

**Formulation of the 2010 Dietary Guidelines:
Recap of Meeting #3
Provided by Hope Warshaw, MMSc, RD, CDE**

On 4/29-30/09 I listened in to the webinar of the 3rd meeting of the 2010 Dietary Guidelines Committee (DGC). (The second meeting was held 1/29-30/09. Find my recap (<http://www.hopewarshaw.com/node/111>) and link to more info about that meeting <http://www.cnpp.usda.gov/Dietaryguidelines.htm>. The first meeting was held on Oct 30-31, 2008. Link to more info about that meeting <http://www.cnpp.usda.gov/DGAsMeeting1.htm>.

This 3rd meeting had two sections:

- 1) The DGC invited several prominent nutrition experts with particular areas of expertise and interest from the DGC. These invited experts answered questions posed to them by DGC
- 2) Status reports from each subcommittee

Enjoy this recap. To link to more information about the 2010 Dietary Guidelines process <http://www.cnpp.usda.gov/DietaryGuidelines.htm>. Also think about submitting or viewing written public comments which will continuously be submitted during this process.

A few general headliners from the meeting:

- Decisions will be driven by evidence (“what we did and why we did it”) – studies recorded in the NEL – Nutrition Evidence Library (however, discussion thru the meeting indicated that excellent review articles and a few other resources can be used/added.
- Committee members are trying to balance a number of challenges and realities: their desire to have and beliefs that Americans should eat more basic foods vs. heavily processed foods, from fresh vegetables and fruits to whole grains. They all realize eating more basic foods is the easiest way to keep sodium, solid fats and sugar intake low while maximizing nutrition adequacy and density.
- There is a push (internally and externally) to talk about recommendations in terms of foods vs nutrients.
- The obesity epidemic is front and center of their discussions and decisions continually reflecting on: how is this or that decision going to help us with the obesity epidemic?
- It is important for Americans to understand the current (and unfortunate) status of the American “our” diet.

Invited speaker #1 Adam Drewnowski, PhD, University of WA, Seattle, WA

Drewnowski’s specialty area is food, economics and geography.

These are a few points he shared:

- Foods with added sugars and fats provide more calories for fewer dollars.
- Americans don’t want to eat less total food. This forces them to eat less healthy foods and eat more total, yet less healthy, foods: “cheaper calories”
- Lower quality diets are consumed by lower income groups
- Studies show a relationship between frequency of soda drinking, more TV watching and less physical activity
- A study from NYC showed a direct relationship b/w obesity and T2 diabetes in lower income neighborhoods. There’s similar data for Seattle by census track. Conclusion: social disparities are immense

- When discussing the solids vs. liquids issue, Drewnowski noted that it is likely that large soda consumption is common b/c it's easy to access
- Drewnowski' suggested that it's important that the DGs focus on helping people identify and construct affordable, accessible healthy eating plans. Be specific and promote affordable choices.
- He concluded by noting: "We need a positive approach to dietary guidance."

Invited speaker #2 Frank Sacks, MD, Harvard School of Public Health, Cambridge, MA
Sack's was asked to speak about weight loss research, particularly the POUNDSLOST study and results from hypertension trials, particularly DASH.

Weight Loss studies and results:

- He began with a quick run through of a number of the well known weight loss trials conducted over the last 5 – 10 years in an effort to, in part, discuss whether research shows any benefit of certain macronutrient distribution.
- He discussed how a number of the studies which followed people for a year showed that an Atkins approach does not show sustained weight loss over time.
- He discussed studies which show good weight loss in strict vegetarians and noted these diets can work well in certain populations.
- He spent the most time on the POUNDSLOST study – the recently completed 2 year trial reported in the 2/27/09 NEJM (see a couple of blogs I've written on this study: Best Diet for Weight Loss? <http://www.hopewarshaw.com/blog/3>, Towards Healthy Lifestyles, It Takes a Village <http://www.hopewarshaw.com/blog/3>). POUNDS LOST used 4 different macronutrient patterns and followed people for two years.

A few bottomlines:

- o Ongoing support is extremely important
- o Continued participation in the program is important - 0.2 kg wt loss per session attendance – same in all diet groups
- o Divergent results, no obvious dietary pattern is best
- o Participants gravitate back to their usual intake over time – at the end everyone was consuming ~ 43 – 53% carb
- The emphasis should now be on helping people choose a weight loss plan based on their needs and food preferences – not specific macronutrient intakes (within healthy eating guidelines). It must be sustained, tailored and supported. We need to find ways to implement this cheaply. We need cost effective resources, perhaps peer counselors

Sodium intake and hypertension:

- Studies show that in people over 45 yo with HTN the lower the sodium intake, the better the impact on lowering BP
- There's even a greater effect of lower sodium on BP as people age
- Studies show a big difference on lowering BP between 2500 mg/day and 1500 mg/day sodium intake
- The effect on BP of lower sodium intake as well as higher intake of fruits, vegetables and dairy foods are additive
- 70% of the US population could be responsive (BP lowering) to 1,500 mg sodium/day (He was asked about any downside of 1500 mg/day and he couldn't think of any)

Invited speaker #3: Patricia Crawford, DrPH, RD, Co-director, Center for Weight and Health, University of CA at Berkeley. Dr. Crawford works in the area of evaluation of the effectiveness of nutrition programs.

- She was tasked with seeking input from people who work in community feeding and food programs re: their feedback about the current DGs and what they would like to see changed
 - o Current DG are credible, current, clear, and comprehensive
 - o An invaluable resource but there's a problem in translating them into a more useful document/resource
 - o Lack of specificity in the guidelines. People want the type of info they get about fruits and vegetables – exact amounts to consume. Other groups the advice isn't concise and clear
 - o Messages/guidance is too complex
 - o People need a need a computer to access food pyramid and many resources
 - o **Please have 2010 DGs talk about foods, not nutrients**
 - o Develop a system for dietary guidance – ex: red, yellow green. Develop lists of what foods to bring and not donate to a food bank.
 - o We need more translational research with the guidelines and the pyramid

Day 2

Invited speaker #4/5: Speakers from USDA about the Thrifty Food Plan Market Basket (TFP)

- The concept of the TFP is to model food baskets that represent the foods that would need to be purchased to prepare diets which meet the model guidelines and to determine feasibility of achieving these.
- They do this for 15 age categories, 29 food categories (NHANES food categories)
- Difficult to meet potassium and vit E recommendations and sodium was high 2322 mg – 3600 mg, 14 – 18 yo
- To achieve dietary guidelines intake for nutrients – people need to increase whole grains, vegetables, fruits, milk products; decrease fats, oils, and sweets; no change in meats needed in total, but people would benefit from eating more nuts
- We want people to eat healthy for less money: an unhealthy diet can be inexpensive but it can be expensive, a healthy diet can be expensive but it can also be inexpensive
 - o Crux of the matter: figuring out how to help people make healthier food choices less expensively
- Need to think about and consider the way Americans eat today: more foods eaten away (J of Nutrition paper to come out soon on research demonstrating how to help people making healthier choices when eating out)
- SNAP are nutrition education resources available at: www.snap.nal.usda.gov – open to all state EFNEP, state SNAP

Invited speaker #6: Brian Wansink, PhD, Professor of Consumer Behavior, Cornell University. From 2007-2009 Wansink was the Executive Director of USDA's Center for Nutrition Policy and Promotion

- He discussed that one needs to look beyond PubMed to find research on food and nutrition behavior, such as psychology journals, economic journals, sensory studies, marketing journals
- We have an all or nothing mentality about food/nutrition behaviors, people don't seem to be motivated to make small changes – they want big results (they don't realize they can get big results with small changes)
- He discussed 3 subgroups of people re: behavior change/healthy eating:
 - o nutrition vigilant – these people just need info and reminders to do the right thing
 - o nutrition pre-disposed: they'd like to/will change if it's easy enough – these people need product solutions, web-based info, icons on foods

- nutrition disinterested – these people need stealth health – sneak it in
- What kinds of messages are most effective? Eat this, don't eat that
- Positive message work best with most people in most mind-sets, in most nutrition situations
- People make 200 or more food decisions every day – more than they think.
 - They need:
 - nutrition when they need it
 - to be nudged to think twice
 - have a personal dietitian – 24/7/360 (he was jesting here, but if we could afford it, it would help)
- Can we make the DGs cool or movement inspiring?
- Use a top down family strategy: Target the nutrition gatekeeper: Gatekeeper influences 72% of eating decisions

Subcommittee Reports

Work is ongoing on the subcommittees between the DG meetings. Subcommittee members and USDA staff have webinars with experts, continue their dialogue, search for new research to add to NEL, write their sections of the report, etc.

Fluids, Sodium and Potassium Subcommittee: Lawrence J. Appel, MD, MPH

- Water: no major study to cause a change in the '05 DG recommendation
 - Question was raised about why there isn't a glass of water on the pyramid?
- Sodium: Research clearly points to the fact that people “get more BP lowering effect from 2500 to 1500 mg/day. Biggest decision of this group will be whether to change the DG recommendation for all from 2300 mg to 1500 mg/day
 - Discussion point about whether to or not adjust sodium and potassium goals by estimated calorie intake. Intake of sodium and potassium is inextricably linked to calorie intake
 - More difficult for young men to adhere to low sodium intake
 - Discussing if obese are salt sensitive or not – literature is mixed
 - Even normotensive people benefit from lower sodium intake according to research (though analysis of research is challenging)
 - Question: Is it still possible to have a palatable diet at 1,500 mg/day – our palates are accustomed to high intake
 - It is going to take time for the food industry to catch up
 - What amount of 1,500 mg is salt added vs sodium in foods?
 - So little data that is really good. The figure in 2005 DG of 70% of sodium from processed foods is based on old data/past habits from 60 people but seems to still be correct
- Potassium question: what are the effects of potassium intake on health? Will continue to address the relationship b/w sodium and potassium.

Nutrient Adequacy/Food Patterns Subcommittee: Sharon M. Nickols-Richardson, PhD, RD

- What are the nutrients of high and low concern?
 - folic acid, vit D, iron for women, B12 for elderly
- The use of modeling will help this group determine dietary patterns for adequate nutrient intake
- Van Horn noted that in materials provided to DGC by staff from '05-06 NHANES - Grain-based desserts were #1 contributor to energy intake for Americans and #4 was soda in adults and #1 in children (emphasizing need for Americans to know how “we” are eating)

- We need to make sure that the food groups traditionally defined by USDA make sense to the general public to help them make changes in eating habits

Energy balance Subcommittee: Xavier Pi-Sunyer, MD, MPH

- Group is asking many questions related to energy density and body weight, health, chronic diseases, childhood obesity, gestational weight gain, breastfeeding and lactation, and physical activity (link to 10/08 released Federal PA guidelines: (<http://www.health.gov/PAGUIDELINES/>))
- Group will look at the behaviors that are associated with maintaining and achieving and maintaining a healthy weight. Will focus on 3 to 5 key behaviors and then do literature searches on each eg self-monitoring
- Group will look at environmental influences with some recent reviews
- Group will look at aspects/elements of weight loss programs that prepares a person for successful wt maintenance.
 - o 3 categories: 1) maintaining healthy wt, 2) prevention of further wt gain, 3) weight loss in overweight
- Needs to be big emphasis on the need for ongoing support (see my blog on topic: <http://www.hopewarshaw.com/node/97>), strategies for relapse prevention (Rena Wing data), use of technology to achieve long term goals
- Remember that NHLBI is in the midst of updating obesity guidelines, HEALTHY trial results should be forthcoming.

Carbohydrate and Protein Subcommittee: Joanne L. Slavin, PhD, RD

- The group is looking at the following questions:
 - o How is carb consumption/protein consumption related to health? (2005 – evidence fairly complete)
 - Will look at vegan vs animal-based diets, and plant-based vs. animal-based.
 - o How is consumption of fiber-containing foods related to health?
 - o Does type of carb or protein alter body wt and wt maintenance? Are there health benefits in the satiety value of fruits, vegetables and whole grains?
 - o What is the utility of GI/GL for providing dietary guidance? (well reviewed in 2005)
 - o How are non-caloric sweeteners related to BW? (not addressed in 2005)
 - o What is the impact of the consumption of liquids vs. solid food on weight gain?
 - o What is the role of pro-biotics and pre-biotics in the diet? (new area in 2010 and there's a lot of interest in this)
 - o Comment about the area of satiety. The fields of brain and gut is exploding, pre biotic, pro-biotics.-
 - o **Comment about fiber made by Van Horn: She is very concerned that consumption is still only about ½ of recommended. She said “We need to flip this around. Let’s spend time showing people how to achieve sufficient dietary fiber intake.” This clearly needs to be a message made to the public. It could help us achieve other goals – greater whole grains, fruits, and vegetable intake.**

Ethanol Subcommittee: Eric B. Rimm, ScD

- Recommendations from DG 2005 are unlikely to change due to no new research indicating a necessity to change. Guideline will likely be 1 drink/day women, 2 drinks /day men. This consumption can lead to lower mortality, lower CVD
- Additional research does support that 1 drink/day for women can cause a slight increase in the risk of breast cancer

- The National Institute for Alcohol Abuse and Alcoholism (NIAAA) has looked at drinking patterns (DG's previously have not addressed this). Some research discusses limits/day: men should drink no more than 4 drinks/day and no more than 14 drinks/wk
 - o There's now a body of literature concluding that having some alcohol distributed across 3-4 days/ wk has health benefits
 - o Desire to make DGs 2010 and NIAAA guidelines in sync
- Will include discussion about the relationship b/w alcohol and wt gain, b/w consuming alcohol and obtaining nutrition adequacy, and overall metabolic consequences
- Alcohol intake does impact your diet – due to disinhibition for less healthy food choices
- Note was made that in reality alcohol is really the only calorie contributing item that meets the definition for discretionary – we have no need for it re: nutrition adequacy

Fatty Acids and Cholesterol Subcommittee: Thomas A. Pearson, MD, PhD, MPH

- Questions the subcommittee is considering:
 - o What's the evidence for implementation of DGs for fats?
 - o What's the influence of dietary fat on CVD and other health outcomes?
 - o What dietary components affect LDL, HDL and non-HDL cholesterol (look for these in the upcoming NHLBI ATP IV guidelines)?
 - o What's the relationship b/w n-6 and n-3 and health outcomes?
 - o What's the association b/w consumption of foods with fat from nuts, fish, chocolate? Is there enough data to make statements in DG?
 - o What's the effect of total dietary fat on LDL levels at different levels of sat fat intake?
 - o What's the effect of cholesterol intake on LDL at different levels of sat fat?
 - o What's the association b/w LDL and stearic acids?
 - o What's the effect of consuming natural vs synthetic trans fatty acids on LDL, HDL and non-HDL chol?
 - o What's the impact on health outcomes from marine vs plant source of n-3?
 - o Do diets higher in n-6 lower the risk of negative health outcomes regardless of other fat in the diet?
- Review of intake of total fat, sat fat, cholesterol have not changed much since 1990, yet a big change has been in the increased use of statin drugs
 - o NHANES '05-06: Total Fat – 82 g; Sat fat: 27.8 g; cholesterol: 278 mg
 - % of cals – 40% 77-78, 33.4% 05-06. However total calories have increased from 1854 to 2157 (~300/day)
- Discussion point: 2005 DG fat guideline 20 – 35% of calories. Research shows could consider 20-40% of calories as long as on the higher end fats are from healthy sources.