

Comments for the Public Meeting on Obesity
Sponsored by the Food and Drug Administration's Obesity Working Group
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Thank you for the opportunity to address this important meeting addressing one of our nation's leading health hazards – the increasing prevalence of overweight and obese children and adults. Reducing and preventing obesity is a major focus of the Department of Health and Human Services' (DHHS) "Steps to Healthier US" initiative, and all DHHS agencies and offices, as well as many other government agencies, have important roles to play in mounting a comprehensive and sustained effort to address this issue. My comments today come from a perspective of 20 years of conducting audience research and developing programs to improve nutrition and physical activity levels and, ultimately, prevent and reduce obesity. This work has included:

- Community-based programs, as well as school and worksite programs as part of the NHLBI funded heart disease prevention study – the Pawtucket Heart Health Program.
- The development and launch of the National Cancer Institute's "5 A Day for Better Health" media campaign.
- The Team Nutrition program sponsored by the US Department of Agriculture.
- Several projects for the Centers for Disease Control and Prevention's Nutrition and Physical Activity branch.
- And several state nutrition and physical activity programs.

From these experiences, and with a selective review of recent literature, I would like to address two of the questions that are the focus of this meeting.

What is the available evidence on the effectiveness of various education campaigns to reduce obesity?

There is a substantial body of evidence to suggest that a variety of behavior change methodologies, applied in specific settings such as schools and worksites, can have a positive impact on dietary and physical activity habits. Community-based activities have also been shown to be effective in weight reduction among participants, although population-wide reductions in weight have not been consistently demonstrated.

The public health challenge facing the DHHS and FDA is a reduction in the prevalence of obesity among all Americans. When agencies undertake such large-scale interventions, they often look at health communications and social marketing methods to

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develop their strategies and tactics. I want to briefly review the effectiveness of these approaches.

Rina Alcalay and Robert Bell recently reviewed 50 nutrition and physical activity campaigns in the *Social Marketing Quarterly*. These campaigns shared several characteristics including targeting one or more communities of people and employing multiple health promotion activities across multiple communication channels. Nearly 70% had specific behavioral objectives related to reducing the consumption of fat, 62% sought to increase levels of physical activity, 60% attempted to increase fruit and vegetable intake and 28% focused on reducing caloric intake: 52% addressed both nutrition and physical activity. While these authors did not attempt to summarize the outcomes of all of these studies, their analysis of the strategies and practices of these campaigns led them to the following recommendations for future efforts that I would encourage the Working Group to consider in their deliberations:

1. Formal behavior change theories should be utilized by program planners from setting objectives to the evaluation of outcomes,
2. Program objectives should be formulated in precise and measurable goals.
3. Formative research to understand the needs, motivations, practices and beliefs should be conducted early in the planning process, and complemented by concept testing and message pretesting before material production and implementation.
4. Efforts to segment audiences that go beyond demographics to include psychographics, lifestyle, ethnicity and acculturation should be encouraged.
5. A social marketing framework should be more explicitly used and incorporated into programs.

I also want to address another point that our research in the USDA's Team Nutrition project brought out. In the four districts participating in the intensive evaluation, one half of the school pairs were randomly assigned to the treatment condition (i.e., to implement Team Nutrition). The others became comparison sites, and did not conduct any of the interventions during the semesters in which the evaluation took place. Across the four intensive evaluation districts, about 1650 fourth graders were eligible to participate during each semester, divided about evenly between implementation and comparison school students. There were three grade-specific modules – Pre-K and K, Grades 1-2 and Grades 3-5 – that consisted of a set of eight to nine lessons and contained teacher guides, classroom and cafeteria activities, videos, posters, student magazines, and parent take-home pieces. In addition, the Team Nutrition schools committed to teacher and food service staff training, modifications in food service offerings to comply with the USDA School Meals Initiative for Healthy Children, as well as a set of core school and community activities. Specifically, implementation schools were expected in each phase to:

- Conduct at least two school-wide cafeteria events.
- Conduct at least three parent contact activities.
- Conduct at least two chef activities.
- Conduct at least one district-wide Team Nutrition community event.
- Conduct at least one district-wide media event.

In addition, two public service announcements were developed for this youth audience by The Disney Corporation and aired in intervention communities on the Disney cable stations. In essence, the attempt was to create a “surround-sound” environment in these schools and communities to support individual (child, teacher and parent) and normative changes related to child nutrition.

The results demonstrated that Team Nutrition did lead to modest but significant changes in self-reported nutrition knowledge, motivation and behavior. Especially when examining behavior change, this pilot evaluation utilized several different sources of data including student self-reports, parental reports, and observed behavior in the school cafeteria. Each methodology has its strengths and limitations, and each method shed a different perspective on whether students involved in the Team Nutrition initiative changed their behavior. Yet, all three methods converged in demonstrating some behavior change.

The important finding in this study came from our analysis of which components of the intervention were associated with reported behavior change. Our conclusion was that it was exposure to multiple Team Nutrition components, rather than any particular one, that was most predictive of behavior change. This finding is the first empirical evidence I am aware of that supports the social marketing maxim of utilizing multiple distribution channels in message delivery. Indeed, the degree of self-reported behavior change was directly related to the number of channels students reported being exposed to Team Nutrition messages during implementation. As the FDA considers potential roles to play in addressing the obesity problem, I would encourage you to consider the unique channels and opportunities you have to amplify and reinforce messages related to improving dietary and physical activity behaviors.

Based on the scientific evidence available today, what are the most important things that FDA could do that would make a significant difference in efforts to address the problem of overweight and obesity?

Building on my previous remarks, I believe that the FDA should not put its resources into targeted or mass public health communications campaigns using the traditional media channels. Rather, I suggest looking at how communications media that the FDA is uniquely suited to influence be used to complement and amplify nutrition and physical

messages from other DHHS and government agencies to achieve a “surround sound” environment for Americans and improve our nation’s health through providing better information to consumers. In particular, I want to encourage the Work Group and the FDA to consider how food labels can be better used to encourage not only better nutrition choices on the caloric intake side of the equation, but to also present the caloric expenditure side of the weight equation – physical activity – and improve the nutrition label to a “health” one. My rationale for adding physical activity information to food labels includes:

- Consumer research studies I and others have conducted consistently show that children, teenagers and adults readily put nutrition and physical activity together – often under the idea of improving their health and, more importantly, having more energy. We need to take advantage of this “natural” occurrence, and utilize every opportunity to reinforce the energy balance message rather than artificially separating them into just “nutrition” or “physical activity” ones.
- Point-of-choice promotions do reach and affect a substantial number of consumers with regard to their purchase behaviors and health knowledge. When consumers are purchasing food items they are often more open to and aware of food and health-related information. We need to take advantage of this critical opening by not simply piling on more nutrition information, but grabbing their attention through the addition of physical activity messages in ways that are relevant to their lives. Some possible ways to do this might be to balance the caloric message with examples of how much moderate physical activity (such as walking) would be needed to “balance” the caloric content of the food item. Another potential strategy would be to rotate examples of moderate levels of physical activity along with the Surgeon General’s guidelines for physical activity in much the same way as is done with tobacco products. A third option to explore would also be for the FDA to work with food companies to develop physical activity and nutrition initiatives that take advantage of product packaging and advertising as they did with Kelloggs in promoting the link between dietary fiber intake and cancer.

These are just a few examples of how I see the FDA making a substantive and unique contribution to combat our national epidemic of obesity. I will be happy to discuss these and other ideas with the Work Group should they decide to pursue these types of innovative approaches to marketing nutrition and health to the American public.

References

Alcalay, R and Bell, RA. Strategies and practices in community-based campaigns promoting nutrition and physical activity. *Social Marketing Quarterly*, 2001;7: 2-15.

Lefebvre, RC, Olander C, and Levine E. The impact of multiple channel delivery of nutrition messages on student knowledge, motivation and behavior: results from the Team Nutrition Pilot Study. *Social Marketing Quarterly*, 1999;5:90–8.