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# APPENDIX A

## Funding Case Studies for Nutrition and Physical Activity Programs

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The following two case studies describe funding, strategies, and activities from two states at significantly different developmental stages with respect to their programs for nutrition and physical activity. The Hawaii case study describes how that state, through the Healthy Hawaii Initiative, plans to utilize a recent major allocation from the tobacco settlement funds. The California case study describes, in the context of the seven components discussed in this document, how nutrition and physical activity programs in that state have been supported through the California Nutrition Network since fiscal year (FY) 1996-97.

### HAWAII CASE STUDY

The 20th state legislature of Hawaii established the Hawaii Tobacco Settlement Special Fund within the state treasury, administered by the Department of Health (DOH). This legislation mandates that 25% of the monies in the Tobacco Settlement Special Fund be used for health promotion and disease prevention programs. To fulfill this mandate, and in keeping with its mission, the Department of Health of the state of Hawaii has established the Healthy Hawaii Initiative (HHI) to provide leadership to monitor, promote, protect, and enhance the health and environmental well-being of all of Hawaii's people. This initiative is a major statewide effort to encourage healthy lifestyles and the environments to support them.

The intent of the HHI is to use the tobacco settlement funds to provide the over 1.2 million residents of Hawaii with the information and technical assistance needed to promote improved health. The major goals of the initiative are to (1) increase quality and years of healthy life for Hawaii's people and (2) reduce existing health disparities among ethnic groups in Hawaii. HHI includes three primary focus areas—tobacco prevention and control, physical activity promotion, and nutrition. The HHI represents the Hawaii DOH's long-term strategic planning for environmental and policy-related efforts in these areas. It does not provide personal health care services.

The HHI has four major components that will seek to accomplish the following goals:

1. School-based initiatives
2. Healthy communities initiatives
3. Public and professional education
4. Hawaii Outcomes Institute for Assessment and Evaluation

A significant proportion of the funding for these components is provided from the tobacco settlement funds. The current budget is allocated through FY 2003. The FY 2001 allocation ceiling is \$9.6 million; the FY 2002 ceiling is \$9.5 million; and the FY 2003 ceiling is \$12.46 million. Additionally, the tobacco settlement funds provide approximately \$300,000 annually for

enforcement activities related to tobacco. Although the tobacco master settlement speaks to 25 years of funding to settling states, the Hawaii Department of Health is preparing for a possible shorter funding cycle of approximately 10 years. The department will use current tobacco settlement funding as seed money to prepare the model to leverage additional funds.

The FY 2001 allocation of \$9.6 million is to be directed as follows:

1. **School-based initiatives**—Approximately \$1.85 million is allocated for school-based programs: \$1 million will be used by the Department of Education to implement health and physical education content standards in schools; \$100,000 will be used to support curriculum and materials for a school resource center; and \$750,000 will be provided to 16 schools over a three-year period to implement a coordinated school health program that is required to target physical activity, nutrition, and tobacco.

2. **Healthy communities initiatives**—Approximately \$1 million is provided for community planning grants through a noncompetitive request for proposals (RFP) process to help community health promotion initiatives that support increased physical activity, improved nutrition, and reduced tobacco use. Key features of the grants include (1) collaboration between schools and communities, (2) a grassroots-level emphasis, and (3) a train-the-trainer model. An initial grant of up to \$5,000 will be provided to community groups or organizations for (a) conducting a community needs assessment and (b) developing an action plan addressing their identified priorities for support and promotion of healthy living within their community.

Upon successful completion of a sustainable community action plan that addresses one or more of the primary focus areas for HHI—physical activity promotion, nutrition, and tobacco prevention and control—participating community groups will be eligible for additional funding consideration up to \$19,000 to implement their action plans.

The total funding available for community programs may be increased in FY 2002. Additionally, approximately 15 targeted interventions will be funded with funding amounts for each grant expected to range from \$25,000 to \$75,000. The HHI is working in collaboration with gov-

ernmental and nongovernmental agencies to integrate these efforts with other community-based health programs. For example, potential community applicants are strongly advised to create action plans that align with statewide strategies and recommendations for effective community-based activities for tobacco prevention and control, physical activity, and nutrition. Additionally, an aim of the HHI Healthy Communities Initiative is to support the development of strategies that are most likely to achieve specific environmental or system changes for the people who live and work in a defined community.

3. **Public and professional education**—Approximately \$1 million is earmarked for an RFP, currently being developed for a social marketing and public awareness campaign addressing physical activity, nutrition, and tobacco use. These behaviors will be addressed both separately and together.

A funding level of \$530,000 for professional education has been established, and an RFP is currently being developed. One function of the Hawaii Outcomes Institute (described in the following passage) will be that of providing professional development in the areas of assessment and evaluation, with a focus on community efforts to reduce chronic diseases.

4. **Surveillance, assessment, and evaluation**—\$3.2 million will be provided to the Hawaii Outcomes Institute. The institute, which will receive \$5.2 million over a two- to three-year period, is a partnership established between the Hawaii Department of Health and the University of Hawaii's John A. Burns School of Medicine to create a neutral, credible, single point of access data warehouse where data can be integrated, analyzed, and shared. Funding will be provided for three epidemiologists and one biostatistician to work with the Institute. These positions will be responsible to HHI.

## Overhead Costs

Overhead costs for HHI include 15 full-time equivalent staff, which are supported with tobacco settlement funds, including physical activity and nutrition staff positions. These HHI staff members provide technical assistance to local communities, funded schools, and public and professional education initiatives.

## CALIFORNIA CASE STUDY

### Introduction

Similar to the situation less than a decade ago with tobacco control, today there are few large-scale nutrition and physical activity campaigns operated by states, and those that are in place have been on-line a short time. The California Nutrition Network for Healthy, Active Families (Network) is one large campaign for which cost and early outcome data are available. The Network is administered by the California Department of Health Services in partnership with the California Department of Social Services. It was chosen as a case study because it parallels the design, it targets very large population segments, and it is funded at levels close to CDC recommendations for state tobacco control programs. The example below is intended to share the experience of one state on how expenditures have been distributed among different program elements. Early evaluation results are promising but not yet conclusive.

### Background

Principal federal funding for the California Nutrition Network comes from the Food Stamp Program of the U.S. Department of Agriculture (USDA). The Food Stamp Program reimburses half of all allowable cost of providing nutrition education to that portion of the audience, which is either food stamp recipients or low-income applications for the program. The funds are provided as federal financial participation that match in-kind contributions from state and local government agencies who conduct low-income targeted nutrition education. All social marketing interventions funded through the Network are intended to reach the 21% of the state's 35 million residents from households with incomes at or below 130% of the federal poverty level, the eligibility criterion for participation in the Food Stamp Program. This percentage totals over seven million persons, of which about 60% (over four million) are below the age of 18 years.

Nutrition education is an optional state administrative expense in the Food Stamp Program. Food Stamp social marketing nutrition networks grew out of a USDA initiative starting in 1995 that provided planning grants. In 2000-01, 19 states operated USDA-approved

food stamp social marketing nutrition networks. While each state targets food stamp and similar low-income households, the specific population subsegments that are targeted, the intervention activities, and the federal funding levels vary. USDA guidelines for food stamp nutrition education focus heavily on dietary improvement, food security, and food safety. Therefore, the scope and nature of physical activity interventions on which USDA funds may be spent is limited, and funds may not be spent on health care delivery. In the following example, only the federal share of Network expenditures will be reported for each program category.

The expenditures reported in the following example do not include grants to California from other USDA sources such as WIC, School Meals, Food Stamps, or Cooperative Extension; or from categorical public health programs funded by the U.S. Department of Health and Human Services through the Centers for Disease Control and Prevention, the Maternal and Child Health Branch, the National Institutes of Health, Medicaid, or Medicare; nor do they include expenditures by state or local agencies or by foundations. Estimates of total expenditures of federal, state, and local expenditures for nutrition and physical activity interventions in California are not available.

### History

The first state plan of the California Nutrition Network was funded by USDA in the 1996-97 federal fiscal year, and the state campaign was launched about 18 months later in August 1998. In the first year, contracts were let with 15 local public agencies; by the fifth year of operation, nearly 180 local assistance contracts were let. Federal matching funds have grown from \$2.8 million in 1996-97 to \$46 million in 2000-01. The total federal, state, and local effort has increased from about \$5.6 million in 1996-97 to over \$92 million in 2000-01. Over the years, the aims for California's low-income families with children have narrowed from overall healthy eating and exercise to just three objectives: increasing fruit and vegetable intake to five or more daily servings, increasing daily physical activity to 30 minutes in adults and 60 minutes in children, and most recently, increasing participation in the federal nutrition assistance programs, especially food stamps. Measurable impact is expected by 2003.

## Evidence

There is early evidence that the California Nutrition Network is working. Although the USDA funding has limitations in its use and does not target the state's entire population, the Network's rapid growth indicates pent-up demand and a very positive response by public agencies across the state. Major nonprofit and business entities also are participating; therefore, the volume and focus of intervention activity have increased profoundly. The Network uses large-scale social marketing approaches like media, supermarket, and community-based interventions, and Network partners are encouraged to aim at least some of their intervention activities at changing policies and social and physical environments to make healthy eating and physical activity easier for low-income families in the larger community. Although the network is designed and accountable for results with low-income families with children, it would not be surprising to see positive dietary impact on Californians with higher incomes. California's fruit and vegetable emphasis is aided by the National Cancer Institute's national 5-a-Day program, which involves thousands of industry partners and provides public service media aimed at the general public.

There are promising indications of an early populationwide response to the Network interventions. A nonsignificant upward trend in fruit and vegetable intake—the principal behavioral objective of the Network—was seen in low-income adults in 1999, the most recent year for which statewide data are available (unpublished). The decline in fruit and vegetable consumption in African-Americans also stopped. While those self-reported changes occurred early in the campaign (within one year of its launch)—the findings are quite promising: Those were the groups specifically targeted by the Network; their fruit and vegetable consumption had been declining over the previous four years; and California has detected rapid population response on two previous occasions with 5-a-Day adult campaigns in media and retail channels.

Further, the changes were specific. They were seen primarily in the groups most likely to respond to promotional efforts, namely the targeted low-income segments and the highest income group. By the time of the mid-1999

survey, over 65 local agencies were working with the children and adults with the lowest income through community interventions. In addition, the Network's adult-targeted public service mass media and retail campaigns were in place.

Trends will be clearer as the results of the 2001 and 2003 state surveys and more recent national data become available, along with specific data about the reach and penetration of Network interventions. Other factors that might account for consumer change during these periods also will be taken into account.

## Alignment With Recommendations for Comprehensive State Programs

The total federal financial participation approved for expenditure through the Network was \$46 million in federal fiscal year (FFY) 2000-01. This budget compares to the recommendation of \$165 million to \$442 million for statewide tobacco control, which could be prorated as \$34 million to \$92 million for the 21% of California residents with incomes at or below 130% of poverty. For diet and physical activity, it is not known if a program targeted to a large subgroup is as cost-effective as one that aims for change in social norms in the entire population, nor is it known if eating and exercise interventions cost more or less on a large-scale than do those for tobacco control.

## I. LEADERSHIP, PLANNING, AND COORDINATION

As cited in the CDC *Best Practices* document for state tobacco control programs, it is recommended that about 5% of a total program budget be spent on administration and management of a separate tobacco control unit charged with ensuring collaboration and coordination among public health program managers, policy makers, and other state agencies. It further recommends that a decentralized administrative system using local county and city health departments as local lead agencies be established. To operate efficiently, experience suggests that state staff are needed to ensure that there is a unified message, proper contract administration, and monitoring.

In the California Nutrition Network, about \$1.3 million (or 2.3%) was spent on administration and management. This money funded

about 19 full-time equivalent (FTE) state administrative staff, their travel, equipment, supplies, and indirect costs. Leadership activities included convening a large public and private steering committee and multiple advisory groups for different aspects of Network activities.

## II. ENVIRONMENTAL, SYSTEMS, AND POLICY CHANGE

In tobacco control, a variety of activities are required to enforce environmental and organizational policies such as those dealing with minors' access to tobacco products and ensuring clean indoor air. The CDC *Best Practices* document for state tobacco control programs recommends a formula that included \$150,000 to \$300,000 for interagency coordination plus a per capita rate of \$.43 to \$.80, depending on number of state laws, a state's geography, and tobacco use characteristics of the state. For the entire state of California, the recommended expenditure was \$14 to \$26 million annually. Prorated for the 21% of the California population that falls within the Network's income eligibility, the target would be \$3.1 million to \$5.6 million.

State and local policy formulation in the fields of nutrition and physical activity is in a very early stage of development; thus, there are few policies to enforce. While there are recommended nutrition and physical activity policies for children in schools, such as for food sold on campus or for physical education, there is little enforcement authority and less enforcement activity. For adult environments, there are potential opportunities for the public sector to establish policies for government food services or employee work environments, and the private sector is encouraged to establish policies and direct resources toward activities that promote healthy eating and physical activity. At present that policy potential for the environments of low-income consumers is largely unrealized.

In the California Nutrition Network, a number of policy targets have been set, such as to increase campaign funding for adults and children, to establish special programs to eliminate racial, ethnic, and income associated diet and physical activity disparities, and to increase participation in available federal nutrition as-

sistance programs and help reduce food insecurity. Local contractors and sister state agencies also are encouraged to set policy objectives making affordable healthy foods more available on public property, or setting new standards or guidelines for program operations. The total separable budget for special policy projects, such as those with school officials and supermarkets, totals less than \$1 million. Media advocacy to make policy makers aware of the need for new policy decisions is a thrust of both the Network's mass media and research activities.

Experience is suggesting that policy-related expenditures will grow as more is learned about the scope of the poor diet and physical inactivity problem and the limits of educational, public awareness, and promotional approaches.

## III. MASS COMMUNICATIONS

The CDC *Best Practices* document for tobacco control recommends that media, or "counter-marketing," be funded at the rate of \$1 to \$3 per capita. For California specifically, the recommended expenditure for 1999 was \$32 million to \$96 million. Prorated for the 21% of California's population with incomes at or below 130% of poverty, the state target would be \$6.7 million to \$20 million annually. It recommended that advertising and creative firms with experience in multicultural marketing be used, and that counsel from other state agencies with media experience such as tourism or lotteries be sought. Costs were estimated based on a minimum of \$100,000 per ad, and states were encouraged to share ads when possible.

The California Nutrition Network allocated slightly over \$4 million for media, public relations, and placement in 2000-2001, a level that for the first time is sufficient to buy airtime rather than depend on public service in five of the state's eight largest media markets. A three-year contract was competitively bid, and the prime contractor of the winning firm develops the creative. A subcontractor with a Latino and African American staff then provides public relations, and a second subcontractor buys the media time. This level of funding supports the creative development and production of three seasonal ads for television and radio, including consumer focus groups and other consumer testing. Each is produced in English and Spanish. A small amount of outdoor advertising

(billboards) and transit space (mobile billboards and wrapped busses) also is purchased in selected media markets, with an emphasis on locations near funded local projects. The media buying firm is responsible for securing maximum bonus value from media outlets in the form of on-air promotion, live-remote broadcasts tied with Network events, and public affairs programming.

For 9- to 11-year-old children, a high-quality ad was produced several years ago for sequential use in the four-year rollout of the Power Play! campaign in 11 media markets. Airtime is purchased on English and Spanish language children's programming during morning, after-school, and weekend viewing hours in the fall and again in the spring in the first year of a region's funding.

Public relation activities are usually tied with a Network or partner event, such as release of a report about California's eating or exercise practices or a policy conference. English- and Spanish-speaking spokespersons are first trained on the statewide copy points for the story, then they personalize the story. In addition, on-going communications training and public relations counsel has been made available through a public relations firm to all Network partners; its purpose is to acquaint them with techniques for localizing the issues and getting their story told. Network PR events occur about twice per year with the aim being to secure maximum media coverage across the state. A three-year communications plan is under development.

#### **IV. COMMUNITY PROGRAMS AND COMMUNITY DEVELOPMENT**

The CDC *Best Practices* document for tobacco control recommends that communities be funded with a formula that includes a base amount of \$850,000 to \$1,200,000 for statewide training and infrastructure, together with a per capita rate of \$.70 to \$2.00 annually. For California specifically, the recommended expenditure for 1999 was \$23 to \$65 million annually. Prorated for the 21% of the California population that falls within the Network's income eligibility, the target would be \$4.8 million to \$13.6 million.

The California Nutrition Network operates a less decentralized system than tobacco control does. Rather than contracting with the

state's 61 local health departments, it contracts with 12 Project LEAN regional lead agencies to help coordinate activities for teens and adults and 11 Power Play! regional lead agencies for younger school-aged children. At about \$100,000 per region, this smaller infrastructure totals about \$2.5 million annually and is organized around the state's major media markets. A total of 67 local public agencies receive matching funds to conduct interventions based on their own needs assessments. These local agencies include 25 local health departments, four cities, four park and recreation agencies, eight Indian tribal organizations, twelve public colleges and universities, and two cooperative extensions. The amount of federal matching funds they receive varies from \$5,000 to over \$1 million.

In addition, 35 nonprofit and public sector organizations receive grants for faith-based, food security, or special city initiatives. These grants range in size from \$15,000 to \$45,000. The 49 FTE state and contract staff who support all the local contractors are funded at about \$2.8 million.

In total, Network funding for community nutrition and physical activity programs and related community development totals nearly \$14 million, which is close to the prorated level recommended for tobacco control.

#### **V. PROGRAMS FOR CHILDREN AND YOUTH**

In the CDC *Best Practices* document for tobacco control, it is recommended that school programs be funded through a formula that includes a base amount of \$500,000 to \$750,000 for statewide training and infrastructure, together with a per student rate of \$4 to \$6 (K-12). For California specifically, the recommended expenditure for 1999 was \$25 million to \$38 million. Prorated for the 40% of California's 6.5 million children aged 5-18 years, who are from households earning below 130% of poverty, the state target would be \$10 million to \$15.2 million annually.

Through USDA, the California Nutrition Network funds 37 low-resource school districts and county offices of education for over \$12 million, with matching funds projected to range from \$15,000 to over \$5 million. In addition, the Network helps fund other programs such as the 5-a-Day/Power Play! campaign for

fourth and fifth graders and Food on the Run for high school students to total nearly \$1.9 million (additional foundation funds have been available). Total USDA matching funds dedicated solely for children and youth in school exceeded \$14 million, which is close to the tobacco control target. In addition, a proportion of community development projects also serve children and youth for the most part outside school settings; thus, it is likely that Network resources helping children and youth currently exceed levels recommended for tobacco control.

It is with children and youth that the analogy with funding in tobacco control may be least applicable. Eating and exercise are complex behaviors that all children partake in many times each day, yet state data indicate that well over 75% of all children are at-risk. This statistic compares with much lower rates for tobacco use in children, a single behavior that affects a subset of young people within a more narrow age range. Furthermore, with 900 school districts and about 8,500 public schools (of which 46 percent are classified as economically “needy”—defined as below 50% of students being eligible for free/reduced price school meals) participation in the Network has barely scratched the surface. For this reason, it seems apparent that measures above and beyond those now in place in schools will be needed. Specifically, since students reflect their larger community, and time during the school day is both competitive and expensive, public health measures staged outside the school environment may be easier to conduct and possibly more cost efficient. It is also true that—as with tobacco control—efforts focusing on children alone will not succeed because adults must set an example and also create protective environments that make healthy behaviors easy for children.

## VI. HEALTH CARE DELIVERY

The CDC *Best Practices* document for tobacco control recommends that specific public health programs be allocated the following base budget to develop core capacity in tobacco control: cardiovascular disease (\$500,000), asthma (\$1 to \$1.5 million), oral health (\$400,000 to \$750,000), and state cancer registries (\$75,000 to \$300,000). It recommends a second level of funding to support more comprehensive pro-

grams that include local initiatives. For California specifically, it recommends \$3.3 to \$4.7 million for such programs.

For tobacco cessation, the CDC recommendations are based on an extensive literature that includes per capita costs of screening, brief counseling, and reimbursing providers for treatment programs, pharmaceuticals, and follow-up. It is noted that private insurance may cover about half the costs, and that about 10% of smokers were likely to use such services each year. The total recommended amount for California is \$32 million to \$120 million annually.

The California Nutrition Network provides federal matching funds for sister state categorical programs that use their own funds for allowable nutrition education to low-income Californians. The participating programs have included Cancer Detection, Child Health and Disability Prevention, Domestic Violence, Adolescent Family Life, the California Department of Education, the California Department of Food and Agriculture, and the California State Library. Most the programs use Network funds to build their core capacity or to fund special projects in nutrition and closely related topics. In 2000-2001, matching funds returned to those agencies totaled about \$1.5 million.

As stated above, USDA funds may not be used for health care services; therefore, there is no Network experience paying for medical nutrition treatment or physical therapy services. However, a new study of the health care costs of obesity in California adults is underway and will be reported shortly.

## SURVEILLANCE, EPIDEMIOLOGY, AND RESEARCH

The CDC *Best Practices* document for tobacco control recommends as standard practice that about 10% of a total program budget (excluding administration) be dedicated to surveillance and evaluation. Those activities might strengthen the statewide program or the capacity of local programs. They include surveys, research, and evaluation conducted by the state health department, by universities or private research firms, or by local projects. For California specifically, the recommendation is for \$14 million to \$38 million annually.

The California Nutrition Network spent about \$1.5 million on surveys and applied research in 2000-2001. The annualized budget

supports partial funding for the following: the state's three biennial eating and exercise surveys for adults, teens, and older children (grant funds are also available for this purpose); questions on two large omnibus state surveys; formative research using focus groups, surveys, and key informant interviews; contracted evaluation specialists for interventions in several channels; and special policy studies. Including the staff of five FTE's and excluding evaluation conducted by local projects, expenditures for research and evaluation are estimated at about \$2.1 million in 2000-2001, or about 4% of the annual budget.

An additional \$2 million is made available annually from state funds through the Cancer Research Program to support a variety of intramural diet and behavior change prevention

projects, including a university-based social marketing center, intervention projects, and several policy analyses.

## REFERENCES AND RESOURCES

1. Centers for Disease Control and Prevention, *Best Practices for Comprehensive Tobacco Control Programs—August 1999*. Atlanta, GA: US Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotions, Office on Smoking and Health, August 1999.
2. California Department of Health Services, *California Dietary Practices Survey, Overall Trends in Healthy Eating Among Adults, 1989-1997, A Call to Action, Part 2*. Sacramento, CA 1999.