State Approaches to Childhood Obesity: *A Snapshot of Promising Practices and Lessons Learned*

Jill Rosenthal
Debbie Chang

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Jill Rosenthal
Debbie Chang

by

National Academy for State Health Policy
50 Monument Square, Suite 502
Portland, ME 04101
Telephone: (207) 874-6524
Facsimile: (207) 874-6527
E-mail: info@nashp.org
Website: www.nashp.org

Prepared with support from HRSA's Division of Child, Adolescent, and Family Health within the Maternal and Child Health Bureau; the Consumer Health Foundation; and Kaiser Permanente.

GNL 54

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EXECUTIVE SUMMARY

Childhood obesity has become an epidemic in the United States with serious health and social consequences for children. The epidemic also has grave economic consequences in terms of health care costs, and many of those costs are borne by states' Medicaid programs which serve 4 million obese children.

Given the complex nature of childhood obesity and its personal and societal impact, many different groups play a role in advancing solutions. Federal, state, and local governments; private organizations; and industries are getting involved in efforts to address childhood obesity, and many are coordinating efforts at the state level.

The National Academy for State Health Policy (NASHP) identified states that appeared to have promising practices and innovative approaches to address childhood obesity. Following an information gathering phase, NASHP convened a meeting of 20 administrators of state, private, and community programs that are attempting to address childhood obesity. Eleven states were represented at the meeting which was designed to identify the characteristics of effective state childhood obesity prevention programs and the types of strategies that are being used.

The meeting provided just a snapshot of the many activities in which these states and their partners are engaged and focused on community, school, and health care settings, public and policymaker education, partnerships, research and surveillance, disparities, and financing and sustainability. The state efforts discussed at the meeting tend to focus more on the role of social and environmental factors than on personal responsibility and individual choice. Partners recognize that many social and environmental factors shape healthy behaviors and that addressing multiple factors simultaneously has a greater impact than simply focusing on any one factor alone. Most, if not all, of the state programs emphasize healthy nutrition, physical activity, and healthy weight rather than promoting an anti-obesity message. They do so in order to send a positive message and to focus on the evidence base for effective interventions.

State efforts examined as part of this project are aimed at:

- raising policymaker and public awareness about potential solutions;
- enhancing community capacity to educate citizens and promote community infrastructures that support healthy lifestyles (e.g., walking trails, sidewalks, etc.);
- creating healthy school environments in which lessons learned in the classroom are modeled throughout school policy;
- attempting to increase health care provider involvement in prevention and treatment initiatives and investigating opportunities to provide reimbursement for these efforts;
- identifying high-risk populations and providing resources to encourage their involvement;
- conducting surveillance and monitoring activities to better understand the problem and effective solutions.

States are using a variety of funding streams for these efforts, from tobacco settlement funds and other state revenue sources to grant support from private foundations and federal agencies. By building partnerships, coordinating programs, and pooling resources, both within and outside of state government, they hope to sustain their efforts to address the issue in comprehensive ways.

TABLE OF CONTENTS

INTRODUCTION

Childhood Obesity: The Nature of the Problem

The obesity epidemic in the United States is well documented and affects children as well as adults. Since 1980, obesity rates have doubled among children and tripled among adolescents.[1] Being overweight has serious consequences for children and adolescents, including increased risk factors for heart disease such as high cholesterol and high blood pressure, Type 2 diabetes which was previously considered an adult disease, and social discrimination, which can result in poor self esteem and depression.[2] The problem is nationwide and affects many different socioeconomic, racial, ethnic, and geographic populations, although a higher percentage of black and Hispanic youth (22%) are overweight than white youth (12%).[3] The data on gender, income-related factors, and food insecurity are not generalizable.[4]

The costs and consequences of obesity make it a societal issue, not just an issue of individual behavior and choice. Society bears the cost of obesity, in terms of medical care and lost productivity. Annual hospital costs related to childhood and adolescent obesity were $127 million during 1997-1999, up from $35 million from 1979-1981. In 2000, the total cost of obesity in the United States was estimated to be $61 billion for direct medical costs and $56 billion for indirect costs, for a total of $117 billion.[5] The costs of treating obesity-related health problems in the United States total $93 billion each year, half of which is paid for by the Medicare and Medicaid programs.[6]

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[1]"Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity," Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm, revised July 2003.

[2]The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, Overweight and Obesity Fact Sheet: Overweight in Children and Adolescents, www.surgeongeneral.gov/topics/obesity/calltoaction/fact_adolescents.htm

[3]1998 data. Eileen Salinsky and Wakina Scott, *Obesity in America: A Growing Threat*, National Health Policy Forum Background Paper, July 11, 2003, Washington, D.C.

[4]Adam Drewnowski and SE Specter, "Poverty and Obesity: The Role of Energy Density and Energy Costs," *American Journal of Clinical Nutrition* 79, (2004): 6-16.

[5]"Preventing Obesity and Chronic Diseases Through Good Nutrition and Physical Activity," Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm, revised July 2003.

[6]Eric A. Finkelstein, Ian C. Fiebelkorn, and Guijing Wang, "National Medical Spending Attributable to Overweight and Obesity: How Much, and Who's Paying?" *Health Affairs* Web Exclusive, W3 219-223, March 14, 2003.

Many factors are believed to contribute to the obesity epidemic, including behavioral, cultural, environmental, and genetic factors. Despite the lack of empirical evidence of causation, several trends may be contributing to the epidemic of obesity in children:

- increase in "screen time," both television viewing and computer use;
- increase in consumption of soft drinks and the availability of soft drinks in schools;
- reduction in walkability of communities (fewer sidewalks, unconnected neighborhoods) and higher reliance on cars;
- decrease in opportunity for physical activity as a result of changing physical education requirements; and
- increase in portion sizes (supersizing) and dining out of the home.

Because a multitude of factors seem to contribute to childhood obesity, the most effective solutions seem to be multi-faceted and comprehensive, addressing population-based, institutional, and community influences on individual behavior choice. Efforts to educate the public and create public policies that provide access to healthy food choices and opportunities for physical activity can support individual behavior change. Interventions that address individual behavior as well as social and physical environments can have population-wide impact.[7]

Many governmental (federal, state, local governments), non-profit, and private organizations and industries are involved in efforts to address the obesity epidemic. The activities range from broad national initiatives involving many different organizations to community-based activities initiated by individual organizations or partnerships. Collaborative efforts may increase effectiveness.

The Role of State Government in Addressing Childhood Obesity

Although some would argue that eating and exercising are purely individual behaviors, others believe that government has a role to play in addressing childhood obesity, especially given the cost to society. The problem has significant impact on state budgets. Four million obese children are Medicaid beneficiaries.[8]

Some researchers and policymakers have made the case that the U.S. government has a long tradition of intervening in private behavior, as evidenced by policies relating to alcohol, illegal drugs, tobacco, sexuality, seat belts and helmets, and speed limits. They also argue that

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[7] *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity and Other Chronic Conditions*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

[8] *The Obesity Epidemic- How States Can Trim the "Fat,"* NGA Center for Best Practices Issue Brief, June 13, 2002.

governments have actively encouraged the production and consumption of high-fat foods, especially meat and dairy products, through subsidies and aids to producers[9] and that they have encouraged sedentary activity by subsidizing oil companies and cars to the detriment of the trails and sidewalks.[10]

Given the complex nature of obesity, many different types of state agencies can play a role in advancing solutions. In their roles as policymakers, regulators, purchasers, educators, and conveners, state officials can help address this epidemic. State agencies with traditional health missions may be involved, such as health departments, Medicaid agencies, state employee benefits agencies, and insurance departments. Other state agencies with related missions can also play a part and include departments of education, transportation, tourism, economic development, agriculture, parks and recreation, and human services. Together, these agencies can offer a range of tools to accomplish their common goals. Public policy options that have been identified include investing in school-based health programs, developing an infrastructure for physical activity, developing a comprehensive approach to promoting healthy lifestyles, and raising dedicated revenues to finance anti-obesity measures.[11]

However, state agencies alone cannot eliminate childhood obesity. Many private partners have a stake as well, and when they are added to the equation, the resources and tools available within each state are significant. This paper provides a snapshot of public/private collaborative efforts in eleven states to address the childhood obesity epidemic.

Project Overview

The National Academy for State Health Policy (NASHP), with the majority of funding from the Division of Child, Adolescent, and Family Health in the Maternal and Child Health Bureau of the Health Resources and Services Administration, together with funding from two Washington, D.C. based foundations, the Consumer Health Foundation and Kaiser Permanente, identified states that appeared to have promising practices and innovative approaches to address childhood obesity. NASHP first conducted phone interviews with state officials to gather more information about the programs. State officials were asked to identify particularly interesting and exciting initiatives, key partners, and types of interventions. Interview participants included state health officials and key partners. (See Appendix A for interview instrument.)

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[9]Rogan Kersh and James Morone, "The Politics of Obesity: Seven Steps to Government Action," *Health Affairs*, November/December 2002, 142-153.

[10]Representative Sean Faircloth (D-Bangor, Maine), *Six Ways Government Promotes Obesity*, unpublished.

[11]"Priorities in Prevention, Obesity: A Supplemental Update," Partnership for Prevention, August 2002, Washington, D.C.

Based on these contacts and interviews and a scan of the literature, NASHP selected 11 states with promising initiatives to participate in the project: Arkansas, California, Maine, Massachusetts, Michigan, Montana, North Carolina, Pennsylvania, Rhode Island, Texas, and Washington. Once the states were selected, project leaders convened a meeting of administrators from state and local governments and not-for-profit programs. At least one government official was invited to participate from each of the selected states, and in many cases they were asked to bring a key partner. In addition, ten participants from the Washington, D.C. metro area, selected by the D.C.- based funders of the project, participated in the meeting to assist in the District's efforts to address the issue of childhood obesity (See Appendix B for the meeting agenda and Appendix C for a list of meeting participants).

The purpose of the meeting, held on December 3, 2003, in Washington, D.C., was to share concrete programmatic information and to learn about promising practices in establishing and operating child obesity prevention programs. The meeting focused on what it takes to implement such programs: what works and what does not work in terms of both designing and operating these programs. The group addressed such issues as how best to work with the community, how to build sustainable public and private sector partnerships, how to involve multiple state agencies, how to establish realistic performance measures, and how to finance the projects.

Report Overview

This report represents a snapshot of state activities to address childhood obesity and is not intended to be comprehensive. It reflects activities in11 states, primarily those discussed at the meeting. Although it is only a snapshot, it provides information on the variety of activities in which state agencies and their partners are engaged to address childhood obesity, focusing on community, school, and health care settings, public and policymaker education, disparities, and research and surveillance. Since a comprehensive list of all of the strategies being employed by these states would be cumbersome, the report provides highlights of innovative approaches. Many strategies described are fairly recent, and, as a result, states were not always able to evaluate success or identify barriers. The meeting focused primarily on state health departments as the primary drivers of efforts to reduce childhood obesity. We assumed that they would be knowledgeable about many of the programs being conducted by partner agencies and organizations. As a result, health department activities are described in greater detail than those of sister state agencies and private partners.

Every state included in this report has a state plan, or several plans, that address factors that may be related to childhood obesity. Some are obesity prevention plans; others focus more specifically on physical activity, nutrition, school health, or other related topics. For example, California has integrated some of its obesity prevention programs into its blueprint for Coordinated School Health, which was developed by a workgroup of more than 70 people from a broad spectrum of organizations concerned with the health and academic success of California's children and youth. A North Carolina partnership also developed blueprints for changing policies and environments to support healthy eating and increased physical activity in

order to address obesity as well as other chronic diseases. Further information on the strategies discussed in this report may be obtained through state websites. (See Appendix D for websites of state plans.)

Information gathered during the meeting, phone interviews, and literature scan are provided in the following sections which are organized to closely mirror the framework outlined by The National Governors Association's (NGA) Center for Best Practices issue brief on recommended state programs and policies to address obesity:[12]

- Creating Successful Partnerships
- Raising Public and Policymaker Awareness
- Implementing Healthy Community Design and Smart Growth Strategies
- Implementing Food and Physical Activity Policies/Standards in Schools
- Increasing Access and Availability of Obesity Treatment
- Addressing Health Disparities
- Demonstrating Program Effectiveness and Sustainability
- Financing and Sustaining Obesity Prevention Initiatives
- Conclusions

Each section outlines the key themes that were raised at the meeting as well as specific examples of state activities. Partnerships and raising awareness are featured first as they are viewed by many as precursors to success in the other six areas.

[12] *The Obesity Epidemic- How States Can Trim the "Fat,"* NGA Center for Best Practices Issue Brief, June 13, 2002.

CREATING SUCCESSFUL PARTNERSHIPS

Childhood obesity is a multifaceted problem. As a result, successful solutions seem to require broad partnerships of government agencies, private industry, and organizations at the state and community level. Such partnerships are frequently designed to encourage public awareness and policy and environmental change that lead to changes in behavior and social norms.

The Centers for Disease Control and Prevention (CDC) support many significant state initiatives that have the potential to create strong partnerships and address childhood obesity from a number of angles. Many of the examples of promising practices in this report were undertaken through these partnerships. A short description of some of the key CDC initiatives follows.

In October 2000, the Division of Nutrition and Physical Activity of CDC initiated a program to support state health departments and their partners in developing and implementing nutrition and physical activity interventions in an effort to prevent chronic diseases, especially obesity. Twenty states were funded in 2003. The Division is committed to public and private partnerships as a strategy to reduce the prevalence of obesity.[13]

Obesity and physical inactivity among young people are posited to be major contributors to the increase in the frequency of Type 2 diabetes among children and adolescents in the last two decades.[14] The Division of Diabetes Translation (DDT) at the CDC provides funding for state-based Diabetes Prevention and Control Programs (DPCP) in all 50 states, the District of Columbia, and eight U.S.-affiliated jurisdictions.[15] As part of its national strategy, CDC provides resources and technical assistance to state health departments to establish partnerships to prevent diabetes problems, provide a focal point for diabetes control, identify external supporters, and coordinate statewide control and prevention among other priorities.[16]

CDC's Division of Adolescent and School Health (DASH) seeks to prevent the most serious health risk behaviors among children, adolescents, and young adults through surveillance

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[13]"Overweight and Obesity: State Programs," Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, www.cdc.gov/nccdphp/dnpa/obesity/state_programs/index.htm

[14]National Diabetes Fact Sheet, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, http://www.cdc.gov/diabetes/pubs/estimates.htm#prev2

[15]"About CDC's Division of Diabetes Translation," Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, http://www.cdc.gov/diabetes/about/index.htm

[16]"State-Based Diabetes Prevention & Control Programs," www.cdc.gov/diabetes/states/assist.htm

activities, synthesis, and application of research, funding, and evaluation. In order to build infrastructure to support coordinated school health programs, CDC provides funds to approximately 22 states to establish and run a statewide program for coordinated school health. These programs address a range of health issues. Currently many focus on reducing chronic disease risk factors including tobacco use, poor nutrition, physical inactivity, and asthma.[17]

CDC funds 28 Prevention Research Centers (PRC), a network of academic centers, public health agencies, and community partners conducting applied research and practice in chronic disease prevention and control.[18] The PRCs work with community partners to design, implement, and evaluate programs.

Key themes and promising practices

A variety of state agencies, including programs within state health departments and departments of education, transportation, agriculture, economic development, and tourism, have formed obesity prevention partnerships and developed state plans.

- Michigan formed a partnership between the Michigan Department of Community Health, Michigan Department of Education, Michigan Team Nutrition, and the United Dairy Industry of Michigan. The partners have agreed to a unified "road map" focusing on assessment of school policies and environment, and they collaborate annually on a statewide conference for school and community leaders.
- The North Carolina Healthy Weight Initiative is a partnership between several state, academic, and non-profit entities that jointly developed a state plan and is actively engaged in implementing recommendations and strategies outlined in the plan.
- In 2003, the Pennsylvania State 5 A Day planning group expanded to develop an interagency collaboration between the Departments of Education, Health and Public Welfare, and the Head Start Collaborative, along with other partners, to pilot test North Carolina's Color Me Healthy Program (see Implementing Food and Physical Activity Policies/Standards in Schools) in child care centers in Pennsylvania, demonstrating both in-state and out-of-state partnership development.
- The Rhode Island Department of Health has developed new obesity prevention partners by forging relationships with the Division of Agriculture and its efforts to promote local produce, the Department of Transportation and its efforts to support local transportation, and the Economic Development and Tourism Divisions' community walkability projects. The state's Department of Health is also an *ex officio* member of the state's

[17] http://www.cdc.gov/nccdphp/dash/index.htm

[18] http://www.cdc.gov/prc/index.htm

Transportation Advisory Group which advises on investments in infrastructure to support physical activity.

- In Washington State, a partnership group was created to address each objective of the state Nutrition and Physical Activity plan. The partnership brings together expertise in such areas as education, transportation, planning, nutrition, physical activity, agriculture, parks and recreation, economic development, and health care.

Agencies within state health departments are collaborating to coordinate and pool resources.

- The Arkansas Department of Health created a core organizational unit called Living Healthy to coordinate development of policies and link programs that have nutrition and physical activity components.
- Healthy Maine Partnerships (HMP) was established to link aspects of four health department programs – tobacco prevention, cardiovascular health, community health, and school health – with the state department of education. HMP facilitates the coordination of state and local intervention activities funded by the tobacco settlement and assures coordination of program activities.
- North Carolina combined its state Health Promotion Program funds with CDC funds to provide funding to local communities (see Implementing Healthy Community Design and Smart Growth Strategies section).
- The Pennsylvania Department of Health is funding ten county/municipal health departments to promote nutrition and physical activity and prevent osteoporosis, cardiovascular diseases, and diabetes. Funding for these contracts, which run from 2002-2005, comes from the state diabetes; heart disease and stroke; nutrition; osteoporosis; and physical activity programs.

Partnerships with university researchers, prevention research centers, and schools of public health have provided critically important research, expertise, and technical assistance to communities.

- Prevention research centers may be a natural partner for obesity prevention efforts. They have resources for evaluation activities and a mandate to work with state health departments.
- The New England Coalition for Health Promotion and Disease Prevention (NECON), developed a strategic plan to address obesity, recognizing the potential for enhanced communication and coordination among various groups within states and among the six New England states. NECON is comprised of state health departments; the region's schools of public health and federal health agencies; educators; legislators; and representatives from industry, labor, and voluntary associations.
- The North Carolina Healthy Weight Initiative and the University of North Carolina's Center for Health Promotion and Disease Prevention have partnered to develop the

Nutrition and Physical Activity Self-Assessment for Child Care (NAP-SACC) and have pilot tested the intervention in 12 child care centers across the state.

Partnerships with organizations outside of state government increase program and message flexibility and reduce bureaucratic burden.

- In several states, nonprofit organizations coordinate some obesity prevention programs, including the California Public Health Institute, NC Prevention Partners, and Pennsylvania Advocates for Nutrition and Activity (PANA), which is housed in a nonprofit agency.
- The Pennsylvania Advocates for Nutrition and Activity was created in late 2002 and already has a membership of 400. Six leadership teams conduct obesity prevention programs. It has been able to move aggressively in part because it is housed in a nonprofit organization, which eliminates some bureaucratic burden.

Involving youth in policy development is an effective way to educate young people about civic engagement as well as to develop effective and informed policy to meet their needs. Youth are effective spokespersons and have influence over their peers.

- California is training youth on the process of policy change. The California Adolescent Health Collaborative produced a brief to promote the idea of youth involvement in public policy, and the Collaborative has profiled 29 California agencies/projects that are involving youth in public policy. The California Center for Civic Participation and Youth Development conducted focus groups to examine youth views on childhood obesity and to inform efforts to involve youth in prevention strategies.
- Each of the 31 Healthy Maine Partnerships includes a youth advocacy program coordinator working with youth groups to implement policy and environmental changes to support healthy lifestyles.
- Texas is testing and producing materials by and for teens targeted to a Hispanic teen audience.

Making goals of partnerships and requirements for membership explicit helps ensure that stakeholders with separate agendas are not disruptive to the process.

- Some state partnerships include key industry leaders. For example, the United Dairy Industry of Michigan works closely with state agencies. Washington State has found that partnering with the vending machine industry has enabled them to identify and work toward common goals. Other states have found some industry groups to be disruptive and have excluded them from participation. Some meeting participants stressed the need to be clear from the outset about membership requirements and expectations in order to

avoid this problem.

- Several states have encountered criticism and opposition to their programs from powerful industry groups that have required them to make modifications to their programs. For example, in one state a major soft drink company raised concerns about an image on the cover of a factual report about the health effects of soft drinks on school aged children. The image was in the shape of a soda bottle but had no identifying marks; nevertheless, the company claimed the shape was copyrighted. The state removed the image in order to avoid further controversy.

RAISING PUBLIC AND POLICYMAKER AWARENESS

Information about obesity causes and potential solutions can be targeted to the public at large or specifically to policymakers who have the leverage to set healthy policies. A number of states have turned to social marketing to provide information and influence action. Social marketing often uses a traditional mix of advertising, publicity, promotion, and personal sales to achieve social change. States are using this and other approaches to raise public and policymaker awareness of childhood obesity.

Key themes and promising practices

Obesity prevention interventions can be framed as opportunities to provide more options for individuals to make healthy choices (greater food choices and physical activity opportunities).

- Meeting participants stressed that obesity prevention messages should be framed positively. Some opponents try to frame the issue as government intrusion in individual freedom. However, according to a recent poll, the majority of Americans would support measures such as serving healthier schools lunches, offering more physical education classes, and educating parents about healthy eating and exercise, even if it meant higher taxes. They also supported prohibitions on vending machines selling unhealthy foods in schools and limits on television ads promoting unhealthy foods and drinks.[19]
- A "healthy choice" message (improving nutrition, watching less TV, and exercising more) can help build more partnerships and target more diseases than an obesity message. Framing the message beyond disease prevention may be of interest to a broader community of stakeholders.
- The Arkansas Department of Health created the Living Healthy unit to focus on nutrition, physical activity, and obesity prevention. The name was chosen to send a positive action-oriented message and set the tone for its programs.
- Maine conducts the Healthy Weight Awareness Campaign designed to provide Maine parents with information and simple steps to keep their children and families healthy and active. The target audience is primarily families with limited income, with a secondary focus of the general public. Members of the target audience, including youth, participated in focus groups that informed the development and messages of the

[19]Harvard School of Public Health, Harvard Forums on Health, 2003, http://www.hsph.harvard.edu/now/jul11/

campaign. Campaign components have included cutting back on soda consumption, reducing television and screen time, increasing physical activity, and promoting walking. Media efforts include a mix of newspaper, radio, television, and direct mail. The campaign's direct mail piece, the Family Fitness Kit, showcases 24 steps families can take to eat and drink healthy and be active.

- State Representative Sean Faircloth of Maine, a sponsor of comprehensive legislation to reduce obesity in Maine, frames the message as support of individual freedom and individual rights that is needed to address the long-standing promotion of obesity by the government and corporations..[20]

States are focusing information and messages about obesity primarily on potential solutions, rather than on the problem.

- California found that painting a clear picture of what is needed, and focusing on solutions, is more effective than simply releasing facts and data and hoping it will cause people to take action.
- Texas is developing a website to serve as a clearinghouse for physical activity, nutrition, and obesity prevention information.

Localizing the issue helps to generate interest among policymakers and communities.

- California provided talking points for use by community groups when working with the media.
- As part of California's efforts to involve local school board members (see Implementing Food and Physical Activity Policies/Standards in Schools), California conducted a needs assessment to identify messages that resonated with this audience.
- The California Center for Public Health Advocacy analyzed obesity data by legislative district to paint a local picture of the problem for policymakers.
- Thirty-one local Healthy Maine Partnerships provide education to their communities and local policymakers regarding the effects of poor nutrition and physical inactivity.
- States indicated that given different cultural perceptions about body image, messages about obesity need to be tailored to specific audiences.
- Some states indicated that the media is more likely to cover a story with a local angle, so it is essential to find something relevant in the community to get attention.

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[20]Representative Sean Faircloth (D-Bangor, Maine), *Six Ways Government Promotes Obesity*, unpublished.

States carefully consider the need to use mass media to get the message out, since the media may not be receptive to some obesity prevention strategies. However, some states noted that media outlets can be effective partners.

- States noted that television stations may not be receptive to messages that associate television viewing and marketing of unhealthy foods with obesity.[21]
- Michigan Action For Healthy Kids created a public service announcement encouraging kids to make healthy choices ("Smart").
- North Carolina partnered with a major media outlet to help create and sponsor a documentary special on overweight issues related to children ("Supersizing Our Kids") and a series of paid commercials. The documentary was later made available to UNC-TV and broadcast statewide. The commercials were also aired as public service announcements (PSAs).

[21]The majority of research finds a link between the amount of time children spend watching television and their body weight. Interventions that reduce children's media time result in weight loss. See The Henry J. Kaiser Family Foundation, "The Role of Media in Childhood Obesity," Menlo Park, CA, February 2004, www.kff.org/entmedia/entmedia022404pkg.cfm.

IMPLEMENTING HEALTHY COMMUNITY DESIGN AND SMART GROWTH STRATEGIES

Marketing and commercialization have changed social norms about healthy eating and physical activity. Communities can create changes in social norms. Social and environmental policy can encourage families and communities to eat healthy and enjoy physical activity. Families and community members can serve as role models to children. Communities can also set norms for school strategies.

Key themes and promising practices

Champions can drive change. States are identifying and encouraging their involvement.

- North Carolina developed TheWinner's Circle[SM] Healthy Dining Program to identify and promote healthy foods anywhere consumers eat away from home. It is a partnership between NC Prevention Partners (NCPP), the North Carolina Department of Health and Human Services (DHHS), Team Nutrition, and the North Carolina Department of Public Instruction (DPI). DHHS trains local health coalitions to recruit restaurants, worksite cafeterias, vending machines, and other venues to analyze their menus to identify and label healthy foods. Team Nutrition and DPI have extended the Winner's Circle[SM] program to public schools in an effort to label and actively promote healthy meals and side items throughout the school. Most schools are also adopting a voluntary policy that 100 percent of *a la carte* foods sold through Child Nutrition Services meet the Winner's Circle[SM] criteria. NC Prevention Partners works with state and national chain restaurants to qualify foods, and recruits and manages the program's National Advisory Council. NCPP also manages the program's evaluation and continuous quality improvement efforts, and oversees partnerships with other state health and education departments wishing to implement the program.
- The Pennsylvania Advocates for Nutrition and Activity (PANA)'s Keystone Healthy Zone School Recognition Campaign mobilizes schools and communities to support and promote active lifestyles and healthy food choices for youth and families. PANA's Community Champions are the local catalysts of the program. Over 350 community champions participated in a training session held in October 2003. These champions are working locally to promote the campaign.

States are balancing interventions that focus on education and policy change, recognizing that neither of these interventions, on their own, will be successful.

- Action for Healthy Kids (AFHK), a nationwide initiative dedicated to improving the health and educational performance of children through better nutrition and physical activity in schools, has been an effective partner for grassroots involvement and for assisting schools in the use of the School Health Index.[22] AFHK is composed of 51 state teams and a national coordinating and resource group.[23]
- California is developing a television viewing reduction tool for girls between the ages of 11 and 14.
- The Maine Women, Infants, and Children (WIC) Program is using a social norms marketing approach to increase the rate of breastfeeding in targeted counties. Initiated in 2003, the Loving Support campaign is reinforcing breastfeeding as a normal way to feed a baby. Information is provided via physicians' offices, libraries, media outlets, and retail stores as well as through training in a hospital based education program.
- A collaborative in Maine developed two action packets for promoting trail development and use of safe community routes for walking and biking and policies to support healthy eating at group events. These "how to" packets include action steps and support materials. Five regional trainings were held on using the action packets.
- Michigan developed Healthy Kids-Healthy Weight: Tips for Families with Kids of All Shapes and Sizes based on a request by parents, principals, and teachers who read The Role of Michigan Schools in Promoting Healthy Weight consensus paper. These materials provide parents, families, teachers, and schools with helpful tips on how to be healthier through physical activity and nutrition.
- In Rhode Island, the Action for Healthy Kids Coalition has convened administrators from more than half of the school districts to review policies and learn about new models that support physical activity and healthy eating.
- Rhode Island created a workgroup for state and community agencies to develop recommendations and messages about TV viewing, healthy eating, and physical activity. These messages will be included on web pages, flyers at schools, agency specific newsletters and websites, health policy briefs, and in the "My Diabetes Record for Kids," a self-management tool developed by the Rhode Island Department of Health.
- Washington formed the Access to Healthy Food Coalition, comprised of state and local government, private industry, and non-profits. One of its main areas of concentration is point of purchase, i.e. providing more fruits and vegetables in restaurants, increasing access and awareness to healthy foods provided in vending machines, and piloting a healthy snack program in supermarkets.

Many states are providing mini-grants to community groups to improve nutrition

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[22]The School Health Index was developed by the Centers for Disease Control and Prevention as a self-assessment and planning tool to help schools improve student health, www.cdc.gov/nccdphp/dash/SHI/.

[23]www.actionforhealthykids.org

and increase physical activity.

- The Maine Cardiovascular Health Program, Maternal and Child Health Nutrition Program, and Nutrition Network have collaborated to award over $90,000 to 17 communities and/or schools for policy and environmental change strategies. Ten of the 17 grants focused on youth. Accomplishments include collaboration with restaurants to produce a guide to healthy eating and distribution of maps of local walking routes and indoor walking opportunities.
- Massachusetts is funding community groups to pilot its community inventory of physical activity opportunities which will become a web-based resource. Communities will review and add to the inventory if appropriate, identify a contact to maintain and update the inventory, and link the inventory to their community website.
- North Carolina combined two sources of funding, one federal and one state, and released a single Request For Proposals for communities to implement strategies outlined in the state plans. Community grants were also awarded through a local foundation. (See Financing and Sustaining Obesity Prevention Initiatives section.)
- Texas awarded 10 mini-grants to communities to develop or improve public community trails and to promote and evaluate their use. The grants are nominal, but the communities also receive technical assistance through local universities.

States are using various approaches to provide technical assistance to communities to increase their capacity to address childhood obesity.

- Arkansas, Maine, and Texas have partnered with universities, including schools of public health, prevention research centers, and cooperative extension offices to provide technical assistance to communities. For example, the Maine-Harvard Prevention Research Center has held three annual workshops that have become vehicles for collaboration among state and local partners to address the problem of overweight youth in Maine.
- The Massachusetts Department of Public Health hired four community liaisons to communicate community project needs to the Department of Public Health and to bring information from the Department's physical activity and nutrition programs to communities in order to help link communities with state resources.

IMPLEMENTING FOOD AND PHYSICAL ACTIVITY POLICIES/STANDARDS IN SCHOOLS

Children spend a significant amount of time in school and child-care settings. These settings can play a role in addressing childhood obesity by providing a healthy environment and educating children about healthy choices. The school environment can reinforce healthy behaviors. Schools can provide healthy food and physical activity and model healthy behaviors. Change at the school level can be accomplished in a number of ways, including insuring that school curricula address healthy choices and behavior and that school policies govern access to food and opportunities for physical activity. Policy decisions that influence school environments may be made at many levels as well, including state law, state board of education policy, local school board policy, and other state regulatory and licensing requirements that affect settings in which children receive education and care.

Key themes and promising practices

States are emphasizing nutrition and physical education for students through a variety of curricula.

- California conducts training that focuses on increasing the quality and quantity of physical education content and instruction.
- States have implemented various curricula in their schools. Michigan uses the Exemplary Physical Education Curriculum (EPEC)[24] and the Michigan Model for Health Education; Massachusetts focuses on Planet Health[25]; and Maine, Montana, and Texas use Coordinated Approach to Child Health (CATCH)[26].
- North Carolina is targeting messages about physical activity and healthy eating to preschool populations. Color Me Healthy is an interactive curriculum designed for child care providers to teach children ages four and five that healthy food and physical activity are fun. National training has been conducted on the program.[27]
- North Carolina developed an interactive CD for youth ages 13 to 19 to help students learn about physical activity and healthy eating. The program, SyberShop, allows users to learn about the nutritional content of meals at certain fast food restaurants, choose food, and get a nutritional analysis at a virtual cafeteria. It also includes modules on

[24] www.michiganfitness.org/EPEC/default.htm

[25] www.hsph.harvard.edu/prc/projects.html

[26] www.med.und.nodak.edu/depts/chptr/projects/obesity/obesity.php

[27] www.eatsmartmovemorenc.com/programs/colormehealthy/

body types and other topics.[28]

- Rhode Island developed voluntary standards for physical education instruction and trained schools on their implementation, based on the belief that physical education instruction in schools should be standards-based with assessments, integrated into other disciplines, and should provide students with the skills and knowledge to be physically active for life.

States are focusing on creating school and child-care environments that promote well-being so that they reinforce messages children learn in the classroom.

- Many states are focusing on creating an environment conducive to healthy eating in school cafeterias. Arkansas, Montana, and Washington described examples such as providing sufficient time during lunch periods for kids to eat healthy lunches, encouraging teachers to eat with students in order to serve as role models, scheduling recess before lunch, and educating students about where food comes from (local produce, etc). An evaluation in Washington State has demonstrated the effectiveness of these strategies.
- Arkansas and Texas have used worksite wellness campaigns at schools. Arkansas has found that these campaigns are effective in encouraging teachers to adopt and model healthy behaviors and have led to policy change in some schools. Texas is in the process of evaluating its program.
- The California State Superintendent of Public Instruction has made it a priority to create a garden in every school through the School Garden Project Grant Program.
- Massachusetts is developing a training and tool for child care providers that is designed to encourage child care centers to be more comfortable for breastfeeding mothers.
- Maine provides school districts with opportunities to participate in Changing the Scene, a United State Department of Agriculture (USDA) Team Nutrition Training Grant program to improve the school nutrition and physical activity environment.[29]
- North Carolina, through a USDA Team Nutrition grant, developed modules on effecting policy and environmental change in schools and then provided training and mini-grants to implement changes. The modules focused on soft-drink consumption and vending, minimum daily requirements (5 A Day), portion size, walk to school programs, and classroom nutrition education. Because of the success of this model, additional modules for use in child care are being developed.
- North Carolina developed a model for self-assessment and targeted technical assistance to promote voluntary policy and practice change in child care settings. The model builds on the existing infrastructure of child care health consultants and provides training and materials to assist child care providers in making changes. (See Creating Successful

[28]www.eatsmartmovemorenc.com/programs/sybershop/index.php

[29]www.fns.usda.gov/tn/Healthy/changing.html

Partnerships.)

Vending machines are the target of many interventions. These interventions are often complicated by the fact that although schools are interested in creating healthy environments, they also feel dependent on revenue from vending machine contracts. However, some interventions suggest that replacing high fat, high sugar foods with healthier options does not necessarily result in lost revenue.

- Schools have used various approaches to address vending machines, including prohibiting them in middle and elementary schools, restricting access at meal times, placing nutritional standards on the type of foods that may be sold in them, and requiring that healthy options be available.
- California developed a guide to combat school district soft drink contracts. It includes fact sheets, details on commercial implications of school soda contracts, and a school report card to determine the potential health impact of soda on a school's campus.
- The committee for Maine's Soda/Snack Vending Machine Policy Initiative produced packets that include a model policy and other support materials. These packets were distributed statewide. Multiple school districts and schools have replaced unhealthy vending snacks and beverages with healthy ones, without an overall loss of revenue.
- In Michigan, milk vending machines are offered to schools at a reduced cost. In some schools these machines generate more revenue than the soft drink machines.
- The Michigan State Board of Education adopted a policy of Offering Healthy Food and Beverages in Venues Outside of Child Nutrition Programs. A toolkit to help implement the policy addressed revenue concerns.
- Central Middle School in Whitefish, MT, allows only healthy options in vending machines. The parent-teacher association purchased a vending machine and stocks the machine with healthy foods. All profits go to the school food service program. The school also moved recess before lunch. These changes, in addition to improving healthy choices in the lunchroom, led to the following results: Net proceeds from vending and *a la carte* sales have stayed the same, or increased slightly. Total sales dollars have decreased, but the higher profit margins for healthful items mean that the net proceeds to the school foodservice program are higher than before the changes were made. Lunchroom and after-lunch discipline problems have decreased, and teachers report improved student behavior and attentiveness during the period immediately after lunch.
- In Ennis, MT, the school board decided to remove candy and soft drinks from vending machines, change all vending machine signage to remove company logos and to highlight generic pictures of active kids, and make school meals more appealing and healthy. These changes have resulted in an increase in high school students staying on campus for lunch and eating in the cafeteria, increased student satisfaction, and increased overall revenue. While the revenue from the vending machines is less than in the past (due to the absence of the candy machine), the overall revenue from the school nutrition programs has increased substantially. This is due to increased participation in school breakfast and

lunch programs.

Schools and state departments of education focus primarily on meeting educational/academic standards. As a result, they may not necessarily be focused on obesity prevention.

- Michigan and North Carolina provided examples of how to frame the obesity issue to resonate with educators, by focusing messages on the link between physical activity, nutrition, and learning. Both states have developed literature that emphasizes research suggesting that physical activity and good nutrition can improve academic achievement. Michigan conducts an annual conference called "Eat Healthy + Play Hard = Smart Students," emphasizing that children need to have their basic needs met in order to learn.

Many states are working with local school health advisory councils to ensure community input into school nutrition and physical activity policies and programs.[30]

- School health advisory councils are required according to Arkansas's Act 1220 of 2003, North Carolina's State Board of Education policy, and Texas Senate Bill 19. They are permitted by California's Senate Bill 19 of 2001.
- Coordinated School Health Teams are a key requirement for all Healthy School Environment grants in Michigan.
- States participating in the meeting noted that the American Cancer Society's Guide to School Health Councils is a useful tool.[31]

While some states place greater emphasis on statewide policy change and others on community-based initiatives, all agree that there is a need to balance the two in a way that works within each unique state environment.

- Statewide policy may be appropriate in some states. In other states, policies that are more centered around local control and that emphasize relationships with community decision makers may prove more effective.
- In Arkansas, Act 1220 of 2003 established the Child Health Advisory Committee, charged with recommending evidence-based nutrition and physical activity standards to the State Boards of Education and Health. Act 1220 charges the state to hire health

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[30]School health advisory councils are advisory groups of individuals who represent segments of the community. They provide advice to school systems on aspects of the school health program. For more information, see www.schoolhealth.info/.

[31]American Cancer Society, *Improving School Health: A Guide to School Health Councils*, 1999.

promotion consultants for the state departments of health and education and for communities; prohibits access to vending machines in elementary schools, and requires schools to include annual Body Mass Index (BMI) assessments.

- California enacted legislation (SB19) that establishes state nutrient standards for beverages, snacks, and side dishes sold in schools and prohibits the sale of soft drinks to elementary school students and limits the availability in middle schools.
- California has developed materials to encourage school board involvement in developing nutrition and physical activity policy. After identifying barriers and benefits, a step-by-step guide for creating healthy school environments was developed, including communication strategies and training, sample nutrition policies, and current state laws.
- Michigan, North Carolina, and Rhode Island are working with school-based health centers. Rhode Island, for example, awards mini-grants to these centers to lead policy and environmental changes as well as to provide individual level support for healthy behaviors by including healthy eating and physical activity in center-based education and outreach.
- North Carolina conducted a systematic review of child care nutrition and physical activity policies and then conducted key informant interviews with child care staff to determine potential policy changes that are feasible and encourage healthy behavior (nutrition, physical activity, and limited television viewing) in preschool children in child care.
- Washington State created an awards program for local school boards to reward and recognize school districts that implement policies and procedures to promote proper nutrition and regular physical activity. School districts can apply.
- Several states have awarded mini-grants to schools for a variety of projects. Massachusetts provides grants for Healthy Choices, a statewide middle school nutrition and physical activity program. Michigan and Rhode Island awarded School Health Index mini-grants. Rhode Island is using a facilitator to work with school teams that seek to create and implement policies that support healthy eating and physical activity. Michigan's grants were tied to the implementation of a statewide consensus paper's recommendations.

States are developing policies to ensure that Body Mass Index (BMI) screening of students is conducted in a positive and appropriate manner.

- States noted that BMI screening should be conducted by trained personnel with appropriate follow up with families and should include referral mechanisms.
- Arkansas's Act 1220 of 2003 requires schools to include as part of student report cards to parents an annual BMI percentile by age for each student. The measure proved to be controversial and resulted in the creation of the BMI Task Force, a partnership charged with developing and implementing statewide BMI assessments and reporting in an appropriate manner.
- As part of its mini-grant process, Massachusetts conducts training with school nurses who will be conducting BMI screening.

- Michigan developed a consensus paper which focuses on obesity prevention recommendations for schools but also includes intervention steps for schools that are ready to move beyond prevention. Six safeguards are outlined to ensure that schools that opt to conduct weight screening do so in a positive and effective way with referrals to community health care providers.[32]

[32]"The Role of Michigan Schools in Promoting Healthy Weight, A Consensus Paper," www.michigan.gov/documents/healthyweight_13649_7.pdf

INCREASING ACCESS TO AND AVAILABILITY OF OBESITY TREATMENT

Health care providers can reinforce messages about healthy nutrition and physical activity behaviors. Individuals and families may be more receptive to messages regarding healthy eating and physical activity if they have discussed the issue with their personal provider. The American Academy of Pediatrics strongly encourages pediatricians to incorporate assessment and anticipatory guidance about diet, weight, and physical activity into routine clinical practice.[33] Health care plans can cover reimbursement or include as a member benefit prevention and treatment coverage for obesity.

Key themes and promising practices

There is a need to increase health care providers' involvement in obesity prevention and treatment initiatives.

- Many providers do not screen or talk to their patients about this issue; as a result, parents and children may not take the message seriously when delivered by other sources.
- North Carolina is providing materials to local members of the Academy of Family Physicians to assist providers in beginning a conversation with patients. They have developed a CD that focuses on fast food as a point of discussion. Providers are encouraged to refer families to the North Carolina Cooperative Extension for more information and resources.
- Rhode Island is funding a project to develop an obesity curriculum for pediatric practices to raise issues related to being overweight and to incorporate preventive messages in well-child visits.
- Efforts to get physicians involved in talking to their patients about weight and obesity may be informed by similar successful efforts to get physicians to talk to their patients about domestic violence and other sensitive issues.
- Physicians may be most receptive to messages from other physicians regarding efforts to address obesity among their patient population. One state found that messages from community groups to physicians got lost in other paperwork.

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[33] American Academy of Pediatrics, *Prevention of Pediatric Overweight and Obesity*, Pediatrics Vol. 112 No. 2 August 2003, pp. 424-430, aappolicy.aappublications.org/cgi/content/full/pediatrics;112/2/424?fulltext=obesity&searchid=QID_NOT_SET.

Third party reimbursement for obesity treatment is very limited.

- NC Prevention Partners created the BASIC Preventive Insurance Benefits Initiative in partnership with the Heart Disease and Stroke Prevention Branch of the North Carolina Department of Health and Human Services. BASIC is a multi-level approach to encourage employers to purchase preventive benefits; to partner with private and public health plans to establish or enhance preventive insurance products and benefits; to continuously update and promote a profile of all North Carolina preventive insurance products via the web; to create and disseminate prevention tools to be shared by North Carolina health plans, health systems and health care professionals; and to raise consumer awareness about the importance of preventive care.
- Some states expressed concern about focusing on efforts to measure BMI if the health care community is not well positioned to provide treatment services for identified needs.

ADDRESSING HEALTH DISPARITIES

The obesity problem is nationwide and affects many different socioeconomic, racial and ethnic, and geographic populations. However, a number of racial and ethnic minority populations have experienced the highest and most rapid increases in obesity rates.[34] Rates of chronic diseases associated with poor nutrition and physical inactivity are higher in racial and ethnic minority and low-income communities, creating greater health disparities for these communities. Some factors that have been posited to influence obesity rates, particularly in low-income communities, are land use and zoning policies that promote dense concentrations of fast food restaurants, lack of access to affordable healthy food choices in restaurants and grocery stores, limited opportunities for safe physical activity, and food surplus distribution programs that provide high fat foods as part of food assistance programs.

Key themes and promising practices

States are developing messages and interventions to address specific audiences that may experience higher rates of health disparities related to childhood obesity.

- California has several programs designed to promote healthy eating and physical activity to multi-ethnic school students and their families. Projects through organizations such as California Leaders Encouraging Activity and Nutrition (Project LEAN), California Adolescent Nutrition and Fitness (CANFit) Program, and the California Pan-Ethnic Health Network (CPEHN) include training for youth service providers, social marketing campaigns for specific audiences, and public policy platforms on obesity prevention in communities of color.
- Michigan found through the Youth Risk Behavior Surveillance Survey (YRBSS) that youth in juvenile delinquent facilities or adjudicated for some reason are at higher risk of being overweight than the general youth population based on reports of physical activity and nutrition. The state is developing next steps to work with these facilities, youth, and staff to better address these issues and support healthy behaviors.
- Montana is funding a rural Native American reservation community as one of two pilot projects to address childhood obesity through a multi-level strategy.
- Texas identified high risk groups through a statewide surveillance study. (See the section on Demonstrating Program Effectiveness and Sustainability.) Materials including pamphlets, posters, and videos have been developed in both English and Spanish.

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[34]Centers for Disease Control and Prevention, *Overweight and Obesity Trends, 1991—2001 Prevalence of Obesity Among U.S. Adults, by Characteristics.* Behavioral Risk Factor Surveillance System (1991—2001); self-reported data. http://www.cdc.gov/nccdphp/dnpa/obesity/trend/prev_char.htm

States recognize the connection between hunger and obesity, and the potential of using state or federal food assistance programs to address obesity.

- The Montana Cardiovascular Health Program is funding a WIC clinic to develop an obesity prevention curriculum for WIC parents and children. It focuses on nutrition and physical activity.[35]
- Texas is undertaking a breastfeeding promotion campaign focusing on African American WIC participants. The campaign includes media, physician and community materials, and educational materials for WIC participants and their families. Other educational materials developed for participants in the WIC program focus on nutrition and physical activity.
- Washington State is partnering with food assistance programs to address the link between hunger and obesity. The Access to Healthy Food Coalition comprised of organizations that represent state and local government, private industry (restaurants, distributors, growers/packers, vending machine distributors, supermarkets, and food/beverage manufacturers), and non-profits (food banks, health coalitions, etc.) is working to increase access to healthy foods in food banks, increasing access to food resources in communities, and developing linkages to growers and emergency food distributors so food can be gleaned directly from the fields as it comes available.

Schools may provide an opportunity to reach high risk populations given similar demographics within school districts.

- As the result of focus groups that identified a need for such a program, Rhode Island is focusing school intervention efforts on middle schools with high Hispanic enrollment.

[35] The U.S. Department of Agriculture's Special Supplemental Nutrition Program for Women, Infants, and Children, better known as the WIC Program, serves to safeguard the health of low-income women, infants, and children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care.

DEMONSTRATING PROGRAM EFFECTIVENESS AND SUSTAINABILITY

In order to address effectively the issue of childhood obesity, states and communities must have an accurate picture of the problem and information on effective solutions. Tracking Body Mass Index (BMI) is a key feature of tracking the problem. However, there is limited state-specific data available to monitor the prevalence of childhood obesity. School-based data on the prevalence of obesity are difficult to obtain. The Youth Risk Behavior Surveillance Survey (YRBSS) provides state-level data only and only includes information on high school and middle school students.

An evidence base for effective solutions is essential for program planning and evaluation. There is a dearth of research on causes of obesity and the effectiveness of prevention strategies, only research to suggest associations exist. For instance, research exists on the effectiveness of strategies to address physical activity but no direct evidence that reducing unhealthy food in schools or creating sidewalks reduces obesity. However, there are other health benefits to such interventions. Reducing the time spent watching television appears to be effective for treating and preventing obesity, but the specific mechanisms that result in positive outcomes have not been clearly determined.[36, 37]

Key themes and promising practices

States are attempting to assess childhood obesity prevalence and add to the evidence base about prevention strategies through surveillance and monitoring activities.

- California conducted formative research on fast food sales in high schools which provided the basis for state legislation to set standards for food sold in elementary and middle schools. The impact of the legislation on policy, behavior, and health outcomes is currently being evaluated.
- California is conducting research to compare Body Mass Index of children in schools with and without vending machines.
- The State of California uses the FITNESSGRAM, a health related physical fitness assessment, to compare its school districts. Students are compared not to each other, but to

[36] www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm

[37] Department of Health and Human Services, Centers for Disease Control and Prevention, *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity and Other Chronic Diseases*, www.cdc.gov/nccdphp/dnpa/pdf/guidance_document_3_2003.pdf

health fitness standards, carefully established for each age and gender, that indicate good health.[38]

- Maine is planning to publish the first Maine Child and Youth Weight Status Report which will include at risk for overweight and overweight surveillance data from the Maine YRBSS for middle and high school students. The Bureau of Health also conducts the Maine Child Health Survey (MCHS) in public schools at the kindergarten, third, and fifth grade levels every other year. Schools are randomly sampled within six geographic regions in Maine on a probability proportional to the enrollment in the school. The 2004 report will include at risk for overweight and overweight data from the Maine Child Health Survey conducted in the fall of 2002 with kindergarten students.
- Massachusetts is collecting height and weight information on students in 13 middle schools to assess BMI changes as the result of an intervention in seven of the sites. The intervention consists of Planet Health implementation (see Implementing Food and Physical Activity Policies/Standards in Schools), a schoolwide assessment using the School Health Index, and an action plan based on the assessment. In addition to the BMI information, physical activity, eating, and television viewing behaviors are being captured through a survey. As part of a sub-study, a sample of students are carrying accelerometers to monitor physical activity levels and validate self-reported data.
- Massachusetts surveyed communities to gather baseline data on policies regarding access to physical activity and nutrition. The information will be used to develop a statewide plan and potential interventions and may be used as a tool for ongoing monitoring.
- Massachusetts has also collected state laws and regulations related to physical activity and nutrition in order to analyze opportunities for continued progress and potential gaps. For example, physical education is a required course in schools, but there are no standards or requirements for time devoted to it.
- North Carolina uses a state data system as the basis of its Nutrition and Physical Activity Surveillance System (NC NPASS) to monitor BMI trends in children 2 to 18 years of age. The system generates statewide and county-specific prevalence rates for at-risk for overweight and overweight and has the capacity to analyze BMI by age, gender, race/ethnicity, and geographic location. The system is being expanded to monitor trends in key nutrition and physical activity behaviors in children. Data collection is limited to children seen in local health departments and some school-based health centers.
- North Carolina developed a physical activity and nutrition behaviors monitoring form for the WIC program to monitor physical activity levels, televison viewing, sweetened beverage intake, fast food frequency, and healthy eating.
- Texas conducted a surveillance study, the School Physical Activity and Nutrition Project (SPAN) to provide regional and state level information on the prevalence of obesity in 4th, 8th, and 11th grades.

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[38] www.cooperinst.org/ftginfo.asp

Tension exists between the need to move quickly to pass policies that may reduce the childhood obesity epidemic and the need for a more solid evidence base for what works.

- North Carolina is currently conducting focus groups with parents and childcare providers to ascertain barriers to reducing television viewing and what educational materials might help families achieve that goal. These focus groups will guide the development of an educational program designed to reduce television viewing in children.
- States noted that lack of data should not be used as an excuse for inaction, but policies must address underlying issues and be in the best interests of children.
- One state provided an example of an effort to replace soda in vending machines with fruit juice. Although juice may be a healthier choice, the affect on obesity may be mitigated by the caloric intake of the juice. Likewise, reducing access to unhealthy food in schools and increasing access to sidewalks in communities may be healthy changes, but there is no direct evidence that they reduce obesity.
- Some industry groups demand proof that policy changes will actually reduce obesity trends. Some meeting participants believe the burden of proof instead should fall on industry groups to support their positions.

Given the number of surveys being conducted, states are integrating questions about obesity into existing surveys.

- Maine added soda consumption and television viewing questions to the Youth Tobacco Survey and the Maine Child Health Survey.
- Massachusetts added nutrition, physical activity, height, and weight questions to the state's YRBSS.
- Massachusetts added physical activity and nutrition questions to the Youth Health Survey in order to get regional and middle school data.
- Massachusetts has found that offering equipment and technical assistance to school nurses increased participation in school monitoring efforts.

FINANCING AND SUSTAINING OBESITY PREVENTION INITIATIVES

The federal government has led the way in supporting state childhood obesity prevention initiatives through the CDC's Division of Nutrition and Physical Activity, Division of Diabetes Translation (DDT), Division of Adolescent and School Health (DASH), and Prevention Research Centers. (See Creating Successful Partnerships.) However, given the pervasive nature of the problem, the opposition to change among some stakeholders, and the variety of strategies and partners that must be involved for sustained change, significant resources must be devoted to this issue. CDC funding alone cannot solve the problem. States are currently using a variety of strategies to fund childhood obesity prevention efforts as well as considering how to sustain change if existing funding becomes unavailable.

Key themes and promising practices

States would benefit from more flexibility to combine resources from federal funding sources in order to more effectively coordinate, institutionalize, and sustain programs.

- State participants indicated that increased collaboration among federal agencies such as the United States Department of Agriculture, Department of Health and Human Services, Department of Education, and others would help state agencies share resources and better coordinate programs.

States fund obesity prevention through a variety of funding streams.

- Tobacco settlement dollars are used to address nutrition and physical activity in a few states, including Arkansas, Maine, and North Carolina.
- California's SB19 increased the reimbursement schools receive for free and reduced-price meals.

Some potential sources of funding, such as local foundations and contributions from partners, may not be tapped.

- California communities have received support from local foundations. The California Endowment is offering model nutrition education grants to schools for implementing innovative programs that promote healthy eating and nutrition education.
- Blue Cross and Blue Shield of Massachusetts has provided funding to the Department of Public Health to fund 100 middle schools to implement Healthy Choices before and after school plans, Planet Health, and a school-wide assessment. (See Implementing Food and

Physical Activity Policies/Standards in Schools.)

- North Carolina's Health and Wellness Trust Fund Commission, which is charged with distributing funds from the tobacco settlement, awarded $7.4 million as part of a statewide campaign to address childhood obesity. The Commission awarded grants to 12 local organizations that serve schools and communities in 19 counties initially, then expanded to 35 counties within a year. Another four grants were awarded to organizations to provide regional or statewide services. The remainder of the funds were allocated for technical support and training for grantees through the Duke University Medical Center.
- Pennsylvania developed a sponsorship program that provides information to potential funders on the benefits of sponsorship.
- Washington State received financial support from Stonyfield Farm, a New Hampshire-based producer of organic yogurt, for the Washington School Board Challenge, an awards program that recognizes school districts that seek to improve the health of their students through policies that promote proper nutrition and regular physical activity.

CONCLUSION

The childhood obesity epidemic is complex and multifaceted and requires a comprehensive solution. States recognize that it can only be addressed through strategies that address a multitude of contributing factors in a variety of settings, with numerous partners. As a result, states have formed numerous partnerships, both within and outside of state government, often with the help of federal funding and other sources. They have developed interventions to change social and physical environments in communities, schools, and health care settings in order to increase access to healthy food and physical activity, with the ultimate goal of changing individual behavior. They have developed messages to resonate with community and statewide audiences about potential solutions to the problem, focusing on policymakers, the public, and high risk populations. States are also conducting surveillance and monitoring activities to assess the problem locally and evaluate interventions. Finally, states are now starting to explore alternative financing strategies to fund or leverage current resources.

This report provides a snapshot of approaches in eleven states. The participating states stressed the following messages:

- In order to have the greatest impact, interventions to address childhood obesity should focus primarily on environmental factors and on corporate and government practices that shape eating and physical activity behaviors more than on personal responsibility and individual choice.
- Emphasis should be placed on promoting healthy nutrition and physical activity rather than on obesity prevention for several reasons: no solid evidence base for strategies to reduce obesity exists; there are fewer measurement tools for obesity; the healthy lifestyle message resonates with the public at large and with individual patients; and the focus on healthy environments is more inclusive of the interests of a broader range of stakeholders.
- The approach needs to be comprehensive: policy/environmental change and education/awareness must be balanced; local and statewide interventions must be balanced.
- Partnerships between governmental agencies, industry, and other stakeholders are critical to success.
- Progress requires an incremental and careful approach. States need to assess approaches that are appropriate for the state environment and that work in order to assure some early successes.
- Policymakers need information and documentation to encourage them to design healthy policies.
- More work needs to be done to identify disparities, but given the extent of the problem, all segments of the population must be included.
- Childhood obesity is a highly politicized topic; there is momentum for change, but action must be tempered in part by the desire to act on an evidence base that has not been fully developed.

The project identified untapped opportunities and areas in which more work is needed. For example, most states have not fully exercised their power as purchasers. State agencies that purchase health services (such as Medicaid, SCHIP, and state employee benefits agencies) can provide incentives and directives to address obesity through licensing and contracting with providers, facilities, and health plans. Despite the significant number of partnerships that have been formed, states must continue to seek ways to be inclusive and diversify. Health care professionals, youth, and non-traditional partners need to be more involved.

Most importantly, state officials stress the need for stakeholders to forge a national agenda for addressing childhood obesity, one that sets priorities, clearly defines the need for evidence, and promotes proven, effective strategies.

APPENDICES

Appendix A Interview instrument

Appendix B Meeting Agenda

Appendix C Meeting participants

Appendix D State plan websites

Appendix A

Interview Instrument

INTERVIEW INSTRUMENT

State: Contact:

1. What is happening to address childhood obesity in your state?

2. What is particularly exciting about what is happening in your state? What would be helpful to share with other states? Lessons learned? Have your programs been evaluated?

3. Which of the following strategies are being used in your state (community-based, school-based, coverage for treatment, public education/media/communications, targeting hi-risk groups, legislation/financing obesity prevention initiatives)?

4. Who is involved--public/private partnerships? Any prominent not-for-profit partner that was key? How do you make collaboration work?

5. What issues should be covered at the meeting?

6. What would you want to see as results of such a meeting?

7. Which other states do you think should be involved?

8. Who would be the best representative(s) from your state?

9. Are you available/interested in attending this meeting?

Appendix B

Meeting Agenda

NATIONAL ACADEMY *for* STATE HEALTH POLICY

State Approaches to Childhood Obesity: Best Practices and Lessons Learned

December 3, 2003
Holiday Inn Downtown
1155 14th Street, NW
Washington, DC

Agenda

8:30-9:00	**Welcome, introductions, and purpose of the meeting** Debbie Chang, Director of Strategic Development and Policy, and Jill Rosenthal, Project Manager, National Academy for State Health Policy, Portland, ME David Heppel, Director, Child Adolescent and Family Health, Maternal and Child Health Bureau, Rockville, MD Margaret O'Bryon, President and CEO, Consumer Health Foundation, Washington, D.C. Patricia Mathews, Executive Director, Community Relations, Kaiser Permanente, Rockville, MD
9:00- Noon (with breaks!)	**Childhood obesity: Strategies to tackle a pervasive issue** The data on childhood obesity and its consequences are staggering. Recognizing the pervasiveness of the issue and the need to address it from multiple perspectives, how do we start? What is the role of state government in supporting increased access to physical activity and healthy food, and how can government partner with other interested groups? Each topic will include discussion of policy and environmental change, and individual behavior change if appropriate. Issues include identification of target groups and programs, balancing state and local action, program successes and challenges, and lessons learned. • School/child care interventions Discussant: Elizabeth Coke-Haller, Michigan Department of Education • Community-based interventions Discussant: Sherry Clark, Texas Department of Health • Public education (social marketing, media advocacy) Discussant: Amanda Purcell, California Project LEAN • Health care, high risk populations, and other approaches Discussant: Janice Sommers Lebeuf, North Carolina Division of Public Health
12:00-12:45	**Lunch**
12:45-1:45	**Creating successful partnerships** Given the pervasive nature of the problem, it is critical to involve various types of stakeholders that can impact this issue (individuals, families, business, government, schools, community groups, etc). Many states have created workgroups and task forces to involve partners. • What makes collaboration actually work? • Who is actually involved, not just in name? • How can programs address politics that are inherent in partnerships? • How can efforts be integrated across different department of health programs with categorical funding and across different governmental agencies (health, education, transportation, etc)? Discussant: Vaheedha Prabhakher, Pennsylvania Department of Health, and Deborah Ellenberg, Pennsylvania Advocates for Nutrition and Activity

1:45-2:45	**Demonstrating program effectiveness and sustainability** Reducing childhood obesity will take years of interventions and commitment of funders. State programs will need to demonstrate success and sustainability to maintain the momentum. • What monitoring/evaluation systems are in place? • How will success be measured? • What surveillance approaches have been successful? • Which measures are most compelling for policy change? • What is the role of regulation/mandates versus what can be done voluntarily? • What are the biggest barriers to success? Discussant: Maria Bettencourt, Massachusetts Department of Public Health
2:45-3:00	**Break**
3:00-4:00	**Financing and sustainability** CDC has provided funding to many states to address the issue of childhood obesity. However, not all states are covered, and not all interventions can be funded as part of this program. • What financing mechanisms are used to address childhood obesity? • How to design budget neutral programs (i.e., Address school financing through vending contracts? Taxation of snack foods and soft drinks to finance programs?) • How to transition from federal funding to state/local funding to sustain community action after funding ends? • Is there a potential role for Medicaid programs? • How to integrate efforts across different DOH programs with categorical funding? Discussant: Martha Hiett, Arkansas Department of Health
4:00-5:00	**The future of childhood obesity prevention: Next steps** Obesity is a hot topic. Policymakers at all levels are discussing approaches. • What is the role of state government in reducing obesity—as a policy maker, regulator, provider, payor, convener, educator? • What assistance, analyses, or activities would help states the most in addressing the issue? • How to create a consistent message and national priorities? • How can the attention and momentum be used to leverage other related youth (and adult) health and welfare issues (e.g., food insecurity, academic performance, urban planning)? Discussant: Representative Sean Faircloth, Maine State Legislature

Appendix C

Meeting Participants

APPENDIX C: PARTICIPANT LIST

Arkansas
Becky Adams
Living Healthy Leader
Arkansas Department of Health

Martha Hiett
Agency Leader for Statewide Services
Arkansas Department of Health

California
Nancy Gelbard
Chief, California Obesity Prevention Initiative
California Department of Health Services

Amanda Purcell
Manager & Evaluation Specialist
California Project LEAN
Public Health Institute

Maine
Sean Faircloth
State Representative
Maine State Legislature

Lori Kaley
Coordinator, Community Health Initiatives
Edmund S. Muskie School of Public Service
University of Southern Maine

Massachusetts
Maria Bettencourt
Director
Nutrition and Physical Activity Initiatives
Massachusetts Department of Health

Jean Wiecha
Deputy Director/Senior Research Scientist
Harvard Prevention Research Center on Nutrition and Physical Activity
Harvard School of Public Health

Michigan
Elizabeth Coke Haller
Coordinated School Health and Safety Program Manager
Michigan Department of Education

Sharon Toth
Coordinator, School Foodservice Programs
United Dairy Industry of Michigan

Montana
Ellen Brown
Senior Community Health Specialist
Missoula City-County Health Department

North Carolina
Carolyn Dunn
Associate Professor and Nutrition Specialist
North Carolina Cooperative Extension

Janice Sommers Lebeuf
Nutrition Program Supervisor
North Carolina Division of Public Health

Pennsylvania
Deborah Ellenberg
Regional Coordinator
Pennsylvania Advocates for Nutrition and Activity

Vaheedha Prabhakher
Nutrition Program Manager
Pennsylvania Department of Health

Rhode Island
Ann Kelsey Thacher
Chief, Office of Health Promotion
Rhode Island Department of Health

Texas
Robin Atwood
Program Director
University of Texas at Austin

Sherry Clark
Public Health Nutrition Coordinator
Bureau of Nutrition Services
Texas Department of Health

Washington
Kyle Unland
Nutrition and Physical Activity Coordinator
Washington State Department of Health

Washington, DC Metro Area Partners
Felicia Buadoo
Public Health Nutritionist
Maternal and Family Health Administration
District of Columbia Department of Health

Steven Galen
Executive Director
Pimary Care Coalition of Montgomery County

Scott Lewis
Executive Director
SHARE Food Network

Nadia Moritz
Executive Director
Young Women's Project

Akmal Muwwakkil
President/Founder/Therapist
The Energy Institute of the Healing Arts Foundation, Inc.

Ruth Perot
Executive Director
SHIRE

Kimberly Perry
Director
D.C. Hunger Solutions

Thomas Pruski
Health Project Consultant
SHARE Food Network

Akua White
Public Health Nutritionist
Nutrition Program Administration
District of Columbia Department of Health

Carol Wilson Garvey
Vice President
Health Policy
Garvey Associates, Inc.

Other Interested Partners
Van S. Hubbard
Director
Division of Nutrition and Research Coordination
National Institutes of Health

Maria Elena Jefferds
Behavioral Scientist
Centers for Disease Control and Prevention
U.S. Department of Health and Human Services

Rona Smyth Henry
Senior Financial Officer
Robert Wood Johnson Foundation

Project Funders
Jacquelyn Brown
Program Officer
Consumer Health Foundation

Julie Farkas
Senior Program Officer
Consumer Health Foundation

David Heppel
Director
Division of Child, Adolescent and Family Health
Health Resources and Services Administration
U.S. Department of Health and Human Services

Patricia Mathews
Executive Director, Community Relations
Kaiser Permanente

Margaret O'Bryon
President/CEO
Consumer Health Foundation

Denise Sofka
Public Health Analyst
Health Resources and Services Administration
U.S. Department of Health and Human Services

Staff
Debbie Chang
Director of Strategic Development and Policy
National Academy for State Health Policy

Jill Rosenthal
Project Manager
National Academy for State Health Policy

Appendix D

State Plan Websites

STATE PLAN WEBSITES

State	Website(s)
Arkansas	www.healthyarkansas.com
California	www.preventioninstitute.org/sa/ nature.berkeley.edu/cwh/
Maine	www.mainecshp.com/
Massachusetts	www.state.ma.us/dph/
Michigan	www.michigan.gov/mde www.emc.cmich.edu
Montana	montanacardiovascular.state.mt.us www.dphhs.state.mt.us/hpsd/pubheal/disease/nutrition/html/move_montana.htm
North Carolina	www.eatsmartmovemorenc.com
Pennsylvania	www.panaonline.org
Rhode Island	www.health.ri.gov/disease/obesity/home.htm
Texas	www.tdh.state.tx.us/phn/obesity-plan.pdf
Washington	State Plan: www.doh.wa.gov/Publicat/NPA%20State%20Plan.pdf Executive Summary: www.doh.wa.gov/Publicat/NPA%20Exec%20Summary.pdf