

Dietary Guidelines Advisory Committee Meeting 3

April 29, 2009

Pat Crawford, DrPH, RD
CF Child Obesity Specialist
Adjunct Professor
Co-Founder & Director
Dr. Robert C. & Veronica Atkins
Center for Weight and Health
University of California at Berkeley

Question 1:

In what ways does your work suggest that the current nutrition guidelines are problematic when applied at the school or community level? In what ways are the current guidelines effective? For example, how can food service managers in schools and other settings distinguish between foods that are the most healthy and those that are the least healthy? How useful is the discretionary calorie allowance concept for the lay public and food service manager in planning the amounts of various foods that should be consumed?



University of California, Berkeley



Over the last 10 years the Center for Weight & Health has conducted nearly 100 studies with hundreds of community partners.

- Community interventions
- Evidence based literature reviews
- Program evaluations
- Culturally relevant material development
- Conference convening and sponsorship

Visit <http://cwr.berkeley.edu/cwh/index.html>



University of California, Berkeley

Current Dietary Guidelines are believed to be:

- Credible**- accepted as consensus of best scientific research available relating diet and health.
- Current**- Updates assure State of the art information
- Comprehensive**- covers a wide variety of key nutrients and foods
- Clear**- at least regarding the messages for some foods e.g. eat more fruits and vegetables and less candy



University of California, Berkeley

Voices of the community



University of California, Berkeley

Concerns regarding the Dietary Guidelines include: Specificity (#1)

- People want food-based specifics for translation of nutrient-based guidelines, eg: quantities, types, and classification of foods
- Many Dietary Guidelines are not specific enough for menu planners, i.e., lack information on “how to meet ...”



University of California, Berkeley

A good example of specificity..

Some Dietary Guidelines are specific enough to be “met,” specifying quantity, types, frequency, e.g.

Fruits and vegetables

“Consume a sufficient amount of fruits and vegetables while staying within energy needs... Two cups of fruit, and 2 1/2 cups of vegetables per day are recommended for a reference 2000 cal intake, with higher or lower amounts depending on the calorie level”

“Choose variety from 5 vegetable sub-groups several times a week.



University of California, Berkeley

Concerns regarding the Dietary Guidelines include: Complexity (#2)

No systematic way of including the Dietary Guidelines in nutrition education

- *“It’s complicated”*
- *“You need to get on a computer to use the pyramid”*
- *“5-day was simple and useful”*
- *“Such complicated variable guidelines makes it too time consuming to teach”*
- *“A national set of bench marks and standards would be helpful in developing nutrition curriculum”*



University of California, Berkeley

An example of lack of specificity

Lean, low fat foods

“When selecting and preparing meat, poultry, dry beans, and milk or milk products, make choices that are lean, low-fat or fat-free.”

- What types of meat, beans, and milk products are these? How much and how often of which?
- Which foods in these groups are important sources of fat in American diet? Chicken drumsticks, pork chops, turkey hot dog? beans? cheese?



University of California, Berkeley

3. Concerns regarding the Dietary Guidelines include too much focus on nutrients (#3)

Take for example the effort required by school personnel to decide on and monitor competitive foods in California schools after the passage of food and beverage legislation



University of California, Berkeley

It is possible that as a result, fruit and vegetable messages are more often transmitted and more often discussed

Nutrition education in schools when provided is highly focused on fruits and vegetables

and

WIC clients discuss issues related to vegetable messages.

“I am the role model... I used to be always in the candy or cookie department for my kids. [Now] I ... start with the vegetables... it [is] better for us.”

“He doesn’t like vegetables and I try to make him understand. I don’t know how to tell him how important it is to eat vegetables.”



WIC focus group quotes from Crawford, PB, JADA, 2004
University of California, Berkeley

Brief Summary of California Senate Bill 12-Competitive Foods

Snack may have no more than:

- 35% of its calories from fat (excluding legumes, nuts, nut butters, seeds, eggs, vegetables that have not been deep-fried, and cheese packaged for individual sale);
- 10% of its calories from saturated fat (excluding eggs and cheese packaged for individual sale);
- 35% sugar by weight (excluding fruits and vegetables);
- 250 calories (middle and high schools).



University of California, Berkeley

Brief summary of California Senate Bill 965-Competitive Beverages

Beverages sold to students must be from the following list:

- fruit-based and vegetable-based drinks that are at least 50% fruit juice without added sweeteners
- Drinking water without added sweeteners
- Milk products (including 2%, 1%, nonfat, soy, rice and other similar non-dairy milk)
- Electrolyte replacement beverages (containing no more than 42 grams of added sweetener per 20-ounce serving).



University of California, Berkeley

Too much focus on nutrients

“As a Food Service Director, we now serve food that simply tastes okay. It’s low fat, it’s high fiber, it’s low sugar, it’s trans fat free with high nutrients values. It no longer resembles real food. It no longer tastes great or even good. We used to be able to bake a small, fresh, satisfying chocolate chip cookie. That has been replaced by things like “fun shaped whole wheat chocolate flavored crackers.”

When food is not satisfying to one’s palate, the consumer is left wanting. First we took out the fat and compensated with more sugar. People considered the result to be diet food and ate more, resulting in an equal or greater calorie intake. Next we got excited about the sugars and made sugar the villain. Then trans fats. Now sodium.

We have become so nutrient focused we have forgotten how to enjoy, appreciate and savor real food. There are far too many confusing, conflicting rules and recommendations. People trying to eat healthfully buy processed foods covered with health claims. More defined nutrition rules will not solve our problem, they will only exacerbate it.”



Kathleen Corrigan, School Nutrition Director,
MI Diablo Unified School District, CA. 4709

University of California, Berkeley

Commonly found foods and beverages in a random sample of California high schools

Which are *adherent* and which are *non-adherent* to the standards?

- Frito Lay - munchies flamin’ hot snack mix
- General Mills – chex mix traditional snack mix
- Propel flavored fitness water
- Gatorade fruit punch
- Nature Valley – strawberry yogurt granola bar
- Nature Valley – crunchy-oats ‘n honey granola bar
- Tropicana strawberry melon drink
- Dole apple juice
- Nabisco – wheat thins crackers
- Corn nuts – ranch flavor
- Nabisco – oreo-100 calorie pack cookies



Samuels, SS JAH In-press

University of California, Berkeley

Concerns regarding the Dietary Guidelines include little use of discretionary calorie allowance (#4)

- Discretionary Calories from the 2005 Guidelines are invisible – people don’t know about them
- An understanding of discretionary calories is key to understanding how to select healthy foods
- One-quarter of children’s calories are classified as empty calories. It is not likely that children are meeting their dietary needs
- “It is clear that all foods don’t fit”



*Briefel, RR, JADA 2009

University of California, Berkeley

Adherent and Non-adherent?

- Frito Lay - munchies flamin’ hot snack mix
- General Mills – chex mix traditional snack mix
- Propel flavored fitness water
- Gatorade fruit punch
- Nature Valley – strawberry yogurt granola bar
- Nature Valley – crunchy-oats ‘n honey granola bar
- Tropicana strawberry melon drink
- Dole apple juice
- Nabisco – wheat thins crackers
- Corn nuts – ranch flavor
- Nabisco – Oreo-100 calorie pack cookies



University of California, Berkeley

Example of discretionary calories in a child’s diet

Timing	Foods & Beverages	Extra Calories
AM Snack	Donut (vs Toast)	99
Lunch	12 oz soda (vs non-fat milk)	50
Lunch	Tater tots (vs mashed potatoes)	69
PM Snack	20oz Sports Drink (vs water)	140
Dinner	Chicken nuggets (vs baked chicken)	96
Dessert	1 cup Vanilla ice cream (vs NF vanilla yogurt)	61
Evening Snack	2 choc chip cookies (vs 1 cup plain popcorn)	86
	Approximate number of discretionary calories	601
	Discretionary Calories Limit	200



University of California, Berkeley

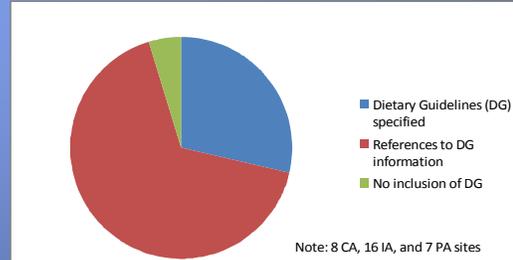
Question 2:

Have School Wellness Policies utilized information from the Dietary Guidelines?



University of California, Berkeley

Proportion of Local Wellness Policies using Dietary Guidelines



Team Nutrition Local Wellness Demonstration Project. This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service, under a Cooperative Agreement. The contents of this publication do not necessarily reflect the view of policies of the US Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.



University of California, Berkeley

Local School Wellness Policies

1. The School Wellness Policy requires schools to set goals for nutrition education. While many mention the Dietary Guidelines, or MyPyramid, interview data shows there is difficulty including the Dietary Guidelines in nutrition education
2. Specific recommendations from the Dietary Guidelines can be used as the basis for setting nutrition standards for competitive foods and beverages in schools.
3. Some schools set higher nutrition standards for their reimbursable meals than current USDA requirements. For example, policy standards may include language such as, serving more whole grains, more fruits and vegetables, etc.
4. Many policies are based on model policies so the exact same language may be found in various districts.

--- Team Nutrition Local Wellness Demonstration Project



University of California, Berkeley

Examples of Local Wellness Policy Language

- *...Establishing regulations that require all foods and beverages sold or served at school meet the nutrition recommendations of the U.S. Dietary Guidelines for Americans.*
- *... Consume less than 2,300 mg (approximately 1 tsp of salt) of sodium per day. Choose and prepare foods with little salt.*



University of California, Berkeley

While not a representative sample, 30 of 31 school districts in the Team Nutrition Local Wellness Demonstration Project

Either mentioned Dietary Guidelines (instruction and/or competitive foods)

Or referenced Dietary Guidelines information

- *Inclusion of language from Dietary Guidelines in instruction and/or competitive foods goals*
- *Mentioning state standards for competitive foods based, at least in part, on Dietary Guidelines*
- *Mentioning Food Guide Pyramid for instruction*

Team Nutrition Local Wellness Demonstration Project. This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture, Food and Nutrition Service, under a Cooperative Agreement. The contents of this publication do not necessarily reflect the view of policies of the US Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.



University of California, Berkeley

More Examples of Local Wellness Policy Language

- *... Choose foods that limit the intake of saturated and trans fats
School Foodservice Guideline: Butter, lard, shortening, margarine served on the "side" no more than twice a week. Foods made with these and containing > 10% kcal from saturated + trans fats not be served...*
- *... Consume a variety of nutrient dense foods and beverages.... while choosing foods that limit the intake of ... added sugars*



University of California, Berkeley

More Examples of Local Wellness Policy Language

➤ Curriculum materials aligned with state frameworks in subjects such as mathematics, science history...

Existing agencies aligned with State Frameworks:

- Dairy Council of California
- UC Davis Cooperative Extension
- USDA MyPyramid Program
- Harvest of the Month
- CA Project Lean

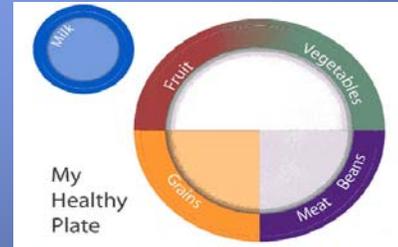
➤ Nutritional integrity is a level of performance that assures that school sponsored foods:

- Meet recommended dietary allowances and dietary guidelines,
- Meet federal and state standards/regulations...
- Provide for the development of lifelong, healthy eating habits



University of California, Berkeley

Alternative graphics: UC Cooperative Extension Nutrition, Family and Consumer Science Advisors are studying new ways to educate low income individuals



California Plate developed by UC Cooperative Extension Body Weight and Health Workgroup, 2007

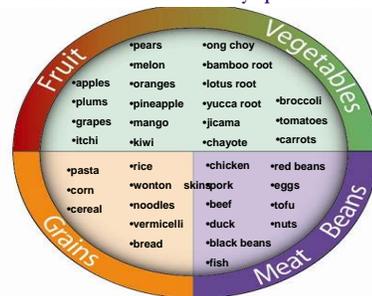
Question 3:

How can government nutrition guidelines convey usable information applicable to the school and community setting? For example, how is the pyramid being used, has it been adapted or have alternatives been developed by community groups?



University of California, Berkeley

Coalition of California food banks recommends using the Plate method – with the addition of culturally-specific foods



California Plate developed by UC Cooperative Extension Body Weight and Health Workgroup, 2007.

What we hear about the guidelines/pyramid

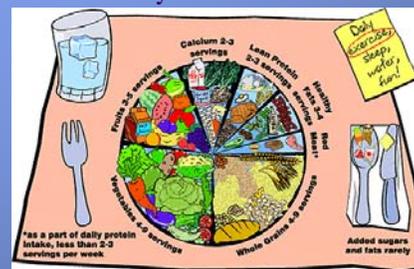


- “It’s complicated for people”
- “Teachers are not using the Pyramid because you need to get on a computer and walk through it, and that’s a deterrent”
- “We were sad when the 5-A-Day message was no longer in use, because it was very easy to just talk about it on that simple level. The Pyramid is not helpful on a social marketing level”
- “When you have such specific, variable guidelines, it makes it hard to write a curriculum. We’d rather not say anything, because we can’t say it all, so we just wind up talking about fruits and vegetables, because talking about the details is too time consuming.”
- “Helpful for motivated individuals who want tailored messages, but it is hard to use to write a curriculum.”
- “Little guidance on how to integrate the Dietary Guidelines or MyPyramid into foods offered to students.”



University of California, Berkeley

Healthy Kids Meal Wheel



Developed by Ann Cooper, BUSD, CA,
<http://www.chefann.com/html/tools-links/meal-wheel.html#meal> accessed 4/09



University of California, Berkeley

Question 4:

Drawing on your experience, what do you think needs to be done at the level of the federal nutrition guidelines to optimize nutrition for Americans in the school and community setting?



University of California, Berkeley

Examples of healthy food definitions:

An elementary teacher in Oregon City wanted her students to bring only healthy snack foods to school. Not knowing how to find a practical definition of a healthy food, she defined it herself: any food that does not list sugar (in any of its forms) as one of the first three ingredients.



University of California, Berkeley

Recommendations from the community

Provide guidance on what constitutes a healthy food.

Be simple, specific, clear, and give examples.

If guidance is not provided, community will fill in the blanks.



University of California, Berkeley

Examples of healthy food definition

After voting to increase lunch prices next year, Frankfort, Kentucky School Board member Sarah Call stated, *“you can cut lots of costs in a food service program by getting prepackaged foods and stuff that’s not healthy, but ultimately that’s going to affect how your students learn....”*

www.state-journal.com/news/article/4572208 4/22/09



University of California, Berkeley

Examples of healthy food definitions-restaurants

Out of 124 chain restaurant websites –

33 say they have healthy menus or items designated as “healthy”

- ❖ 7 have claims regarding low calories
- ❖ 19 have claims regarding low-fat or fat-free
- ❖ 8 have low-carb claims
- ❖ 4 have claims about sugar
- ❖ 1 claims their entire menu is healthy

(Cutpoints and criteria vary)

---- Jessica Soldavani and Jessica Ho, UC Berkeley undergrad students



University of California, Berkeley

Examples of unhealthy and healthy food definition

A School Nutrition Director states:

“The biggest problem is the chicken nuggets, tator tots, chocolate milk, popsicles, and canned fruit cocktail lunch... basing lunch on the number of nutrients, not on foods, is wreaking havoc on children’s dietary habits....”

Children will eat *“real, whole foods if you have.. some marketing and education.”*

--- Ann Cooper, School Nutrition Director, BUSD, April 2009



University of California, Berkeley

Example of food bank classification from healthiest (green) to unhealthy (red)

Food Group	One item or choice equals:	Number of People in the Household			
		1 to 2	3 to 4	5 to 6	7 to 8
Grains 9 servings per person per day	Rice or Pasta, 16oz Oatmeal, 18 oz Loaf of Bread Cereal, 15 to 20 oz	2-3	4-5	6-7	8-9
Vegetables 5 servings per person per day	Fresh Veggies, 1 bag or bunch; Spaghetti Sauce, 15 oz Canned or Frozen Veggies, 16 oz Instant Potatoes, 15 oz	3-6	7-9	11-12	13-14
Fruits 4 servings per person per day	Fresh Fruit, 1 bag Canned or Dried Fruits, 15 oz Fruit Juice, 48 oz	3-6	7-9	11-12	13-14
Dairy 3 servings per person per day	Fluid Milk, 32 oz (1 quart) Dry Milk, 25 oz Ricotta Cheese, 16 oz 4 Yogurts, 6oz each Mozzarella Cheese, 8 oz	2-3	4-5	6-7	8-9
Meat & Non-meat Proteins 2 servings per person per day	Peanut Butter, 16 oz Eggs, dozen Frozen Meat, 16 oz Tuna, 6 oz Canned Beans or Meat, 15 oz	2-3	4-5	6-7	8-9
Combination Foods	Soup, 15 oz Mac & Cheese, 1 box Meats in a Box, 1 box	1-2	3-4	5-6	7-8
Fats & Oils	Margarine or Butter, 1 pound Vegetable Oil, 48 oz	0-1	0-1	1-2	1-2
Sweets	Jelly, 16 oz Fancake Syrup, 24 oz	1	1	2	2

And finally...

We need more translational research on the Guidelines and Pyramid.

“If schools are serving 30 million students per day and meeting regulations crafted from the Guidelines, how can only 2% of the children be meeting the Guidelines?”



University of California, Berkeley

All suggested, *keep it simple* – use colors or checkmarks in grocery stores and restaurants – or

Use food rating system like restaurants use

A for Best Choice

B for OK Choice

C for Worst Choice



University of California, Berkeley

We need prompts to change behaviors and we need guidelines that will actually guide dietary practice.

--- Dr. Armando Valdez, Behavioral Scientist,
HealthPoint Communications



University of California, Berkeley