Using Evidence-Based Policy, Systems, and Environmental Strategies to Increase Access to Healthy Food and Opportunities for Physical Activity Among Asian Americans, Native Hawaiians, and Pacific Islanders

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Recent initiatives have focused on the dissemination of evidence-based policy, systems, and environmental (EBPSE) strategies to reduce health disparities. Targeted, community-level efforts are needed to supplement these approaches for comparable results among Asian Americans and Native Hawaiians and Pacific Islanders (NHPIs).The STRIVE Project funded 15 Asian American and NHPI community-based organizations (CBOs) to implement culturally adapted strategies. Partners reached more than 1.4 million people at a cost of $2.04 per person. CBOs are well positioned to implement EBPSE strategies to reduce health disparities. (*Am J Public Health.* 2015;105:S455–S458. doi: 10.2105/AJPH.2015.302637)

The Centers for Disease Control and Prevention and other large funding organizations have increasingly emphasized disseminating evidence-based policy, systems, and environmental (EBPSE) improvements[1,2] as a cost-effective method of preventing chronic diseases.[3–6] However, racial and ethnic minority communities such as Asian Americans and Native Hawaiians and Pacific Islanders (NHPIs) often do not benefit from these approaches to the same extent as the broader population because of the lack of contextual information on the target community[7] and insufficient tailoring of messages and information.[8] Thus, a twin approach that couples population-wide interventions with targeted interventions in communities that experience significant health disparities is needed to achieve comparable results among Asian Americans and NHPIs.[9–11]

The Strategies to Reach and Implement the Vision of Health Equity (STRIVE) Project, 1 of 6 grantees funded under the Centers for Disease Control and Prevention's Racial and Ethnic Approaches to Community Health program,[12] distributed $3 million to 15 Asian American and NHPI community-based organizations and other local partners (hereinafter referred to as *partners*) across the United States to implement targeted and culturally adapted EBPSE strategies to increase access to healthy food and physical activity for their communities to complement ongoing population-wide interventions being implemented by health departments and other organizations. Each partner used a multisector coalition consisting of representatives from diverse areas including policy, public health, economic development, and faith-based communities, as well as findings of a needs and resource assessment using the Centers for Disease Control and Prevention's Community Health Assessment and Group Evaluation tool[13] to guide strategy selection and implementation. We describe the reach and cost-effectiveness of using this approach.

METHODS

As part of a larger mixed-methods evaluation used to collect data on the process and impact of EBPSE strategy implementation[14] partners were asked to estimate the reach of their strategy, defined as the number of Asian Americans and NHPIs and broader population exposed to their specific EBPSE strategy between February 2013 and March 2014, which serves as our proxy measure of the effectiveness of strategy implementation.

Reach is measured through a variety of sources including congregation sizes at local church implementation sites, number of Asian Americans and NHPIs in partners' local jurisdiction using census data, number of restaurant patrons, and number of people reached through media placement.

RESULTS

Information about the partners, their target populations, the EBPSE strategies they implemented, and their estimated reach are provided in Table 1. STRIVE partners reached more than 1.4 million people through their EBPSE-level strategies in 13 months according to the grant project time frame.

The STRIVE Program dispersed 15 awards, ranging between $95 000 and $320 000, to 15 partners. With a final reach estimate of 1 472 373 people, the STRIVE Program had a cost of about $2.04 per person reached.

DISCUSSION

On an accelerated timeline, STRIVE partners successfully reached more than 1.4 million people in a 13-month timeframe at a relatively low cost per person reached. Data are lacking on cost estimates of similar research, limiting conclusions about the cost-effectiveness of similar targeted population-wide approaches. Moreover, previous research has focused on the African American population.[15] Data on the effectiveness of EBPSE approaches among Asian Americans and NHPIs are limited[16,17] but suggest a mismatch[18] between the group for which the strategy was developed and validated and the Asian American and NHPI community.[19] For instance, language barriers (e.g., walking trails with signs posted only in English) and lack of cultural relevance (e.g., community gardens that do not grow vegetables favored by Asian American and NHPI communities) prevented groups such as Asian Americans[20] and NHPIs[21] from benefiting from EBPSE strategies in the same way as the broader population. Thus, targeted and culturally adapted community-level efforts are needed to supplement more broad-based approaches to achieve comparable results among Asian Americans and NHPIs.

TABLE 1—Population, Geographic Jurisdiction, Strategy, and Reach of STRIVE Partners (n = 15)

Organization	Population and Local Jurisdiction	Strategy	Persons Reached, No.
Asian Pacific Community in Action	Asian Americans in Chandler, AZ	School policy: policy change at the school district level on nutrition and healthy eating and development of community gardens in selected schools.	19 938
Asian Services In Action, Inc.	Asian Americans and NHPIs in Greater Cleveland/Cuyahoga County, OH	Physical activity: Changes were made to the current environmental plan of AsiaTown to designate green space for physical activity including walking trails and bike lanes for residents of the community. Nutrition policies: Refugee resettlement organizations incorporated nutrition into their acculturation courses to target the benefits of healthy foods and detriment of fast foods. Ethnic voluntary social groups adopted policies to have nutritional standards during community events.	80 000
Boat People SOS Alabama	Asian Americans and NHPIs in Bayou La Batre, AL, and surrounding areas	Farmer's market: Vendors provided fresh fish and shellfish at a reduced price, as well as cultural greens and herbs including red mustard, mizspoona, snap peas, Thai basil, and kale.	12 000
Boat People SOS California	Vietnamese nail salon workers in Orange County, CA	Worksite policy: Nail salon businesses adopted a policy for physical activity among employees. They also provided translated materials and cultural competency training to staff.	220 508
Center for Pan Asian Community Services, Inc.	Asian Americans in DeKalb and Gwinnett Counties, GA	Community gardens: The gardens grew vegetables and herbs that are in many Asian American recipes such as bok choy, bitter melon, edamame, and long beans.	135 832
Korean Community Services	Korean church attendees in Palisades, Park, NJ	Nutrition policies: The policy increased access to healthier food options, including brown or multigrain rice and multigrain or whole wheat bread at faith-based institutions.	92 380
Kokua Kalihi Valley Comprehensive Family Services	Asian Americans and NHPIs in Kalihi Valley, HI	Community gardens and farmer's markets: They included fruits and vegetables that are more relevant to the target populations including taro, mango, and certain greens. They also increased access to Supplemental Nutrition Assistance Program at targeted markets. Education materials were translated into Chuukese, Samoan, and Ilokano languages.	25 090
National Tongan American Society	NHPIs in Salt Lake County, UT	Joint use agreements: Schools and faith-based institutions reaching NHPIs implemented joint use agreements to increase access to free environments for physical activity. Physical activities included hula and Zumba.	13 912
New Mexico Asian Family Center	Asian American youths in Albuquerque, NM	Walking trails: Stakeholders including the Department of Health, faith-based institutions, and small businesses adopted and created a walking trail in the International District, a community heavily populated by Asian Americans. They also provided translated materials in Chinese and Vietnamese.	28 643
Orange County Asian and Pacific Islander Community Alliance	Asian American and NHPI youths in Orange County, CA	School policy: School districts adopted a policy to disseminate free and reduced-price lunch information to target Asian American and NHPI youths. They also developed a culturally adapted informational sheet to be inserted into the Get Fit tool kits disseminated by the schools and translated materials into various languages including Chinese, Filipino, and Korean.	50 000
Operation Samahan	Filipino, Native Hawaiian, Laotian, Vietnamese, and Samoan restaurant patrons in San Diego, CA	Restaurant policy: Implemented a policy in Filipino, Vietnamese, Thai, Laotian, Chamorro, and Hawaiian restaurants to change their menus to include healthier ingredients (fruits and vegetables), smaller portion options, and nutrition labeling on menus.	639 284
Restaurant Opportunities Center of New Orleans	Vietnamese restaurant workers in New Orleans, LA	Restaurant policy: Implemented a policy across Vietnamese restaurants to increase healthy food options for restaurant workers and their families.	7 538
Taulama for Tongans	Pacific Islander church attendees in San Mateo County, CA	Nutrition policy: Implemented a policy across faith-based institutions to change their menus for community events to include healthier foods that are relevant to Pacific Islanders as well as to provide smaller portions.	9 852

Continued

TABLE 1—*Continued*

UNITED SIKHS	Sikh gurdwara attendees in NJ	Nutrition policy: Gurdwaras (Sikh houses of worship) implemented policies for healthy food options at communal meals (Langar), increasing access to local farmer's markets. Physical activity policy: Incorporated physical activity information into the school curriculum.	104 700
University of Hawai'i[a]	Government employees and general population	Worksite wellness policy: Increased the number of Guam government departments that participated in a worksite wellness program aimed at full-time employees. Community gardens: Increased the number of community gardens in villages that included popular foods for Asian and Pacific Islander dishes.	35 696

Note. NHPIs = Native Hawaiians/Pacific Islanders.
[a]The University of Hawai'i Manoa has a history of working with the US Associated Pacific Islands, which includes Guam. Guam's Non-Communicable Disease Consortium implemented its STRIVE Project through the university.

Limitations

The STRIVE evaluation had several limitations, particularly around the calculation of the strategy's reach. First, limitations in disaggregated Asian American and NHPI data may have resulted in an over- or underestimation of the reported reach numbers. Second, although efforts were made to use local estimates for calculating reach, there is no guarantee that strategies directly affected every person counted by these methods. This method, however, has been used in similar projects evaluating the effectiveness of policy, systems, and environmental strategies in communities.[22–24] Finally, given the accelerated timeline, partners were not asked to directly collect information on changes in healthy eating and physical activity as a result of strategy implementation.

Conclusions

Despite these limitations, STRIVE partners were able to implement EBPSE strategies that reached a significant number of people in their local jurisdiction. Federal health prevention dollars that are solely focused on population-wide strategies to address health disparities may not be reaching racial and ethnic minority populations who are most affected by chronic diseases. As trusted community gatekeepers, Asian American and NHPI community-based organizations are well poised to implement EBPSE strategies to reduce Asian American and NHPI health disparities in a cost-effective manner. ■

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C. Trinh-Shevrin, K. Ko Chin, S. Kwon, N. Islam, and E. Tepporn conceptualized and supervised the project. S. Patel led the writing and completed the analyses. C. Rideout, P. Arista, and M. Chung assisted with the project as well as with the analyses and writing.

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Human Participant Protection

Institutional review board approval was not needed for this project because human participant research was not conducted, nor were identifiable personal data collected.

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