The Central California Regional Obesity Prevention Program: Changing Nutrition and Physical Activity Environments in California’s Heartland

Liz Schwarte, MPH, Sarah E. Samuels, DrPH, John Capitman, PhD, Mathilda Ruwe, MD, PhD, MPH, Maria Boyle, MS, RD, George Flores, MD, MPH

The goals of the Central California Regional Obesity Prevention Program (CCROPP) are to promote safe places for physical activity, increase access to fresh fruits and vegetables, and support community and youth engagement in local and regional efforts to change nutrition and physical activity environments for obesity prevention. CCROPP has created a community-driven policy and environmental change model for obesity prevention with local and regional elements in low-income, disadvantaged ethnic and rural communities in a climate of poor resources and inadequate infrastructure. Evaluation data collected from 2005–2009 demonstrate that CCROPP has made progress in changing nutrition and physical activity environments by mobilizing community members, engaging and influencing policymakers, and forming organizational partnerships. (Am J Public Health. 2010;100:2124–2128. doi:10.2105/AJPH.2010.203588.)

Key Findings

- CCROPP took a community-driven policy and environmental change approach to obesity prevention, with local and regional components.
- CCROPP community partners and public health departments increased access to healthy food and physical activity opportunities through neighborhood engagement, inclusive partnerships, and local policymaking.
- Community resident engagement was the central strategy CCROPP used to change food and physical activity environments.
- CCROPP sites informed state-level policy, and disseminated their accomplishments and lessons learned through state and national networks.

California’s Central Valley

The Central California Regional Obesity Prevention Program

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Established by The California Endowment in 2006 as a 3-year, $10 million regional initiative (and extended through June 2010), CCROPP was administered by California State University, Fresno’s Central California Center for Health and Human Services, and was overseen by the Central California Public Health Partnership, a collaborative venture of the public health department directors from eight Central California counties. CCROPP was implemented in each of the sites by a partnership between the local public health department, a community-based organization, and an obesity council. CCROPP’s interventions were supported by technical assistance such as intervention development and implementation, resources, training, and peer-to-peer support.

Model of Change

The CCROPP model of change (Figure 1) followed that of Healthy Eating, Active Communities, and was developed by integrating ideas and principles from multiple but complementary theoretical frames. The process included a systematic inquiry into the design and early implementation of CCROPP (M Ruwe et al, unpublished manuscript, October 2009) and an extensive review of literature regarding applications of complex systems theory to social systems and to obesity prevention.

Evaluation

The CCROPP evaluation measures progress on a variety of indicators reflected in local and regional logic models developed by the evaluation team and grantees (Table 1). Examples of CCROPP grantee progress on these indicators appear in Table 2.

Regional Approach

The regional approach united the CCROPP communities and
created a forum where strategies and lessons learned can be shared and disseminated widely. The local and regional features of the CCROPP model worked together to accelerate change at both levels. Although the region shared an identity, variation across communities required the ongoing identification and pursuit of shared interests and opportunities. Jurisdictional and administrative barriers may have restricted regional level strategies and prevented policy change. CCROPP provides a model and impetus for overcoming these limitations through the interconnectedness of the grantees’ experiences.

COMMUNITY ENGAGEMENT AND PARTNERSHIPS

Community engagement has been a central element to the CCROPP initiative. CCROPP grantees engaged community residents and youth in conducting community nutrition and physical activity environmental assessments, in determining priorities for action, and in acting as advocates for community improvement (Table 2). However, the absence of community infrastructure and resources, presence of language barriers, and fears of immigration status were a few of the challenges faced by Central Valley community residents as they advocated for healthier communities.

Each CCROPP site was engaged in building partnerships with city planners, law enforcement, local businesses, hospitals and clinics, schools, policymakers, and other partners. Through these partnerships, parks were renovated, joint use agreements were adopted with schools, and health language was incorporated into the general plans adopted by cities and counties to guide growth, land development, and zoning.

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PUBLIC HEALTH DEPARTMENT CAPACITY

The CCROPP public health departments engaged staff in healthy

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<th>TABLE 1—Central California Regional Obesity Prevention Program (CCROPP) Evaluation Methodologies</th>
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Note. EBT = Electronic Benefits Transfer; WIC = Supplemental Nutrition Program for Women, Infants, and Children.
TABLE 2—Key Preliminary Central California Regional Obesity Prevention Program (CCROPP) Evaluation Results, Selected Counties, California, 2006–2009

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<tr>
<th>County</th>
<th>Public Health Department Capacity</th>
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<td>San Joaquin</td>
<td>Community residents conducted CX3</td>
<td>Grassroots community members trained as “block leaders” to become neighborhood organizers</td>
<td>Established farmers market that accepts WIC and EBT vouchers; created Walking School Bus program at 2 elementary schools</td>
<td>Public health department developed a countywide employee worksite wellness policy</td>
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<td>Stanislaus</td>
<td>Completed a community health assessment</td>
<td>Youth presented Photovoice and CX3 findings to Madera Vision (City Council, Art Council, school board, chief of police, Parks and Recreation); resident-led Fairmead community council is in the process of becoming a nonprofit organization</td>
<td>School district-wide use of air quality flags; creation of maps of walking trails, biking trails and park spaces in the county; installed equipment at Fairmead toddler park</td>
<td>Community lead was appointed to the general plan committee and ensures that health language is incorporated into the general plan</td>
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<td>Merced</td>
<td>Conducted public health department and community meetings on addressing health disparities based on “Unnatural Causes” program</td>
<td>In collaboration with the breastfeeding coalition, developed and implemented breastfeeding-friendly practices at a local hospital; in collaboration with WIC, increased the number of families applying for food stamps</td>
<td>Implemented the acceptance of food stamp EBT at 2 farmers markets; sales of EBT usage increased from $750 in November 2007 to $7500 in March 2008</td>
<td>Developed and implemented worksite wellness policy at Livingston Medical Group</td>
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<td>Madera</td>
<td>Continuation of farmers market with multiple partners including the public health department and First 5 Commission; WIC coupons accepted</td>
<td>Created strategic plans with city council and planning departments regarding the built environment and health</td>
<td>Public health department implemented a worksite wellness policy; Burroughs Neighborhood Council worked with city council to secure a covered bus shelter, repaint curbs and crosswalks, and install digital radar speed limit signs at local elementary school</td>
<td>Passage of local farmers market ordinance allowing farmers markets in residential and commercial zoning areas</td>
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<td>Fresno</td>
<td>New public health department strategic plan objectives aligned with CCROPP goals; public health partner held an Urban Sprawl: What’s Health Got To Do With It? forum; developed a built environment and air quality strategic plan with the City and County of Fresno and transportation managers</td>
<td>The public health department’s worksite wellness policy was adopted by the Tulare County Health and Human Services Agency; residents advocated for walking, biking, and stroller accessibility for road along Fixley Park</td>
<td>Installed a soccer field and made other structural improvements at local park; school gates at local school left open after hours; established a low-cost fruit and vegetable stand at elementary school</td>
<td>Conducted successful advocacy to prevent closure of and ensure continued funding of the WIC clinic in Earlimart</td>
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<td>Tulare</td>
<td>Public health department providing health language for city general plan</td>
<td>The public health department’s worksite wellness policy was adopted by the Tulare County Health and Human Services Agency; residents advocated for walking, biking, and stroller accessibility for road along Fixley Park</td>
<td>Installed a soccer field and made other structural improvements at local park; school gates at local school left open after hours; established a low-cost fruit and vegetable stand at elementary school</td>
<td>Conducted successful advocacy to prevent closure of and ensure continued funding of the WIC clinic in Earlimart</td>
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<td>Kings</td>
<td>Passed healthy foods policy at public health department for meetings; walking routes established for public health department staff</td>
<td>The Kettleman City Community Council trained on advocacy and involved in decision making with the Local Assessment Committee</td>
<td>Converted a convenience store into a market to provide more fresh produce</td>
<td>All unincorporated areas now have general plans that include health language</td>
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<td>Kern</td>
<td>Public health department received a local built environment grant through the California Physical Activity Center to hold roundtable with the planners; senior public health department epidemiologist co-led the Kern County Network of Children GIS taskforce to map factors impacting childhood obesity</td>
<td>Greenfield Walking Group, now a self-sustaining community resident group, advocated for creation of a new walking path at Stiern Park; public health department provided technical assistance to other public health departments and hospitals interested in establishing farmers markets</td>
<td>Breastfeeding policy passed and implemented at the public health department; WIC fruit and vegetable coupon redemption rate at farmers market increased by 25%</td>
<td>Public health department developing health language for city general plan</td>
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Note. EBT = Electronic Benefits Transfer; GIS = geographic information system; WIC = Supplemental Nutrition Program for Women, Infants, and Children.

CHANGES TO NUTRITION AND PHYSICAL ACTIVITY ENVIRONMENTS

CCROPP's interventions to change nutrition environments led to the establishment of new farmers markets and produce stands, increased collaboration between communities, schools, public health departments, and farmers and vendors, and increased WIC (Supplemental Nutrition Program for Women, Infants, and Children) coupon redemption and Electronic Benefits Transfer (EBT) for food stamp redemption.

**Physical Activity Environments and Built Environments**

CCROPP grantees worked to improve access to physical activity (Table 2). Although each CCROPP site pursued different physical activity and built environment changes, a shared goal was increasing pedestrian safety and decreasing crime by partnering with community residents, neighborhood groups, planners, policymakers, and police officers. For example, the Greenfield Walking Group (Kern County), now a self-sustaining community resident group, worked with planners and local elected officials to install a new walking path at a park.

**POLICY CHANGE**

The CCROPP grantees and community residents engaged school board members, superintendents, planning directors, mayors, and county supervisors in changing policy to support healthy eating and physical activity. Examples include incorporation of health language into general plans and passage of ordinances allowing farmers markets (Table 2).

**DISCUSSION**

The CCROPP experience demonstrates that it is possible to change nutrition and physical activity environments in historically disadvantaged and under-resourced communities. The local obesity prevention strategies of this initiative informed the regional strategies; in turn, the regional framework contributed to the strengthening of local efforts, and provided a trajectory for statewide policy advocacy.

Although the CCROPP grantees have made progress in implementing their interventions and changing nutrition and physical activity environments, more time is required to achieve measurable outcomes. It will be important to continue to evaluate the impact of policy change on Central California environments and the health of community residents.

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**Figure 1**—Central California Regional Obesity Prevention Program (CCROPP) model of change.

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**About the Authors**

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**Contributors**

L. Schwarte and S. E. Samuels supervised all aspects of the research and took primary responsibility for the conception, writing, and editing of the article. J. Capitman, M. Ruwe, and M. Boyle contributed to the conceptualization of the article and wrote and edited portions of the article. G. Flores provided substantive comments and editing to the article.

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Human Participant Protection
Institutional review board approval was obtained for the community resident focus groups from the California State University Fresno institutional review board. Approval was not sought for the other methodologies because participation in the research did not put participants at risk for harm. All responses were kept confidential.

References