Photovoice is a community-based participatory research method that provides participants who traditionally have little voice in community policy decisions, with training in photography, ethics, critical dialogue, photo captioning, and policy advocacy. Photovoice has been used primarily as a needs assessment and advocacy tool and only rarely as a pre-/postintervention evaluation method. This article describes the use of Photovoice as a participatory evaluation method in the Community Health Initiative, a 6-year, multisite community-based obesity prevention initiative, sponsored by Kaiser Permanente. Fifty community participants (including six youth) from six Community Health Initiative communities used photos and captions to identify, from their perspective, the most significant accomplishments from the initiative at both baseline and follow-up. Accomplishments identified included increased access to fresh/healthy food in local neighborhoods; policy changes supporting a “healthy eating, active living” community; increased access to physical activity; changes to the built environment creating increased neighborhood walkability/safety; and leadership development.

Keywords: Photovoice; participatory evaluation; photo documentation; policy change; environmental change; obesity prevention

INTRODUCTION

Community-based participatory research, involving community members in all aspects of the research process, can be an effective way of addressing complex causes of many health problems, including obesity (Shulz, Krieger, & Galeo, 2002). Photovoice is a community-based participatory research method that provides participants who have traditionally little voice in policy decisions with training in photography, ethics, critical discussion, photo captioning, and policy advocacy. Developed by C. C. Wang and Burris (1997), Photovoice has been used across many disciplines with a variety of groups: rural village women in the Yunnan Province in China (Wu et al., 1995), youth (Strack, Magill, & McDonagh, 2004), and adults addressing various topics, such as homelessness (C. C. Wang, Cash, & Powers, 2000), women’s health (C. C. Wang, 1999), mothers and grandmothers (Killion & Wang, 2000), maternal and child health (C. C. Wang & Pies, 2004), mothers with learning difficulties (Booth & Booth, 2003), indigent persons living with HIV (Rhodes, 2006), and Latino adolescents and the influence of immigration (Streng et al., 2004).

Photovoice has traditionally been applied as a method for conducting needs assessments (Findholt, Michael, & Davis, 2011; Hennessy et al., 2010; McAllister, Wilson, Green, & Baldwin, 2005; Schwartz, Sable, Dannerbeck, & Campbell, 2007; C. C. Wang et al., 2000),

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fostering community building and empowerment (Carlson, Engebretson, & Chamberlain, 2006; Wilson et al., 2007), and evaluating the impact of the Photovoice process itself (Foster-Fishman, Nowell, & Deacon, 2005; Jurkowski & Paul-Ward, 2007; Side, 2005). However, in our review of the literature, we did not find examples of Photovoice used as a pre-/postintervention evaluation method. This article describes a Photovoice participatory evaluation project undertaken as part of a large-scale evaluation of a community-based obesity prevention effort sponsored by Kaiser Permanente (KP).

▶ METHOD

Program Description

The KP Community Health Initiative (CHI; http://info.kp.org/communitybenefit/html/our_work/global/our_work_3_b_photovoice.html) is an organization-wide strategy for achieving a significant and measurable impact on the health of communities served by KP. The thematic focus is on “Healthy Eating, Active Living” (HEAL), promoting improvements in nutrition and physical activity and reductions in overweight and obesity. KP’s Framework for Community Health Initiatives identifies several core design principles that mature CHIs should manifest. These include a place-based focus, with the target population larger than a few blocks and smaller than a county (i.e., a neighborhood); an emphasis on change at multiple levels, particularly environmental and policy change; collaboration that involves multiple sectors in addition to health care; a focus on racial and ethnic health disparities; and community engagement and community ownership (Kaiser Foundation Health Plans, 2004). KP is the principal sponsor of place-based initiatives that feature all of these elements in more than 40 communities across the nation.

An evaluation of the CHI is being conducted that uses a logic model approach to assessing impact that combines tracking the implementation of environmental and policy changes, doing more in-depth evaluations of specific HEAL strategies, and tracking population-level measures of physical activity, nutrition, and overweight. More details about the initiative and overall evaluation can be found elsewhere (Cheadle et al., 2010; Cheadle et al., in press).

Study Setting

The Photovoice projects described here were carried out in six CHI communities, which included three communities in Denver, Colorado (Park Hill, Denver Urban Gardens, and Commerce City), and three communities in Northern California (South Santa Rosa, West Modesto, and West County in Richmond). The total number of residents in these communities ranged from 12,500 to 52,900. All six communities are ethnically diverse, predominately Latino (17% to 67%), African American (5% to 32%), or White (13% to 46%). The median household income ranged from $27,201 to $59,926.

Photovoice Methods

Photovoice was used as a retrospective initiative evaluation method; with participants identifying the key changes that they felt had occurred in their communities as a result of the initiative. Photovoice projects were completed in each community at two time points: baseline (before CHI) and follow-up (after CHI). The baseline Photovoice project largely followed the methodology outlined by C. C. Wang and Burris (1997) and helped capture what the community wanted to see changed in their food/activity environment before the CHI began (Kramer et al., 2010). The follow-up (evaluation) Photovoice project modified the original method by changing the focus of the second set of photographs and critical dialogue to the changes that had taken place in each community as a result of CHI.

The follow-up Photovoice methods were developed by a trained facilitator and professional photographer, experienced with the Photovoice methodology, who wrote the training curriculum for the follow-up Photovoice sessions. The curriculum included a review of the baseline photographs/captions, a discussion of the baseline results, a review of the Photovoice method (e.g., the power/ethics of documentary photography, picture-taking tips, and captioning photos), informed consent, policy advocacy, and a practice module applying new evaluation-oriented questions (described on the next page) to follow-up photographs. When available, baseline and follow-up photos were contrasted, showing the pre-intervention and postintervention changes.

The Photovoice coordinators from each of the six baseline Photovoice sessions scheduled follow-up Photovoice sessions with as many of the same community residents from the baseline project as possible (this varied by community but at least 50% of baseline participants also participated in follow-up) and also invited additional residents familiar with KP’s CHI project. The follow-up sessions were limited to two sessions to minimize attrition. An optional third session focused on advocacy for policy change was outlined for participants if they chose to continue meeting.
The KP evaluation team who assisted with the baseline Photovoice sessions conducted the follow-up sessions. The first session reviewed the Photovoice method and described the focus of the follow-up sessions as documenting community changes instead of describing barriers to healthy eating/active living. The second session took place after people took their photographs and focused on discussing and captioning their photographs. In the baseline Photovoice project, participants were asked to take photos of the changes desired in their food/activity environment; in the follow-up Photovoice project, participants were asked to take pictures of the changes that took place in their community’s food and activity environment that resulted from the KP CHI. Disposable cameras with color film with 24 exposures were used for the project because of their low cost and ease of use. Photographs were developed and organized by the KP evaluation staff.

After the photographs were developed, participants were given their 24 photographs to review individually. They were then asked to choose their top 5 most meaningful photographs as they related to changes brought about by CHI and write captions for 2 or 3 of these photographs. To focus the participants’ captions and critical dialogue on the changes that took place in each community from before to after the CHI, the original “SHOWeD” questions (What do we See here? What is really Happening here? How does this relate to Our lives? Why does this situation, concern, or strength exist? and What can we Do about it?) were rewritten as follows: “What has changed in your community as a result of the CHI?” “Why are these changes important to your community?” and “What do we still need to do to create a HEAL community?” The last question fostered community identification of ongoing opportunities for improving health.

After the photographs were captioned, participants were asked to share their photos/captions in a small group dialogue session, after which they shared their captioned photos with the larger group and these accomplishments were recorded on a visible whiteboard. In the large group session, participants were asked if there were any missing accomplishments that should be added to the list of top five community accomplishments. From this more comprehensive list, the group then selected the overall “top five accomplishments based on the CHI” by discussing which of the photos/captions best represented the community’s most important accomplishments. If there was any disagreement about the top five accomplishments, a group vote was held. Although all the accomplishments were recorded, the “top five” concept was chosen to encourage participants to come to some consensus about the most significant outcomes in their communities from their perspective.

**RESULTS**

A total of more than 50 people (including six youth) participated in the Photovoice evaluation sessions in the six communities. At least half of baseline participants also participated in the follow-up sessions. Several themes emerged that were common across all six communities: increased access to fresh/healthy food in local neighborhoods and schools; policy changes supporting a healthy eating/active living community; increased access to physical activity, including changes to the built environment creating increased neighborhood walkability/safety; and leadership development (see Table 1). The following are examples of specific community changes in these areas identified by Photovoice participants.

All six participating communities identified increased access to healthy, fresh foods as a significant CHI accomplishment. For example, at baseline in Richmond, California, a Photovoice picture noted a lack of access to healthy, fresh foods in their community. In the Richmond follow-up session, they identified several examples of increased access to healthy food through neighborhood gardens, farm stands, produce boxes, and converting corner stores into WIC (women, infants and children) vendors (Figure 1). Fifteen youth participated in one of the Photovoice projects in Denver, Colorado. At baseline, their Photovoice pictures advocated for improved food offerings in their neighborhood, and at follow-up, they captured the newly created youth farmer’s markets, where youth sell fresh produce harvested from their community garden. One photographer noted that the youth farmer’s markets “created the best access to affordable healthy foods that the community has ever had.”

Many of the CHI communities noted successful policy changes that supported increased healthy eating and active living as a result of the KP CHI. For example, Commerce City successfully advocated for a health element addition to their comprehensive city plan. This plan was adopted in 2010. It includes several policies to promote a safe environment for walking and biking and is a model for other cities interested in supporting active living. Other examples of successful policy change using Photovoice pictures include the following: Santa Rosa residents helped pass a city ordinance that banned mobile food vendors within 500 feet of all schools in unincorporated areas of the county, making it difficult for students to buy unhealthy food at school;
**TABLE 1**

“Greatest Accomplishments” in Each Photovoice Community From the Perspective of the Photovoice Participants

<table>
<thead>
<tr>
<th>Santa Rosa, California</th>
<th>West Modesto, California</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increased access to healthy food (gardens and healthy food in stores)</td>
<td>• Increased access to healthy food (farmers’ markets and corner stores)</td>
</tr>
<tr>
<td>• Increased access to physical activity (funds to improve the built environment around schools; new bike paths and murals)</td>
<td>• Increased access to physical activity in the neighborhood and schools (new walking trail, walking school buses, and after-school physical activities)</td>
</tr>
<tr>
<td>• Offered leadership development opportunities for youth and adults</td>
<td>• Created youth development opportunities to grow and sell fresh produce in the community</td>
</tr>
<tr>
<td>• Established body mass index screening and referral to on-site classes in community clinics</td>
<td>• Increased healthy messaging throughout the community</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Richmond, California</th>
<th>Park Hill (Denver, Colorado)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increased access to healthy food (neighborhood gardens, farm stands, produce boxes, and WIC (women, infants and children) corner stores)</td>
<td>• Remodeled Axum Park with new walking paths and playground equipment</td>
</tr>
<tr>
<td>• Successfully advocated for adding health elements in city comprehensive plans</td>
<td>• Promoted healthy food retail</td>
</tr>
<tr>
<td>• Increased access to physical activity (before- and after-school activities, parent walking groups)</td>
<td>• Promoted walking and biking through Safe Routes to School and street connectivity</td>
</tr>
<tr>
<td>• Improved school nutrition (implemented California nutrition standards and offered Universal Breakfast)</td>
<td>• Increased physical activity by creating the nonprofit Bike Depot, which matches unused bikes with bikeless riders, providing transportation and exercise for residents</td>
</tr>
<tr>
<td>• Improved neighborhood safety/violence prevention (safe places to play, demolition of a liquor store)</td>
<td>• Improved infrastructure by influencing redevelopment plans in Holly Square and open space in senior housing</td>
</tr>
<tr>
<td>• Sustained staffing for breast-feeding counseling in community clinics</td>
<td>• Overarching theme: changed the social norms around physical activity and nutrition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commerce City, Colorado</th>
<th>Denver Urban Gardens (Denver, Colorado)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved physical infrastructure contributing to safer walking and biking</td>
<td>• Increased access to healthy food (neighborhood and school gardens, farmer’s markets)</td>
</tr>
<tr>
<td>• Added a health element to the comprehensive city plan</td>
<td>• Provided nutrition education to community members</td>
</tr>
<tr>
<td>• Promoted an increase in physical activity through the recreation center and community events</td>
<td>• Provided leadership development to a neighborhood coalition that promoted linking community health and nutrition resources</td>
</tr>
<tr>
<td>• Increased access to healthy foods in schools and the community</td>
<td>• Offered support and assistance to community groups to start gardens</td>
</tr>
<tr>
<td>• Created more appealing destinations through redevelopment to increase physical activity</td>
<td>• Worked with the city and country of Denver to change zoning codes for urban agriculture, stronger local food systems, and increased access to healthy, fresh foods</td>
</tr>
<tr>
<td>• Overarching theme: increased community cohesion</td>
<td>• Developed community building and neighborhood safety through inclusion of diverse residents in community gardens and produce markets</td>
</tr>
</tbody>
</table>

Denver Urban Gardens worked with the city and county of Denver to change zoning codes, which identified community gardens as a “use by right,” further increasing access to healthy foods; and Richmond advocated successfully for policies that resulted in adding health elements in their city comprehensive plan and nutrition standards in schools.

The third important outcome of the CHI noted by follow-up participants was increased access to physical activity. The Park Hill neighborhood in Denver,
Several follow-up Photovoice participants noted that their communities now have plans to change, or have changed, their built environment to promote physical activity or increase community safety/walkability. For example, at baseline in Santa Rosa, California, Photovoice pictures showed a lack of safe sidewalks and bike lanes, which resulted in accidents and prevented walking and biking. At follow-up, Photovoice participants discussed their efforts to increase community safety through a Safe Routes to School Community Partnership, which awarded the city of Santa Rosa a large grant to install a safer sidewalk, crossing signs, and a crosswalk next to a local elementary school (Figure 3). Park Hill in Denver, Colorado, improved their built environment from baseline to follow-up by remodeling Axum Park with new walking paths, playground equipment, and other amenities. Several participants said that more people use the park now, with its increased features and safety. Commerce City, Colorado, created more
appealing destinations through redevelopment to increase physical activity. Richmond, California, used their photos to change the built environment by successfully advocating for the demolition of a liquor store that children had to pass on their way to school. The Denver Urban Gardens participants collaborated to increase residents’ sense of community safety and access to healthy food options by including diverse residents in community gardens and produce markets. West Modesto, California, created plans to transform a trash-littered path connecting schools with parks into a new safer walking trail.

FIGURE 3 (A) Baseline Intervention photo: “Because of a lack of sidewalks and an adequate bike lane, the residents have to put their own signs out for the safety of their families and their children walk in the streets with the risk of suffering an accident.” (B) Follow-Up Intervention photo: “Because of the efforts of a Safe Routes to School Community Partnership, the city of Santa Rosa was awarded a $600,000 grant to, in part, install a sidewalk, crosswalk, and crossing signs on this street next to Kawana Elementary. These improvements will make it safer for students and their families to walk and bike to school. More funding is needed to help cities and the county to continue making infrastructure improvements near schools.”
Finally, all six communities identified leadership development and community collaboration as a critical outcome of the KP CHI in the follow-up Photovoice session. Through leadership training in South Santa Rosa, members of Grupo ACTIVO are actively participating in the master planning of several city and regional parks. West Modesto, California, created youth development opportunities to grow and sell fresh produce in their community. The Denver Urban Gardens project provided leadership development to a neighborhood coalition that promoted linking community health and nutrition resources. Richmond, California, noted that the KP CHI supported residents in developing neighborhood safety and violence prevention activities. A strong coalition of partners was formed in Park Hill as a result of the CHI that led to the creation of the Bike Depot, a nonprofit providing free bikes and safety training to residents. In Commerce City, new partnerships and resident engagement resulted in adding health elements to the city’s comprehensive plan.

**DISCUSSION**

We described the process of implementing Photovoice as a participatory evaluation method in six communities participating in the KP CHI. Changes to the food and activity environment that were identified across all the communities included increased access to fresh/healthy food in local neighborhoods, policy changes supporting a HEAL community, increased access to physical activity, changes to the built environment creating increased neighborhood walkability/safety, and leadership development.

There were several ways in which the KP CHI Photovoice evaluation modified the original Photovoice methodology for use as an evaluation tool. Most obviously, rather than only using Photovoice at the beginning of the initiative as a needs assessment tool, the Photovoice project was also conducted at the end of the initiative—focusing on the impact in the community from the participant’s perspective. In addition, new evaluation questions were written to replace the SHOWDE questions to help elicit what community changes were because of the KP CHI from the community’s perspective. Through questions focused on capturing impact, rather than on barriers to health, participants were able to identify the community changes resulting from CHI. The Photovoice results can be used to confirm and expand on the findings from the more traditional parts of the evaluation, highlighting the policy and environmental changes of particular importance to the communities themselves.

Finally, we should note that policy makers were included as participants in the Photovoice evaluation sessions, which is not typically the case. Policy makers were included for two reasons: (a) the participants who were also policy makers played a key role in adding HEAL policy changes into community policy agendas (Kramer et al., 2010) and their presence could help capture the impact of those changes more accurately; and (b) by interacting with policy makers, community members could become more at ease engaging in policy advocacy and working with policy makers in the future. This increased capacity to work directly with policy makers will support communities in continuing their advocacy work in the policy arena.

**Lessons Learned**

Several lessons were learned in implementing the Photovoice evaluation project that may be useful for other communities who wish to apply Photovoice as a baseline/follow-up evaluation method.

*Budget sufficient resources.* Photovoice can be time-consuming and expensive—especially at two (or more) time points and with many participants (10-20 or more). Therefore, it is essential to allow adequate time and resources to plan and complete a baseline/follow-up evaluation project. It took several months, and sometimes longer, to complete each community’s baseline and follow-up Photovoice project and more than 5 years to gather all of the Photovoice evaluation data (given the 5-year CHI time frame). Photovoice could also be used as a midpoint evaluation effort that could be used both for capturing impact and strengthening the intervention.

*Develop a comprehensive training curriculum.* To ensure a consistent Photovoice evaluation process across all six communities, it was critical to develop a comprehensive training curriculum highlighting the goals and steps of the baseline and follow-up Photovoice projects. This curriculum was then used to train the Photovoice coordinators and participants. In addition, by developing a concrete curriculum, we were able to leave the details of the curriculum and technical assistance tools with each community to build future Photovoice community capacity.

*Use additional training sessions for youth participants.* When working with youth, it was critical to plan additional training sessions with developmentally appropriate curriculum; this process took significantly
more time and coordination than the adult sessions and may have caused more attrition. However, although many policy changes proved successful in the youth projects, sometimes they were more challenging, which has been observed in other youth Photovoice projects (Strack et al., 2004). To better accommodate our youth participants we developed a youth curriculum and supporting documents that were tailored to those participants.

*Increase the number of trainers for the caption-writing process.* We found it vital to have extra trainers during the caption-writing process because of participant language barriers and literacy levels. It was crucial not to succumb to the temptation of putting words in people's mouths in order to have captions read a particular way. Instead, we supported participants in communicating in their own words, while still being clear to an outside audience, by asking clarifying questions. For example, rather than suggesting a participant write a particular caption, we chose to ask clarifying questions such as “what were you trying to show with this picture?” In addition, when possible, we included trainers who were fluent in the participants’ primary language.

**Limitations**

There are several limitations to note. First, the results of any Photovoice project necessarily reflect the viewpoints of a given group of volunteer participants and may not be representative of the entire community in the same way a quantitative evaluation may be. In this case, there were some differences in the groups of participants at the baseline and follow-up Photovoice sessions, which made it impossible to view the evaluation as a strict “pre/post” design—that is, asking the same participants to compare their impressions at the beginning of the initiative with those at the end.

A second limitation is that it is difficult to attribute changes in policy to any one intervention; thus, it is not possible to say with certainty the degree to which the KP CHI was responsible for the policy changes described in this article. However, our evaluation methods for tracking progress in each community involve frequent progress reporting and key informant interviews with multiple stakeholders (Cheadle et al., in press), so we have a reasonably rich picture of the role Photovoice plays in the policy change process in each community.

Finally, by limiting each community to their top five individual photographs and to the top five accomplishments in each community overall, we may have missed accomplishments that were significant to some community members.

Despite these limitations, our findings suggest that the Photovoice evaluation process can provide a way of capturing the views of community residents regarding the most significant changes in their communities resulting from an initiative such as CHI. These community perspectives also provide a valuable supplement to results derived from more traditional evaluation methods.

**REFERENCES**


