
8 motion the whole clotting apparatus. The data is not
9 uniform here either, but I will say that most of the studies
10 -- most, but not all -- indicate a reduced platelet
11 aggregation from alcohol.

12 Another area in which Dr. Stampfer has contributed
13 is the issue of tissue plasminogen activator and
14 fibrinolysis. TPA is what is given to coronary patients
15 within hours of their infarction to thin the blood so they
16 do not go on to extensive damage, but it is a naturally
17 occurring substance, and it is responsible for breaking down
18 some of the materials that ultimately become part of a blood
19 clot.

20 Now, much of the epidemiological evidence, but not
21 all, indicates that TPA level, which is considered a good
22 thing -- from the point of view of myocardial infarction, is
23 higher in people who are drinking. It may be that this
24 depends on some aspect of hepatic malfunction because liver
25 disease shows this as well, and it is possible that clinical
26 measures of hepatic malfunction do not reveal a small level
27 of malfunction as responsible for the increase in TPA.

28 What is more important than that is the issue of
29 the parallel compound, which is called tissue plasminogen

1 activator inhibitor, another substance in the blood which
2 essentially counteracts the action of TPA. Here we have a
3 very mixed story indeed wherein some studies, especially
4 epidemiological ones, the TPA goes up and the other one goes
5 down, but even that is not uniform.

6 In certain studies where individuals rather than
7 whole clusters of people have been studied before and after
8 alcoholization over a period of time, the TPA and the
9 inhibitor of the TPA have gone up in parallel, so the
10 evidence on the TPA thing, in my judgement, is mixed.

11 Now, there is another area of great importance
12 called reprofusion injury. It is known that after a period
13 in which the heart muscle has been deprived of blood even
14 for a short time, and that is so-called ischemia, when it is
15 reprofused, the blood starts rushing back again either
16 accidentally in nature or because of some intervention by
17 man, that the heart muscle is in danger of injury because of
18 that rapid reprofusion.

19 There are some excellent results on this. We know
20 a lot about the adenosine receptors and protein -- AC. We
21 do not know how much of the effect on total mortality this
22 mechanism would account for, but it probably is genuine.
23 However, it is not clear at which dose this effect is
24 happening.

25 A recent excellent paper in PNAS, for example, I
26 think is doing a little hand waving on the dose. In my
27 calculation, if you took a 175-pound man and gave the same
28 caloric value of alcohol that they did in the animals, and
29 the authors extrapolate to a different kind of a person, it

1 turns out this would be almost five standard drinks, not
2 two.

3 I will continue now with the antioxidant issue as
4 the last aspect of the biological explanations, and this
5 applies, of course, mostly to wine. Now, most of the
6 evidence indicates that wine has no special advantage
7 compared to other beverages as far as the alleged protective
8 effect. However, there is some evidence which claims the
9 contrary and why I raised the issue of wine being a
10 surrogate for various social and educational factors. In
11 some studies, some non-alcoholic grape components seem
12 effective as antioxidants.

13 The whole question of absorption here is very
14 muddy. By absorption, I am talking about the ability of a
15 person to duplicate in vivo, that is in the whole person, to
16 arrive at a concentration of these alleged antioxidants that
17 duplicate the concentrations which in laboratory experiments
18 in vitro show an antioxidant effect. The absorption varies
19 tremendously among the antioxidant group. Therefore, I
20 consider this issue really up in the air and very much mixed
21 up.

22 The third and final point I want to discuss with
23 you is the possible consequences of increasing per capita
24 consumption by expansion of recommendations about moderate
25 drinking. Let me talk about moderate drinking itself now,
26 which for the sake of discussion, though I know you were
27 talking about it this morning, I heard, will be two standard
28 drinks, 13 grams of alcohol per drink essentially per day
29 for most men, except for the elderly, and one for women.

1 The areas where I think nobody disagrees or at
2 least few do is that there should be no drinking in
3 pregnancy. The threshold for some sort of effect has been
4 dropping. We do not know where, if it exists at all.

5 Medication interaction I think is an important
6 thing, especially in the elderly, because alcohol interacts
7 with at least 150 medications, and the elderly really cannot
8 take an accidental overdose.

9 Breast feeding is another area. There used to be
10 an idea that women who were nursing ought to take some
11 alcohol. It loosens up the lactation and so on. The fact
12 of the matter is that the evidence is entirely to the
13 contrary as shown by Julie Manola at Manola and others that
14 it interferes with nursing, and the babies do not sleep as
15 well. Therefore, alcohol and breast milk is bad news. As
16 you know, alcohol distributes to all body water, and that
17 includes breast milk.

18 There is another issue which is somewhat subtler,
19 and that is whether we really want the whole country
20 alcoholized with two drinks a night, even if that was the
21 dose, throughout their lifetime.

22 We do not talk about this very much, but if you
23 are a young person trying to make their way in a career or
24 trying to study for a graduate degree or become a super
25 athlete or something, is it really something that our nation
26 really wants to have everybody alcoholized at two drinks a
27 night. I do not know the answer. I am just raising it.

28 Having listed all these things, I think you either
29 agree to them or they are minor, but the really important

1 issue is the risk of escalation once somebody who is not
2 drinking then embarks on a course of moderate drinking.

3 About 10 percent of those who start drinking --
4 and all of them go through some phase of moderate drinking;
5 they do not drink a quart of vodka the day after they have
6 their first drink -- about 10 percent of people who start
7 drinking go on to severe problems. That is, severe
8 problems. That is, they fit the diagnostic category of DSM,
9 alcohol abuse or alcoholism. Ten percent.

10 There is a much larger group, or at least a larger
11 group, who do not fit these diagnostic categories, but who
12 still cause many of the social complications and medical
13 complications, the highway deaths, family violence and so
14 on.

15 We are not as clear how the rate of alcoholism
16 varies with age; that is, if you are a starter at 50
17 compared to 30. I do not think we have any data on that. I
18 can tell you, though, as far as the adolescents goes that
19 the odds of becoming alcoholic -- I am not talking about
20 just troubles, but diagnosable alcoholism -- are 40 percent
21 of kids who start below the age of 13, and it drops down to
22 about the 10 percent that I just mentioned by the time they
23 get to be about 18 or 20. In that sense, we have a
24 considerable worry among the adolescents.

25 One issue that is not discussed very often in
26 these discussions is issues other than mortality. Now, that
27 is the so-called disability-adjusted life years, a term
28 which was introduced into the recent Harvard WHO studies on
29 the burden of disease.

1 Now, this disability-adjusted life years accounts
2 for two things, life with disability and premature death
3 because premature death means that valuable years of life
4 have been lost, which is obviously much more important for a
5 young person than it is for an older one as far as the
6 calculation goes.

7 If you ask an old person like me if my life
8 counts, I would have to say it is very important. Still in
9 all, when you look at epidemiology a person who dies at 30
10 is a greater tragedy for society than a person that dies at
11 68. Alcohol is the fourth leading cause of disability-
12 adjusted life years in the world. In the world. Now, this
13 is from the burden of disease study.

14 Let's talk about that problem I referred to in the
15 tradeoff in France where one group of researchers concluded
16 that the alcohol-related deaths almost compensated for the
17 lives allegedly averted from ischemia heart disease death.
18 The Harvard WHO study concluded that 750,000 more deaths
19 were caused by alcohol in the world, more than those
20 allegedly averted by drinking. Eighty percent of this
21 excess was in the developed countries.

22 Now, I am not claiming that this number is holy
23 and opposite numbers are trash. No, I am not saying that at
24 all. My point here is that this issue is not proven. That
25 is all.

26 Let me say something else now about the pattern of
27 distribution in society. In general, the higher the mean or
28 median level of drinking in society, the more heavier
29 drinkers there are and the more the social and medical

1 consequences that ensue.

2 Now, we only have cross-country comparisons here.
3 I have inquired, and nobody can tell me of a single country
4 where the kind of normal distribution has been compared
5 after social policy changes. We do have country-by-country
6 comparisons. Furthermore, we have case after case where the
7 access to alcohol has been loosened or tightened in various
8 cycles, and almost invariably the extent of drinking and the
9 consequences of drinking have gone up every time there has
10 been an increase in the per capita consumption.

11 Now, what is the effect of the escalation of
12 drinking on others around the drinkers and the whole
13 society? We have been talking about the drinkers
14 themselves. The current cost of alcohol misuse to our
15 society is about \$165 billion a year. This is the result of
16 a study that we and IDA funded together.

17 Interpersonal relations, parenting, family
18 violence. These are things that may extend beyond the
19 drinker himself or herself. The ability to do well in one's
20 education, new health care costs to one's self and to
21 others, productivity costs to industry and the cost to
22 social welfare and so on and so forth.

23 What I am saying here is that by raising the mean
24 level of drinking and the per capita consumption, some
25 people who start drinking in order to achieve these
26 so-called benefits of moderate drinking are going to
27 escalate to higher doses, and it is going to end up costing
28 society more in health and in medical cost.

29 In conclusion, the last few years have seen

1 critical examination of all the premises in this matter. As
2 I said before, I am not saying that all the claims are
3 wrong. What I am saying is that important ambiguities and
4 contradictions exist now in the protective effect itself and
5 the purported biological mechanisms to explain it.

6 Measures whose effect are to increase per capita
7 consumption lead us into risky territory where the dangers
8 of doing harm are at least as likely as the odds of doing
9 good. There is an old medical aphorism: *In primis non*
10 *nosere*. (First do no harm).

11 One of our nonscientist senior people had a very
12 nice phrase while discussing the pros and cons of this
13 discussion. He said, what you are trying to say is a little
14 bit of not so fast. That is it.

15 CHAIRMAN GARZA: Thank you very much.

16 Are there any questions or comments from any of
17 the members on the committee? Dr. Stampfer?

18 DR. STAMPFER: Yes, a couple questions. In your
19 last comment you emphasized the importance of not increasing
20 per capita consumption, but is there any reason to believe
21 that a recommendation for moderate consumption would do
22 that?

23 DR. GORDIS: Yes, I think so. Yes. I mean, the
24 only way a recommendation of that sort is going to make any
25 dent is if people who are not drinking are going to start
26 drinking. The heavier drinkers are not going to go down to
27 two drinks a day by virtue of whatever guidelines you write.

28 Therefore, all we can see is either no effect
29 because nobody reads the dietary guidelines or --

1 MALE VOICE: There is some evidence for that.

2 (Laughter.)

3 DR. GORDIS: Or an effect to increase drinking.
4 Of those who start drinking from zero to two, there is going
5 to be a batch of them who drink more. No way of escaping
6 that, I do not think.

7 CHAIRMAN GARZA: Do you want to follow up on that?

8 DR. STAMPFER: Yes. I want to put you on the
9 spot, if that is okay, --

10 DR. GORDIS: Sure.

11 DR. STAMPFER: -- and ask if you have any specific
12 recommendations on the current guidelines and how they might
13 be changed?

14 DR. GORDIS: I think I will stay out of that,
15 Meir. That is your job, and we will comment on it when
16 asked.

17 DR. STAMPFER: Remember, you had your chance.

18 DR. GORDIS: Yes.

19 CHAIRMAN GARZA: Dr. Grundy?

20 DR. GRUNDY: My question is a little bit along the
21 same lines. Just in general, how do you deal with that?

22 I mean, we have had a struggle with that for years
23 with recommendations of different types where you say
24 nothing about alcohol, comment on it at all or just leave it
25 out of any kind of guidelines. What is your policy or your
26 view on that?

27 DR. GORDIS: Well, I do not argue too much with
28 what was in the last ones.

29 CHAIRMAN GARZA: Okay.

1 DR. JOHNSON: May I address a question to someone
2 in the audience related to consumer information and alcohol?

3 CHAIRMAN GARZA: Can we do that at the end, right
4 at the end of this presentation?

5 DR. JOHNSON: Sure.

6 CHAIRMAN GARZA: Dr. Dwyer?

7 DR. DWYER: Dr. Gordis, I wonder if you would be
8 kind enough to share your views on the evidence or lack of
9 evidence associating the breast cancer with alcohol
10 consumption? I know there is a putative mechanism, and I
11 wonder if you would be willing to --

12 DR. GORDIS: There is a putative relationship. I
13 do not think there is a putative mechanism.

14 I think at best the relationship was very weak.
15 If you looked at the papers which supported a relation
16 between alcohol and breast cancer, the risk ratio is
17 probably not much more than 1.2, but a recent study I think
18 from Framingham did not find anything, so I would say that
19 that is a nonevent in this discussion.

20 CHAIRMAN GARZA: Dr. Kumanyika?

21 DR. KUMANYIKA: Could you elaborate on the idea
22 that people who are heavier drinkers will not reduce their
23 consumption? Is there no evidence that people can moderate
24 their alcohol consumption and might be advised with the
25 moderation?

26 DR. GORDIS: Sure, but I think you have to make a
27 specific attempt to do that. Simply putting out dietary
28 guidelines on the alleged safety or benefits of two drinks a
29 day will not do it, I do not think.

1 DR. DWYER: How do you feel about the standard
2 drink? We have heard some testimony earlier.

3 DR. GORDIS: Yes. Yes. You know, I know that
4 came up this morning.

5 You know, it came up in our own discussions back
6 in NIAAA last week because I heard that some people think
7 that it was pulled out of whole cloth, you know, that it was
8 just made up. The heavens opened, and the angels said two
9 drinks a day, and that is the way it became sacred.

10 That is not really what happened. Actually, I
11 called Charlie Leber in New York, who is professor at Sinai,
12 because he has been on the history of this early on. I
13 said, Charlie, how did this start?

14 The story he gave me was -- and it is quite
15 reasonable, by the way, I believe -- that they looked at the
16 data from France by Pequeno, and it turned out that they
17 were looking at it to see where inflections occurred in
18 various consequences of drinking and the curve of dose
19 versus consequence.

20 It turns out that even for cirrhosis, which may be
21 surprising, the inflection is at about two drinks a day. By
22 the time you got to three drinks a day in the Pequeno data,
23 the risk for cirrhosis started to climb. Now, actually it
24 is not very high there. You have to drink a heck of a lot
25 more than that to be pretty sure of getting it if you are
26 going to get it because not everybody who drinks even
27 heavily gets it.

28 It was based on looking at this kind of inflection
29 point, and the difference with women is based on the not

1 unreasonable idea that because of their lower lean body mass
2 and the fact that there is some question about the gastric
3 alcohol dehydrogenase being less efficient there, they are
4 likely to get a somewhat higher blood level from drinking
5 the same amount per unit of body mass. For the elderly,
6 likewise, I think.

7 This is not, you know, absolutely tight, but I
8 think it is very reasonable. It is not just pulled out of
9 whole cloth.

10 CHAIRMAN GARZA: Would you please use a mike?
11 Concern has been expressed that the committee's comments
12 will not be preserved for posterity. We do not want that.

13 DR. STAMPFER: One last question on the elderly.
14 You had mentioned that perhaps the recommendation for limit
15 for moderation might be reduced, and I was wondering if
16 there is any data based on clinical end points to support
17 that?

18 DR. GORDIS: Well, we are dealing with a bunch of
19 clinical observations. You know, alcohol has subtle effects
20 on cognition, and the elderly may have some subtle ones, but
21 in the animal literature there is evidence that the elderly
22 animal is less tolerant to the acute effects of alcohol
23 also.

24 CHAIRMAN GARZA: We heard some testimony this
25 morning suggesting that in a large metanalysis, a decrease
26 in mortality of 22 percent was found and that in fact
27 because this occurred across many cultures that one could
28 discount concerns regarding confounders.

29 DR. GORDIS: Well, you know --

1 DR. STAMPFER: Can I just clarify? That was a
2 single study. It was not a metanalysis.

3 CHAIRMAN GARZA: All right. I am sorry.

4 DR. GORDIS: I do not agree.

5 CHAIRMAN GARZA: If you know the study, can you
6 give us its strengths and weaknesses?

7 DR. GORDIS: Let me just say my view on
8 metanalysis is that when you analyze junk, you get
9 metajunk.

10 CHAIRMAN GARZA: Well, apparently this was not a
11 metanalysis. It was a single study is what I was told.

12 DR. GORDIS: So many of the studies are riddled
13 with the kind of limitations I have talked about that I do
14 not think you can look at this global evidence with any
15 great confidence. I think you have to look at the details
16 of the individual studies, and that is what I think the
17 committee ought to do.

18 CHAIRMAN GARZA: Any other comments?

19 FEMALE VOICE: You may have alluded to this with
20 the older animals, but is there any evidence that as
21 individuals age they have less of a capacity to metabolize a
22 given amount of alcohol in a given period of time?

23 DR. GORDIS: No. The metabolism does not seem to
24 be changed.

25 DR. STAMPFER: Just a point of clarification on
26 that study with the 22 percent. What is being referred to
27 is the Thun study, T-H-U-N. It was published in December of
28 1997 in the *New England Journal*.

29 It was based on the American Cancer Society cohort

1 where they did adjust for smoking and several of the other
2 factors. They looked at lifelong nondrinkers as the
3 referent category, so I think it would qualify as one of the
4 better studies in the area.

5 DR. GORDIS: Thank you.

6 CHAIRMAN GARZA: Any other comments or questions?

7 Thank you very much, Dr. Gordis.

8 I have one question for Dr. Grundy. Are you at
9 all familiar with the evidence Dr. Gordis related regarding
10 the HDLs and its possible role or nonrole in protecting
11 against cardiovascular disease?

12 DR. GRUNDY: There is a strong association between
13 HDL and risk for coronary disease. That is well recognized
14 and duplicated in many studies. The question again is what
15 is the nature of that relation. Is it a direct protective
16 effect of the HDL on the artery wall, or is it an
17 association?

18 I think the answer is probably it is multiple
19 factors. It is associated, and it has maybe some direct
20 effect from studies in -- animals and such where they raise
21 just one factor like apo-A1. That does seem to protect.

22 However, there is a strong association between
23 other atherogenic lipoproteins. When you have high
24 remnants, you have low HDLs, so that is another factor.
25 There is some confounding there. It is also confounded by
26 the fact that low HDL is part of the insulin resistance
27 syndrome and the other components of that metabolic syndrome
28 like hypertension and other atherogenic lipoproteins and
29 pro-coagulant state and glucose intolerance. They all go

1 along with low HDL.

2 I think it is both an association and possibly a
3 direct effect, but there are no strong studies. Well, we do
4 not have a means in humans to raise HDL specifically, so we
5 do not know that raising HDL per se would protect. I think
6 that is why there is expressed some uncertainty before that
7 we know that the alcohol effect working on HDL is a
8 protective effect. We just do not know that.

9 CHAIRMAN GARZA: Rachel, you had a question of
10 someone in the audience?

11 DR. JOHNSON: Yes. I just wanted to ask Dr.
12 Geiger, who did the consumer focus group studies, about --

13 CHAIRMAN GARZA: Is Dr. Geiger still here?

14 DR. JOHNSON: -- if you had any data on the
15 perception of the consumer with the alcohol guideline and
16 whether it is sort of a permission to drink or whether it
17 is, you know, if you do drink, drink in moderation.

18 DR. GEIGER: Two things arose out of that
19 discussion. It was consistently ranked last in importance,
20 and what they really wanted was a definition of moderation.
21 They had heard that a glass of wine a day might help reduce
22 the risk of heart disease.

23 DR. JOHNSON: But they were not clear what the
24 definition of moderation was?

25 DR. GEIGER: They all had their own definition of
26 moderation for themselves, but they did not know if
27 everybody would interpret that correctly.

28 CHAIRMAN GARZA: That was specific for the alcohol
29 guidelines?

1 DR. GEIGER: Yes, it was, although moderation
2 meant different things for different guidelines, but for
3 that particular --

4 CHAIRMAN GARZA: Okay.

5 DR. JOHNSON: Thank you.

6 CHAIRMAN GARZA: Dr. Lichtenstein?

7 DR. LICHTENSTEIN: I also have a question for Dr.
8 Geiger.

9 Did any issue come up around that guideline
10 regarding the appropriate age to start or who that exactly
11 applied to? Did that apply to anyone over the age of 21, or
12 was it supposed to be something that was phased in or any
13 issues around that?

14 DR. GEIGER: That is a question I do not believe
15 came up directly. The dietary guidelines were defined to
16 them at the beginning of the focus groups for people aged
17 two years and older, so I think some of them questioned if
18 that would be appropriate for school-aged children.

19 CHAIRMAN GARZA: Any other comments or questions?
20 Dr. Kumanyika?

21 DR. KUMANYIKA: I am just wondering, and maybe
22 this is a question for Dr. Gordis, if we were to try to
23 harmonize an alcohol guideline in the dietary guidelines
24 with other guidelines for alcohol consumption, what are the
25 guidelines that are put forth by other agencies for alcohol
26 consumption without thinking about the dietary aspect?

27 DR. GORDIS: I do not know of any others except
28 the ones that we have stated, which I have mentioned. You
29 do not drink until you are 21. You do not drink during

1 pregnancy and stuff like that. Two drinks of the standard
2 nature that I described to you for men and one for women and
3 one for the elderly.

4 CHAIRMAN GARZA: So the American Heart
5 Association, for example, does not comment on alcohol and
6 the role in cardiovascular disease that you are aware of?

7 DR. GORDIS: They may. I just do not know.

8 DR. GRUNDY: I do not think the American Heart
9 Association has advocated -- certainly they have not
10 advocated its use for preventing. It is pretty much the
11 same as in this guideline here.

12 CHAIRMAN GARZA: Shiriki, did you have any
13 other --

14 DR. KUMANYIKA: I was just thinking that the main
15 arguments that we have heard against alcohol consumption
16 have to do with vehicle injuries and issues that really are
17 not dietary.

18 It seems odd in a way that the major coherent
19 guidance for the public comes under a dietary context where
20 it seems like it would imbalance in terms of the issues, so
21 I was just trying to see what would the guideline be if diet
22 were only one of many considerations and you looked at it
23 that way.

24 DR. LICHTENSTEIN: Just for the record, there is a
25 statement from the Nutrition Committee of the Heart
26 Association on alcohol that is published in *Circulation*.
27 Unfortunately, I do not remember the details of it, but that
28 could be ferreted out relatively easily. I think the author
29 is Tom Pearson.

1 CHAIRMAN GARZA: Dr. Stampfer?

2 DR. STAMPFER: Another question for Dr. Gordis.
3 There was a recent paper from NIAAA which very nicely showed
4 that the younger people started to drink, the more likely
5 they were to run into problems later in life. I think if I
6 remember right, the data stopped around the mid-twenties.

7 I am wondering if you can give us either some data
8 or, if there are no data, some conjectures about what might
9 happen if there were a recommendation to drink, say,
10 starting at age 50 or something.

11 DR. GORDIS: I think I mentioned in my remarks
12 that I do not know whether the -- I think you're going to
13 find that the age, if you're going to do moderate drinking,
14 is a little bit lower. We do know that there is less
15 drinking among the elderly. There are a variety of problem
16 drinkers who start their drinking in the fifties, but it is
17 probably a minority compared to the ones who have been
18 drinking their whole life.

19 It might be lower than 10 percent, but most people
20 who do get in trouble with alcohol start at a relatively
21 younger age. Ten percent is probably close.

22 CHAIRMAN GARZA: Dr. Dwyer?

23 DR. DWYER: I remember years ago one of the French
24 premiers, I think it was Pierre Mendes-France, suggested
25 that French youth, specifically little children, should not
26 drink wine. They should drink milk. I believe he
27 encountered severe criticism because of that. Now, I am not
28 sure.

29 Do you know if they did start drinking milk

1 instead of wine and if there were lesser problems --

2 DR. GORDIS: I remember that.

3 DR. DWYER: -- with the milk than with the wine?

4 DR. GORDIS: He was sort of laughed at and so on
5 and so forth. Let's remember that France has one of the
6 highest cirrhosis death rates in the world.

7 CHAIRMAN GARZA: Getting back to Dr. Dwyer's
8 question, I thought I had understood you to say that
9 limiting a recommendation to older age groups, even if the
10 10 percent figure did not apply and it was substantially
11 lower, might be problematic because of the motor function
12 issues --

13 DR. GORDIS: Yes.

14 CHAIRMAN GARZA: -- and also because of the
15 drug --

16 DR. GORDIS: -- medications.

17 CHAIRMAN GARZA: Medications. Do I understand you
18 correctly then?

19 DR. GORDIS: That is right.

20 CHAIRMAN GARZA: Okay.

21 DR. DECKELBAUM: We heard this morning and now
22 sort of differences between the age groups. When we look at
23 the current guidelines, we can see at different points under
24 the different guidelines a section relating to children,
25 adolescents or special populations.

26 I would just like to bring up a general point to
27 the committee that as we go through the deliberations in
28 terms of considering whether this should be a special
29 guideline for children, that is a possible option, but I

1 would think more that somewhere in the text rather than
2 children having to go through four or five places to find
3 out what they should do, there could be a summary of what
4 the guidelines do recommend and the different categories for
5 children.

6 CHAIRMAN GARZA: Okay. We have promised Dr.
7 Gordis on numerous occasions that this would be the last
8 question, but this will really be the last opportunity for
9 the committee at least.

10 Are there any others? I was about to offer the
11 last opportunity. Richard?

12 DR. WEINSIER: It is stated in the 1995
13 guidelines, Dr. Gordis, that if you drink alcoholic
14 beverages, do so in moderation with meals. Other than
15 presumably decreasing the risk of inebriation, are there any
16 health benefits to taking it with meals?

17 DR. GORDIS: No.

18 DR. WEINSIER: So am I correct the reason to take
19 it with meals is simply to --

20 DR. GORDIS: Slow it down.

21 DR. WEINSIER: -- slow down the rate of absorption
22 and inebriation, and the risks associated gets beyond the
23 dietary guidelines per se.

24 CHAIRMAN GARZA: Thank you very much.

25 We will move on then to the next item. We are
26 very fortunate again to have Dr. Catherine Woteki, the Under
27 Secretary for Food Safety in the Department of Agriculture,
28 come speak with us this afternoon to address the issue of
29 food safety and to help the committee in its deliberations

1 as to whether or not there should be greater inclusion of
2 food safety issues in the current guidelines in one form or
3 another.

4 DR. WOTEKI: Thank you very much, Dr. Garza.

5 While we are getting set up here, I would first of
6 all like to introduce to you Sandy Facinoli, who is going to
7 help me this morning or this afternoon with these overheads.
8 Sandy is currently the acting head of our Office of
9 Education and is looking forward to working with the
10 committee as you continue your discussions of whether to
11 include a guideline on food safety or how to address food
12 safety within the context of the guidelines.

13 Also while they are still fiddling here with the
14 projector, I have a couple of slides that are very busy, so
15 I have made copies for the committee of those data slides so
16 that you can have your own and will pass those out.

17 Thank you very much for the invitation to talk
18 with you about food safety in the dietary guidelines. I had
19 the opportunity last week to give the Enderson lecture at
20 the University of Massachusetts to food science students,
21 and I talked about during that speech the rare occasions
22 when either an individual is in the right place at the right
23 time or a group of people are in the right place at the
24 right time where you can make a great leap in public health
25 policy. I think in many ways this committee is situated at
26 the right place at the right time to do that with respect to
27 the dietary guidelines in food safety.

28 The dietary guidelines are an example really of a
29 policy decision that was made quite some time ago that has

1 had a great impact on the health of Americans from two
2 different perspectives. One is the educational message to
3 the public. Clearly through the millions and millions of
4 copies of the dietary guidelines that have been distributed
5 to the public and that have served as the basis of
6 educational messages that are being taught in classes and
7 being delivered, the guidelines have had an enormous impact.

8 The second impact has been the policy implications
9 of the guidelines because they are viewed by the Department
10 of Health and Human Services and by the Department of
11 Agriculture as being the articulation of our policy as it
12 relates to food and health.

13 The dietary guidelines have I think really been
14 very much a success story because they are relevant. They
15 are relevant to people's lives. They have been kept up to
16 date by expert review such as the one that you are engaged
17 in right now, and they are looked at by health educators,
18 nutritionists and food educators as being a key document for
19 their use.

20 Today what I would like is to encourage you to
21 seize the opportunity to make them even more relevant to
22 today's needs by supporting the view that the time has come
23 for the dietary guidelines to address food safety.

24 Now, in preparing for this I went back, and I
25 looked over some of the early documents that preceded the
26 first dietary guidelines. The reason for doing that was to
27 kind of look at what the original intent was underlying the
28 dietary guidelines.

29 The three documents were all published in the

1 1970s, and they really helped to set the stage for the
2 dietary guidelines. The first was the report of the Senate
3 Select Committee on Nutrition and Human Needs, Dietary Goals
4 for the United States, and it actually was the culmination
5 of a whole series of different studies that that committee
6 had undertaken.

7 In Dietary Goals, Senator McGovern, who chaired
8 the Select Committee, said, and I quote, that "If we as a
9 government want to reduce health costs and maximize the
10 quality of life for all Americans, we have an obligation to
11 provide practical guides to the individual consumer, as well
12 as set national dietary goals for the country as a whole."

13 Now, the publication of the dietary goals drew
14 attention to the need for new guidance on diet and health.
15 I think the real emphasis at that point was on new guidance,
16 what was new in the scientific community that would change
17 the basic message of food and its role in health for the
18 public.

19 Now, the publication of the dietary goals caused
20 an enormous amount of controversy, and Surgeon General Julie
21 Richman, who was then Surgeon General, asked that the
22 American Society for Clinical Nutrition review the
23 literature on the effect of nutrition and health outcomes.
24 The result of that was actually a special publication in the
25 *American Journal of Clinical Nutrition* that was entitled
26 "Dietary Factors Relating to the Nation's Health." Then in
27 1979, the first edition of *Healthy People* was released, and
28 some general dietary guidelines were included in that,
29 calling attention to the role of the individual in

1 maintaining his or her own good health.

2 Now, I think these three documents together really
3 helped to focus the scientific and the educational community
4 and the country at large to recast our health strategy to
5 emphasize the prevention of disease and the role that food
6 can play in the prevention of disease. They gave rise to
7 the Dietary Guidelines for Americans.

8 As I was thinking back about it, it was actually
9 the controversy about the dietary goals that actually gave
10 rise later to the dietary guidelines, which were and still
11 are designed to help Americans choose diets that will meet
12 nutrient requirements, that will promote health, that will
13 support active lives and reduce chronic disease risks.

14 That first dietary guideline is, as all of the
15 subsequent reviews and documents have been, a joint effort
16 between the Department of Agriculture and the Department of
17 what is now known as Health and Human Services.

18 Now, as I said earlier, the fact that the
19 guidelines are updated periodically and that we have
20 legislation that requires that they be updated periodically
21 for scientific accuracy and appropriateness is I think one
22 of the reasons for their success.

23 Since 1980, they have been revised every five
24 years based on this expert review by the Dietary Guidelines
25 Advisory Committee, and that brings us to you and to today
26 with the committee now making recommendations for what is
27 the fifth, the year 2000, edition.

28 I think it is also worthwhile to be reminded that
29 the legal requirement to review the changing body of

1 scientific knowledge that underpins the guidelines also, to
2 my mind, implies that there is an expectation that the
3 guidelines are going to change over time so that they will
4 reflect new information that has become available since the
5 last time that they were published.

6 I think it also implies that there is no wedding,
7 no bond, to the number seven as far as the number of
8 guidelines or, you know, the fact that we have always had
9 one about one topic or another. That has to change to
10 reflect the evolution of scientific knowledge.

11 I believe the time has come to include food safety
12 in the dietary guidelines for a number of reasons. There
13 are four of them actually, and I have summarized them here.
14 What I would like to do is just briefly go through the
15 summary and to go through each one separately, as well as
16 the evidence that I think you should take into consideration
17 when you consider this topic.

18 My four arguments are first that the inclusion of
19 food safety is consistent with the original intent of the
20 guidelines, which is to help Americans choose diets that
21 will meet, first of all, nutrient requirements; secondly,
22 promote health; thirdly, support active lives; and,
23 fourthly, reduce chronic disease risks.

24 My second argument is that much less was known
25 about foodborne pathogens in 1980 when the first Dietary
26 Guidelines Committee published its guidelines and that the
27 new guidelines should reflect current knowledge about diet
28 and long-term health. From that perspective, food safety is
29 a critical factor in any discussion about diet and long-term

1 health. Most all of the information that I am going to be
2 presenting to you today is actually new information that has
3 become available since 1980.

4 The third argument is that nutrition and food
5 safety are inextricably intertwined and that to try to
6 separate them out and to say no, we are only going to deal
7 with one aspect of diet and health in these guidelines, I do
8 not think makes sense.

9 The fourth argument is that foodborne diseases are
10 preventable. For that reason, the government has an
11 obligation to help people to protect themselves. This
12 dietary guidelines document, because it is so widely
13 circulated and does form the basis for so many different
14 educational programs, is a good vehicle then to get that
15 message out.

16 Let me now go through each one of these arguments
17 in a little bit more detail. Argument number one is that
18 food safety is consistent with the original intent of the
19 dietary guidelines because food safety has an important role
20 in promoting health and reducing chronic disease risks.

21 When the dietary guidelines were first issued,
22 little was known about the extent of foodborne illness and
23 just how severe foodborne illnesses are. We also know that
24 new pathogens have emerged just in the last decade or two,
25 and some of these pathogens are quite virulent.

26 I think the best example is E. coli 0157:H7, which
27 first emerged in 1982 and was recognized as the source of an
28 outbreak here in the United States. It is just about 17
29 years that this organism has emerged and is at this point

1 practically a household word.

2 Now, I think it is also worthwhile to look at the
3 original intent for the guidelines, those four points that I
4 reviewed and that are summarized here. First of all,
5 meeting nutrient requirements. From the food safety
6 perspective and also from the perspective of nutritionists
7 who work in developing countries, we know that diarrheal
8 diseases interfere with nutrient absorption and that a very,
9 very large proportion of those diarrheal diseases, up to 70
10 percent, are foodborne diseases.

11 The second, to promote health. Well, the flip
12 side of that is preventing disease. The underlying intent
13 of the dietary guidelines is to prevent disease.

14 The third part of that original intent for the
15 guidelines was to support active lives, and I would say by
16 definition preventing foodborne diseases is going to support
17 active lives.

18 The fourth as far as reducing chronic disease risk
19 -- yes, I have not left that one yet, Sandy. Reducing
20 chronic diseases. There is a growing body of evidence that
21 links pathogens and a number of foodborne pathogens to
22 chronic disease. Okay. Now we can go on to the next one.

23 Argument number two is that I believe that the
24 guidelines should reflect the newest knowledge about diet
25 and long-term health, including the effects of food safety
26 on long-term health. We also, as part of the argument about
27 reflecting the new knowledge, do have quite a bit of
28 information now that represents what the economic burden to
29 society is, particularly in the United States, for foodborne

1 diseases. I am going to present some of that information to
2 you this afternoon.

3 It is also becoming increasingly associated with
4 chronic diseases, and I am going to very briefly go into
5 that area. Lastly, there is a growing segment of the
6 population that is particularly susceptible to foodborne
7 diseases.

8 Now let's look at each of these points in a little
9 bit more detail. First of all, I would like to share with
10 you some data that comes from the Council for Agricultural
11 Science and Technology. In a report that they issued in
12 1994, they estimated the number of cases of foodborne
13 disease occurring in the United States on an annual basis.
14 Their estimate was 6,500,000 to 33,000,000 cases of
15 foodborne illnesses and up to 9,000 deaths each year are due
16 to foodborne microbial pathogens.

17 Now, these data or these estimates from CAST were
18 actually based on data from the Centers for Disease Control
19 and Prevention, and that original estimate from CDC was
20 somewhat higher. It had a somewhat higher upper bound of up
21 to 80,000,000 cases a year.

22 I think that the discrepancies in the numbers, in
23 the estimates, that have been made over time and that even
24 on some of the slides that I am going to be using today are
25 kind of an indication of that fact that these are estimates.
26 They are based on different assumptions. Regardless of what
27 the upper bound is that one sets, it is a large number, and
28 it has a huge economic impact.

29 I might indicate, though, that there are new data

1 that will be coming available very soon. In fact, later
2 this week the Centers for Disease Control will be issuing
3 their estimates on foodborne illnesses from the FoodNet data
4 system. I believe that publication is due out on Friday.
5 It will focus on data from the five catchment areas that are
6 part of the CDC active surveillance system, and those are in
7 Minnesota, Oregon, California, Connecticut, and Georgia.

8 Later on this year, CDC will be coming out with a
9 revised estimate overall, a national estimate of the burden
10 of foodborne disease by specific types of organisms that
11 will be a revision of these numbers that are here, the
12 6,500,000 to 33,000,000 cases per year.

13 We would be happy to provide to the committee
14 copies of the MMWR when it comes available and also will
15 make a note to make sure that if you are still meeting when
16 CDC comes out with its revised estimates that we get you
17 copies of that as well.

18 CHAIRMAN GARZA: Thank you.

19 DR. WOTEKI: Secondly then, let's look at the
20 estimates of the number of foodborne illnesses by organism.
21 This is one of the tables that is in the packet that I
22 handed out to you, and this is a good reason why we handed
23 it out. It is not showing up.

24 Essentially this shows for a number of bacteria
25 and one parasite, toxoplasmosis gondii, that there are a
26 range of estimates on the numbers of cases and deaths that
27 are attributable to these organisms each year. I would just
28 like to point out for you two of these organisms.

29 Sandy, you might actually point to these on the

1 slide.

2 The first one that I want to point out to you are
3 the estimates for E. coli, which are 16,000 to 32,000 cases
4 a year and deaths ranging, estimates again, from 63 to 126
5 per year. E. coli, although it does affect a lot of people,
6 has a relatively low mortality rate.

7 In comparison, listeria, listeria monocytogenes,
8 which is a little bit lower down, has a very much smaller
9 number of cases, in the range of 1,000 to 2,000 each year,
10 but it has a very high mortality rate of 20 to 25 percent.
11 This then is an important point a little bit later when I
12 get to what the costs are that are associated with these
13 different organisms.

14 Now, even though our estimates on the numbers of
15 people that are affected through illness -- and, tragically,
16 through death -- leave a lot to be desired, let's say that
17 -- we do know, though, that we are making some significant
18 progress on a number of these foodborne organisms.

19 The health promotion/disease prevention goals for
20 the year 2000 set specific targets for four of these
21 organisms: salmonella, campylobacter, E. coli 0157:H7, and
22 listeria monocytogenes. And the surveillance data that were
23 used in 1997 to update what our progress has been on these
24 indicates that as far as the targets that were set early in
25 the decade that we have made very significant progress on
26 these four, and in fact the targets had already been met by
27 the 1997 point at which this assessment was made.

28 I think it does give us some confidence that
29 foodborne diseases can be reduced, and certainly it also

1 indicates that beyond the interventions that are being done
2 in food processing by the industry and by the regulatory
3 agencies that education is a very important component in
4 this strategy because consumers need to know what they can
5 do to protect themselves.

6 Now, the next point that I want to make is that
7 the costs that are associated with foodborne diseases are
8 quite significant. This next set of estimates come from the
9 Economic Research Service, an article by Buzby and Roberts
10 and that was published in 1997. Their analysis shows that
11 foodborne illnesses attributable to seven of the major
12 pathogens have costs to society that range from \$6.6 to \$37
13 billion annually in medical costs and lost productivity.

14 Particularly since I am responsible for the agency
15 that regulates meat and poultry and egg products, meat and
16 poultry alone accounted for \$5.2 to \$28 billion of these
17 costs, so on this chart the first two columns here actually
18 show two different economic approaches to costing, so those
19 first two columns. That gives us at the bottom then the
20 range of \$6.6 to \$37 billion a year in associated health
21 care costs and lost productivity costs.

22 The middle column represents the proportion of
23 illnesses that are attributable to meat and poultry
24 products, and then the last two columns then give you the
25 estimates, again using these two economic approaches towards
26 assessing or estimating what the costs are for foodborne
27 illnesses that are attributable to meat and poultry as the
28 vehicle for the disease.

29 Next I wanted to talk about microbe-induced

1 chronic disease. This is a relatively new idea, and in some
2 ways it probably reflects the state of knowledge about this
3 topic as existed in the mid-1970s when the dietary goals and
4 the dietary guidelines were under consideration.

5 The impact of foodborne illness on health is
6 becoming even more significant, particularly as we recognize
7 the ability of some infections to cause chronic
8 complications. This is the new area I think that we are
9 gaining a greater appreciation of. We used to think that
10 foodborne illnesses were just an acute illness, a belly ache
11 that would go away in a couple of days. You really did not
12 need any treatment. Stay home. Rest. There are no chronic
13 consequences.

14 We are finding that increasingly that is not the
15 case. We are finding that bacteria such as helicobacter
16 pylori are very significantly associated with ulcers and
17 bacteria in a positive sense and may be partially
18 responsible for heart disease. We are also finding that
19 foodborne bacteria can cause serious and chronic illness.

20 Now, it remains to be learned what role food plays
21 particularly as the vector for helicobacter, but we do know
22 that helicobacter survives in chilled water, milk and
23 vegetables for several days. Human feces is most often the
24 source of contamination, but we also know that there are
25 animal reservoirs for the organism, so although there is a
26 causative link between helicobacter and ulcers, the specific
27 foodborne route of transmission and whether it is a zoonotic
28 disease is the area that still remains somewhat unclear at
29 this point. I think it is quite controversial.

1 It is estimated, though, that chronic sequelae may
2 occur in as great a proportion as 2 to 3 percent of
3 foodborne disease cases and that the long-term consequences
4 to human health and the economy may be much more detrimental
5 than the acute disease for which those cost estimates were
6 based. Now, the cost estimates also, to the extent that the
7 economists could, did take into account the chronic effects
8 as well.

9 Now, there are some examples of known associations
10 such as E. coli 0157:H7 and hemolytic uremic syndrome, which
11 is an acute renal failure that occurs particularly in
12 children. Another is campylobacter and Guillain-Barre
13 syndrome, a neurological disease that causes a paralysis.
14 In many cases it is a temporary paralysis.

15 There is also very good information that relates
16 rheumatoid disease to various species of urcencia, shigella,
17 salmonella, campylobacter and E. coli, Graves disease, the
18 autoimmune thyroid disease, to urcencia, enterocolitia,
19 inflammatory bowel disease, to pseudomonas microbacterium,
20 E. fecalis and E. coli.

21 Jim Lindsey actually did a very good review of the
22 relationships between foodborne diseases and chronic
23 diseases, and I can also make that available to the
24 committee if you would like to have that. It is relatively
25 recent. It was published in 1997 in *Emerging Infectious*
26 *Diseases*, and I think it is the best current review that I
27 have seen of the topic.

28 Now, we also know that we have a growing segment
29 of the population that are highly susceptible to foodborne

1 illnesses. The impact of foodborne illnesses on these
2 subgroups is very disquieting. For example, more people
3 today are able to live longer with diseases that put them at
4 particular risk of contracting foodborne illness. An
5 example is HIV, AIDS or also transplant patients who are
6 taking immunosuppressing drugs.

7 The elderly and pregnant women are also most
8 affected by foodborne outbreaks, particularly listeria
9 monocytogenes, which has gotten a lot of current attention
10 because of a large outbreak.

11 Lastly on this topic, I wanted to show you just a
12 very simple chart that shows for one organism, E. coli
13 0157:H7, the infection rates by age. As you can see from
14 this, the ages from less than one year to more than 65 that
15 the infection rate is highest for children age one to four,
16 but it is also elevated as compared to adults for all of
17 those under the age of 15.

18 To kind of summarize the arguments so far on this
19 topic, new knowledge about foodborne disease I believe
20 warrants consideration by the committee, and particularly
21 these relationships of foodborne diseases to chronic
22 diseases I think is particularly important. All of this is
23 information that has become available since the 1980s and
24 much of it just in the decade of the 1990s.

25 Now, argument number three was that nutrition and
26 food safety are inextricably intertwined. I think this is
27 another reason for including food safety in the dietary
28 guidelines. We know that nutrition and food safety are both
29 critical in having a healthy diet or a health-promoting

1 diet.

2 I am arguing that we take and that the committee
3 take a holistic approach towards considering nutrition and
4 food safety. I think educators certainly like to talk about
5 food safety concerns when they are teaching about nutrition.
6 We frequently get inquiries to FSIS, as well as to other
7 organizations that I have worked with, about how to link
8 these two topics.

9 We also know that the public is making their food
10 choices with safety in mind, in addition to taste and
11 nutrition and other cultural factors that they may use in
12 selecting foods.

13 The argument for the holistic approach to food
14 safety -- certainly within the Department of Agriculture we
15 are taking that approach -- nutrition, food safety, food
16 security in the environment are really being considered
17 together when designing food and agricultural politics, and
18 this concept I believe should extend to our dietary guidance
19 as well.

20 We are also increasingly seeing providers of
21 education, providers of health and nutrition guidance,
22 focusing on food safety. The American Dietetic Association
23 in 1997 issued a position statement on food and water safety
24 emphasizing that industry and government should educate food
25 handlers about food safety, and that is in the home as well
26 as in industry. Healthy People 2010, which is under
27 development now, I am told is going to have some new food
28 safety objectives.

29 Several countries have included food safety in

1 their own dietary guidelines; China, for example. Their
2 guidelines say do not eat any food that has been left out
3 overnight. Any guidance for educators from the food and
4 agriculture organization also mentions some key messages
5 about food safety.

6 I think we also need to take into account public
7 concerns about food safety because they are affecting
8 people's food choices. Pregnant women, for example, should
9 be receiving food safety guidance along with the nutrition
10 guidance that they need.

11 The recent outbreak again of listeria
12 monocytogenes I think clearly has pointed out that women who
13 are pregnant are not getting that food safety guidance, so I
14 think it is extremely important that they do. In many
15 cases, education on proper handling and preparation can help
16 to allay concerns, but if certain foods are avoided,
17 nutrition educators have to be ready to help patients
18 continue to meet their nutritional needs.

19 Finally, the fourth argument that foodborne
20 disease is preventable I think underlies all of the policy
21 approaches that we are taking within the Food Safety and
22 Inspection Service, and I think that the dietary guidelines
23 could and should incorporate this idea as well that
24 foodborne diseases are preventable and that we have an
25 obligation to provide food safety guidance wherever we can.

26 I think this is particularly true because consumer
27 knowledge is lacking. It needs constant updating and
28 reinforcement, and we know that education can be successful
29 at least in filling the knowledge gaps if it is not always

1 leading to changes in behavior, but that is not any
2 different from the nutrition situation either in our
3 guidance.

4 We know that there is a huge interest in food
5 safety. The International Food Information Council
6 commissioned the Center for Media and Public Affairs to
7 examine information that the news media provide to American
8 consumers about diet, nutrition and food safety issues, and
9 this just kind of summarizes their survey that was done in
10 1997 as compared to 1995.

11 Essentially what it shows is they examined 38
12 local and national news outlets from May through June, 1997,
13 and they compared those findings then with the same three
14 months from 1995. The data shows that foodborne illness was
15 the leading topic of discussion in 1997, and the leading
16 source of harm mentioned was bacteria in food.

17 Now, while the interest is there and frequently
18 the knowledge is there, the actual food safety behaviors are
19 not. This is an area where again there is not a lot of
20 information, but there was an extremely interesting article
21 that appeared in *Food Technology* in February of 1998. It
22 was an audit of consumer food handling practices, and it
23 showed that poor food safety practices are common even among
24 the better educated segment of our population.

25 The data were collected from 106 households in 81
26 cities across the U.S. and Canada, and it was admittedly a
27 very biased sample. Individuals were highly educated.
28 Seventy-three percent of them had college degrees. The
29 auditors used a critical control point approach similar to

1 the same approach that they use when they go audit the food
2 safety practices in restaurants. This is a commercial audit
3 firm.

4 They found critical violations, including cross-
5 contamination, sick and symptomatic food handlers, neglected
6 hand washing and improper cooling of leftovers. Less than
7 one percent met the minimum criteria for acceptable
8 performance. Ninety-nine percent flunked, and at least one
9 critical violation was observed in 96 percent of the
10 households.

11 Now, I would hate to see what would happen in my
12 household if they came in or any of yours probably, but a
13 follow up to this study recently released showed that those
14 participants in the 1997 survey who had received an exit
15 interview cited significantly more improvement in their food
16 safety habits, which really supports the belief that when
17 provided with education and information, people will act on
18 it, which then leads us to the Fight Bac campaign.

19 Many of you have probably seen this. It is an
20 example of a major food safety campaign that is meeting the
21 need for food safety education. The concept behind it was
22 actually very similar to the development of the dietary
23 pyramid.

24 The food safety community wanted to have an easy
25 to follow set of guidelines that were science based, had
26 been rigorously consumer tested and that could serve as the
27 basis for a nationwide education program, and this is what
28 they came up with.

29 It is sponsored by a public/private partnership

1 for food safety education. The messages are purposefully
2 very simple, to the point, action oriented. They are well
3 researched, well founded on science. They have been tested
4 by focus groups, and they really are the most important
5 behaviors that need to be changed.

6 We believe that food safety guidance incorporated
7 into the dietary guidelines would need to meet the same
8 criteria. Similar to the use of the pyramid in the
9 guidelines -- you do not have everything about the pyramid
10 in here -- Well, we would not expect everything about this
11 Fight Bac, Four Simple Steps, to be in there, but the
12 concept should be, and it should be a way to reinforce that.

13 In closing, I support the view that there should
14 be a food safety guideline in the dietary guidelines. I
15 believe that the time has come, and it was certainly on the
16 minds of the authors of the dietary goals document back in
17 1997 (sic).

18 I would like to close on a quote from them kind of
19 harking back 20 years. The quote is this. "Guidance of
20 consumers towards nutritionally adequate diets must include
21 research-based knowledge on food management procedures and
22 preparation of foods for the table to assure retention of
23 both nutritional and eating qualities and to avoid foodborne
24 illnesses."

25 I want to thank you for the invitation to speak
26 with you today. I also want to thank Dr. Johanna Dwyer, who
27 has been spearheading the efforts on development of such
28 guidance.

29 Thank you.

1 CHAIRMAN GARZA: Thank you.

2 Are there any questions or comments? Dr.
3 Weinsier?

4 DR. WEINSIER: Cathy, you make a compelling
5 argument for including this in the guidelines. Let me think
6 out loud with you for a minute.

7 The guidelines, as I understand them, focus on the
8 "what" issue; that is, what to eat to stay healthy. I am
9 trying to fit that into that scheme. I am seeing this more
10 as a functionality issue or a what issue, a what in terms of
11 what needs to be done to select foods, to prepare foods, to
12 handle foods, to serve foods for various purposes, one of
13 which may be to prevent foodborne illness.

14 But then do we have to think about the "how" issue
15 in terms of preventing food allergies, drug/nutrient
16 interactions? Do we go so far as to think about the way we
17 handle, serve and prepare foods in terms of nutrient losses,
18 cooking, et cetera?

19 I am trying to separate the what issues from the
20 how issues, so basically I have two questions. One, do you
21 think that this really belongs in the dietary guidelines;
22 not that it is not important. Does it belong in the dietary
23 guidelines?

24 Two relates to an issue that Bert brought up at
25 our last meeting, and that is the dietary guidelines booklet
26 now is 40 pages long. Each revision brings it up about 20
27 percent. Our charge I think was to try to keep it no larger
28 than it is right now. If you think this is a high priority,
29 what goes?

1 DR. WOTEKI: Okay. With respect to the first
2 question, do I think this is appropriate since it is a how,
3 as opposed to a what to eat, I do think it is appropriate
4 because unlike some of the issues that you raised, food
5 safety affects everyone, as is how you and what you choose
6 to eat affects your long-term health. This is guidance for
7 everybody, not just for that select group who has a
8 foodborne allergy, for example.

9 With respect to the second question of what goes,
10 I might take the Enoch Gordis approach and say hey,
11 committee, that is your responsibility. There are certainly
12 a lot of areas in which there has been a huge growth of
13 discussion within the guidelines over the past few years,
14 and that might be an area in which you might want to look at
15 where you could pare back.

16 Certainly where there are other publications that
17 you are referencing in here, you do not necessarily have to
18 have all of the information that is in those other
19 publications. Contain the essence of it.

20 CHAIRMAN GARZA: Dr. Deckelbaum?

21 DR. DECKELBAUM: I think, you know, if we look at
22 the dietary guidelines, they actually contain currently
23 advice to avoid certain things in our diet which would be
24 harmful -- saturated fat, perhaps excess alcohol -- so I do
25 not think this is out of keeping with advice that we give as
26 part of the diet to avoid certain things. Since this does
27 come with food, I think it is definitely worth considering.

28 Just two other points. In terms of the dietary
29 guidelines and preventing a wide range of diseases, I would

1 like to just point out that helicobacter pylori also has a
2 strong correlation with cancer risk in different
3 populations.

4 Finally, there are some things -- you had
5 parasites listed here, but without a figure. One of the
6 reasons is because the tools are not there yet for
7 widespread examination.

8 For example, in Peru and Israel where they do look
9 for contamination of fruits and vegetables with giardia
10 lamblia and cryptosporidium, they find them commonly. These
11 are major causes of morbidity in children in day care
12 populations, and they would also come along with food.
13 Certainly cryptosporidium is a cause of mortality in HIV-
14 positive populations.

15 DR. GRUNDY: How much of the problem is related to
16 what individuals do like that last little diagram you showed
17 versus a problem of contaminated food? It is in the food
18 supply so that a person, even if they did those things,
19 would still get sick? How is that divided up?

20 DR. WOTEKI: I do not have any good data that
21 could really answer the question of, you know, to what
22 extent are food handling practices in the industry
23 attributable for these diseases, as opposed to in the home.

24 The one thing that we do know is that most cases
25 of foodborne illnesses occurring in the home are because the
26 food was contaminated when it was brought into the home and
27 then there is some cross-contamination that occurs during
28 the preparation in the home, but that would not have
29 occurred if the food had not been contaminated already when

1 it came into the kitchen.

2 DR. GRUNDY: My question is how much can the
3 dietary guidelines and what you tell people to do, how much
4 can that have a beneficial effect to the whole problem?

5 DR. WOTEKI: Well, it can have some very
6 significant effects. Again, I cannot quantify, but --

7 DR. GRUNDY: Right.

8 DR. WOTEKI: -- the four simple thing that are
9 talked about in the Fight Bac campaign, preventing cross-
10 contamination would have -- if we could do that, I think it
11 would have a very appreciable effect on reducing foodborne
12 illnesses.

13 The other things are also very helpful as far as
14 either minimizing the growth of bacteria or preventing that
15 cross contamination.

16 DR. LICHTENSTEIN: How much information now is
17 mandated for the consumer on things like fresh meats or
18 poultry? Is that now mandated?

19 DR. WOTEKI: Yes. We do have a safe handling
20 labeling that is on meat and poultry as it is sold.

21 The problem is, from our perspective, just like
22 with aspects of nutrition labeling, the label itself is very
23 small. It provides information, but it really does need
24 additional education and reinforcement to go along with that
25 labeling so that people know really what it means and what
26 they should be doing.

27 DR. JOHNSON: Cathy, we were told earlier that the
28 school nutrition programs are the one federal program that
29 are mandated to follow the dietary guidelines.

1 Do you see the addition of a food safety guideline
2 having any substantial impact over and above what is already
3 done in the food safety area with school nutrition programs?

4 DR. WOTEKI: Well, I think that by virtue of the
5 fact that the dietary guidelines are viewed as being the
6 policy of USDA and HHS that they do carry a weight that goes
7 far beyond the educational message.

8 Now, with respect to the school feeding programs,
9 we have been working very closely with the Food and
10 Nutrition Service on the development of further educational
11 programs. Maybe Sandy and others could comment more
12 specifically on the nature of those educational programs.

13 We get into, though, difficulties in that from a
14 regulatory perspective what goes on in the school
15 cafeterias, how food is stored, the temperature conditions,
16 the cleanliness and the sanitation within those kitchens,
17 those are really under the regulatory purview of the states
18 and the localities.

19 With respect to an educational message, we are
20 working with FNS in the development of that educational
21 message. With respect to the regulation, that ends up to be
22 a state and a local issue.

23 CHAIRMAN GARZA: Dr. Kumanyika?

24 DR. KUMANYIKA: I have two questions that have to
25 do with the implications of the other dietary guidelines for
26 food safety. One at least is probably you are going to say
27 out of your domain, but I hope you will address it anyway.

28 The salt guideline will say to some people that
29 avoiding sodium or salted foods has implications for food

1 safety. You might want to address that, so I was wondering
2 if you would comment on that as a food safety issue.

3 The other has to do with things like pesticide
4 residues and things that are targeted for increased
5 consumption. Where does that fit in?

6 DR. WOTEKI: Well, with respect to salt and its
7 preservative effects, the importance of salt I think has
8 declined significantly over the years.

9 If you go to the grocery store, you know, out of
10 those 20,000, 30,000, 40,000 products that are available, I
11 think proportionately those that rely on salt as the major
12 preservative has decreased very substantially over the
13 years. There is more food that is frozen, more food that is
14 refrigerated, so, you know, we are not relying on salt that
15 much as a preservative.

16 Also, because of the concern about salt and
17 hypertension, a lot of foods have been reformulated to have
18 lower salt levels, even where it was mainly taste as the
19 criterion and not the role of salt in preservation within
20 that product. I do not really see that as being that big a
21 food safety issue in reducing salt and salt-containing
22 foods.

23 The second question was?

24 DR. KUMANYIKA: EPA-type issues about pesticide
25 residue on fruits and vegetables and things that are
26 targeted. From a consumer point of view, they may be more
27 concerned about those issues, perceived or real, than about
28 these things that are very real.

29 DR. WOTEKI: Yes. Well, interestingly enough,

1 some of the recent surveys have shown that pathogens now are
2 at the top of consumers' concerns about safety where it used
3 to be pesticides and food additives.

4 To my mind, that tells me that consumers have now
5 the priorities in the order that goes along with the
6 scientific risks that are associated with these different
7 substances, so I think there is less concern now.

8 There is certainly large numbers of people that
9 are concerned about pesticide residues in food, but it is no
10 longer ranked all the way at the top.

11 CHAIRMAN GARZA: Dr. Dwyer?

12 DR. DWYER: Thank you, Cathy, for a wonderful
13 presentation.

14 Two questions. One was the issue of whether you
15 in your part of the Department of Agriculture have come
16 across any good campaigns for nonbacterial foodborne
17 illness. I think it gets back to Shiriki's question.

18 We could not find any as Rachel and I tried to
19 comb the literature here, but I wondered if you --

20 DR. WOTEKI: Yes. Sandy, are you --

21 DR. DWYER: -- had any good ones that were
22 demonstrable?

23 MS. FACINOLI: Nonbacterial campaigns.

24 FEMALE VOICE: We cannot hear you.

25 MS. FACINOLI: Nonbacterial campaigns.

26 DR. WOTEKI: Yes. Sandy, there is a mike right
27 there.

28 MS. FACINOLI: I would say no.

29 DR. WOTEKI: No. I did not realize you were

1 looking for that. Perhaps we can assist you in looking
2 further for that, but nothing comes to mind immediately.

3 DR. DWYER: The second thing is do you think --

4 DR. WOTEKI: A lot of people in the audience,
5 Johanna, are going [indicating with a gesture]. They do not
6 know about them either.

7 DR. DWYER: Okay. I did not think so, but we just
8 need to know, you know. If there is a body count of these
9 other things, we need to know who the bodies are.

10 The other thing is special peer groups. Is this
11 something that we should highlight in thinking through this
12 and finding information about it? Are there any specific
13 groups we should single out?

14 DR. WOTEKI: No. The problem -- you know, I
15 certainly pointed out meat and poultry as being a very large
16 contributor in the data that ERS had presented, but there
17 are foodborne illnesses associated with virtually every
18 category of food.

19 We even had a case this past summer that just
20 surprised everybody for salmonella gondi in a breakfast
21 cereal. It was a toasted oat cereal, and the problem seems
22 to be the vitamin mix that was added after the cereal was
23 toasted in a final step in the process. That seems to have
24 been the source of the problem. Even a baked item that you
25 would not associate something like salmonella with can be
26 the vehicle for what at that point was a very large
27 foodborne outbreak.

28 DR. LICHTENSTEIN: I guess that sort of gets back
29 to Dr. Grundy's question. I would be really interested in

1 how much can really be attributed to production versus the
2 cross contamination; that is, sort of permissive once it
3 comes into the household versus actually introduced into the
4 household because certainly something like the example you
5 just cited, which may be an exception, would be something
6 that this would not really be applicable to.

7 DR. WOTEKI: Yes. Yes. Unfortunately, I do not
8 have a lot of information on that.

9 DR. DECKELBAUM: I just want to reinforce once
10 again that it is not only the meat and poultry, as we heard
11 this morning, but it was especially the parasites. Another
12 example of a parasite epidemic was the cyclospora epidemic
13 that came in on strawberries, so that they are not often
14 looked for. They are probably very much underdiagnosed and
15 picked up so that all sources of food can bring
16 contaminants.

17 DR. WOTEKI: That is a very good point because
18 produce sprouts are increasingly being associated as the
19 vehicle for foodborne outbreaks of disease.

20 CHAIRMAN GARZA: Meir, and then Dr. Lichtenstein?

21 DR. STAMPFER: To me, that example just reiterates
22 the point that Scott and Alice made about are these going to
23 be useful guidelines for individuals to follow.

24 When you gave the statistic about the households,
25 you know, at first I was horrified, and then my second
26 thought was why are we not all dead? Then it made me wonder
27 whether the criteria might be sort of set too high if 99
28 percent of households fail to meet it, yet we still seem to
29 be doing okay on the average.

1 DR. WOTEKI: Well, I think that the main point,
2 though, is that consumers do need to have basic information
3 about what they can do to protect themselves from foodborne
4 disease. Certainly cooking foods that are intended to be
5 cooked is important and cooking them to the appropriate
6 temperatures. That is one of our four guidelines.

7 The second is chilling foods. As soon as you get
8 from the grocery to the house, chill them to the appropriate
9 temperatures and maintain them at that. That is going to
10 prevent the growth of organisms regardless of whether it is
11 meat or poultry or whether it is produce.

12 The other two recommendations both relate to
13 prevention of cross-contamination. Washing hands and all of
14 the cooking surfaces, preparation surfaces, is going to cut
15 down on cross-contamination whether it is coming from meat
16 or poultry or from some other food that you have brought
17 into the house, and then the whole idea is to make sure that
18 people have got the basic information that they can use to
19 protect themselves.

20 The rest of us in FDA and in FSIS are certainly
21 working with the industry and working with the states
22 because we very much share the jurisdiction from the
23 regulatory perspective to make sure that they are doing what
24 they should be doing to prevent the occurrence of these
25 organisms in the foods that they are either responsible for
26 growing -- we are working on developing good agricultural
27 practices. We are working with the processing industry to
28 make sure that they are adhering to the new HACCP-based
29 approaches that are going to reduce these organisms. With

1 the states, we share jurisdiction for the inspection,
2 transportation, retail and at the local level. All the
3 restaurants are mainly locally inspected.

4 You know, it is very much a shared responsibility
5 with consumers also needing to have the basic information to
6 protect themselves.

7 CHAIRMAN GARZA: Dr. Deckelbaum?

8 DR. DECKELBAUM: I would like to suggest to Dr.
9 Stampfer, considering his comment about, you know, this may
10 be baseline in the population, that you have a good
11 opportunity in the nurses' health study to see how many
12 nurses have missed work because they have had to stay home
13 and take care of their children with diarrhea or some other
14 problem that could have come from food.

15 CHAIRMAN GARZA: Dr. Dwyer?

16 DR. DWYER: I am troubled by some of my colleagues
17 who seem to think that -- I am concerned about the bad
18 reporting system for what happens from the market to the
19 table or toilet, whichever you want to say.

20 (Laughter.)

21 DR. DWYER: I will say table. I will settle for
22 table. Strike that other out of the transcript.

23 Could you comment briefly about the existing
24 reporting system? Is it all we would desire from a public
25 health standpoint?

26 DR. WOTEKI: Heavens, no.

27 DR. DWYER: From market to table. Not from the
28 poultry plants in the world, but from market to table or
29 toilet.

1 DR. WOTEKI: Okay. Are you including processing
2 in your market because --

3 DR. DWYER: I am going from the place where I buy
4 the product --

5 DR. WOTEKI: Okay.

6 DR. DWYER: -- to when I get sick. Just that
7 system. Not the big companies, but just that.

8 DR. WOTEKI: Well, there is really, to my
9 knowledge, nothing from market to table as far as reporting
10 systems.

11 There is information, once people become ill and
12 they go to see a doctor, then the doctor may culture,
13 isolate an organism and report that to the state and to the
14 federal authorities. But only a very small proportion of
15 people who become ill with foodborne diseases go to see a
16 doctor. Of those that do, a very small proportion of those
17 actually obtain a specimen and culture that.

18 The state requirements for reporting vary
19 enormously. I believe at this point there are only 40-
20 something states that require E. coli 0157:H7 to be
21 reported, so that is for a very high profile organism.

22 The reason that the Centers for Disease Control at
23 FDA's and FSIS' request have instituted this FoodNet active
24 surveillance system with, I described to you five of the
25 original catchment areas -- they have now expanded to seven
26 and will be bringing the eighth on line very soon. That
27 system is the first time where there is actually active
28 follow-up with the state and local health authorities to
29 determine the numbers of cases of foodborne illness that are

1 occurring within those catchment areas.

2 The surveillance system that we have has been very
3 much a passive one up until just the last three years with
4 the development of FoodNet, and I think it is actually also
5 a good reason why it is so difficult for us to make very
6 good estimates of the burden of disease that is foodborne,
7 food associated.

8 CHAIRMAN GARZA: There are I think two other
9 issues that no one else has raised that perhaps would be
10 useful to have your comments.

11 One is there is some concern among consumers as to
12 point of origin of foods and their relative safety. Should
13 we be concerned about including any of that in guidelines?

14 Then also that in fact foods that are contaminated
15 may often be the source of antibiotic resistant organisms so
16 that they are much more dangerous than the same organism
17 that comes through another vehicle, especially those that
18 come from animalborne products, because of the use of
19 antibiotics in dealing with the issue at the production end.

20 Can you comment on either one? Are either
21 substantial concerns or not?

22 DR. WOTEKI: With respect to imported as opposed
23 to domestically produced food, we really do not have good
24 data that shows that imported food is any more or less risky
25 than domestically produced food.

26 Particularly in the case of meat and poultry,
27 which is the area that I have more knowledge of at this
28 point, we require equivalent systems. Systems in countries
29 that want to export to us have to have a regulatory system

1 in place that produces an equivalent level of safety as to
2 what we require here in the U.S., so for meat and poultry
3 products, we do not see any increased risk associated with
4 them.

5 CHAIRMAN GARZA: What about parasites?

6 DR. WOTEKI: Yes. It is equivalent level of
7 safety.

8 With respect to all other foods that are under
9 FDA's regulatory purview, FDA does not have the same
10 statutory authority that FSIS does, so they cannot require
11 these equivalent systems and equivalent level of protection.

12 Having said that, though, there have been some
13 very high profile outbreaks that have been associated with
14 some imported foods, but we have also had very high profile
15 outbreaks associated with domestically produced produce and
16 milk and ice cream and other products.

17 There is no indication that there is a higher
18 level of risk associated with imported foods than
19 domestically produced foods.

20 CHAIRMAN GARZA: And the antibiotic issue?

21 DR. WOTEKI: The antibiotic issue I think is one
22 if you read the New York Times today, it is certainly very
23 high profile, front page. They have a big, big story about
24 antibiotics. I do not at this point think that --

25 CHAIRMAN GARZA: Some of us have not seen the
26 Times today.

27 DR. WOTEKI: Well, you could share it, Alice, with
28 the rest of the committee.

29 I do not think that that is the kind of thing that

1 the dietary guidelines, the level of detail that should be
2 gone into in the guidelines. What we are suggesting or what
3 I am suggesting is, you know, some fairly basic messages for
4 the public to follow that will provide them with some
5 additional protections.

6 On the antibiotic issue, the article that I think
7 you will all find quite informative is talking about a new
8 approach that the Center for Veterinary Medicine at FDA is
9 proposing for antibiotics.

10 Currently we work with CVM in the antibiotic
11 resistance monitoring system, FSIS, the Agricultural
12 Research Service and the Center for Veterinary Medicine.
13 The underlying approach is to monitor for the development of
14 antibiotic resistance and then to control it, to manage it.

15 CHAIRMAN GARZA: The point I was getting at was
16 including it in our report to the Secretary as an added
17 reason for motivating the committee's concern because of the
18 fact that these organisms may yet be more virulent because
19 of the antibiotic resistance.

20 What I am hearing from you is that in fact that
21 may not be true?

22 DR. WOTEKI: Well, what I was responding to was do
23 you put it in here.

24 CHAIRMAN GARZA: No, no, that --

25 DR. WOTEKI: Yes. I think in your technical
26 report, as an issue that the committee feels deserves
27 further consideration and certainly close monitoring I think
28 is completely appropriate.

29 CHAIRMAN GARZA: Any other questions? Comments?

1 If not, again, thank you very much for --

2 DR. WOTEKI: Thank you.

3 CHAIRMAN GARZA: -- a very good presentation and
4 also then to Dr. Gordis, who didn't come. This session has
5 been extremely informative.

6 We will take a break that we should have taken
7 several minutes ago. Let's try and be back by a little
8 after 4:00 p.m., but not much after 4:00 p.m.

9 Thank you.

10 (Whereupon, a short recess was taken.)

11 CHAIRMAN GARZA: If I could ask everyone to please
12 take your seats? We are going to very likely have to go
13 until about 6:00 p.m. instead of 5:45 p.m., but if we are
14 going to be done by 6:00 p.m. then we need to get started.

15 We are going to move to the 3:15 p.m. part of the
16 agenda. Today and tomorrow we will be starting to look at
17 the work of the various groups that have been looking at the
18 guidelines, some of the special issues that we also have
19 been examining, and we have one more invited guest who will
20 be with us tomorrow morning.

21 To get started on that, our first speaker for this
22 afternoon is the co-chair of the committee, Dr. Suzanne
23 Murphy, who I think the last time we saw her was far from
24 this ocean and now has gone clear to the other side of the
25 world almost. She is now in Hawaii. She has insisted that
26 this is because of the intellectual climate.

27 (Laughter.)

28 CHAIRMAN GARZA: I think she may have some other
29 ideas in mind, especially after I guess the coldest winter

1 that anybody ever spent was the summer in San Francisco.

2 MALE VOICE: Mark Twain.

3 CHAIRMAN GARZA: Mark Twain. Exactly.

4 Anyway, Suzanne, welcome back to the East Coast.
5 Bring us up to date on what the group has been doing on Eat
6 a Variety of Foods.

7 DR. MURPHY: Thank you, Bert, and aloha. I am
8 learning the language.

9 Well, the dietary variety guideline group has been
10 somewhat active, although I think we are the smallest group.
11 Dr. Weinsier and I are it. I have agreed to speak for us on
12 the variety guideline this afternoon, but he would also like
13 an opportunity to talk to you a little bit about one part of
14 the variety guideline, so I will take a few minutes to go
15 over some of the general concepts, and then I will turn it
16 over to him if that is all right.

17 There is in your booklet, and I want to be sure
18 all the committee members know that Shanthy has prepared a
19 booklet for us. I believe the outlines for all of the
20 working groups are indeed in this booklet. I am going to
21 refer a couple of times to the variety pages, and I am going
22 to get the page numbers here any moment.

23 They are not numbered. All right. Do not worry
24 about the page numbers, but partway in there is a variety
25 guideline broad outline. I will come back to that in just a
26 moment.

27 We have made not really any recommendations
28 specifically for changes, but for items that need to be
29 discussed, trying to following Dr. Garza's suggestions that

1 we not come to any conclusions, so in my presentation I am
2 just going to summarize some of the pros and cons for you to
3 think about a little bit.

4 I do not have a walking mike, so let me get my
5 notes. Let's see if I can be this organized. I am not
6 positive I can.

7 The variety guideline is to some extent the
8 linking guideline. As you know, it is in the center of our
9 graphic that is on the cover of the dietary guidelines
10 booklet, and so I think it has an importance that is
11 perceived, anyway, by people that look at it, that gives it
12 this central role.

13 When I summarize some of the pros and cons, I
14 think probably one of the most important pros of keeping the
15 guideline exactly the way it is is that it is very simple,
16 and it is also positive and so there are some good reasons,
17 I believe, to not change the variety guideline.

18 On the other hand, as we looked through the
19 literature and looked through the focus group results, we
20 found three reasons at least that one might wish to consider
21 changing it.

22 One is that it is not very specific, and I refer
23 you to the comments from the focus group which I have
24 summarized on the next transparency, so I will come back to
25 that one in just a minute. I think everyone got a copy of
26 the focus group comments. I found those very interesting,
27 and I really appreciate the work by ILSI and others who
28 conducted those.

29 Although a few respondents perceived this

1 guideline as less important than the others and some said it
2 was unclear, they had no objection to the guideline. In
3 other words, it was not offensive, I guess, but many
4 respondents indicate the guideline allows people to eat
5 foods that may not be classified as healthy choices.

6 I wanted to just read you a couple of the comments
7 that people made, but now I cannot seem to find my copy.
8 Here it is. One person said, "I think a lot of people would
9 misinterpret it. Okay. I've got my pizza. I've got my ice
10 cream. I've got my cake. You know, a variety of foods."

11 (Laughter.)

12 DR. MURPHY: Someone else said, "Make sure you
13 have a lot of fun. If you enjoy it, eat it. I think those
14 are good reasons for the variety guideline." Someone else
15 said, "I think it means enjoy ice cream, cookies, fudge. If
16 it's a guideline for nutrition, I think it's kind of too
17 permissive."

18 All right. These are some of the concerns that
19 consumers had when they were interviewed, and I think that
20 reflected some of the concerns we had as we looked through
21 the guideline.

22 Secondly, it was not clear how to implement it.
23 As one of the consumers pointed out, it is one of the few
24 guidelines that does not have any specifics. It is very
25 vague. It does not define variety, and it does not say how
26 to go about taking action on eat a variety of foods.

27 Finally, there was a concern that it might
28 encourage overconsumption. I want to address that by
29 showing you some of the results from an analysis that the

1 Center for Nutrition, Policy and Promotion helped with. I
2 have noted here at the bottom that Peter Basiotis was the
3 person that actually did the analyses, but several people
4 helped in designing them, and I really appreciate that help.

5 The question we asked was does variety improve
6 nutrient intake after adjusting for adherence to the food
7 guide pyramid food group servings? We were able to address
8 this by using a tool that the people at CNPP developed, the
9 healthy eating index.

10 I found that very useful in trying to separate out
11 the effect of variety from the other parts of the diet and
12 in particular from the food group servings, so we did a
13 multi-variate regression analysis with the percent of RDA
14 for 15 nutrients as the outcome variable using the CSFII
15 1994-1996 data, so it is almost 30,000 days of data.

16 Indeed, the number of foods consumed in a day is a
17 significant positive predictor of nutrient intake for all
18 nutrients but protein and vitamin B12. If you look in the
19 booklet, you will see there is full table that summarizes
20 all the results.

21 I included in there -- let me show you -- the
22 table that looks like this. I included all the signs of all
23 the regression coefficients because I thought this might be
24 useful for some of the other guidelines' working groups.

25 I am in particular interested for the variety
26 guideline in the results of the very first column that shows
27 the effect of the number of foods consumed, the variety of
28 foods consumed, on the different nutrients. For the 15
29 nutrients, it was a positive predictor of percent of RDA,

1 which indeed says variety has an effect on the nutrient
2 intake of Americans.

3 However, if you look at the very last two columns
4 of the table, you will see that the R^2 value, when you
5 include variety in the regression analysis versus not
6 including variety in the regression analysis, virtually is
7 unchanged. There was one nutrient for which it went up.
8 Let's see. For fiber it went up from .36 to .40, but for
9 all the nutrients with an RDA the change was a maximum R^2 of
10 .01.

11 In other words, for example, let's just pick one.
12 Riboflavin. Fifty-nine percent of the variants in
13 riboflavin intake could be explained by a combination of
14 energy intake and intake from the five pyramid food groups.
15 After you did that regression, if you then redid it and
16 included variety as a measure it stayed a .59. There was no
17 change in the R^2 value.

18 So although it was statistically significant, one
19 could argue that the practical importance in variety after
20 you followed the food guide pyramid was fairly negligible.
21 I found this type of analysis fairly helpful in interpreting
22 what the actual effect of variety might be on the American
23 diet.

24 The other part of this analysis was to look at the
25 effect of variety on the intake of some of the macro
26 nutrients. That is actually summarized in the table that
27 you have as well, but I have also put it on this
28 transparency because I want to address the other issue that
29 I brought up at the beginning, and that is what is the

1 effect of variety on overconsumption.

2 For example, variety was not a predictor of added
3 sugar intake. It was a positive predictor of grams of
4 discretionary fat, but it was a negative predictor of
5 percent of calories from saturated fat and fat and a
6 positive predictor of fiber intake.

7 As I mentioned before, none of these R^2 values --
8 you see they are all virtually identical, so although
9 variety was significant for all four of these; not for
10 sugar, but for the other four, it did not in effect increase
11 the explanatory power of the model once you put energy and
12 all the other food groups in there. We found this fairly
13 interesting. Fiber, on the other hand, did increase
14 slightly, so there is I think a more noticeable effect on
15 fiber intake of variety.

16 After we had looked at these analyses and looked
17 at the literature and gone through fairly carefully, I
18 think, what has been published since 1995 on variety, we
19 decided that we would like to entertain the possibility of
20 rewording the guideline so it more specifically included the
21 pyramid because if you look at the booklet, indeed the
22 variety guideline is primarily a tool for introducing the
23 pyramid.

24 If that is indeed what we primarily mean by
25 variety, if we mean "follow the food guide pyramid," then I
26 would suggest that we might consider putting the pyramid in
27 the guideline itself specifically and furthermore that we
28 might consider putting the pyramid graphic on the cover and
29 in the central link if indeed the linking circle stays on

1 the cover.

2 The pros for doing that would be that it would be
3 more specific. It would still be a positive message to
4 consumers, and it would link to a graphic that consumers are
5 very familiar with, the food guide pyramid.

6 On the other hand, this particular wording is
7 somewhat longer. You could argue it is not quite as concise
8 as eat a variety of foods, and there is also the implication
9 that I think we are all concerned about when we recommend or
10 think about a change to a guideline that when you take
11 something out of a guideline you in effect are saying that
12 that guideline was not important.

13 Of course, if variety comes out of the name of the
14 guideline or the wording of the guideline, there may be a
15 subtle implication that somehow variety is no longer
16 important.

17 Now I would like to make a couple of points here.
18 First of all, I at least, and I think Dr. Weinsier would
19 agree, are not saying variety is unimportant, and we would
20 not wish to imply it was not.

21 Following the food guide pyramid is important, but
22 I think variety within the food guide pyramid is still a
23 concept that it is important to incorporate so I would still
24 certainly, even if it was not in the text of the guideline,
25 wish to focus on variety, for example, of fruits and
26 vegetables in the text.

27 The final point I want to make is that this change
28 was not to dictate any change in the pyramid itself. I of
29 all people, but I think all of us have had it very clearly

1 explained to us. We are not here trying to redesign the
2 pyramid, and certainly nothing I have said here regarding
3 the variety guideline says the pyramid has to change or that
4 the pyramid does not have to change.

5 I think other procedures are in place for changing
6 the pyramid, but whatever it is I think it would be nice to
7 have it integrated better into the actual cover of our
8 dietary guidelines, so this would be one way to consider
9 doing that.

10 Now, I am going to then ask. Should we have
11 questions on this much so far?

12 CHAIRMAN GARZA: Let's see if there are any points
13 for clarification.

14 DR. MURPHY: Okay.

15 CHAIRMAN GARZA: We will have the discussion at
16 the end of both, so if there are points that you wish
17 Suzanne to clarify then --

18 DR. MURPHY: Right.

19 CHAIRMAN GARZA: -- ask those now. Then Dr.
20 Weinsier will also present, and then we will have a general
21 discussion.

22 DR. MURPHY: Right. Also, I should point out
23 there will be a separate discussion of supplements.
24 Although that is currently within the variety guideline, I
25 am not going to specifically cover that because that is
26 another presentation.

27 CHAIRMAN GARZA: It may be useful, since that is
28 going to follow, to even have our general discussion once we
29 hear all three presentations.

1 DR. MURPHY: All right.

2 CHAIRMAN GARZA: That way we can deal with all
3 three issues in some coherent fashion.

4 DR. MURPHY: All right.

5 DR. KUMANYIKA: I just have a question. I did not
6 hear you say what the effect of the variety is on total
7 energy. You said overconsumption.

8 DR. MURPHY: Right.

9 DR. KUMANYIKA: Did you not say anything?

10 DR. MURPHY: I did not say it, but I do have it.
11 The R^2 is fairly high. Almost 50 percent of the variation
12 in dietary variety is explained by energy consumption or
13 vice versa. The R^2 is -- actually it says .45, but when we
14 re-ran it with some small changes it was .49, so there is a
15 very high correlation.

16 Thank you for reminding me because I meant to
17 mention that.

18 CHAIRMAN GARZA: Is that as a percent of
19 recommended or a total?

20 DR. MURPHY: That is percent of recommended.

21 CHAIRMAN GARZA: All right. Good.

22 DR. MURPHY: Yes.

23 FEMALE VOICE: Percent of recommended what?

24 CHAIRMAN GARZA: Energy.

25 DR. MURPHY: Energy. It is adjusted. Because
26 these analyses --

27 CHAIRMAN GARZA: It is adjusted for body size.

28 DR. MURPHY: -- are for people two years and
29 older, it is adjusted for age and gender and so forth.

1 DR. KUMANYIKA: But it could be interpreted
2 depending on whether it is over 100 percent. Of course, the
3 energy recommendations are high, but I guess the question is
4 how does it match with the literature on overconsumption,
5 the fact that as people's diets become more varied, they are
6 more likely to overconsume food?

7 DR. MURPHY: Right.

8 DR. KUMANYIKA: The fiber could be carried by that
9 total calorie effect is what you are saying?

10 DR. MURPHY: Right. Right.

11 CHAIRMAN GARZA: Okay. Dr. Weinsier?

12 DR. DWYER: Could I ask just one more thing? I
13 think early on either Dr. Kennedy or you, Suzanne, mentioned
14 there were three things that went into the pyramid. One was
15 the DRIs, one was the dietary guidelines, and what was the
16 third?

17 CHAIRMAN GARZA: Eating pattern.

18 DR. MURPHY: Consumption.

19 DR. DWYER: Eating pattern. Consumption.

20 DR. MURPHY: They are based on what people are
21 actually consuming.

22 DR. DWYER: Thank you.

23 DR. WEINSIER: In the context of our discussion
24 about perhaps changing the title and saying let the food
25 guide pyramid be your guide -- and this is not going to work
26 very well because I will be standing in front of you -- some
27 of the people in our department whom I asked for comment and
28 input on this concept, and do not think of this as a food
29 guide pyramid. Just think of it in terms of this first

1 guideline section, whether it's variety, or let the food
2 guide or food circle or whatever be your guide.

3 This figure is in that section, and in that
4 section there is specific reference to these various five
5 food groups, including specifically what I am referring to
6 as the dairy product group or dairy food group, which is
7 milk, yogurt and cheese group.

8 The question came up why do we have a food group
9 listed that is specifically targeted for one organ of the
10 body, the health of one organ, i.e., the skeletal system?

11 In terms of trying to answer the question, is
12 there evidence to support having a separate food group for a
13 specific organ system, I went back and looked at the
14 literature with the input of about four other individuals
15 inside the department and outside the department of whether
16 there is solid evidence to indicate whether that food group,
17 the dairy group, has been demonstrated to support optimal
18 bone health.

19 The two issues that we addressed were the ones
20 shown up here under the first category or the first issue,
21 does research support the recommendation for regular use of
22 dairy foods by the U.S. population for optimal bone health.

23 There is really a subquestion. That is are there
24 certain gender, age or ethnic groups who are more or perhaps
25 less likely to benefit from regular use of dairy foods, and
26 then a second issue --

27 CHAIRMAN GARZA: Is the department your home
28 department or one of the two federal agencies?

29 DR. WEINSIER: Department of Nutrition Sciences,

1 University of Alabama at Birmingham.

2 CHAIRMAN GARZA: Okay. I just wanted to make that
3 clear.

4 DR. WEINSIER: Yes. Yes. I am not the head of a
5 department in the Federal Government.

6 The second issue that we are raising or have
7 raised are the reasons why dairy foods should not be
8 considered good vehicles for dietary calcium.

9 A subquestion within this second issue is are all
10 dairy foods equivalent such that they should be listed as
11 exchangeable within one and the same food group. These are
12 the two issues that were addressed.

13 The background to this regular intake of dairy
14 foods is recommended for the general population primarily to
15 ensure an adequate intake of calcium. The recommendation is
16 based on the relatively high calcium content important for
17 maintenance of bone health, so the purpose of our review is
18 to examine the evidence in support of the role of dairy
19 foods for bone health.

20 So I am not making implications here, it is not to
21 re-examine evidence regarding the recommended level of
22 calcium intake for bone health. That is a separate issue
23 that has been addressed in the NIH consensus panel, and I do
24 not think that that has to be rehashed.

25 The methods for this review included a MedLine
26 search, a literature search focusing on the key words dairy,
27 milk, osteoporosis, bone or bone fractures. Studies were
28 categorized then according to outcome of dairy food intake
29 on bone health into one of three categories: favorable

1 effect, no effect, or unfavorable effect.

2 Reported outcomes for our purposes had to be below
3 the 5 percent probability of statistical significance to
4 include it in a favorable or unfavorable category. The
5 reason I am specifying this, it would seem fairly obvious to
6 most of us, but there were a number of cases in which
7 authors reported a positive or negative outcome based upon
8 trends without statistical significance.

9 Continuing on the methods, to compare evidence
10 with a variety of studied designs, outcomes were categorized
11 into four evidence-based categories. These categories were
12 established on priority. Everyone may not agree with these
13 categories, but we had to have some reference point in which
14 to be able to compare studies, so we put them into four
15 categories.

16 For Category A, we considered the strongest
17 evidence-based category, included randomized controlled
18 trials or a large cohort study, and in each case there had
19 to be significant associations, whether positive or
20 negative, that were controlled for major confounding
21 variables, but specifically including age, menopause status,
22 physical activity and bone mass.

23 A Category B would include smaller cohort studies
24 or large case control studies. Significant associations had
25 to be controlled for most of the major confounding
26 variables.

27 The weaker categories, C and D, Category C would
28 be smaller case control study or a large cross-sectional
29 study, significant associations controlled for at least some

1 of the major confounding variables, and finally the weakest
2 category, D, smaller cross-sectional or large cross-cultural
3 studies in which significant associations were adjusted for
4 perhaps as few as none of the major confounding variables or
5 just some.

6 In terms of the outcomes of the types of studies,
7 there were a total of 69 reported outcomes. This is
8 actually derived from 57 separate reports, so there are 57
9 reports, but within those there were 12 that reported more
10 than one outcome either because they are looking at
11 different bone sites or they are just looking at different
12 age groups during which dairy foods were consumed, so in
13 some cases, i.e., 12, there were more than one outcome, so a
14 total of 69 reported separate outcomes.

15 Of the study designs, 10 percent were randomized
16 controlled trials, 13 percent longitudinal cohort studies,
17 26 percent case control and more than half, i.e., 51
18 percent, were cross-sectional studies.

19 The evidence levels, how these four categories of
20 studies fell into the evidence levels, 20 percent fell in
21 Evidence Level A, 15 percent in B, so roughly we have 35
22 percent, a little over a third, are going to be in the
23 stronger evidenced-based categories, A and B. The remaining
24 65 percent fell out into the C and D categories.

25 Regarding the first issue, that is does research
26 support recommendation for regular intake of dairy foods for
27 optimal health, and, the subquestion, are certain gender,
28 age, ethnic groups more or less likely to benefit, the
29 numbers, if I can move away from the microphone for just a

1 second, to look at -- I have broken it down again to
2 Favorable, No Effect or Unfavorable Effect and separated
3 coordinates for the total number of outcomes reported, 69,
4 and then the subcategories, the stronger evidenced-based
5 categories, A and B, there are a total of 24 reported
6 outcomes.

7 If we look at Favorable Effect, 38 percent of the
8 total reported favorable effect, 55 percent no effect, seven
9 percent non-favorable effect. I am going to try to focus on
10 the rest of these slides on primarily the stronger evidence-
11 based categories, A and B.

12 Here we would see 17 percent, 71 and 12 percent,
13 so if you want to look at this, if you want to appropriately
14 call it a benefit/risk ratio, perhaps we could say, well, we
15 have 17 percent versus 12 percent, which is about 1.4 to one
16 benefit/risk ratio.

17 Now going to the subgroups, first of all, the
18 gender groups, in women, looking again at the stronger
19 evidence-based categories, A and B, 17 percent. These are
20 the same numbers we just saw because essentially all of the
21 studies included women, so it is not going to surprise us
22 that these numbers are going to be about the same.
23 Seventeen percent showed a favorable effect, 12 percent an
24 unfavorable effect, the majority falling in between with no
25 demonstrable effect.

26 In men it was a different story. First of all,
27 there are relatively few studies that examined bone health
28 and its relationship to dairy food intake in men, but of the
29 stronger evidence-based categories, A and B, none of those

1 fell into a favorable effect category, the majority no
2 effect, and 14 percent fell into the unfavorable effect
3 category. I do not know what kind of benefit/risk ratio you
4 would put there, but I guess we would have to call it zero.
5 Then again, it is a limited database.

6 In terms of age groups, we chose to break down the
7 age groups into the following three categories: Less than
8 30, 30 to 50, and greater than 50. The reason for those
9 three categories is that peak bone mass can be accrued up to
10 about the age of 30.

11 That is not an exact cutoff, but this is probably
12 a going rate or going age in terms of most reports that
13 indicate that bone accretion occurs and maximally is reached
14 somewhere in the neighborhood of about age 30. Then we
15 chose the cutoff here at greater than 50 in part because it
16 is approximately around the age of 50 that menopause, at
17 least in the female gender, will set in.

18 Having divided these three categories, the numbers
19 I just referred to would be the Evidence Levels A and B for
20 the younger age group in which we have a little bit better
21 benefit/risk ratio of 18 percent versus 9 percent.

22 As we go upward in age to the 30 to 50, we have a
23 stronger evidence base here. The percentages are higher
24 such that we get a one to one ratio, but larger percentages,
25 i.e., a smaller percent fall in the equivocal category, but
26 the relationship is about one to one in terms of favorable
27 and unfavorable outcome.

28 The same thing in the greater than 50 year old age
29 group. That is a relatively small percent show a benefit,

1 but the same percentage show an unfavorable effect in that
2 category.

3 In terms of ethnic groups, there is not a whole
4 lot to report. The majority of the studies did not include
5 the African-American population in the United States and
6 worldwide. Very few included the black population. In
7 fact, of the 69 reported outcomes, I could find only one
8 that included -- it did not focus on the black population.
9 It simply included blacks in that study group.

10 I found no study in the Evidence Categories A and
11 B which included this population, so the conclusion I have
12 to reach here is that we really cannot demonstrate a
13 beneficial effect, nor can we comment or can I comment on a
14 potential benefit or risk ratio.

15 I put this up as a reminder to myself that a
16 related issue that was brought up this morning by one of our
17 presenters that is not addressed in this review is whether
18 regular use of dairy foods should be recommended for a
19 population which has a high prevalence of lactose
20 intolerance. Obviously that is a concern raised this
21 morning, and we have to be aware of it, but this is not the
22 focus of this review or a focus of this review.

23 The second issue was whether there are reasons
24 that dairy foods should not be considered good vehicles for
25 dietary calcium. This is, as I understand it, the primary
26 reason dairy foods are being recommended, and a subquestion
27 would be, are all dairy foods equivalent.

28 The following nutrients are found in highly
29 variable amounts in dairy foods, and they are known each to

1 affect calcium loss. Protein and sodium would be the
2 strongest two in terms of the data, the evidence base, that
3 gives information about impact on calcium loss. Protein
4 increases calcium loss. It is well established that it is
5 related to the renal acid load. Sodium intake increases
6 calcium loss. It is related to approximal tubule exchange
7 of sodium and calcium.

8 Lesser evidence based, but evidence clearly
9 suggests that the three other factors, acidic phosphate
10 intake, vitamin A and potassium, all can affect calcium
11 excretion. Acidic phosphate also as protein increases the
12 renal acid load, vitamin A by accelerating bone resorption.

13 I have to put a question mark by that because I do
14 not think that is solid, although we do have animal data in
15 large doses of vitamin A that is a mechanism, and potassium
16 I clearly do not know the mechanism, but it seems to have an
17 independent effect on decreasing calcium loss.

18 Having said that there is substantial reason to
19 consider that all dairy foods may not be alike in terms of
20 affecting calcium balance, is there any evidence to suggest
21 that that is in fact the case? This actually is a
22 theoretical estimate of calcium balances from ingestion of
23 select dairy foods due to their sodium and protein content,
24 so I am trying to back down to what is known in the
25 literature and what seems to be fairly well established, and
26 that is primarily for sodium and protein.

27 The issues on acidic phosphates on potassium and
28 vitamin A are less clear in terms of a specific relationship
29 between their content in the dairy food and their effect on

1 calcium loss, so just for argument's sake I just chose
2 sodium content and protein content, and I chose two dairy
3 products.

4 The reason I chose these two is I tried to find
5 some in which the phosphate and the vitamin A content, the
6 potassium content, were not too extremely different. So
7 these two were chosen as examples because of the roughly
8 comparable potassium and phosphate contents so that this
9 becomes less of an issue for sake of comparison, allowing me
10 to compare the sodium/protein content.

11 These are the projected estimated losses of
12 calcium due to their sodium and protein content based upon
13 published data. This is the calcium intake of 100 grams of
14 each of these foods. This is the calcium intent that is
15 estimated to be required to offset that calcium loss, and
16 then the estimated net calcium balance is shown off to the
17 right.

18 Let me hesitate here for a second to say that
19 these are not absolute values. In other words, if we did
20 the studies, I do not know exactly what we would find.
21 Those studies have not been done. These are theoretical
22 estimates, but they are very, very conservative.

23 By saying they are very conservative, this number,
24 this calcium content and the calcium intake required to
25 offset the loss, is probably a marked underestimate based
26 upon the data published by Connie Weaver.

27 In contrast, Robert Heaney would say they are
28 probably increased by about fivefold the number I have shown
29 here such that the estimated net balance may well be

1 considerably less than this and considerably worse than
2 shown here for cottage cheese. The only point I am trying
3 to make is with these two examples that all dairy foods may
4 well not be the same in terms of their potential impact on
5 calcium balance.

6 In terms of effects of different dairy foods,
7 there are only two studies that I could find in this review
8 that actually addressed this to see if our theoretical
9 projections have any reality; two studies, one in 1986 and
10 one in 1992.

11 Milk appeared to have a more favorable effect on
12 bone mass in each of these two studies, one in which milk
13 was compared to cheese, the other in which milk was compared
14 to all dairy foods combined. So it is not a strong
15 database, but this is all I could find that would give me
16 some reference to see if there are differences. There may
17 be. I do not know for sure.

18 What are potential explanations for the
19 inconsistent findings of dairy food intake on bone health?
20 Two, basically. One is that in studies showing
21 statistically significant favorable effects, the effect is
22 often very small.

23 I was impressed by the number of studies that look
24 at the amount of variance in bone mass that could be
25 explained by dairy intake. In those cases in which it was
26 reported a statistically significant effect, the amount of
27 variance in bone mass as explained by dairy intake was
28 actually quite small. In these two reports, it was less
29 than 1 percent.

1 Just to give you a feeling for the impact of other
2 factors, age, body mass, estrogen status, physical activity
3 explained in the neighborhood of 25 to 35 percent of the
4 variance in bone mass.

5 There was one study by Honkanen that reported
6 reduction in risk ratio of bone fractures, so not bone mass,
7 but now looking at bone fractures due to dairy intake, and
8 they reported -- I do not know -- Meir brought this to my
9 attention that he is surprised that this could be
10 statistically significant, but they reported that the risk
11 ratio -- this is not a P value; this is risk ratio -- was
12 reduced by .0002 due to dairy food intake. So whether that
13 is true or not I do not know, but it suggests that if
14 dairies have an impact, it is probably, at least according
15 to these reports, relatively small.

16 A second issue that may explain variations and
17 inconsistencies are findings that all dairy foods are
18 probably not alike. Among the few studies examining
19 different dairy foods, milk may have a more favorable effect
20 than some of the other dairy foods. Underline the word may.

21 What are potential explanations for the
22 inconsistencies? One more to consider, and that is remember
23 this afternoon Dr. Gordis commented about wine perhaps being
24 a surrogate marker for a healthy lifestyle? That is almost
25 definitely the case in terms of milk intake.

26 It appears that dairy food intake may be a
27 surrogate marker for healthy lifestyle, which themselves
28 affect bone health in that increased dairy intake is
29 significantly associated with increased exercise,

1 independently associated with a higher fruit intake,
2 independently associated with a higher potassium intake. It
3 is independently associated with less smoking, less alcohol,
4 less phosphoric acid intake by way of sodas. Each of these
5 six factors impact on bone mass.

6 In summary, trying to get back to the original
7 question, should dairy foods be recommended for optimal bone
8 health, among the general population groups it appears that
9 only a minority of the outcome reports show a benefit on
10 bone health.

11 If we can use this limited data set to look at a
12 benefit/risk ratio, by looking at the stronger evidence-
13 based data it appears that it is a marginal favorable effect
14 in the neighborhood of about 1.4 to one. Among gender
15 groups, if a benefit exists it is more likely to occur in
16 female than in males. Among males, there are no stronger
17 evidence-based data that show a benefit.

18 In terms of the age groups, the benefit/risk ratio
19 appears greatest in the less than 30 year old group, age
20 during which peak bone mass is reached. The benefit/risk
21 ratio here appears to be something on the order of two to
22 one in the less than 30 year old group. This is in contrast
23 to the older age groups, i.e., 30 to 50 and greater than 50,
24 having a ratio of one to one.

25 Finally, in ethnic groups, in the absence of
26 adequate data it is unknown if dairy foods might or might
27 not benefit bone health in the black population.

28 The last two overheads, one is a conclusion, and
29 then another one is just a proposal for future reason. In

1 conclusion, trying to draw some conclusions about the
2 limited data set we have, if dairy foods contribute to bone
3 health, available data suggests benefit is more likely with
4 intake of milk and within the subpopulation of less than 30
5 year old, nonblack women. Data appear to be inadequate to
6 conclude that dairy foods are beneficial in the remaining
7 majority of the population.

8 Because Dr. Garza reminds me to look at review
9 areas, think in terms of perhaps we should just be talking
10 about where the data need to be extended with future
11 research, I would emphasize two areas to consider. One is
12 to examine the effect of dairy foods in randomized control
13 trials. In other words, let's try to get a stronger
14 Evidence A level data set based upon controlled trials,
15 controlling for the bone remodeling transient.

16 I cannot go into detail here because it would take
17 a lot of time, but there are only seven RCTs in this data
18 set. Of the seven, they were split. Three showed favorable
19 effects. Four showed no effect on bone mass.

20 The problem with all the randomized control trials
21 as pointed out by Robert Heaney is the following: that
22 basically any remodeling suppressive intervention produces
23 an increase in measurable bone mass. Such change does not
24 reflect an effect of the intervention on overall remodeling
25 balance, nor does it convey information about whether any
26 permanent benefit may or may not have been produced.

27 Without considering the bone modeling transient
28 period, which can reach up to a year to a year-and-a-half
29 from the time of the intervention, particularly with

1 something such as a calcium intake or supplement or as dairy
2 foods, we really cannot say that the change in the synchrony
3 between bone formation and bone resorption was due to the
4 intervention, i.e., according to Heaney, you have to wait
5 until the intervention has been in place for approximately
6 six months to a year, perhaps as long in some groups to a
7 year and a half, before the baseline assessment can be
8 attained.

9 The second point is that future studies probably
10 need to focus more on the etiology or calcium loss rather
11 than ways to increase calcium intake. If in fact age-
12 related bone loss in women is more attributable to excessive
13 calcium loss than to inadequate calcium intake, then
14 reducing urinary excretion of calcium may be a better means
15 of preventing bone loss than increasing the intake of
16 calcium.

17 In conclusion on this point, I really wanted to
18 emphasize that because Robert Heaney has made a strong point
19 about the potential effect on reducing calcium loss on
20 requirements such that simply by reducing sodium intake/
21 protein intake in a population of adult women, he proposes
22 that you could reduce calcium requirements to in the
23 neighborhood of about 450 milligrams. On a high sodium/high
24 protein intake, the requirement may be as high as 2,000
25 milligrams.

26 Anyway, I will stop at that point.

27 CHAIRMAN GARZA: Are there any questions as points
28 of clarification? Johanna?

29 DR. DWYER: I wondered if there were data from --

1 if they have information. You said -- what was it you were
2 suggesting?

3 DR. WEINSIER: Well, I was just quoting Robert
4 Heaney from a report in 1996 where he was suggesting that if
5 the adult female population were to reduce -- and he did not
6 put numbers on this -- he just simply said reduce the sodium
7 and protein content in the average diet, they could reduce
8 calcium requirements to as low as about 450 milligrams.
9 Conversely, it could go as high as 2,000 milligrams.

10 DR. DWYER: My own interest in this comes from
11 renal disease and the whole issue of acid-based illness.

12 My reading of the data on that, Roland, is that it
13 is rather difficult to interpret. Most of the studies were
14 done by Bawdrellan [phonetic], you know, like 25 or 30 years
15 ago at Boston City Hospital.

16 Do you have good, quantitative data on that? Did
17 you come across any new papers in the reviews in terms of
18 the protein part of the measures that you have mentioned?

19 DR. WEINSIER: I think the data on protein is
20 pretty solid. I do not remember off the top of my head how
21 many were since, you know, the last dietary guidelines in
22 1995, but there have been a few reports since then and a
23 solid database before then to indicate that the effect of
24 protein intake, particularly as animal sources of protein,
25 that are more likely to contain sulphate and, therefore,
26 have a higher renal acid load, are clearly -- and through
27 the spectrum of protein intake, it does not appear to be a
28 threshold effect -- that increasing levels of protein have a
29 proportionate effect on increase in calcium loss. I think

1 the data is pretty clear on that.

2 DR. DWYER: The reason I ask, and maybe someone
3 else in the room was there, too. Dr. Walter from Johns
4 Hopkins University gave a talk about a year and a half ago
5 at the Committee on Military Nutrition Research at NIS.

6 I do not know if that book has come out, but it
7 deals with this very topic of protein, I believe, and the
8 whole issue of at what level it might become harmful or
9 whatever. I thought the data were a little more tenuous
10 than that, but perhaps I heard wrong.

11 DR. WEINSIER: I think they are quite solid.

12 CHAIRMAN GARZA: Scott?

13 DR. GRUNDY: There is something I did not quite
14 understand about your argument. It seems like there is two
15 issues. One is whether people need, if they eat other
16 things correctly like sodium and protein, whether you need
17 as much calcium as currently being recommended. Second is
18 whether the dairy products are an adequate source of calcium
19 to contribute to that total.

20 Were there not sort of two different things being
21 presented there?

22 DR. WEINSIER: The last comment was simply to say
23 if more research needs to be done, what areas should it go
24 in. So that is pure speculation on my part.

25 The issue for the sake of this committee I think
26 before this committee certainly for me is the question that
27 relates to should dairy products be recommended for the
28 general population for promotion of optimal bone health.

29 DR. GRUNDY: Let me just follow up. To some

1 extent, I think one of the aims of this dietary guidelines
2 group is to take current recommendations that are based in
3 science like the DRI report, which recommends that we take
4 so much calcium a day, 1,200 milligrams or something like
5 that, and figure out how to create a diet that would provide
6 that number of milligrams.

7 Maybe we could do that with all other sources of
8 calcium, but I am trying to figure out whether you would say
9 we should try to reach that recommended intake of calcium,
10 but do it without dairy products. Is that the --

11 DR. WEINSIER: Well, I actually did not come
12 with -- and I did not propose a recommendation for the
13 committee. I think we are at the stage of now open
14 discussion.

15 I will raise the issue based upon what I have seen
16 in the literature. I mean, obviously you are getting at the
17 crux of the problem. We need to now take this to the next
18 level. Is it worthy of further consideration, or is this
19 not a sound review and/or are the conclusions inappropriate
20 and we do not need to consider it?

21 I do not have a recommendation to throw on the
22 table now. I think there are a number of options.

23 CHAIRMAN GARZA: One that Roland and I have
24 discussed, Scott, is to send the review that he and his
25 colleagues in Alabama have prepared to two or three calcium
26 experts, have them comment on the review and then possibly
27 invite one to the next meeting.

28 DR. WEINSIER: I would extend that just a little
29 bit to suggest, because I agree with that totally, that this

1 should be sent to two external reviewers expert in the area.

2 I would only suggest that they be individuals who
3 on the one side are expert with a positive bias perhaps and
4 another who have the opposite bias because this is an area
5 that is filled, as I could tell from reading reports, with a
6 lot of --

7 CHAIRMAN GARZA: The reason for suggesting three
8 is I would like one with religion, one with the other kind
9 of religion and then one that is an agnostic.

10 DR. WEINSIER: I think you are going to find it
11 difficult to find an agnostic in this case.

12 DR. GRUNDY: You will have trouble finding any of
13 those.

14 CHAIRMAN GARZA: I am sure in this field, as Dr.
15 Grundy and I know only too well, we will find that and
16 possibly two other varieties.

17 At any rate, Suzanne?

18 DR. MURPHY: One of the things I was curious about
19 in your literature search was whether you were able to
20 separate out the effect of a food from the effect of say a
21 meal or a diet.

22 Certainly protein and sodium are known to be
23 problems with calcium balance, but did you identify things
24 about dairy products that you thought were specific to dairy
25 products that would not go with a dietary pattern in
26 general? Do you see what I am saying?

27 For example, you could have a vegetarian source of
28 calcium that was very unavailable if that meal was high in
29 protein and sodium from other foods, so is there something

1 about the dairy products themselves that you thought was
2 problematic, or was it because they are often accompanied by
3 these other factors?

4 DR. WEINSIER: Well, I have to assume that
5 whenever the earlier versions of the guidelines were
6 prepared that there was some either evidence or suspicions
7 that as the dairy product per se, not in the context of what
8 it would be taken with, that would be beneficial for bone
9 health. My premise going into this was, and actually I was
10 quite convinced that the outcome would show a very positive,
11 favorable influence.

12 I cannot answer the question whether, first of
13 all, that was the original thinking, nor do I know if the
14 effects that we are seeing here are because of dairy foods
15 per se or in the context or out of the context of other
16 foods taken because that comes back to RCTs. Without
17 randomized control trials, almost all of these are
18 confounded. Very, very few of these studies try to separate
19 out the impact of separate nutrients.

20 There is an excellent study reported by New,
21 N-E-W, et al., who did try to separate the nutrient content
22 of various foods. When they looked at a multivariate
23 analysis to see what was impacting on bone mass, calcium
24 fell off the bottom. This was within the dairy, looking at
25 dairy and other foods in the diet. Calcium fell out very
26 clearly in all age groups looked at.

27 Potassium was by far and away the strongest
28 predictor. Magnesium was behind that. Calcium was actually
29 quite low, and that was despite the fact that they found a

1 positive correlation of dairy intake with bone mass.

2 What was it about dairy? I doubt it was the
3 potassium. It was probably the fact it was going along with
4 a higher potassium and higher fruit intake, as we saw in the
5 DASH study that Johanna referred to a minute ago.

6 CHAIRMAN GARZA: Dr. Deckelbaum?

7 DR. DECKELBAUM: I think there is a natural
8 experiment that, you know, certainly dairy products work to
9 augment or increase bone mass, and that is all children
10 under the age of six months where dairy products are
11 essentially the major food, so it works. It works during a
12 time --

13 DR. WEINSIER: No. I would have to --

14 DR. DECKELBAUM: It works during a time when
15 growth is extremely rapid, more rapid than any other time
16 during life. That is one experiment.

17 The other thing is that in terms of thinking of
18 this in terms of the guidelines, we must consider that for
19 children. I do not know the data so well for other groups,
20 but for children the major predictor of calcium intake is
21 going to be their milk intake and dairy product intake, so
22 we have to be very careful in getting a message out or
23 providing alternatives for milk intake in that particular
24 group. That is over the age of two. It is still the major
25 predictor of how much calcium the child eats is the milk
26 intake.

27 DR. WEINSIER: I think it goes without saying,
28 Richard, that human milk is ideal for the human infant. To
29 extend beyond weaning is a slightly different story,

1 realizing that all dairy foods really are not the same as
2 human milk.

3 When you process cheese, processed cheese products
4 are very, very different from milk, cow's milk as well as
5 human milk. It is a whole different product. Cottage
6 cheese was one example I gave. I am not sure that we can
7 extend beyond the age of weaning.

8 CHAIRMAN GARZA: Okay. Let's move on then to the
9 supplement discussion, and then we will come back and have a
10 general discussion on the variety guideline.

11 Thank you, Dr. Weinsier.

12 DR. LICHTENSTEIN: Okay. What I am going to try
13 to do, hopefully briefly, is first talk about some
14 definitions, then what we know about supplement users, then
15 talk a little bit about what had been done with respect to
16 reference to supplements, what currently exists and then
17 talk a little bit about what some of the potential options
18 may be.

19 At this point, I would also like to acknowledge
20 that Suzanne Murphy and Johanna Dwyer were also on this
21 subcommittee and thank Kathryn McMurry for a yeoman job of
22 collecting information and all the other staff people that
23 were involved in that.

24 First with respect to the definition of a dietary
25 supplement, a dietary supplement is defined by the Dietary
26 Supplement Health and Education Act as a product other than
27 tobacco intended to supplement the diet that bears or
28 contains one or more of the following, vitamin, mineral,
29 amino acid, herb or other botanical, or a dietary substance

1 for use to supplement the diet by increasing total dietary
2 intake, or a concentrate, metabolite, constituent, extract
3 or combination of any ingredient described above and
4 intended for ingestion in the form of a capsule, powder,
5 soft gel, gel cap and not represented as a conventional food
6 or as a sole item of a meal or the diet. That is a big
7 mouthful, and also that is a relatively broad definition.

8 I also looked for some other definitions of a
9 dietary supplement. One I found, and actually I could not
10 find that many so if anyone has information on this if they
11 could submit it to Shanthi.

12 I found one definition in a workshop on the role
13 of dietary supplements for physically active people, and it
14 defined dietary supplements as a plant extract, enzymes,
15 vitamins, minerals and other hormone products that are
16 available without prescription, and this should be may, and
17 may be consumed in addition to the regular diet.

18 I then was interested in what some other positions
19 were on the use of vitamin and mineral supplements, and I
20 found one from the American Dietetic Association. That
21 position states that it is the position of the American
22 Dietetic Association that the best nutritional strategy for
23 promoting optimal health and reducing the risk of chronic
24 disease is to obtain adequate nutrients from a wide variety
25 of foods. vitamin and mineral supplementation is
26 appropriate when well-accepted, purviewed and scientific
27 evidence shows safety and effectiveness.

28 Looking for additional position statements, there
29 was one, and this is sort of a partial because this dealt

1 with antioxidant consumption and risk of coronary heart
2 disease that was recently published from the American Heart
3 Association. It had two statements with reference to this.

4 In view of these findings, and it had summarized
5 the findings on the relationship between antioxidant intake
6 and cardiovascular disease, the most prudent and
7 scientifically supportable recommendation for the general
8 population is to consume a balanced diet with emphasis on
9 antioxidant-rich fruits and vegetables and whole grains.

10 It points out one point that I would like to make
11 that we can make different kinds of recommendations for
12 different people, but one is going to be for the general
13 public, the general population, and then there may be more
14 specific groups within that.

15 It goes on to state that although the diet alone
16 may not provide the levels of vitamin E intake that have
17 been associated with the lowest risk, in a few observational
18 studies the absence of efficacy and safety data from
19 randomized trials precludes the establishment of a
20 populationwide recommendation regarding vitamin E
21 supplementation.

22 In the case of secondary prevention, the results
23 from clinical trials of vitamin E have been encouraging, and
24 if further studies confirm the findings consideration of the
25 merits of vitamin E supplementation in individuals with
26 cardiovascular disease would be warranted.

27 I did not find other statements specifically
28 addressing vitamin and mineral supplements. Again, if
29 somebody is aware of that, if they could provide them to

1 Shanthy that would be appreciated.

2 I was then interested in the terms enrichment and
3 fortification because those are actually mentioned in the
4 current guidelines. What I did was looked at a number of
5 nutrition textbooks and also checked with Kathryn McMurry on
6 whether there was an official definition. There did not
7 appear to be, so I am going to give you the definition from
8 three textbooks spaced approximately a decade apart.

9 The first came from a basic textbook by Guthrie
10 that was published in 1975. The definition of enrichment
11 was, "Addition of nutrients to cereals to replace those lost
12 during processing," and then fortification, "Addition of
13 nutrients to foods other than cereals to replace those lost
14 during processing." There was no mention actually in the
15 second iteration of that.

16 In a basic text that was published ten years later
17 in 1987, there was a slightly different definition for
18 enriched food. "A food to which nutrients have been added.
19 Specifically in the case of refined bread and cereal, four
20 nutrients have been added, thiamine, niacin, iron in amounts
21 approximately equivalent to those originally present in the
22 whole grain, and riboflavin in about twice the amount
23 originally present in the whole grain."

24 Fortification, "A term referring to the addition
25 of nutrients to food often not originally present and often
26 added in amounts greater than might have been found
27 naturally."

28 Lastly, a text that was published this year.
29 Enrichment, "A term generally meaning that the vitamins

1 thiamine, niacin, riboflavin and folate and the mineral iron
2 have been added to grain products to improve nutritional
3 quality."

4 Fortified, "A term generally meaning that
5 vitamins, minerals or other or both have been added to food
6 products in excess of what was originally found in the
7 product," so there is nothing really specific so then it
8 becomes somewhat difficult to interpret and sort of decide
9 what should be in the current guidelines and how the
10 consumer can actually distinguish, although at least there
11 is an update because now folate has to be added.

12 The next thing that I did was look at some of the
13 literature in relation to the sort of incidence of
14 supplement use and then some of the characteristics of the
15 individuals. This is somewhat difficult because different
16 investigators use different populations that had very
17 different characteristics, and they also evaluated the use
18 of dietary supplements very differently by posing different
19 types of questions or using different methods of assessment,
20 so these are really I would say approximations. But this
21 had come up at the last meeting that we should have some
22 information on this.

23 One way of assessing supplement use, and for the
24 most part when supplement use was assessed it was in a much
25 narrower definition than the ones that I gave you at the
26 beginning. It was really now limited to vitamins and
27 minerals and in some cases broader.

28 In this case it was vitamins, minerals and then
29 one or more of 33 specific vitamins, minerals or

1 miscellaneous dietary components that were not totally
2 defined, but it was estimated that about 40 percent were
3 users, of which about 52 percent consumed one supplement,
4 and about 11 percent consumed five or more supplements, so
5 this gives you an idea of pervasiveness.

6 As far as the characteristics of dietary
7 supplement users, females had higher uses than males in all
8 age categories. Females age 25 to 64 years had the greatest
9 usage, whereas males of the same age category had the lowest
10 usage.

11 Supplements were used more commonly in individuals
12 that lived in the west census region, individuals with
13 incomes greater than \$25,000, individuals who finished high
14 school and in the general population compared to the
15 nonwhite population.

16 Data from the NHANES II also looked at supplement
17 use and reported that about 35 percent of the population was
18 supplement users. This was broken down into those that were
19 using them regularly, which was about 21 percent of the
20 population, and irregularly, it should be less than once a
21 week. Excuse me. No. It is greater than once a week, but
22 not daily, 14 percent of the population. The users were
23 identified as those that were older, female, white, more
24 affluent, and more highly educated.

25 It was also reported that supplement use was
26 associated with higher dietary intakes of most nutrients and
27 that this relationship still existed after adjusting for
28 age, income, education and caloric intake.

29 Looking at the picture somewhat differently, and

1 this was now looking at factors that impact on women
2 consuming recommended amounts of calcium, notwithstanding
3 this presentation that we just heard, but I thought it was
4 also interesting because it gives one some idea of those
5 individuals that are actually consuming at least for one
6 nutrient what is considered an adequate diet, what some of
7 the characteristics were.

8 Essentially women whose diets met the RDA for
9 calcium consumed more milk products, fruits and grains, more
10 -- several essential nutrients, zinc, magnesium, phosphorus,
11 riboflavin, niacin, folate, vitamin B6, A and E, protein,
12 saturated fat and sodium and less regular sugar or regular
13 soda.

14 The women whose diets did meet the RDA for calcium
15 also -- other characteristics -- worked part-time, took
16 vitamin and mineral supplements, reported avoidance of whole
17 milk only, were aware of the relationship between calcium
18 and health and reported a higher number of milk group
19 servings being recommended, so actually they were consuming
20 dietary sources of calcium, but they were also consuming
21 supplements, which again tells you something about
22 supplement users.

23 Those women whose RDAs were not meeting their RDAs
24 for calcium tended to be black, be under the age of 25, to
25 eat more food away from home, report avoidance of all types
26 of milk and report dietary intake in either the summer or
27 fall, which was also interesting, but it also tells you
28 something about the difficulty in collecting these types of
29 data.

1 Again, an attempt to estimate the use of
2 supplements. Subjects in this case were asked whether they
3 were currently taking vitamin and mineral supplement
4 products of any type, and they were classified with respect
5 to usage. Thirty-eight percent of the whole population
6 reported being users, so you can see the estimates of total
7 intake are relatively consistent.

8 Forty-two percent reported being light users, 16
9 percent moderate users, 28 percent heavy users and 14
10 percent very heavy users. This is on the basis of how many
11 different supplements they were actually consuming.

12 Of those individuals that were heavy and very
13 heavy users, they tended to be female, white, greater than
14 high school education, high-income and living in the western
15 United States, so again relatively consistent findings.

16 Interestingly, factors that were also associated
17 with vitamin and mineral supplement use in this group is
18 that they were frequent visitors to health food stores.
19 They had a greater nutrition activity index, and that was
20 defined as when they would use these products, let's say if
21 they were under stress or for some other reason that they
22 self-defined, and that there was less physician involvement.

23 Another way of looking at vitamin and mineral
24 usage is to look at trends. These are data of a health
25 interview survey, and it was have you taken any vitamin or
26 mineral supplement in the past year. That was the question
27 that was posed. You can see that different questions were
28 posed in different studies.

29 In 1987, 51 percent reported usage. In 1992, 46

1 percent reported usage. Interesting was where the shifts
2 occurred. There was a decline in the use in both white
3 female and males, no change in blacks and Hispanics, an
4 increase in usage in individuals with education that was
5 classified as zero to eight years, and a decrease in calcium
6 use among females age 55 to 64.

7 Factors that were reported to be associated with
8 the use of vitamin and mineral supplements was one, media
9 attention, and during that period of time there was media
10 attention for vitamin C, E and betacarotene, and an emphasis
11 on hormone replacement therapy, which was thought to explain
12 the shift in the older women's use of calcium supplements.

13 More recently, a study came out that again
14 addressed this issue of vitamin and mineral supplement use.
15 In this case, they really attempted to assess not only the
16 total trend, but also trends in different subgroups. The
17 question that was posed was how often, if at all, do you
18 take a vitamin or mineral supplement.

19 A user was defined as an individual that took a
20 vitamin and mineral supplement every day or every so often,
21 whereas a nonuser was defined as one not at all, so you can
22 see that the definitions vary. The range was reported to be
23 33 to 43 percent of the sample.

24 The profile of supplement users in this case was
25 again older adults, whites, females, individuals that had
26 incomes above 170 percent of poverty level, individuals that
27 had greater than 12 years of education and individuals that
28 were employed.

29 Use of vitamin or mineral supplements was

1 associated with increased knowledge about diet/heart
2 relationships, asking a specific question are you aware of a
3 relationship between diet and cardiovascular disease, a
4 belief that one's diet does not need to change.

5 That is, they thought they were doing pretty well
6 with their diets. Therefore, the only thing left to do was
7 to take a supplement and that nutrition was unimportant
8 assessed by there are so many different messages they cannot
9 really figure out what is going on. Therefore, again it
10 really does not matter, so different issues related to the
11 supplement use.

12 With respect to the diet, it was reported that the
13 individuals that used supplements had a slightly lower mean
14 intake of fat and saturated fat, which probably was related
15 to the knowledge of the relationship between diet and
16 cardiovascular disease, had higher mean densities for the
17 other nutrients, which was interesting, had a higher diet
18 score, which was the average intake of seven nutrients, and,
19 even controlling for the sociodemographic variables, it
20 actually diminished. The relationship with nutrient intake
21 and diet score still remained significant.

22 Lastly, with respect to supplement users, these
23 authors concluded that supplement use was associated with
24 higher quality diets in some population groups, but with
25 lower quality diets in other population groups. You could
26 not even generalize because in some cases when the groups
27 were subdivided it might have been higher in one
28 socioeconomic group and lower in another, but then if you
29 looked at education it might be switched so that there was a

1 lot of variability there, so broad generalizations could not
2 be made.

3 That the strength and direction of the association
4 related in part to the individual and group differences in
5 knowledge, attitudes and beliefs concerning supplements,
6 food and health, but not necessarily what we might have
7 predicted would have been the determinants.

8 They pointed out that these findings required
9 confirmation and larger sample size, but I thought something
10 that was a very interesting comment at the end was that such
11 information, that is having a larger study, could reveal the
12 likely consequences of a permissive policy regarding
13 supplement based approach to prevention of chronic disease.

14 What I took this to mean is a call for more work
15 that really needs to be done in assessing what the impact of
16 the message would be if there was a shift in policy towards
17 the use of supplements away from the use of food, and so at
18 least we could get some answers to that issue.

19 The next thing I did was look at the 1995
20 subcommittee summary. In that case, and this is sort of a
21 refresher from what Dr. Kumanyika went over the last time,
22 but that the phrase "and other substances needed for health"
23 was added, and that was to emphasize the term nutrients did
24 not cover all food components of food that may be
25 beneficial. I think that is something we need to keep in
26 mind.

27 Also, special circumstances were noted, and one
28 example is females of child bearing age and older adults. I
29 think that is something that we need to consider and

1 probably should flow from the new DRIs, the ones that have
2 been issued and the ones that will be issued, because there
3 are specific recommendations in those for specific
4 population groups.

5 In 1995, there was a stronger argument that
6 consumers should not routinely rely on supplements to meet
7 nutrient goals and that food should also be considered.
8 Also with regard to the 1995 committee report, there was
9 reference to enriched and fortified foods, which is why I
10 went through the definitions at the beginning.

11 There was an elaboration of the distinction
12 between each within the diet. It directed consumers to the
13 food labels for information regarding enrichment and
14 fortification because that would not necessarily come out on
15 the nutrient label where it would just be the total, but by
16 looking at the ingredients they could tell if a product was
17 enriched or fortified.

18 Current references to supplements in the current
19 text are as indicated under the variety guideline. One is
20 that enriched and fortified foods have essential nutrients
21 added to them. That is on page 10. It goes into a
22 definition sort of of enriched and fortified.

23 It directs the consumer, as I indicated, to the
24 ingredient list, and it indicates how these foods fit into
25 the diet, depending on the amounts consumed and the other
26 foods that are actually consumed. In that Figure 2, the
27 actual ingredient list is highlighted, and there is an
28 example of a food that is enriched.

29 Also under the variety guideline, the question is

1 posed where do vitamin, mineral and fiber supplements fit
2 in. The points made are that supplements may help meet
3 special nutritional needs; that is, older individuals for
4 calcium, for vitamin D, and they give other examples.

5 Supplements do not supply all nutrients and other
6 substances present in food that are important for health so
7 that there are other substances that may accompany those
8 foods that are particularly in certain nutrients and that
9 daily vitamin and mineral supplements are usually not needed
10 by people who eat a variety of foods depicted in the food
11 guide pyramid, so at least that wording is relatively clear
12 on where the committee stood.

13 Then there is also some reference in a sense
14 because of the fiber and the grain products, vegetables and
15 fruit guideline, and the terminology is that plant foods
16 provide fiber and that some of the health benefits
17 associated with high-fiber diets may come from components
18 present in those foods, not just from the fiber itself. For
19 this reason, fiber is best obtained from foods rather than
20 supplements.

21 I actually missed one, so I do not have an
22 overhead for it, but it is on page 8 of the guideline book.
23 It is under What About Vegetarian Diets? It does refer to
24 special considerations for vegans with respect to B12 intake
25 and then for children, also vitamin D and calcium,
26 cautioning that there may be special considerations for that
27 group.

28 I also looked at some of the international dietary
29 guidelines just to see if any of the other countries were

1 mentioning them. In the summary points, which was the only
2 text that we got from those guidelines, there was no mention
3 of them.

4 Therefore, I come to options to consider, and then
5 perhaps other members of the subcommittee might want to also
6 comment. One option is no change in the current text.
7 Another option is to update the text consistent with changes
8 that have occurred after 1995. An example would be folate
9 fortification.

10 Another option, though, is to distinguish between
11 nutrients added to foods as prescribed by national policy
12 versus those that are added at the discretion of the
13 manufacturers. That would in a sense get around the
14 relatively changing or undefined nature of enriched and
15 fortified.

16 Now, there is a lot of crossover because
17 classically enriched did refer to nutrients that were
18 actually in the product that had been refined out, and now
19 with adding folate to grain products and then having other
20 types of foods that are available to the consumer like
21 orange juice with calcium, it may be more helpful for the
22 consumer to know what actually is there and is added because
23 it has to be added, and they could actually make a choice of
24 buying a product that either did or did not have the
25 nutrient.

26 I actually would argue for including text on salt
27 because right now consumers do have the option to buy salt
28 with or without iodine, but it is not really made explicit.

29 Another option is to be more specific and possibly

1 more positive in identifying subgroups which might benefit
2 from supplementation. That should really I think be
3 consistent with the DRI so that there is some consistency
4 between the two documents.

5 An option is to include a figure with examples for
6 structure function statements since we know now that there
7 are certain claims that can be made, and there are certain
8 criteria for those, although I understand that that might be
9 technically difficult to do, but there are in Figure 2 two
10 examples of food labels so it would not even be adding a
11 figure. It might just be substituting one figure for the
12 other.

13 Obviously there are other options also, which are
14 open for discussion.

15 Thank you.

16 CHAIRMAN GARZA: Are there any specific points to
17 this presentation either for comments or questions? Scott?

18 DR. GRUNDY: One thing I have been thinking a lot
19 about recently is the terminology. You know, I think that
20 the terminology employed by the FDA for providing different
21 categories is actually quite good, and I think we ought to
22 think about somehow bringing into the guidelines what we
23 mean in different categories like foods, enriched foods,
24 food additives, supplements. That might be informative to
25 the public to actually know the categories, and then we
26 could divide things up accordingly.

27 As you went through your talk, under supplements
28 you actually talked about several different categories, but
29 you did not distinguish between those. It might be useful

1 to be in sync with the FDA's recommendations.

2 CHAIRMAN GARZA: Dr. Kumanyika?

3 DR. KUMANYIKA: The issue that did not come out
4 clearly to me in your really exhaustive review of at least
5 the vitamin and mineral issues, but there are consumers
6 wanting to take supplements to make sure their diet is
7 adequate as they perceive it, and then there are consumers
8 wanting to take supplements for extra protection.

9 I think those two, either the issue of whether
10 there are optimal levels over and above DRIs or whatever
11 reference is available, is one of the main issues with
12 supplements. The other is whether food is a better source
13 of nutrients for basic adequacy.

14 It just seems like we have a lot of work, besides
15 the fact that those other supplements we have not even come
16 around to dealing with what to say about other things people
17 ingest that are remedies. I think this is a good start, but
18 it seems like there are lots of issues.

19 DR. LICHTENSTEIN: I will agree with you. There
20 are a lot of issues, and they are very, very difficult to
21 tackle so I welcome your extensive input.

22 CHAIRMAN GARZA: Any other comments? Johanna?

23 DR. DWYER: Just three quick ones, Alice. I think
24 this is a very nice presentation.

25 In terms of distinguishing between nutrients added
26 to food prescribed by national policy -- these surveys -- as
27 long as national policy does not mean it is required. In
28 other words, there are some examples, perhaps iron fortified
29 formulas and so forth, that are not required necessarily,

1 but they are of public health significance and I think
2 probably national really.

3 DR. LICHTENSTEIN: Okay, but remember that example
4 would not fall under dietary guidelines because that would
5 be for individuals under the age of two, but there may be
6 others, I guess.

7 DR. DWYER: I am talking about formulas.

8 DR. LICHTENSTEIN: Right. Yes. I agree with you
9 with the salt. I think we have to provide guidance on that.

10 DR. DWYER: When we are talking about high-potency
11 vitamins, I realize that vitamin D is I do not think it is
12 sold separately, but it is still of great concern. Maybe we
13 should think about ways of mentioning it because it is
14 really more like a hormone.

15 DR. LICHTENSTEIN: Yes. I do not know when the
16 DRIs for that are going to come out, but we might be able to
17 get some guidance. Well, when they are going to.

18 From what I understand, the committee has been
19 appointed, but when they do come out and when they are
20 anticipated and how that can be merged with that, but again
21 I think your point is well taken.

22 CHAIRMAN GARZA: The other thing, Alice, before
23 you get off the podium that might be very useful, and I
24 think it was a point that Shiriki was getting at, is that we
25 may need some help from staff to help look at the role that
26 supplements play at least among those groups that are most
27 at risk for meeting certain nutrient requirements.

28 I do not know whether the present databases permit
29 us to be able to do that, or is it the groups that in fact

1 now are not at risk, in fact, your analysis would tend to
2 suggest are the principal consumers of these products.

3 There is a wider discussion now on the guideline
4 itself. I do not know if any of you have any comments or
5 questions that you want to direct to Suzanne or anyone, any
6 of the presenters or members of the groups? Meir?

7 DR. STAMPFER: I had a few specific comments on
8 both the dairy and the supplements, but I just want to limit
9 myself to the overall guideline.

10 I thought Suzanne's presentation was really
11 excellent and the analysis very informative in showing what
12 the gain was with and without variety. It was striking to
13 me how little there was.

14 I also strongly agree with the potential for
15 confusion with the current wording, glazed donut versus
16 chocolate covered as a variety of donuts. I think that all
17 makes good sense.

18 The proposed suggestion to consider putting in the
19 food pyramid as kind of a replacement for that, but then
20 thinking about that, the food pyramid is actually supposed
21 to be derived largely from the dietary guidelines so in a
22 way it is kind of a tautology to say follow the food pyramid
23 because the food pyramid is supposed to follow the
24 guidelines.

25 My conclusion is to carry this logic just one step
26 further and make what might sound like a somewhat radical
27 suggestion, but I think it is not all that radical, which is
28 just to drop this guideline as a slogan and put the content
29 in the introduction, which we already have an introduction,

1 and that could be expanded.

2 We could work out, you know, what the content
3 would be. As a guideline, I think we have reached the
4 logical conclusion.

5 CHAIRMAN GARZA: Any responses to that suggestion,
6 other comments or other questions? Scott?

7 DR. GRUNDY: I had some concern, too, about
8 linking it to the pyramid. I could see all kinds of
9 logistic problems in going back and forth.

10 If the pyramid becomes part of our document, you
11 have to get more involved in the development of that, which
12 is going to be quite contentious in itself. I mean, I think
13 it is a good idea, but I think we have to be careful how we
14 would do that.

15 CHAIRMAN GARZA: Yes.

16 DR. MURPHY: Can I respond to that?

17 CHAIRMAN GARZA: Yes, and would you summarize then
18 Scott's comments because some were unable to hear. That is
19 at least what I heard coming from the --

20 DR. MURPHY: Are yours on the same line out?

21 DR. LICHTENSTEIN: I was concerned about tying it
22 to the food pyramid for a different reason. That reason is
23 that there are a lot of foods that are being introduced that
24 could be very beneficial, but do not fall within the
25 pyramid.

26 Something like calcium supplemented orange juice
27 comes to mind, but I think we are going to see a lot more of
28 these products of where do you put it? Do you put it in
29 dairy? Do you put it in fruits and vegetables?

1 To me, it seems like our food supply is moving
2 towards a disconnect between foods and nutrients. You can
3 still recommend dietary patterns, but things are not fitting
4 in where we originally thought they would or used to.

5 DR. MURPHY: I thought those were all helpful
6 comments. Let's see if I can summarize what Scott said.

7 It is a logistics problem of who does the pyramid
8 and who does the guidelines. Therefore, we are in a sort of
9 circle.

10 Are you sort of adding on to what Dr. Stampfer
11 said that --

12 DR. GRUNDY: Yes. I think that we have heard that
13 we are not responsible for the pyramid, and I am glad
14 because I think that that almost is a separate guideline in
15 some ways. It certainly is linked, but it is a different
16 concept. If we have to get involved in developing that or
17 trying to decide how it is going to be structured, then I
18 think that is beyond what we could do or should do.

19 If you just in a way, though, will you endorse it
20 or make it an official part of our guidelines if you refer
21 to it and say eat what is in the pyramid?

22 DR. MURPHY: Okay. Well, we are all agreed that
23 we are not trying to develop the pyramid.

24 I would like to make a comment, and then I would
25 like to see if Dr. Kennedy would maybe like to make a
26 comment also or Carol or somebody on the development of the
27 pyramid.

28 Let me just remind you all that really the variety
29 guideline does focus now almost entirely on the pyramid, so

1 unless we drop the discussion of the pyramid entirely, which
2 I do not think any of you -- is that what you are
3 recommending, that this document should not even discuss the
4 pyramid?

5 DR. GRUNDY: Well, I think if you put it on the
6 front like you suggested, you really codify it in a way that
7 makes that equivalent to the guidelines so I had some
8 problem with that. Inside maybe it is not quite so bad,
9 but --

10 CHAIRMAN GARZA: Let me make things more
11 complicated for you, if I could have a visual, that this
12 committee makes recommendations as to this booklet, but we
13 are not responsible for writing this booklet either so that
14 in fact if the Department wishes to insert a pyramid in it
15 or discuss the pyramid, that is perfectly all right.

16 Since they are the authors of both this document
17 and the authors of the pyramid, we could certainly make
18 recommendations as to the contents of both and leave it up
19 to them. I mean, we could say gee, if you are going to have
20 a pyramid or another icon then use it as your first
21 guideline or based on the sort of reasoning that Suzanne
22 went over.

23 Do I understand that correctly?

24 DR. DWYER: Well, I did not think our job was to
25 do the pyramid.

26 FEMALE VOICE: No.

27 CHAIRMAN GARZA: No. That is what I am saying.
28 What I am saying is we do not do this booklet either. We
29 make recommendations as to its contents, but we are not

1 responsible for issuing it.

2 DR. KENNEDY: Can I comment on that? Having said
3 that, you are absolutely right that the mandate of the
4 committee ends when you have the technical report, which
5 goes in to the Secretary of HHS and Secretary of USDA.

6 However, given the history since we have had a
7 Dietary Guidelines Advisory Committee 1985 onward, I think
8 we have always taken the recommendations of the committee
9 extraordinarily seriously. I think if you look at the
10 concurrence between the technical report and what comes out
11 in this, they are very close.

12 Where there are changes, it is because of internal
13 reviews of the agency where there is maybe a unique policy
14 issue, just a little tweaking of a word, but I think if you
15 look at what comes in and what comes out, they are very
16 close.

17 On the food guide pyramid, Johanna, I was taken by
18 as Cutberto was talking. Johanna and I a couple years ago
19 were in a meeting out in Chicago ostensibly to talk about
20 some stakeholders from changes in the food guide pyramid.
21 I was astounded that with the exception of one or two people
22 there, people were commenting on the food guide pyramid and
23 had never read the food guide pyramid booklet.

24 I bring this up because the development of the
25 food guide pyramid not only is very detailed. It has
26 excruciating levels of detail in how you publish things like
27 this and -- I mean, this is the grunt work of it, the
28 composite. When you think about what combination of foods
29 meet nutrient needs, meet dietary guidelines, you have to

1 back into what current consumption patterns are.

2 Suzanne and I were at lunch talking about this
3 kumaweki kale in Kenya. Now, if we all were eating kale,
4 the nutrient profile of the population would look very
5 different than with the vegetables they are eating at the
6 moment, so I think the reason Dr. Garza has been so specific
7 that the guidelines come first is because at critical
8 junctures we look at, we being the Center for Nutrition
9 Policy and Promotion, revising the pyramid. It is when you
10 have a new body of information based on DRIs, based on new
11 dietary guidelines. I would assume that the next revisions
12 would be based on the 1994-1996. That is the most recent
13 consumption data we have.

14 Your point, Alice, about calcium-fortified orange
15 juice, I mean, to the extent that gets reflected in the
16 1994-1996 then that gets built into composites, but it is a
17 very meticulous, tedious process documenting the range of
18 foods. I do not think with as hard as this group is
19 working, even if you had doubled the number of feedings, you
20 would not clearly be able to get to that point.

21 I think what we, and Linda may want to jump in
22 here, but what we are looking forward to from both
23 departments is a revision of the guidelines that then allows
24 us to look at our communication pieces not simply to the
25 icon everyone sees, but the bulletins that backstop it, the
26 nutrition facts label, whatever pieces we are developing,
27 soon to be released children's food diet pyramid, and think
28 about what is the consistency of these what I call nutrition
29 promotion instruments. What is the consistency of those

1 instruments with the newly emerging guidelines?

2 MS. MEYERS: I would just like to add the
3 historical note that those of you who are on the committee I
4 think will recall, which is that the discussion of the
5 pyramid and the food label and putting them in the variety
6 guideline was to introduce consumers to two new educational
7 tools that they could use, so the pyramid was highlighted
8 and the food label was highlighted at that point.

9 CHAIRMAN GARZA: Johanna?

10 DR. DWYER: I sort of like the new guideline. Did
11 you come up with it together, and is it that you want a
12 separate pyramid, Roland? I am not sure I understand.

13 DR. WEINSIER: Do I want a separate? No. I think
14 the way the discussion --

15 DR. DWYER: First of all.

16 DR. WEINSIER: I mean, we met face to face in
17 Birmingham a month or so ago. This is before I had even
18 started on this dairy food thing. That was a result of
19 actually our interaction and some discussion.

20 It seems to me our discussion revolved around
21 variety based upon the data that Suzanne presented to us did
22 not convince me that that is a major issue, and I agreed
23 immediately with her that that is probably not the direction
24 that should be the major focus of this section.

25 If it is then building what is the foundation of a
26 sound diet, and we looked at the pyramid and the foundation
27 is, you know, whole grain products, fruits, vegetables, and
28 that made sense. The food groups are listed here, so I was
29 not uncomfortable at all with reference to the foundation of

1 a sound diet.

2 Now, whether it is called a pyramid or whatever, I
3 think that is a secondary issue. That gets back to the
4 technicalities of what comes first, the chicken or the egg.
5 I am not uncomfortable at all.

6 I do not know how Suzanne feels, but I am not
7 uncomfortable at all saying the section could be called
8 develop a sound dietary plan and here is the foundation for
9 it. We never refer to or give the icon of a pyramid.

10 DR. DWYER: Okay. I guess I am not as concerned
11 about the -- not increasing the -- I guess I see other
12 reasons for a variety that are more aesthetic than they are
13 nutritional.

14 I was taken by something that Dr. Vanderbean, who
15 is now retired, but was in FDA for many years, said that,
16 you know, if you really looked at all of the nutrients and
17 looked at something you ate in the same fast-food place
18 every day, and looked at every item, it would not be that --
19 I mean, to some of us it would be a living hell, but in
20 terms of the nutrients being achieved it was not that. It
21 was the aesthetics that bothered me.

22 I think somehow I feel that there are broader
23 issues than the nutrient correlations alone with respect to
24 the variety guideline. I would hate to see it totally
25 pitched out.

26 Linking to a pyramid, assuming that the pyramid we
27 are all talking about is the USDA pyramid. As we know, there
28 are thousands of pyramids now -- a Harvard pyramid, a Hawaii
29 pyramid and so forth --

1 CHAIRMAN GARZA: Do not forget the Tufts pyramid.

2 DR. DWYER: Yes. It is like the Mexican pyramids
3 on a base of water.

4 (Laughter.)

5 DR. DWYER: That is a modification of the USDA
6 pyramid. There are no deviations.

7 CHAIRMAN GARZA: We should not forget the Egyptian
8 pyramids.

9 DR. DWYER: I sort of like the guideline, as
10 negative as it sounds like some other folks were.

11 CHAIRMAN GARZA: Richard?

12 DR. DECKELBAUM: I am not going to talk about the
13 pyramid.

14 You know, listening to some of the discussions
15 that have been going on with the variety and then Alice's
16 presentation, it seems that this might be a good opportunity
17 of linking the two even on a firmer basis and introducing
18 into whatever we want to call the variety guideline the
19 concepts that not all populations are going to be able to
20 achieve desired intakes from their diet.

21 We can look at this as an opportunity, especially
22 when I guess the new DRIs are going to be coming out, that
23 we can sort of give different populations, as you mentioned,
24 the option of doing this through food, but if for some
25 reasons either food are not going to do it or some
26 limitation to the specific population, let's say pregnant
27 women, then you really do need supplements or certain
28 occasions and certain population.

29 I think that might be a way to, one, strengthen

1 the current guideline under variety, even if it is under a
2 different way, and bring us up to date with what is really
3 happening with the DRIs.

4 CHAIRMAN GARZA: Suzanne, would you like to
5 comment on that?

6 DR. MURPHY: Sure. I mean, I think it is the
7 place to talk about when supplements are appropriate. I, of
8 course, basically agree that supplement are appropriate
9 sometimes in some situations so I would not have any
10 problem, as I think basically Alice and her group are
11 proposing, to add more of that to the variety guideline.

12 I need to ask. Well, everyone else finish, and
13 then I will ask. Sorry.

14 CHAIRMAN GARZA: Alice, and then Shiriki?

15 DR. LICHTENSTEIN: Well, I think we do need to add
16 more advice. However, I am not exactly sure under what
17 guideline it should appear.

18 I really think we should hold off and hear all the
19 other presentations before we talk about keeping or, you
20 know, not keeping guidelines and changing guidelines and
21 things like that because there may be or may not be other
22 compelling reasons for disbursing it in different ways.

23 CHAIRMAN GARZA: Dr. Kumanyika?

24 DR. KUMANYIKA: I was trying to remember how we
25 got to have the pyramid in the booklet last time, since I am
26 a carryover person from the 1995 committee. It really is
27 pretty much as stated in the report on pages 21 and 22.

28 The committee last time essentially came to the
29 conclusion that except for adequacy and people with marginal

1 intakes, there was no need for the guideline and that it did
2 not help at all with the high fat issues. I mean, that was
3 really clear.

4 You could almost see this as an intermediary step
5 between variety when we have actually thought it made a
6 difference to the dietary pattern, which it may have, and I
7 think it did at one point, and actually saying we think that
8 there is a desirable dietary pattern.

9 This was sort of bringing in dietary pattern
10 issues, but still calling it eat a variety of foods and
11 hoping people would figure it out from looking at that. It
12 seems that now we might have to move to just looking at is
13 this supposed to be a dietary pattern guideline to say how
14 all these things fit together. If that is so, not
15 necessarily have it as the pyramid, but just decide do you
16 want to recommend a dietary pattern for which there is a
17 scientific basis.

18 We concluded last time that there was no
19 scientific basis for the variety guideline except to
20 adequacy, and that is pretty much what it says so it is a
21 conglomeration of collecting things that each has a basis
22 and putting them into one guideline.

23 CHAIRMAN GARZA: So you have to use all
24 guidelines. You cannot choose to follow only two or three.

25 DR. KUMANYIKA: Yes.

26 CHAIRMAN GARZA: Exactly.

27 Okay. Roland?

28 DR. WEINSIER: Yes. Maybe Suzanne and I can put
29 our heads together if we have some time during this meeting

1 to pick up, because I think Meir initiated this
2 conversation, and I think we ought to give some credence to
3 his suggestion that maybe what we are talking about here is
4 pulling together the recommendations of the other groups
5 into one that sort of solidifies and gives an overarching
6 image, you know, of what is the foundation of, you know, an
7 eating plan, which includes things, moderation in sugar,
8 salt, alcohol, even the balance the food you eat with
9 physical activity, the weight guideline.

10 I mean, it is built, the way we have devised it
11 now. It is built on the foundation of the whole grains,
12 fruits, vegetables, unrefined starches, so it may all tie
13 together and could satisfy what Meir is bringing out.

14 CHAIRMAN GARZA: Okay. Suzanne was going to wait
15 until all of you had your opportunities. Should she go now?

16 DR. MURPHY: I guess my question to everybody was
17 what are the pros and cons of dropping all mention of the
18 pyramid from our guidelines?

19 DR. JOHNSON: Should I call on people?

20 CHAIRMAN GARZA: You did not mean that as a
21 rhetorical question that we could answer over the next few
22 days then?

23 DR. MURPHY: Well, I think that we have to give
24 that serious consideration. If we drop this guideline,
25 there is no place really. Possibly visually it could be put
26 somewhere, but there is no place to talk about any parts of
27 the pyramid other than those that are in right now grains,
28 vegetables, and fruit.

29 CHAIRMAN GARZA: Rachel?

1 DR. JOHNSON: I just think we have to be very
2 careful in thinking about, you know, the question is what
3 should Americans eat to stay healthy, so we have to be very
4 careful about thinking about then are there any holes in the
5 guidelines as a totality.

6 To me, a big issue that stands out are the problem
7 or scarcity nutrients. I will use calcium as an example.
8 We do not have any specific guideline related to calcium,
9 for example, that could be fit into a variety guideline.

10 If we do not have that, then I think we have a big
11 hole there where we need to think about really the totality
12 of the diet and where those kinds of issues might fit.

13 CHAIRMAN GARZA: Richard, and then Alice?

14 DR. DECKELBAUM: In answer to should it be
15 dropped, I do not actually know because from what I
16 understand from Eileen, the pyramid sort of comes out of in
17 part certainly from the deliberations of this committee, and
18 I think from an editorial of Walter Willet, you know, does
19 the pyramid need repair, well, maybe it needs a bit of
20 repair, a lot of repair or whatever, but that repair process
21 is going to come partly out of the deliberations and what
22 this committee reports.

23 I think that really because of the wide acceptance
24 of the pyramid as probably the major message that people are
25 familiar with in the general population that it would be a
26 mistake to drop it.

27 CHAIRMAN GARZA: I think you are right. At least
28 from the data that I recall, the proportion of the
29 population that recognizes the pyramid is much greater than

1 those that know anything about the guidelines.

2 Alice, and then Scott, and then Meir?

3 DR. LICHTENSTEIN: I guess I am interested. I
4 know what the intended audience for the guidelines are. I
5 guess what I am interested in is whether there is any hard
6 data on exactly how the guidelines are used, whether they
7 are really used by consumers, whether they are more used by
8 setting policy.

9 I think that might help me think more about which
10 guidelines would be useful, whether they should all stay.
11 Maybe there should be some overhaul as far as more emphasis
12 on what people should eat, what would encourage the
13 development of the sort of dietary patterns that have been
14 associated with decrease disease incidents, maybe not
15 causal, but at least associated.

16 I think there is a lot of data between 1990 and
17 1992, and then that might help with this issue of should
18 there be this variety pyramid or some different iteration of
19 the pyramid.

20 CHAIRMAN GARZA: Okay. Scott?

21 DR. GRUNDY: I think my problem with this is that
22 the word variety and the concept is sort of open ended. It
23 is not specific enough.

24 I think there are two things we need to do. One
25 is to think through the recommendation and what do we really
26 want to say, and the second thing is I think we need to put
27 it in words what we actually did say. I think that is the
28 challenge to you.

29 That is one of the problems I have with the

1 pyramid is I think it, too, is kind of nebulous. Everyone
2 that looks at it and reads those words is going to get a
3 different message that they can interpret as they want to.

4 The challenge to you might be to really put it
5 down exactly in words what you mean, and it also ought to be
6 something that we all agree upon.

7 CHAIRMAN GARZA: It is clear that the difficult
8 Scott will do himself. The impossible he contracts out to
9 Suzanne. I have lots of faith in her.

10 Meir?

11 DR. STAMPFER: I think in terms of whether we
12 should or should not mention the pyramid, I think ideally we
13 should if it actually works out to be what it is supposed to
14 be, which is on page 4. The food guide pyramid serves as an
15 educational tool to put the dietary guidelines into
16 practice.

17 If our revised, and I am assuming we are going to
18 revise the dietary guidelines. If our revised dietary
19 guidelines were reflected in a revised pyramid, that would
20 be the best setting, and then we could refer to that revised
21 pyramid.

22 I do not see how it makes any logical sense for us
23 to talk about revising the dietary guidelines and then refer
24 to the existing pyramid. If we are going to change the
25 guidelines, then that means we are recommending or hoping
26 that there is a change in the pyramid.

27 If we are talking about the current pyramid, I
28 would say no, we should not mention it. If we are talking
29 about the ideal pyramid, yes.

1 CHAIRMAN GARZA: All right. Johanna?

2 DR. DWYER: May I make a plea for a holistic
3 approach? Not only should we, in my view, mention the
4 pyramid, but we should also mention the food label, the
5 nutrient label, and we should also mention, and I will tell
6 you more about this tomorrow, food safety because most
7 people really do not get it -- that this is all together
8 what is necessary for healthful eating.

9 Anything that can bring things together in
10 people's minds rather than further atomizing this field, and
11 also Dr. Lichtenstein's comments about supplements. They
12 should all be together at least in one place.

13 I do not care -- my colleague from Tufts does --
14 whether consumers read this. My concern here is whether
15 5,000 county health department people in various units,
16 whether it is education, health, agriculture, whatever it
17 is, read it. I am very much concerned about that, and I
18 think probably that is about all they get, at least in some
19 counties where I grew up.

20 CHAIRMAN GARZA: Okay. Richard, did you have your
21 hand up?

22 DR. DECKELBAUM: Yes. Actually, at our first
23 meeting there was some discussion as to whether we would be
24 meeting with the food pyramid people or group -- I think
25 probably some are here -- so that we could coordinate this
26 kind of activity with an outcome.

27 At the same time, I do not know how frequently,
28 and I would have to go through, but I am not sure that the
29 pyramid that is on page 4, except for the variety guideline,

1 is referred to very frequently in the other sections, so
2 that it is not absolutely necessary that we, you know, have
3 a guarantee that we have a revised pyramid when we think of
4 the other individual guidelines.

5 We would hope that the dialogue would allow some
6 use of this and perhaps some changes so that it would be a
7 better teaching material.

8 CHAIRMAN GARZA: The difficulty, Richard, in what
9 you are suggesting is that once our guidelines are developed
10 and our recommendations made, and I want to stress a point
11 that Eileen made. I mean, as I understand the process,
12 there are a number of analyses that go into the dietary and
13 to the pyramid, which at least from a time perspective would
14 make it very difficult for them to then come back to us and
15 say now here is the new revised ideal pyramid based on your
16 latest recommendation because it really, at least as I
17 understand it, people go back.

18 The group goes back to look at the nutrient
19 intakes suggested by those patterns that are gender, age and
20 culturally specific to make sure that they are as generic as
21 possible, so I do not know whether that sort of iteration
22 would still permit us to meet the deadline of getting done
23 with this process by October. I mean, is that --

24 DR. KENNEDY: You are right. You are absolutely
25 right.

26 The other issue is, and this is a policy decision
27 from the Department, but, given the emerging DRIs, at what
28 point do you take the newest DRIs, take the newest dietary
29 guidelines, take the newest consumption patterns?

1 It is not, and again I speak as someone who is not
2 tasked with the day-to-day of doing the analyses, but it is
3 not clear at this point when a new pyramid would emerge
4 based on these new pieces of information, so there is almost
5 a zero percent probability, knowing what has to go into
6 this, that a new pyramid, if it were to emerge, would be
7 available at the time the guidelines would be released. The
8 timing just does not work.

9 CHAIRMAN GARZA: It may be something along the
10 lines that Roland was alluding to. It would still permit us
11 to bring it together, and if the group feels uncomfortable
12 with identifying a pyramid because we will not be able to
13 see it a priori, it is the concept that becomes important in
14 our technical report rather than the specific prescription
15 as to how to accomplish it.

16 Shiriki?

17 DR. KUMANYIKA: The other thing that I got out of
18 Roland's presentation very clearly was that the pyramid
19 gives us some guideline that we have not made, and it does
20 not address some that we have made so there is really not as
21 much overlap as one would like. There are other
22 considerations.

23 We have guidelines that talk about the grains,
24 fruits, and vegetable group and about fats and sugars in
25 moderation. We do not have a guideline that talks about
26 meat and dairy consumption. We do have guidelines that talk
27 about alcohol, salt and weight that are not on the pyramid.

28 so in one way or another, we need to come to a
29 relationship between the pyramid and the guidelines because

1 it really does not -- I think we kind of accept it as the
2 main graphic, but it does not take care of the calorie and
3 energy balance problem, and it has never had salt on it, and
4 it adds these other issues that people are now testifying to
5 us about -- guidelines that we have not actually made
6 because we do not have a dairy guideline, but we heard a lot
7 of testimony about the things that are wrong with the dairy
8 guideline

9 CHAIRMAN GARZA: Let me assure you. I mean, it
10 does attempt to provide some of that in terms of it gives
11 you three different calorie levels, but the main, principal
12 point that I think all of us have to recall is that this
13 icon of the pyramid is not the only teaching tool.

14 I mean, there are food labels. There are a number
15 of other mechanisms which in fact the government and other
16 stakeholders use to translate the dietary guidelines, so it
17 is somewhat unfair, possibly generated the unfairness by the
18 booklet itself because the focus is on the pyramid, that we
19 not think that is the only tool because I do not know that
20 we could come up with a simple icon that would do what
21 Shiriki was referring to.

22 I will take one more question. Obviously we did
23 not get to the food grains. I told Richard that I did not
24 see where we were going to be able to get there, so we are
25 going to take that one tomorrow.

26 I think everyone is coming close to exhaustion,
27 so, Alice, we will give you -- Linda had her hand up. We
28 will go to Alice, and then we will give Linda the last word.

29 DR. LICHTENSTEIN: Okay. I guess after hearing

1 all this discussion, I am more comfortable with the pyramid
2 than when I started hearing this discussion, but I would
3 also like to point out on page 10 and 11 that there are also
4 examples of how to sort of cross pyramid categories because
5 when it goes into recommendations for good sources of
6 calcium, good sources of iron, then it is really integrating
7 the whole pyramid so maybe that is really where we want to
8 be.

9 CHAIRMAN GARZA: Okay. Suzanne, and then Linda?

10 DR. MURPHY: I guess do not leave me quite hanging
11 as much.

12 (Laughter.)

13 DR. MURPHY: Roland and I have to do something.

14 CHAIRMAN GARZA: We want you to come up with
15 another pyramid.

16 DR. MURPHY: No way. Do you all feel, I guess as
17 I do, that we have to say something about dietary adequacy?
18 I mean, I think that is what Roland is also saying, but say
19 it without referring to the pyramid?

20 DR. GRUNDY: I think you ought to say it in words.
21 Say it in words, and then the pyramid can be created out of
22 those words.

23 DR. DWYER: I do not think we agree about this.

24 DR. MURPHY: I do not think we do.

25 DR. DWYER: -- abandon the pyramid. I have no
26 problem with the minority report on this, if that is what it
27 comes to.

28 CHAIRMAN GARZA: That is still a bit premature.

29 DR. DWYER: Right.

1 DR. MURPHY: To me, the primary measure of dietary
2 adequacy, after all, is the DRIs, and the DRIs are what
3 primarily generate the pyramid, right? I mean, most of the
4 guidelines do not actually generate your pyramid servings,
5 so it seems like you are sort of coming full circle.

6 You are saying do not generate the pyramid, but
7 give us enough information on adequacy to generate a
8 pyramid. I cannot do that. I do not think that is
9 reasonable or possible.

10 CHAIRMAN GARZA: What I heard the group saying,
11 and you can all chime in, is that in fact the pyramid
12 attempts to accomplish a lot more because it is based on
13 total nutrient adequacy. That was the various analyses that
14 Eileen and Carol were describing, number one.

15 Number two, though, we have to recognize that in
16 fact we do not get to choose or recommend follow only three
17 guidelines, that somehow we have to transmit the message
18 that in fact the guidelines are a total package.

19 Whether we do that with a separate guideline,
20 which is what the variety attempts to do, or in words that
21 accomplish this, giving enough guidance to USDA that says
22 look, we recognize that you are going to need a teaching
23 tool, and the teaching tool that you use should try to bring
24 all of these guidelines together.

25 Now, the pyramid may have to go beyond that. One
26 example that we have heard is its attempt to address the
27 issue of calcium and bone health, and both Roland and I
28 think Shiriki alluded to that.

29 It is not a task that I can easily see how to

1 accomplish, but it ought to provide enough flexibility to
2 the Department that if it wants to use a pyramid or develop
3 other tools, you know, they have the options to do that.

4 What we should be doing is pointing out the
5 centrality of the task, to getting the public to understand
6 that you get to use all of the guidelines to achieve a
7 healthy eating pattern, not concentrate only at the very top
8 of the guidelines because, gee, you know, that is the part
9 of the pyramid you like the most.

10 Did I reflect the group's --

11 DR. MURPHY: You have confused me.

12 CHAIRMAN GARZA: I have confused Suzanne and
13 reflected your --

14 DR. MURPHY: You confused me.

15 CHAIRMAN GARZA: All right. Maybe somebody else
16 thinks they can do a better job of unconfusing.

17 DR. KUMANYIKA: I have a suggestion. The
18 introduction to this booklet is also kind of an interesting
19 piece that actually could be accomplishing what this variety
20 guideline tries to do.

21 I was going to suggest that we consider putting
22 whatever we decide to say about the overall dietary pattern
23 in the introduction and that this guideline be to get enough
24 nutrients, because the rest of them are saying do not get
25 too much of something, and this one is the one that says get
26 enough.

27 Make this an adequacy guideline and address it
28 that way and the other ones about the over nutrition, and
29 then when we get back to the introduction we can figure out

1 how to put the whole story together.

2 CHAIRMAN GARZA: So you are arguing for doing what
3 I was suggesting in the introduction and then making this an
4 outline or rather a guideline that focuses specifically on
5 nutrient adequacy --

6 DR. KUMANYIKA: Right.

7 CHAIRMAN GARZA: -- of the total diet and picking
8 up all of the orphan nutrients?

9 DR. KUMANYIKA: Right, but then putting the big
10 picture in the introduction, which starts off with what
11 should Americans eat to stay healthy and actually describes
12 the pattern, but it is kind of -- we do not really talk
13 about the introduction. It is just there.

14 CHAIRMAN GARZA: That is a new task on nutrient
15 adequacy.

16 DR. MURPHY: You need another working group.

17 CHAIRMAN GARZA: That is right. No. We will just
18 add it.

19 Okay. Are there other comments? Suggestions? If
20 not, we will adjourn until tomorrow morning at 9:00 a.m.

21 Thank you, for those of you that have stayed on
22 with us until the bitter end.

23 (Whereupon, at 6:10 p.m. the hearing was
24 adjourned, to reconvene at 9:00 a.m. on Tuesday, March 9,
25 1999.)

26 //

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 Date of Hearing

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