

MARKETING FOOD, FUN, AND HEALTH TO CHILDREN: THE CHALLENGE TO BALANCE CORPORATE AND SOCIAL GOOD**S.L. Miller, National Dairy Council, Rosemont, IL, USA**

In the time since the former Surgeon General released his landmark report identifying obesity as an epidemic, the food and "inactivity" industries have been targeted as primary contributors to the problem. The condemnation is particularly vocal in regard to children who are viewed as vulnerable innocents being exploited by industries that care more about profits than children's health. This symposium will provide a variety of perspectives including those of food and marketing industry representatives as well as government efforts to balance messages. An overview will provide insight to challenges experienced by industry in remaining financially competitive yet concerned. Current efforts and models of successful collaborations between industry and the public sector to find "Middle Ground" will be addressed. Specific examples of food industry strategies to provide choice and healthy options to children will be presented along with discussion of pathways and barriers to the promotion and success of marketing nutrition. A consumer research viewpoint will offer an overview of approaches to understanding children as consumers, and the importance of understanding cognitive ability and development and how these relate to motivators of behaviors. Finally, recent efforts by government funded agencies to counter the "negative" messages and to use the same media outlets to promote healthy lifestyles will be presented. This array of perspectives will provide a comprehensive view of the issue and will provide valuable insights towards understanding the realities and challenges of all stakeholders involved as well as an opportunity for constructive dialogue to encourage a healthy environment for children.

OVERVIEW: MARKETING FOOD, FUN AND HEALTH TO CHILDREN: THE INDUSTRY'S CHALLENGE TO BALANCE CORPORATE AND SOCIAL GOOD**Bill Layden, US Food and Nutrition Practice, USA**

What is the intersection of private gain and public good? Are they inherently mutually exclusive? Is it possible that marketing provides the key to developing powerful economic incentives to build and sustain healthy communities? Historically, production and marketing have had dramatic positive impacts on the health and wellbeing of the nation's children—from food security to deficiency avoidance to overall quality of life. How can marketing play a role today in a nation that is "overfed and undernourished?" Marketing responds to consumer demands and desires. By definition, marketing means a benefit must be transferred between parties. If a buyer (e.g., consumer) does not perceive a benefit, then there is no transaction. Long-term health is simply one factor in a benefit equation for consumers and often is weaker than more immediate, tangible benefits such as taste, price, convenience and entertainment. Yet, there are powerful examples of corporate social responsibility for individual brands, companies and product categories. In addition, there are a few public—private partnerships that have successfully harnessed the power of marketing to promote social good. Thus, marketing may, in fact, be part of the answer to improving the health of children.

THE SCHOOL ENVIRONMENT AND THE PROMOTION OF PHYSICAL ACTIVITY**Harold W. Kohl, III, Ph.D., Centers for Disease Control and Prevention, Atlanta, GA USA**

Schools continue to be a primary opportunity for physical activity and physical fitness promotion among children. Most of our knowledge in this area has come from advances in understanding and promoting school physical education. The purpose of this presentation is to review key developments in the area of physical activity promotion for children and argue the need to expand investigative work to incorporate wide-scale changes in schools to begin to move from program-specific interventions to environmental shifts for physical activity promotion.

WHAT KIDS WANT: A CONSUMER RESEARCH PERSPECTIVE**Bryan Urbick, Director of Research, Consumer Knowledge Centre/KidsLink Research Limited**

How many times have we heard parents say, "if he doesn't like it, he won't eat it"? Gone are the days of "eat what's on your plate" and "you can't leave the table until you've finished your carrots"! And as a result of the change in parenting styles and other factors, kids now have a very different relationship with their food, and have some unusual ideas about nutrition.

In order to better be able to understand the role of food and nutrition in the lives of young people it is critical to understand what makes today's kids 'tick'? – about their major and underlying drivers, and the factors that influence them generally and with particular regard to food and beverage choices.

In Bryan's presentation he will share some key learnings about kids (and their parents) and their understanding of food and nutrition. Several examples from research projects throughout the world will be referenced, with a great deal of information from a major research project in the UK entitled Good Nutrition for UK Youth: Bridging the Gap Between Children and Adults. Bryan will also briefly review new ways of working with kids to better involve them in the food and beverage development process, and to better communicate with them key nutritional messages.

MAINTENANCE OF LONG TERM WEIGHT LOSS**T.G. Lohman, University of Arizona, Tucson, AZ, USA**

The maintenance of long-term weight loss has met with less success in research studies over the past 30 years, yet there are many individuals who have achieved long-term weight loss maintenance. The purpose of the symposium is to assess the present status of intervention programs on long-term maintenance of weight loss, to describe the most essential components of long-term weight loss and to review evidence for each component, and to explore areas in need of research to further extend our knowledge and success of long-term weight loss. The results of the symposium will provide direction for future research in this essential area of investigation.

EFFICACY OF LONG-TERM WEIGHT LOSS: CURRENT STATUS**Scott Going, University of Arizona, Tucson, AZ, USA**

Obesity, with its attendant comorbidities, is a major public health problem. Despite increasing awareness and weight loss attempts, the prevalence of overweight and obesity has increased steadily over recent decades. While intervention efficacy for short-term weight loss has improved, long term weight loss has proven more challenging. Current perception is all or most of weight loss is regained within 5 years. Because most studies are based on clinical samples, focused on one episode of weight loss, these results may not represent weight loss maintenance in the general population. Indeed, some surveys suggest better long-term efficacy. This presentation will review weight gain after weight loss, comparing different approaches to maintenance, with the aim of describing long-term weight-loss maintenance among adults.

MAINTENANCE OF LOST WEIGHT: CURRENT STATUS**Michael G. Perri, University of Florida, Gainesville, FL, USA**

Over the past two decades, an array of treatment strategies have been designed to improve long-term outcome, including the use of pharmacotherapy, very-low-calorie diets, extended care programs, skills training, monetary incentives, meal substitutes, social support, exercise/physical activity, and multi-component regimens. This presentation will provide a selective review of studies that have examined the effectiveness of these approaches. Very-low calorie diets, skills training without follow-up care, peer group meetings, telephone contacts by nontherapists, supervised group exercise, and monetary incentives generally have not improved long-term outcome. However, extending lifestyle treatments beyond six months and the use of multi-component regimens, particularly those that include pharmacotherapy, appear to enhance the maintenance of lost weight. Thus, successful long-term management of obesity may require interventions that extend over long periods of time and include a multi-faceted approach to treatment.

MAINTENANCE OF LOST WEIGHT: FUTURE DIRECTIONS**Paul M. Ribisl, Wake Forest University, Winston-Salem, NC, USA**

Efforts at short-term weight loss are universally successful but long-term maintenance remains elusive. Most studies report high success rates at 3 to 6 months but after 1-5 years, a majority of individuals have regained most if not all of their weight. Current treatment methods in weight loss programs involve behavioral approaches that incorporate dietary and/or physical activity changes to create a caloric imbalance. More recently, the pharmacologic approach, rather than as a stand-alone therapy, is being incorporated into a program that also utilizes the basic therapies of diet plus exercise. While a 5% weight loss is known to provide health benefits, >10% has been recommended as the desirable objective for a successful weight loss/maintenance program and/or achieving a BMI as near 25 kg/m² as possible. Future directions must focus on tailored programs that meet the needs of the individual rather than using the one-size fits-all approach. This means the development of strategies that can be adapted to both home and work environments of the individual while still fitting within their socioeconomic and cultural framework. Given the disproportionately high levels of obesity in Hispanics and African Americans, future therapeutic strategies must also take into consideration the ethnic factors that influence weight loss methods since there are different ethnic responses to drugs, cultural differences in dietary habits and/or receptivity to exercise approaches, as well as marked differences in language and educational level. Other future studies must explore the use of the internet and web-based programming, incorporation of devices such as pedometers, calorie counters, and the use of improved meal replacements. New creative ways are needed to control portion sizes, reduce caloric density of food choices by incorporating water into the foods, and to exchange soft drinks for water as beverage of choice. More research is needed on improving better access to exercise equipment as well as encouraging more daily lifestyle activity. Social support models can be improved to optimize the effectiveness of all techniques.

MONITORING OF PHYSICAL ACTIVITY AND FOOD INTAKE AT GLOBAL LEVEL**Michael Sjöström, Karolinska Institutet, Stockholm, Sweden; Alanna J. Moshfegh, USDA, Beltsville, MD, USA; Cora Craig, Canadian Fitness and Lifestyle Research Institute, Ottawa, Canada; and Adrian Bauman, Epidemiology Unit, Liverpool Hospital, Sydney, Australia**

It has become increasingly clear that unhealthy diet and physical inactivity is a global public health issue (The World Health Report 2001, 2002). The World Health Organisation urges Member States to collaborate with WHO in developing a global strategy on diet, physical activity and health for the prevention and control of non-communicable diseases (WHA55.23, 2002). Such a strategy demands, to be efficient, a better understanding of food intake and how much, and in what way, the populations are physically active. The scope of the problem around the world has been difficult to gauge, however. Although a number of countries have assessed food intake and physical activity as part of national health surveys, they have used a variety of definitions and questionnaires. A greater degree of standardization in definitions and assessment is required. The following surveys are currently being undertaken that tackle these problems:

- a) The National Health and Nutrition Examination Survey (NHANES), which is a survey conducted by the National Centre for Health Services at CDC, and designed to collect information about the health and diet in the United States.
- b) The International Physical Activity Prevalence Study (IPS), based on the International Physical Activity Questionnaire (IPAQ) and developed by a global working group of physical activity researchers. IPS has also developed an optional Environmental Module. Parallel to and closely related with IPS is the Eurobarometer Study, which has used IPAQ in a comparable manner in all 15 EU Member States. This is the first time a regional survey carried out.

NATIONAL DIETARY DATA COLLECTION IN THE UNITED STATES

Alanna J. Moshfegh, MS, RD, Research Leader, Beltsville Human Nutrition Research Center, ARS, U.S. Department of Agriculture

Current national dietary data collection in the United States integrates former and separate dietary data collection activities conducted by the U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) as called for in the National Nutrition Monitoring and Related Research Act of 1990. One national food and nutrition survey, called What We Eat in America, was launched beginning in 2002 in the United States through the collection mechanism of the National Health and Nutrition Examination Survey (NHANES). The integration of the previous related but independent survey activities includes HHS providing leadership responsibility for the sample design and overall survey operation. USDA provides leadership responsibility for dietary data collection methodology and instrumentation, data review, processing, and release. As such, the survey uses USDA's newly developed automated 24-hour dietary recall instrument, the USDA Automated Multiple Pass Method (AMPM), for dietary intake collection. The survey consists of 2 dietary recalls on approximately 5,000 respondents, one in-person and the second by telephone about 3 to 10 days later. Description of the dietary data collection variables and other related activities will be provided.

THE INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE (IPAQ); ITS DEVELOPMENT AND CURRENT STATUS **Cora Lynn Craig and the members of the IPAQ Reliability and Validity Study Group the International Consensus Group for the Development of an International Physical Activity Questionnaire**

Purpose. Between 1997-8, an International Consensus Group developed set of instruments to monitor physical activity and inactivity internationally. The set covered short and long, self-administered and telephone, and '7 day' and 'usual week' recall periods.

Methods. Fourteen centers from twelve countries collected data on the reliability or validity of at least two IPAQ instruments following a common protocol. Test-retest repeatability was assessed within the same week. Criterion validity was assessed against the CSA accelerometer. Comparability was assessed at the same time of administration. Spearman's correlation coefficients were calculated, based on the total reported physical activity.

Results. Overall, the IPAQ questionnaires produced repeatable data (Spearman's Rho clustered around 0.8), with comparable data from short and long forms. Similar to results of other validation studies of self-reported physical activity, the criterion validity of IPAQ had a median rho of about 0.30. The reliability of telephone administration was similar to the self-administered mode. The results were similar for '7 day' versus 'usual' recall period.

Conclusions. The IPAQ instruments have acceptable measurement properties for monitoring population levels of physical activity among middle-aged adults in diverse settings. The short IPAQ form, 'last 7 days recall' is recommended for national monitoring, and the long form for research requiring more detailed assessment. A pilot prevalence study is being conducted in developing and developed countries to assess the feasibility of using IPAQ for national monitoring and international comparisons.

IPAQ AND THE ENVIRONMENTAL MODULE

Adrian Bauman, Centre for Physical Activity and Health (CPAH), Australia

There is increasing interest in extending our understanding of the correlates of physical activity beyond intra- and interpersonal factors, to a broader consideration of environmental barriers to physical activity participation. Research in specific settings in developed countries have noted that some environmental factors are consistently associated with PA; these were summarized recently (Trost et al, MSSE 2002). Factors such as access to equipment or supportive environments and facilities, and local environmental factors (including urban form variables, such as footpaths, street connectivity and land use variables, as well as subjective phenomena such as pleasantness and aesthetic features of the environment, and perceived safety) were associated with physical activity.

During 2003, we collected data from around 12 countries, using the IPAQ instrument. In addition, we developed an optional environmental set of questions to assess the environmental factors for walking and bicycling in local neighborhoods. Questions asked were concerned with residential density, perceptions of crime, access to facilities and paths, and proximity to common destinations.

Preliminary data from a range of countries involved in the IPAQ prevalence survey have been collected, and so far, four countries have agreed to collect these environmental questions as well as the IPAQ. Cross country correlates of physical activity will provide additional information on common barriers to activity, which will inform the development of strategies required to influence PA in populations.