

The California Endowment's Healthy Eating, Active Communities Program: A Midpoint Review

Sarah E. Samuels, DrPH, Lisa Craypo, MPH, RD, Maria Boyle, MS, RD, Patricia B. Crawford, DrPH, RD, Antronette Yancey, MD, MPH, and George Flores, MD, MPH

Childhood obesity is at epidemic levels in the United States. More than 1 in 7 children and adolescents aged 6 to 17 years are considered obese.¹ Additionally, disparities in obesity rates exist among ethnic groups. Black, Hispanic, and Native American children and adolescents have higher rates of diabetes and obesity than do White children and adolescents.¹ Poor diet and inadequate physical activity have been linked to obesity and preventable chronic illnesses.^{2,3} Overweight and obese children may develop a number of risk factors for chronic disease and are increasingly diagnosed with diseases that have historically had their onset in adulthood, such as type 2 diabetes, hypertension, and high cholesterol.⁴

Most strategies to prevent or reduce childhood obesity have focused on individual behavior modification and pharmacological treatment, with limited success.⁵ Current research suggests that childhood dietary habits and physical activity levels are influenced by a variety of environmental factors,⁶ such as increasing portion sizes,^{7–10} increasing availability of fast food and soft drinks,^{11–20} availability of soda and unhealthy food on school campuses,^{21–29} curtailment or elimination of physical education and recess in schools,³⁰ insufficient or inadequate parks and recreational facilities,³¹ public policy favoring personal transportation over mass transit,^{32–39} limited access to healthy foods and ready availability of unhealthy foods,^{37,40–44} and disproportionate advertising of low-nutrient-dense foods and sedentary activities to children and their families.^{25,45–49}

Many of these factors are exacerbated in low-income communities, where healthy and affordable food options and safe opportunities for physical activity are noticeably absent.^{40,42} These factors are contributing to high levels of diseases related to nutrition and physical activity among Black and Latino populations.^{34,40,42,50}

A better understanding of the underlying factors that lead to obesity has led to the

Objectives. We conducted a midpoint review of The California Endowment's Healthy Eating, Active Communities (HEAC) program, which works in 6 low-income California communities to prevent childhood obesity by changing children's environments. The HEAC program conducts interventions in 5 key childhood environments: schools, after-school programs, neighborhoods, health care, and marketing and advertising.

Methods. We measured changes in foods and beverages sold at schools and in neighborhoods in HEAC sites; changes in school and after-school physical activity programming and equipment; individual-level changes in children's attitudes and behaviors related to food and physical activity; and HEAC-related awareness and engagement on the part of community members, stakeholders, and policymakers.

Results. Children's environments changed to promote healthier lifestyles across a wide range of domains in all 5 key childhood environments for all 6 HEAC communities. Children in HEAC communities are also engaging in more healthy behaviors than they were before the program's implementation.

Conclusions. HEAC sites successfully changed children's food and physical activity environments, making a healthy lifestyle a more viable option for low-income children and their families. (*Am J Public Health.* 2010;100:2114–2123. doi: 10.2105/AJPH.2010.192781)

emergence of a new type of initiative that seeks to reduce childhood obesity by making environmental improvements that promote healthy eating and physical activity, rather than focusing on changing individual eating and activity patterns. Although this type of environmental intervention is relatively new, early results are encouraging.^{51–53} It has been demonstrated that better access to healthy foods and opportunities for physical activity results in healthier diets and increased physical activity: people in the presence of supermarkets eat more fruits and vegetables,^{40,42,54} and when a venue for physical activity is available, people are more likely to be physically active.^{34,55}

To help prevent obesity and type 2 diabetes among children and adolescents, the Healthy Eating, Active Communities (HEAC) program was established to promote public health environmental change in 6 California communities. We conducted a midpoint review of HEAC's progress to assess how well these

communities were translating models for change into on-the-ground practices resulting in real improvements in the food and physical activity opportunities available to low-income children and families.

METHODS

The California Endowment, California's largest health foundation, established HEAC in 2005 as a 4-year, \$26 million investment in preventing childhood obesity and diabetes in low-income communities by increasing opportunities for healthful eating and physical activity in schools, neighborhoods, and workplaces.

HEAC comprises 2 components. The community component is designed to create policy and environmental changes that increase children's access to healthy foods and physical activity by engaging community members in changing their environments and by eliciting support for these changes from

pivotal community sectors, such as industry, health care, transportation, policy, and media and advertising. The technical assistance, advocacy, and policy component aims to build and support policy and advocacy statewide for improvements in children’s food and physical activity environments.

Following a request for proposals, The California Endowment selected 6 low-income communities with populations ranging from 15 000 to 90 000 as HEAC program sites (Table 1). HEAC was designed to address 5 key environments or sectors that influence children’s nutrition and physical activity behavior: schools, after-school programs, neighborhoods, health care, and marketing and advertising. Each of the communities was selected because it met several criteria: high rates of adult obesity, adult type 2 diabetes, and childhood obesity; the ability to engage local governments in instituting policies related to nutrition or physical activity at the school district or city government level; and the ability to plan and implement a program in collaboration with a range of

community organizations, government agencies, health care institutions, and youth groups. At each site, The California Endowment had favorable prior experience with grant making and was familiar with local leadership.

At the outset, approximately \$1.8 million dollars was awarded over 4 years in each of the 6 communities. Grants were awarded to a community-based organization (\$220 000/year), a school district (\$125 000/year), and the county public health department (\$125 000/year) in each community for each of 4 years. Funding was ultimately extended for an additional 18 months, and additional funds were allocated to each site for communications support (\$75 000) and innovative community strategies (\$50 000), and to each of 4 school districts for innovations in physical education (\$50 000).

Experts in nutrition, physical activity, and policy—from the Partnership for the Public’s Health, California Project LEAN, CANFit, PolicyLink, Kaiser Permanente, and the Berkeley Media Studies Group—were

provided grants to enable them to give communities technical assistance with strategic planning; intervention development, implementation, and sustainability; policy strategies; and resources and training. To complement HEAC, The California Endowment funded the California Convergence (a statewide network of local organizations for peer-to-peer learning) and the Strategic Alliance (a coalition of state-level advocacy organizations) to support their efforts to improve nutrition and physical activity environments through policy change.

Logic Model

HEAC was designed in accordance with a logic model that emerged from a formative planning process. The HEAC logic model guided the 6 communities in making their own plans to address each of the 5 key sectors. After the HEAC communities completed their initial planning process, the logic model was revised to capture the work that would be conducted in each community.

TABLE 1—Characteristics of Communities in the Healthy Eating, Active Communities (HEAC) Program: California, 2005

	Baldwin Park	Chula Vista	Oakland	Santa Ana	South Shasta County	South Los Angeles
Community overview	Population 75 000; 20 miles inland from downtown LA	Population 80 000; southern region of San Diego County	Population 64 735; Alameda County east of Lake Merritt	Population 61 363; Orange County; 92701 zip code	Population 43 224; city of Anderson, communities of Cottonwood and Happy Valley	Population 146 235; South Central Los Angeles; 90007 and 90011 zip codes
Demographics	79% Hispanic; 70% speak English as a second language; 32% of children overweight and unfit	More than 75% Hispanic; 52% speak Spanish as primary language; 36% of children overweight	41% Asian and Pacific Islander, 24% Black, 23% Latino, 8% White; 25% of children overweight; 80% physically unfit	68% with household incomes at or below two times the federal poverty level ^a ; 92% Latino; 34% of children overweight or obese	Predominantly White; 13% of students Hispanic; 11% of students Native American; 30% of children overweight	60% Latino, 12% Black, 11% Asian, 16% White; 65%–85% of residents speak English as a second language; 33%–37% of children overweight
Lead HEAC partner agencies	California Center for Public Health Advocacy; Baldwin Park Unified School District; LA County Department of Public Health	South Bay Partnership; Sweetwater Union High School District; San Diego County Health and Human Services Agency—South Region	East Bay Asian Youth Center; Oakland Unified School District; Alameda County Public Health Department	Latino Health Access; Santa Ana Unified School District; Orange County Health Care Agency	South County Consortium; the Anderson Partnership for Healthy Children; 5 rural school districts (Anderson High School, Cascade, Cottonwood, Happy Valley, Pacheco); Shasta County Public Health Department	The Accelerated School; Los Angeles Unified School District; Los Angeles County Department of Public Health

^aFederal poverty level guidelines as defined by the US Department of Health and Human Services (available at: <http://aspe.hhs.gov/poverty/10poverty.shtml>).

Table 2 describes program-wide goals, intervention strategies for each of the 5 sectors, expected outcomes across all communities, progress the communities have made so far in achieving their goals, and population exposure across all 6 sites. HEAC communities developed their own local logic models and identified strategies to implement state nutrition standards for competitive foods, strengthen physical education during the school day, improve after-school snacks and physical activity programs, improve the healthfulness of foods sold at stores near schools, and improve local parks and neighborhood streets to encourage physical activity. Many of those strategies have been implemented.

Model of Change

The HEAC model of change provides a conceptual framework⁵⁶ for the program and illustrates how a comprehensive approach that encompasses multiple sectors produced a set of environmental changes that can help a community provide more support for healthful eating and physical activity, with the goal of preventing childhood obesity.

The HEAC model of change builds on 3 assumptions that inform the initiative’s strategies and goals: (1) environments have a critical influence on health behaviors; (2) low-income communities carry the greatest health burden resulting from poor food and physical activity environments; and (3) community organizations and advocates have the power to mobilize community members and local officials to support policies that improve nutrition and physical activity environments.

The HEAC model of change identifies: (1) the environments in most need of change (schools, after-school programs, neighborhoods, health care, and marketing and advertising); (2) the program strategies needed, including building community and institutional capacity, developing leadership, engaging decision makers, organizing community members, and creating and adopting a common vision; and (3) the catalysts or facilitators of change, including advocates, technical assistance providers, funding, community engagement, and data to help refine strategies and measure successes.

The community and environmental outcomes identified in the HEAC model of change will be sustained through the adoption and implementation of policy. As a result, healthful eating and physical activity should become the norm for community members, and individual and community health should improve, thereby preventing childhood and adult obesity.

Evaluating Environmental Change

Table 3 describes the criteria used to evaluate the progress made by local HEAC communities. Across each sector, the evaluation measured changes in food and physical activity environments as intermediate outcomes, such as:

- changes in foods and beverages sold in vending machines and other venues in schools and health care institutions,
- changes in physical activity programming and equipment available in schools, after-school programs, and parks, and
- changes in neighborhood food retail offerings and food advertising.

For students in both HEAC communities and non-HEAC comparison communities, the following individual-level outcomes were measured:

- changes in student food and physical activity attitude and behaviors, and
- changes in student body mass index (BMI) and aerobic capacity measures.

Additional qualitative and contextual data collected at each HEAC site described the extent to which parents, youth, health care providers, policymakers, sector stakeholders, and grantees were aware of HEAC program activities, were engaged in program activities, and supported environmental change and policy adoption. Data were collected through the following methods:

- telephone and computer surveys of local public officials, health care providers, health department staff, and school officials,
- focus groups with parents and their children,
- community resident public opinion surveys, and
- regular grantee reporting on activities, accomplishments, and challenges.

Evaluation findings are reported to HEAC communities, technical assistance providers, and funders to inform and refine site-specific strategies. In addition, the evaluation team develops briefs to inform local and statewide policy development.⁵⁷ Data briefs produced so far describe how well the foods and beverages sold in HEAC schools adhere to California school nutrition standards, recommendations and lessons learned from efforts to change school food environments, fiscal impacts of changes to environments for competitive foods, physical activity levels of students participating in physical education classes in HEAC schools, experiences with changing the after-school environment, vending policies in health care settings, and community engagement.^{29,38,58,59–61} Future briefs will focus on neighborhood retail strategies, safety and violence prevention, and youth voices.

RESULTS

Our midpoint evaluation findings, summarized in Table 2, measure the progress that HEAC sites have made in changing the food and physical activity environments in each sector.

Schools

Eleven school districts, ranging from rural (south Shasta County) to urban (Los Angeles Unified), have exposed 885 000 students to HEAC interventions across the 6 sites. Since the program’s inception, HEAC sites have made substantial improvements in the healthfulness of school environments. All of the HEAC school districts have passed comprehensive district wellness policies, including competitive food standards, physical education standards, and strong restrictions on advertising and marketing of foods and beverages on school campuses. In addition, individual districts have implemented a number of improvements, such as discontinuing or greatly reducing sales of snack foods and sweetened beverages, centralizing control of vending machine contracts within the district to ensure that vending machine foods meet state nutrient guidelines, training elementary classroom teachers to teach physical education effectively, and adding additional

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TABLE 2—Healthy Eating, Active Communities (HEAC) Program Expected Outcomes, Midpoint Achievements, and Midpoint Community Exposure to the Program, by Children’s Environment: California, 2007–2008

Children’s Environment	Expected Outcomes	Midpoint Achievements	Midpoint Exposure
Schools Goal: Increase healthy eating and physical activity during the school day	Adopt and implement state nutrition standards district-wide for a la carte food and beverages sold ^a Adopt and implement district-wide policies that ensure students receive mandated number of minutes of PE Engage parents and families as advocates for healthier food and physical activity	Implemented state nutrition standards (all sites) Trained classroom teachers on physical activity and hired PE specialists Adhered to state requirement for PE minutes and expanded class time Used technical assistance and resources from public health departments and health care sector to accomplish goals Parents involved in changing food and physical activity environments through participation in wellness policy committees	11 school districts 885 000 elementary, middle, and high school students 769 000 students exposed to intensive PE interventions
After school Goal: Increase healthy eating and physical activity in after-school programs	Adopt and implement SB 12, SB 965, ^a or other policies that make healthy foods accessible in after-school sites Adopt and implement policies that promote physical activity on a regular basis Parents and youth engaged as advocates for healthier food and physical activity in after-school settings	Secured state after-school funding Hired after-school coordinator Included physical activity in “higher learning” (academic) after-school sites Introduced SPARK physical activity curriculum in after-school programs	14 after-school programs 7000 enrolled participants 3900 after-school sites statewide required to adopt HEAC strategies, adhere to state nutrition standards, and document nutrition and physical activity environments
Neighborhood Goal: Increase children’s and families’ opportunities for healthy eating and physical activity in neighborhoods	Policies and programs lead to improved access to affordable, quality, healthy food Policies and programs lead to improved access to physical activity opportunities Residents develop increased policy advocacy capacity	Created “healthy check-out lines”(Wal-Mart, Smart & Final) Convinced convenience stores to sell produce and healthier foods Improved parks and advocated for updated park equipment and programming Improved walkability and bikability around schools; creating complete streets policies	470 000 residents in 6 HEAC communities have been exposed to HEAC food retail interventions
Health care Goal: Engage local health care systems in diabetes and obesity prevention	Health care spokespersons are testifying at school board meetings, planning commission meetings, and city council meetings Promotoras ^b have a prominent role as health liaisons with the community Health care providers incorporate obesity prevention into well-child visits Health care agencies have organizational policies that promote healthy eating and physical activity	Trained, educated, and recruited physicians and promotoras ^b for obesity prevention and policy advocacy Implemented weight management programs such as KP Kids and Kidshape Developed county vending policies and healthy hospital policies (all sites) Changed clinical practices to include BMI charting and obesity prevention messages Implemented policy for drug representatives to provide healthy foods to health care practices	More than 300 health care providers have been exposed to HEAC clinical training and community programs on childhood obesity prevention
Marketing and advertising Goal: Discourage or eliminate local-level advertising and marketing of unhealthy foods and beverages and inactivity in school, after-school, and neighborhood settings, and encourage regulatory action to reduce advertising to children	Reduce or eliminate neighborhood-level marketing to children Local marketing is assessed, and youth are active in advocating for reducing marketing of unhealthy foods Tell parents how some businesses market unhealthy food and physical activity to children	Included ban on unhealthy food marketing within district wellness policies Engaged youth in assessing marketing environments in schools and local stores Worked to get healthy advertising into new stadium Soda-free summer campaign	276 students have been engaged in HEAC youth leadership programs, conducting assessments and reporting on food and physical activity environments

Note. PE = physical education; BMI = body mass index.

^aIn 2005, California passed laws setting minimum nutritional standards for a la carte food and beverages sold on school campuses. Law SB 12 sets standards for all competitive foods sold on public school campuses for grades K–12. For food items, fat content is not to exceed 35% of calories, saturated fat content is not to exceed 10% of calories, and sugar content is not to exceed 35% of total weight of food. SB 965 sets standards for beverages sold on public school campuses for grades K–12. Beverages allowed for sale at middle and high schools are fruit drinks made of 50% or more fruit juice with no added sweetener; water; milk products; and certain electrolyte replacement beverages.

^bPromotoras are outreach workers in Hispanic communities who are responsible for raising awareness of health and educational issues.

TABLE 3—Methods Used to Evaluate Healthy Eating, Active Communities (HEAC) Program Sites: California, 2005–2010

Children's Environment	Evaluation Methods
Schools	<p>School physical activity environmental assessment: measures resources, equipment, and physical activity opportunities available at schools</p> <p>School beverages and competitive foods environmental assessment: measures food environment, policy implementation status, food and beverage marketing, and other environmental factors influencing healthy eating at schools</p> <p>PE activity levels: assesses physical activity levels during PE classes</p> <p>School stakeholder survey: documents perspectives on changing school nutrition and physical activity environment</p> <p>Student nutrition and physical activity survey: assesses student diet and physical activity and the impact of environmental changes on attitudes and behaviors of youth</p> <p>Financial impact study: assesses impact of implementing nutrition standards for a la carte beverages and foods on revenues, expenditures, and net profits from sales of beverages and foods on campus during the school day</p> <p>Fitnessgram data analysis: assesses student fitness and BMI (secondary data analysis of existing quantitative data sets) and relates these data to policy and environmental change strategies</p>
After school	<p>After-school beverage and food environmental assessment: examines beverage and a la carte food offerings and sales in after-school settings</p> <p>After-school physical activity environmental assessment: measures resources, equipment, and physical activity opportunities and programming in after-school programs</p> <p>After-school physical activity levels: assesses physical activity levels during physical activity programming</p> <p>After-school stakeholder survey: documents perspectives on changing the after-school nutrition and physical activity environment</p>
Health care	<p>Health care provider survey: describes how health care providers address obesity prevention and promote good nutrition and physical activity in their clinical practices</p> <p>Health care environmental assessment: examines beverage and food sales and physical activity opportunities at health care institutions and public health departments</p> <p>Health care stakeholder survey: documents opportunities for and challenges to health care participation in policy and environmental change strategies for obesity prevention</p> <p>Public health department survey: identifies practices for, strategies for, opportunities for, and barriers to public health department engagement in obesity prevention, as well as policy opportunities for public health departments</p>
Neighborhood	<p>Physical activity environmental assessment: examines the physical activity environment and resources in neighborhoods</p> <p>Food and beverage environmental assessment: examines the presence of food and beverage retail stores, restaurants, and food advertising and marketing in neighborhoods</p> <p>In-store food and beverage assessment (large-store and small-store versions): documents the presence, placement, and advertisement of snack foods and beverages in retail food establishments</p> <p>Neighborhood stakeholder survey: documents attitudes and perceptions about neighborhoods, engagement of neighborhood youth and other residents, and strategies and policies for improving the food and physical activity environment in the neighborhood</p> <p>Community resident survey: telephone survey with parents to assess attitudes about and perspectives on the food and physical activity environment, as well as support for environmental and policy strategies to address unhealthy environments</p> <p>Youth focus group guide: documents youth perceptions and opinions regarding the nutrition and physical activity environment, and examines youth leadership in and efficacy as change agents</p> <p>Parent focus group guide: documents parent engagement in HEAC strategies</p>

Note. PE=physical education; BMI=body mass index.

physical education classes to high school schedules.⁶²

HEAC school and after-school programs engaged students as youth leaders in conducting neighborhood assessments and presenting data and ideas to school officials, policymakers, and local businesses, advocating for environmental improvements in schools, neighborhood parks, and food retailing locations.

The HEAC school sector midpoint evaluation results show that nutrition levels and physical activity environments have improved in all of the schools. Additionally, district officials at 5 of 6 sites have reported that improvement of nutrition and physical activity environments has become a higher priority for them over the program period. All HEAC schools have also significantly improved their adherence to California nutrition standards

and have increased physical education class time. Student survey findings show that students are engaging in more healthy behaviors both in and outside of school, compared with the baseline.^{63,64}

After-School Programs

After-school programs in all HEAC communities successfully obtained Proposition 49 funds from the state, which augmented funding

for after-school programs that met state guidelines for program quality, healthful foods, and physical activity, thereby accelerating improvements in after-school environments. HEAC sites have worked to extend school wellness policy nutrient standards to after-school programs. The sites have also trained after-school providers on nutrition and physical activity standards, and have adopted curricula to improve the quality of after-school physical activity programming. Midpoint assessments of student activity levels during after-school program physical activity at HEAC sites found that children are much more physically active in after-school programs than during school physical education, highlighting the important role after-school programming can play in helping children and youth meet their recommended daily activity level.

Neighborhoods

Environmental improvements in the HEAC neighborhood sector encompass many activities, including local policy adoption, improvements in the built environment, and community and youth engagement strategies. Unlike the school sector, the neighborhood sector has no state or federal policies to guide its work; therefore, each site has implemented locally tailored strategies in response to the needs and interests of community residents and local HEAC partners. Healthy food options have increased at neighborhood food outlets and large chain stores across all sites, exposing 470,000 residents who lived and shopped in HEAC neighborhoods to HEAC retail interventions.

Examples of local food retail interventions included Los Angeles neighborhood corner stores selling healthier foods, Shasta youth engaging Wal-Mart to create healthy food checkout aisles, Oakland schools establishing school-based produce stands for parents and residents, and Santa Ana regulating mobile vendors operating near school campuses.

For physical activity in the neighborhood sector, HEAC sites participated in community planning commissions and influenced general plans to ensure that land use and redevelopment plans improved parks and created joint use agreements that gave neighborhood residents access to schoolyards outside of the school day. HEAC mothers expressed concern

about crime and safety as a major deterrent to physical activity and advocated for safer parks and playgrounds. Local physical activity strategies included the following:

- improved park facilities, programming, and a mobile recreation van for Chula Vista parks,
- community residents providing input into Baldwin Park's Parks Master Plan,
- the Santa Ana school district agreeing to open school grounds for after-school use, and
- parents advocating for pedestrian safety improvements around schools in Oakland.

Programs at all of the sites advocated for broader community concerns such as economic inequities and community safety, and the sites formed relationships with elected officials who have now become advocates for HEAC strategies. Youth, parents, and community members have been active in conducting environmental assessments, participating in community collaboratives and committees, and testifying to local governing bodies such as school boards, city councils, and county boards of supervisors. In Chula Vista, youth conducted a walkability assessment of their neighborhood (including a local park), and presented their findings to city council members, who voted to approve funds to improve the park. In south Los Angeles, youth leaders used cameras to document the difficulty of finding healthy foods in their community, influencing local policymakers to advocate for a moratorium on fast-food outlets in their community. Youth leaders have been successful in obtaining the support of policymakers, school officials, and business leaders for policies aimed at increasing access to healthy foods and safe places to play.

Health Care

In the health care sector, HEAC sites have effected changes in health care provider practices and have advocated for environmental changes. Health care providers (physicians, nurses, community health outreach workers, and *promotoras* [outreach workers in Hispanic communities]) at all sites have been trained in the importance of tracking BMI and delivering obesity prevention messages to patients. More than 300 health care providers have been educated about improving environments for

nutrition and physical activity and linking to community programs to help prevent childhood obesity. Results of our health care provider survey confirmed that providers across all HEAC sites are incorporating BMI screening into clinical practice, along with specific messages related to childhood obesity prevention.⁶⁵ HEAC efforts led to the adoption of policies setting standards for foods and beverages sold at health care and public health facilities in 5 of the 6 sites (Children's Hospital Oakland, Baldwin Park Kaiser Hospital, local Chula Vista hospitals, Los Angeles County hospitals and clinics, and the Shasta County Department of Public Health).⁶⁶ HEAC has worked with each of these institutions to strengthen adherence to local policies.

Additionally, health department staff members and community residents in all 6 HEAC sites are working with city and county or regional planning agencies within their jurisdictions to insert health-promoting language into general plans for future development, to ensure that streets are safe, that sidewalks exist to improve walkability, that parks and playgrounds are available, that public transportation is adequate, and that there is access to supermarkets. Health care institutions and public health departments have emerged as role models for environmental change, influencing organizational policies and practices to promote healthy eating and physical activity in the communities they serve and within their own walls.

Policy Adoption, Implementation, and Replication

Table 4 lists policies that have been adopted by at least one HEAC site as part of their grant-related activities. Across the HEAC sites, about 250 policymakers and public officials—members of Congress, city council members, county supervisors, county staff, school board members, school district superintendents, regional decision-making bodies, and state and local elected officials—have been exposed to or engaged in policy activities related to changing the food and physical activity environments in their communities.

Lessons, models, tools, and policies generated in local HEAC communities have been cited in policy documents about prevention and community wellness,⁶⁷ and policymakers

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TABLE 4—Policies Adopted by at Least 1 Site in the Healthy Eating, Active Communities (HEAC) Program: California, 2005–2008

Children's Environment	Policy Issue	Policy Impact	HEAC Site
School	School wellness policies	Adoption and implementation of federally mandated school wellness policies that set standards for the quality of nutrition and physical education on campus (includes creation of school wellness committees)	All sites
	Food and beverage marketing	Implementation of regulations on food and beverage marketing and advertising on campus (may be included in school wellness policies)	All sites
	Fundraiser and party foods	Implementation of policies that address the quality of foods and beverages provided as part of school fundraisers and classroom parties (may be included in school wellness policies)	All sites
	Competitive foods and beverages	Implementation of California's SB 12 and SB 965, which set standards for the quality of competitive foods and beverages sold in K-12 schools	All sites
	Competitive foods and beverages	Implementation of policy that strengthens current competitive food and beverage standards (SB 12, SB 965) by eliminating sports drinks and promoting a core set of healthy foods	Oakland, South LA, Baldwin Park
	Trans fat-free foods	Implementation of California's SB 490, which eliminates the sale of foods with trans fat in schools	All sites
	Minutes of PE	Implementation of California state standards for required minutes of PE	All sites
	Physical activity levels	Increase amount of time spent in moderate to vigorous physical activity by meeting state requirements for minutes of PE, reducing PE class size, or training PE teachers	Santa Ana, Baldwin Park, Oakland, South LA, Shasta
After school	School wellness policies	Extension of school district wellness policy standards for nutrition and physical activity to after-school programs	All sites
	Foods and beverages	Implementation of competitive food and beverage standards in after-school programs (required in Proposition 49-funded sites)	All sites
	After-school program funding	Implementation of SB 638, which released \$550 million for California's After School Education and Safety program, allowed for easier access to Proposition 49 funds, and required the California Department of Education to develop voluntary physical activity guidelines	All sites
	Physical activity	Implementation of the California Department of Education's voluntary after-school physical activity guidelines	South LA
Neighborhood	Healthy vending	Implementation of city, county, and state policies that set standards for healthy vending options at government worksites	All sites
	Menu labeling	Support implementation of state policy (SB 1420) requiring nutrient facts to be posted on menu boards in chain restaurants	All sites
	Fast food moratorium	Adoption of moratoriums on fast food restaurants and drive-throughs in neighborhood	South LA, Baldwin Park
	Trans fat-free restaurants	County-level policy to ban trans fat in local restaurants	Baldwin Park
	Breastfeeding	Breastfeeding policy for all city-owned facilities	Baldwin Park, Chula Vista
	General plans	Inclusion of health language in general plans and redevelopment plans	All sites
	Walkability	Implementation of infrastructure improvements that make neighborhoods more walkable, such as improved traffic safety, complete streets, and sidewalks	Chula Vista, Oakland, Shasta
	Bikability	Increasing the bikability of neighborhoods (including bike paths and routes, bike cages at schools); implementation of bike master plan	Oakland, Shasta
	Park space	Establishment of park space; continued redevelopment and improving care of existing parks	All sites
Park master plan	Implementation of park master plan that includes guidelines for safety, lighting, walkability, equipment, and design	Baldwin Park	

Continued

TABLE 4—Continued

Health care	Healthy vending	Adoption and implementation of institutional, city, and county healthy vending machine policies	All sites
	Breastfeeding	Adoption of a comprehensive institutional strategy to become a breastfeeding-friendly hospital	Baldwin Park
	Pharmaceutical representative donations	Implementation of policy requiring pharmaceutical representatives to supply healthy foods and beverages	Shasta
	Physical activity	Implementation of public health department policy that allows employee physical activity breaks during work hours	Santa Ana
	Reimbursement for prevention	Advocacy for expansion of reimbursement to include primary prevention services	All sites

Note. PE = physical education.

have drawn on HEAC-related work in their discussions about the focus on prevention in health care reform and about the Communities Putting Prevention to Work funding in the federal stimulus package.

DISCUSSION

Although there is increasing evidence regarding the importance of the environment in determining behavior,^{33,53,68} few studies have documented the process of engaging communities in changing their nutrition and physical activity environments, particularly in places where health disparities are prevalent. The HEAC experience shows that communities ready for change can be mobilized to address problems in their food and physical activity environments and that effective strategies can be tailored to meet the specific needs of communities. HEAC sites have demonstrated that a multisector approach is feasible and necessary to make improvements across a community and that synergy across sectors facilitates progress.

The HEAC communities have benefited from support provided by a network of experts, building statewide momentum for greater local and state-level policy and environmental change. Working together, health departments, schools, and community organizations have engaged in peer support to more effectively mobilize for improved environments. State agencies have supported collaborations among local government, public health departments, and school districts. As a result, policymakers and public officials have become proponents for change in local and state policies that, when adopted and implemented, will ultimately sustain environmental improvements. Youth leaders—who provide powerful and effective voices for change—and

their parents drew the attention of decision-makers and business leaders, successfully advocating for healthy foods in stores, neighborhoods, and schools.

The full impact of the environmental and policy changes achieved in the HEAC sites is still being determined. Although the greatest strides so far have been seen in the school sector, community-wide impact may emerge over time. We still do not know what key ingredients are required to “tip” a community toward greater healthfulness. Although some students in HEAC communities are reporting healthy behaviors,⁶⁴ it is difficult to link measurable changes in environments to behavioral and health outcomes. It is also difficult to measure whether there has been sufficient exposure to the environmental changes or whether the quality and intensity of the environmental changes were sufficient to alter behaviors. Final outcome measures collected at the end of the HEAC program, in June 2010, will provide additional measurements of the impact of these environmental change strategies on behavior and health outcomes, including longer-term outcomes (e.g., student BMI and aerobic capacity).

Several significant challenges still need to be considered. Current economic conditions have reduced the resources available to public and private agencies in these communities. Schools participating in the HEAC program have made severe cutbacks to programs, such as physical education, that had been strengthened with HEAC dollars. Improving physical activity programs in schools and communities continues to be a challenge. Time and funding are required to implement policy, sustain accomplishments, and achieve measurable outcomes. The environmental and policy changes that have taken hold as a result of the HEAC program may not yet be strong enough to have

a long-term community-wide impact on health outcomes.

As a number of federal obesity prevention programs take shape—such as the federal Communities Putting Prevention to Work obesity prevention program,⁶⁹ the President’s Task Force on Childhood Obesity,⁷⁰ and the First Lady’s Let’s Move campaign⁷¹—more communities will consider supporting environmental and policy strategies aimed at addressing the obesity epidemic.⁵² As momentum builds and more partners join the effort, change will happen more quickly at a lower cost. There is a growing demand for clearly defined environmental and policy change strategies, outcomes, and evaluation measures. The California Endowment’s HEAC program midpoint evaluation provides an early opportunity to examine the implementation of new community-based intervention strategies and evaluation tools, and the evaluation suggests that community interventions can have a positive effect on environments and health behaviors. ■

About the Authors

Sarah E. Samuels, Lisa Craypo, and Maria Boyle are with Samuels & Associates, Oakland, CA. Patricia B. Crawford is with the Atkins Center for Weight and Health, University of California, Berkeley. Antronette Yancey is with the School of Public Health, University of California, Los Angeles. George Flores is with The California Endowment, Los Angeles.

Correspondence should be sent to Sarah E. Samuels, DrPH, Samuels & Associates, 1222 Preservation Park Way, Oakland, CA 94612 (e-mail: sarah@samuelsandassociates.com). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints/Eprints” button.

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Contributors

S.E. Samuels led the writing and editing of the article. L. Craypo participated in writing and editing the article. M. Boyle wrote sections of the article and prepared the

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