The `Ohana Day Project: A Community Approach to Increasing Cancer Screening

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Abstract

Background

Native Hawaiians have higher cancer mortality rates and lower cancer screening rates compared with non-Hawaiians in Hawaii. People living in rural areas have particularly limited options for cancer services, especially for services that are culturally attractive and convenient.

Context

`Ohana Day, offered in a small, rural, and predominantly Hawaiian community, was designed to attract underserved Hawaiians to cancer screening.

Methods

The year-long project involved a 1-day hoʻolauleʻa (community celebration) for families that featured 30-minute visits with a same-sex Hawaiian physician (for adults), culturally relevant cancer education and brochures, Hawaiian music, and games for children. Recruitment and follow-up for screening and treatment were offered. Principles of community-based participatory research, Hawaiian values, and Kreuter’s strategies guided the design of the event.

Consequences

Of the 73 participants, 10 had abnormal screening results, and all received follow-up screening, treatment, or both within 3 months. Six months after the event, the number of men current with prostate cancer and colorectal cancer screening and the number of women current with clinical breast examination and colorectal cancer screening increased significantly. In addition, the number of participants affiliated with the community's Native Hawaiian health care system and the number with health insurance increased significantly. Participant evaluations showed high overall satisfaction with the `Ohana Day program.

Interpretation

Previous studies have noted the barriers to increasing cancer screening among underserved minorities. Culture- and community-based strategies appear to be successful at overcoming these barriers.

Background

Native Hawaiians are the indigenous people of Hawaii, comprising 20% of the state's population. Other ethnic groups in the state include whites (25%), Japanese (25%), Filipinos (15%), Chinese (5%), and others (1). Compared with whites and Japanese (the state's healthiest and most longevous group), Hawaiians have the highest cancer mortality rates, in part because they often are diagnosed at a late stage after cancer has spread and treatment options are limited (2). For example, 35% of Hawaiian women with breast cancer are diagnosed at a late stage, compared with 29% of whites and 22% of Japanese. Among women with cervical cancer, 41% of Hawaiian women are diagnosed at a late stage, compared with 34% of whites and 30% of Japanese. Among both men and women, 57% of Native Hawaiians with colorectal cancer are diagnosed at a late stage, compared with 50% of whites and 53% of Japanese, as are 33% of Native Hawaiians with melanoma, compared with 9% of whites and 7% of Japanese (2).
Native Hawaiians also have lower rates of cancer screening than other groups. For example, in 2001, only 36% of Hawaiians aged 50 and older had ever had a fecal occult blood test (FOBT), compared with 55% of whites and 55% of Japanese, and only 34% ever had a sigmoidoscopy or colonoscopy, compared with 53% of whites and 56% of Japanese. Only 47% of Hawaiian men aged 40 years and older have ever had a prostate-specific antigen (PSA) test, compared with 56% of white men and 50% Japanese men. Among women, 89% of Hawaiians aged 40 and older have ever had a mammogram compared with 88% of whites and 95% of Japanese (2,3). Hawaiians living in rural areas, especially the islands of Molokai, Lanai, and Niihau, have limited access to cancer screening: none of these islands have capability to provide colonoscopy, and neither Lanai or Niihau have mammography facilities.

Given the low screening rates and late stage of diagnosis, it appears that mainstream cancer screening programs are unsuccessful at recruiting Hawaiians. Other investigators suggest this may be because of the cultural inappropriateness of these programs (4). In contrast, a study conducted in the 1990s found that peer-led outreach groups incorporating traditional Hawaiian values of kōkua (proactive helping), aloha (compassion), and pili (bonding as family) and traditional talk-story communications (which emphasize personal connections, respect, active listening, and empathy) increased breast and cervical cancer screening among Hawaiian women (5). The sidebar provides a glossary of Hawaiian terms. Other Hawaiian values relevant to community-based programs are `ohana (blood relation and extended family), kuleana (acceptance of responsibility and outcomes), and laulima (working together toward a common good) (6,7).

Culturally appealing health education materials contribute to successful community-based programs. Kreuter et al recommended five strategies for tailoring materials to minority groups, including the following: 1) peripheral strategies (making materials attractive by including pictures of healthy Hawaiians); 2) evidential strategies (presenting facts about cancer’s impact on Hawaiians); 3) linguistic strategies (using Hawaiian words and phrases); 4) constituent-involving strategies (drawing directly on the experience of Hawaiians affected by cancer), and 5) sociocultural strategies (recognizing and working from Hawaiian values, beliefs, behaviors, and context) (8).

In this project, we tested `Ohana (family) Day, a community approach to increase cancer screening, especially among the underserved, that incorporated Hawaiian cultural styles and values. Funding from the Oregon Health & Science University’s Native Researchers’ Cancer Control Training Program was awarded to a junior researcher of Native Hawaiian ancestry affiliated with `Imi Hale — Native Hawaiian Cancer Network, one of the 18 special population networks supported through the National Cancer Institute’s (NCI’s) Center to Reduce Cancer Health Disparities (9). This paper describes the program, evaluation methods, and lessons learned about the feasibility and effectiveness of this approach.

Context

The first `Ohana Day was held on Molokai, a small island south of Oahu (where 72% of Hawaii’s population of 1,200,000 resides). About 80% of Molokai’s 7404 residents are Hawaiian. The small island has a relatively low socioeconomic status, with a 12% unemployment rate (compared with 3% to 6% on other islands) (1). During 2000 through 2002, 122 cancer cases were reported on Molokai (Kevin Cassel, Cancer Information Services [CIS], oral communication, January 2005), where each new diagnosis of cancer often has a widespread impact on the members of this close-knit community.

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This community was selected because of Molokai’s high proportion of medically underserved Hawaiians, the lack of medical resources on the island, and its request for help with cancer screening. Molokai General Hospital, the island’s only hospital, is a 30-bed facility providing acute and long-term care and low-risk obstetrical inpatient services. Four family practitioners live on Molokai, an obstetrician gynecologist is flown in monthly to supervise the midwives and treat patients with complex cases, and other physician specialists visit periodically. Mammography, sigmoidoscopy, and laboratory services are available on the island; colonoscopy is not available.

Many of the island’s preventive health services are offered through a partnership between Molokai General Hospital and Nā Pu‘uawai, a federally funded Native Hawaiian Health Care System (NHHCS). Nā Pu‘uawai is one of five NHHCSs in Hawaii that provide outreach, access, and primary and secondary prevention services in predominantly Hawaiian communities. About 2000 Molokai residents are registered with Nā Pu‘uawai, which is staffed by a part-time physician, a registered nurse, four community health workers (CHWs), and a clinical psychologist who visits weekly from Oahu. It has been the practice of Nā Pu‘uawai and Molokai General Hospital to offer an annual health fair and, at least annually, to have physician specialists from Honolulu fly in to spend a full day seeing patients. However, ‘Ohana Day was the first event to use a festival to draw whole families (rather than individuals only), to feature a large number of Native Hawaiian physicians, and to offer a comprehensive array of primary and secondary cancer screening services.

Because ‘Ohana Day was a research study, we also needed to consider the general distrust of research expressed by many Native Hawaiians following their experience with “hit-and-run” investigations; that is, projects in which researchers extracted data from the community but left no programs or solutions in place (10). Thus, all ‘Imi Hale projects employ community-based participatory research (CBPR) methods, which engage community members in planning, transfer skills, and result in tangible benefits for communities (9-11).

Methods

‘Ohana Day, held in October 2003, included the following components: 1) a 1-day `ohālaule‘a (community celebration and sharing) to which whole families were invited; 2) personalized recruitment by CHWs and the ‘Imi Hale researcher; 3) 30-minute, one-on-one, talk-story style screening and education visits with a same-sex Hawaiian kauka (physician); 4) culturally relevant cancer education brochures; and 5) follow-up for abnormal findings. Principles of CBPR (10,11), Kreuter’s strategies for targeting messages (8), and key Hawaiian cultural values guided the design of this event to address team-identified barriers (Table 1).

Following principles of CBPR, all aspects of ‘Ohana Day, from its development through implementation and dissemination of findings, were undertaken by the ‘Ohana Day team, which included the junior investigator from ‘Imi Hale and two Nā Pu‘uawai CHWs, with assistance from the ‘Imi Hale program and research directors and several Hawaiian interns. Planning began 6 months before the event, and follow-up activities took an additional 6 months, making this a 1-year project. Decisions about ‘Ohana Day were made by the team at weekly meetings (either in person or by teleconference). These actions helped to ensure that Nā Pu‘uawai felt ownership in the program and could institutionalize it (10,11). The transfer of skills was bidirectional: Nā Pu‘uawai staff learned more about research and cancer resources that could be applied to Molokai, and ‘Imi Hale interns learned about community outreach and mobilization strategies from Nā Pu‘uawai staff.

Recruitment and registration

An early decision of the research team was to promote ‘Ohana Day through Nā Pu‘uawai’s existing weekly outreach health screenings and through banners and fliers. During the five weekends preceding ‘Ohana Day, team members from Honolulu assisted team members from Molokai with outreach events held in front of Molokai’s major grocery store. To apply the concepts of pili, kōkua, and laulima, the ‘Ohana Day team members, who were known for their practice of Hawaiian cultural values and manners, took time to establish pili with community members before suggesting event registration. ‘Ohana Day team members assisted in providing the blood glucose and body fat testing usually offered at outreach events and communicated with participants using talk-story interactions to discover and reinforce personal connections. In this way, Honolulu team members could demonstrate helpfulness and respect for Hawaiian ways and Molokai people, thus gaining credibility.
After the 'Ohana Day team established trust with participants, it promoted the event according to the Hawaiian concept of 'ohana, inviting participants to bring whole families, including children. Throughout a talk-story session, the importance of cancer screening, especially for Hawaiians because of their high cancer incidence and mortality rates, was emphasized. 'Ohana Day team members stressed the kuleana of individual Hawaiians to stay healthy for the family and the kuleana of family members to take care of each other. The opportunity to spend 30 minutes with a Hawaiian kauka (physician) was emphasized, as well as the ho'olaule'a (celebratory) nature of the event.

Team members collaboratively devised the registration protocol, and practice sessions were conducted to assure protocol fidelity. The protocol began when a community member decided to attend the event (a decision that may have taken several weeks); the team then assisted him or her through a 30-minute registration process, which included obtaining consent and collecting baseline data on demographic information, Nā Pu‘uwai membership, insurance status, and screening practices. Participants aged 50 years and older were provided an FOBT kit to complete before the event, and men aged 40 years and older were given laboratory requisitions for PSA testing, both of which were recorded as having been distributed in the baseline questionnaire. This allowed the team to track the participants who would need to discuss results with a kauka at the event. Registrants who were not Nā Pu‘uwai clients were encouraged to sign up and avail themselves of all Nā Pu‘uwai services, including help with accessing health insurance providers. We assigned a general timeslot in which to see a physician for each registrant so that we could allocate visits evenly during the 1-day event and minimize participant wait time.

Through the recruitment efforts, we talked to 65 individuals, 62 of whom registered for ‘Ohana Day. We anticipated that some of those recruited would not attend. Because we invited preregistrants to bring other family members, we expected new recruits on the day of the event.

Brochure development

In priority-setting focus groups conducted in 2000 by 'Imi Hale, Native Hawaiians reported that available cancer brochures were not relevant to them because they did not feature Hawaiian faces. Thus, since 2000, 'Imi Hale has undertaken the development of cancer brochures for Native Hawaiians with content from NCI and American Cancer Society Web sites, message and format recommendations from key informants and focus groups, and consumer pretesting. The following materials were made available at Ohana Day: 1) a five-booklet series on breast cancer (12), 2) a colorectal cancer brochure (13), 4) a smoking cessation brochure (9), and 5) draft versions of brochures on oral, prostate, testicular, cervical, and skin cancers (14). In line with Kreuter's strategies (8), 'Imi Hale brochures feature healthy Hawaiian faces, acknowledge Hawaiian values, and include testimonials from Hawaiian peers, health promotion messages from Hawaiian physicians, and information about the impact of cancer on Hawaiians (Table 1).

Event day

As with all aspects of 'Ohana Day, team members collaboratively designed protocol related to the day of the event, and volunteers (including other staff and kauka) were trained the day before. Participants signed in, and those who had not preregistered spent their first 30-minutes being assisted with the consent form and baseline questionnaire. Participants were then moved through a series of stations, starting with Cancer 101, a basic cancer education session developed in collaboration with Hawaii's Cancer Information Service (CIS) and presented by a kauka who emphasized the importance of early cancer detection and treatment for Hawaiians. Adults then met one-on-one with a same-sex kauka for 30 minutes for screening and education. The 15 kauka that volunteered on event day were members of the 'Ahahui O Nā Kauka (Association of Native Hawaiian Physicians). They arrived on the island the previous evening, allowing time to become oriented to the event and to provide a free continuing medical education workshop on cancer among Native Hawaiians. The project paid for travel and on-island accommodations for the kauka, and the kauka donated their time to the project. During their stay on Molokai, the kauka were seen in casual clothing and in friendly interactions to help participants feel comfortable.

From female kauka, women received a clinical breast examination, instruction in breast self-examination, and education and screening for oral and skin cancers. From male kauka, men received education and screening for skin, oral, prostate, and testicular cancers. Although the
U.S. Preventive Services Task Force does not recommend routine screening for oral (15), skin, prostate, or testicular cancers, we offered the examinations at `Ohana Day because they allowed participants to spend more time, often more than 30 minutes, with kauka, increase their symptom-detection knowledge, and increase their comfort with talking about cancer. Additional health education stations focused on site-specific cancers and lifestyle behaviors, and included a station staffed by a CIS member devoted to skin cancer education and at which sunscreen samples were distributed. An Ask-a-Kauka station allowed participants to ask a kauka any medical questions. Education and screening concluded with a personalized exit interview with a kauka who emphasized kuleana in caring for oneself and others and summarized recommendations for follow up, future screening (including mammograms, colonoscopies, and Papanicolaou tests [Pap smears]), and lifestyle changes (such as smoking cessation, improved diet, and more exercise).

Participants were served a healthy Hawaiian lunch, and music was performed by popular local musicians. Children attending the event participated in Hawaiian games, such as `ulu maika (Hawaiian lawn bowling), and education sessions on healthy eating, exercising, using sunscreen, and not smoking. Finally, adult participants completed a self-administered survey (at the fifth-grade reading level) with an item on satisfaction scored on a 5-point Likert-type scale and four open-ended items on what participants learned, liked best, would recommend to improve the event, and wanted to learn about in future programs.

Follow-up activities

As defined in the team-developed protocol for follow up, within a month of the event, participants received letters explaining their screening results, reiterating recommendations for follow up on abnormal findings, and recommending screenings not provided at the event. Assistance with obtaining insurance, scheduling appointments, and transportation also was offered in the letter. Up to 6 months thereafter, two members of the Nā Pu`uwai staff—a male staff member for male participants and a female staff member for female participants—made weekly phone calls to participants to encourage compliance with recommended screening and diagnostic tests.

Statistical methods

SPSS (SPSS Inc, Chicago, Ill) was used to manage and analyze data. The two-tailed exact test version of McNemar’s test was used to determine the significance of changes in measures of health care status from event registration to 6 months after the event. The measures included whether participants were affiliated with Nā Pu`uwai, had health insurance, had seen a physician in the past 5 years, and were current with cancer screening examinations.

Consequences

On the day of the event, 73 adults from 41 families were screened, including 63 Native Hawaiians, eight Filipinos, and two whites. The 73 participants included 42 who had preregistered. Of the 20 who preregistered but did not attend, we later learned that 11 attended funerals of two community members who had recently died and nine attended a community youth baseball game. Of the 31 who registered on event day, five were men who accompanied their wives to the event and were persuaded to participate while waiting for their wives, 14 attended with family members who had preregistered, and 12 had learned of the event through friends and neighbors.

Table 2 compares measures of health care status of participants before and after the event. Based on registration data for the 73 adult participants, 23 (32%) were not Nā Pu`uwai clients, 11 (15%) were uninsured, and five (7%) had not seen a physician in 5 or more years. One 55-year-old man reported never having had a physical examination. Only 39% of the men aged 50 and older were current with colorectal cancer screening (either FOBT, sigmoidoscopy, or colonoscopy), and 39% of men aged 40 and older were current with prostate cancer screening. For women, only 36% of those aged 50 and older were current with colorectal cancer screening. About one third of women aged 40 and older were not current with breast cancer screening, including 13 women who had never had a clinical breast examination or mammogram.

Significant improvements were found in screening compliance (whether received at the event or in the following 6 months) and insurance coverage 6 months after the event. For example, at 6-month follow up, 76% of female participants aged 50 years or older were current with colorectal
cancer screening, 84% aged 40 years or older with mammogram, and 100% aged 40 years or older with clinical breast examination screening. For men, 97% aged 40 years or older were current with prostate cancer screening, and 75% aged 50 years or older were current with colorectal cancer screening. All 10 participants with abnormal findings (one colorectal, two breast, two prostate, and five skin) received follow-up screening, treatment, or both within 3 months of the event. All 23 participants who were not previous Nā Pu‘uwai clients became clients, and all 11 without health insurance received assistance obtaining health insurance. Because insurance enrollment is a time-consuming process, free follow up was obtained for five uninsured participants who needed immediate attention for abnormal findings. Since the end of the project, 71 of 73 participants and their families have continued to seek assistance from Nā Pu‘uwai with cancer screenings and other health issues, including hypertension and diabetes control (Valerie Starkey, unpublished data, November 2005).

In evaluating `Ohana Day, 71 (93%) participants gave it the highest satisfaction rating on a 5-point scale. Best liked were education, including the brochures targeting Native Hawaiians (n = 26), everything (n = 17), one-on-one visits with the kauka (n = 16), and inclusion of family (n = 6). Participants were impressed with the helpfulness and caring of the kauka and the CHWs. One participant commented, “If they care about my health, I should too.” When asked what should be changed, 25 participants said “nothing,” and three said, “less waiting time to see the doctor.” Participants wanted to learn more about such topics as diabetes, obesity, cardiovascular disease, psychology, and asthma.

Interpretation

As noted in previous studies, barriers to increasing cancer screening among racial and ethnic minority populations include limited cancer screening knowledge, limited accessibility of health services (especially culturally tailored services), and lack of clinician recommendations (4,5,11,16,17). `Ohana Day employed culture- and community-based strategies to address these barriers, and evaluation data suggest that `Ohana Day appealed to Hawaiians on Molokai and was effective at increasing cancer screening rates and bringing people without insurance, a medical point of contact, or both into the health care system.

A key element of success was `Ohana Day’s fit with the community, which was ensured by joint planning and implementation by `Imi Hale and Nā Pu‘uwai as equal partners, in contrast to many projects, which are designed by outsiders and modified through community involvement. Other elements of success were the time devoted to personalize recruitment, event day, and follow-up and the demonstration of caring by kauka and CHWs. These elements helped reduce the chance of participants dropping out during the year. The elements also helped establish and enhance relationships among community members and health providers, which proved necessary for changing health care use patterns among the underserved. The power of trust building also was reflected in the fact that 26 individuals registered for screening on event day, citing the recommendation of a family member or friend.

Also critical was the cultural targeting of Cancer 101 and brochures on cancer screening; `Imi Hale continues to develop and disseminate cancer-related brochures and curricula (9,13,14). Although not mentioned in the written evaluations by participants, both participants and providers expressed appreciation for brochures with Hawaiian faces. That 16 individuals indicated that they liked “everything” suggests that the relaxed, festival-like atmosphere was also important. Although each participant was allowed 30 minutes or more with a kauka and some participants had to wait to be seen, only three participants mentioned the waiting time as the thing they liked least.

We were gratified that the event attracted 23 more community members to avail themselves of Nā Pu‘uwai services because our intent was to reach the medically underserved. Among the 50 participants who already were clients of Nā Pu‘uwai, we were not surprised to find that many were not current with cancer screening recommendations, especially the men. Subsequent focus groups with Native Hawaiian men found that they avoid visiting physicians unless they are in pain (18). Men also communicated that health was traditionally the kuleana of women, and so they depended on wives and daughters to pressure them to seek health care when needed. This observation underscores the relevance of an ohana-targeted event in Native Hawaiian communities; that is, increased awareness among women may help increase screening compliance for the entire family.

Despite intensive follow-up, one man did not have a PSA test within 6 months of the event, 6 women did not have
mammograms, and 13 women did not have colorectal cancer screening. It was not surprising that postintervention colorectal cancer screening rates did not reach 100% because Molokai does not have colonoscopy capabilities and, in a separate study by `Imi Hale to increase colorectal cancer screening rates, we found that postintervention rates did not exceed 85% (13). Because all `Ohana Day participants are registered with Nā Pu`uwai, however, staff continue to remind them about their need for regular cancer screening.

`Ohana Day proved feasible on Molokai, and Nā Pu`uwai has incorporated `Ohana Day as an annual event. In 2004, the Nā Pu`uwai staff organized a similar cancer screening and education program on another small, medically underserved Hawaiian island (Lanai), with limited assistance from the `Imi Hale staff. These developments suggest that the Molokai staff has the experience and confidence to use the established protocol and to call on the services of the `Aha'ui O Nā Kauka and others to continue the program on these two islands.

`Ohana Day's success and acceptance has led to several requests to offer it in other communities, but the question is whether it would be feasible. Certainly the time-intensive nature of `Ohana Day requires that it be prioritized for medically underserved communities with limited resources, rather than in communities with access to an array of cancer screening services.

Small sample size was a limitation to our study. Although many participants registered on-site, about 20 community members who had preregistered did not attend the event because of other obligations. Also, because a major goal was to test the feasibility of the event, we only recruited participants, and there was no control group against which to measure our effectiveness. Next steps include seeking funds for an experimental test of the program in other underserved Hawaiian communities, using a randomized controlled design, to examine its effectiveness with increasing cancer screening rates and bringing people without insurance, a medical point of contact, or both into the health care system. Given the participant appreciation of the educational aspects of the intervention, we recommend adding questionnaires to assess knowledge and attitudes to evaluations of future offerings. Future research also should be performed to identify barriers to cancer screening in Native Hawaiian communities.

Despite limitations, preliminary data suggest that interventions such as `Ohana Day that employ culture- and community-based strategies can increase compliance with cancer screening and follow-up recommendations in underserved Hawaiian communities.

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Table 1. Hawaiian Concepts and Kreuter Strategies Incorporated to Increase Cancer Screening

| Problem                                                                 | Hawaiian Concepts                                                                                           | Solution                           |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------|
| Programs and materials are not attractive to Hawaiians.                  | Native Hawaiians helped (kōkua) design `Ohana Day.                                                          | Constituent-involving               |
| `Ohana Day was a family-focused (ʻohana), all-day community              | `Ohana Day was a family-focused (ʻohana), all-day community                                                  | Sociocultural                      |
| celebration (hoʻolauleʻa), featuring Hawaiian music and food, and        | celebration (hoʻolauleʻa), featuring Hawaiian music and food, and balancing (Lākahi) health information and screening with fun. |                                    |
| balancing (Lākahi) health information and screening with fun.            |                                                                                                             |                                    |
| Health education materials were developed, featuring healthy             | Health education materials were developed, featuring healthy Hawaiians and Hawaiian words and phrases.      | Peripheral, linguistic             |
| Hawaiians and Hawaiian words and phrases.                                |                                                                                                             |                                    |
| A presentation on cancer by a Native Hawaiian physician included         | A presentation on cancer by a Native Hawaiian physician included evidence that cancer is a problem for Native Hawaiians. | Evidential                         |
| evidence that cancer is a problem for Native Hawaiians.                 |                                                                                                             |                                    |
| Some Native Hawaiians are distrustful of or uncomfortable with          | Trusting and helping relationships (pili, kōkua) between the community, clinic staff, and researchers were built before the event took place. | Constituent-involving and sociocultural |
| mainstream health services and providers.                               |                                                                                                             |                                    |
| Participating Native Hawaiian physicians (kauka) were seen in           | Participating Native Hawaiian physicians (kauka) were seen in casual clothing and in friendly interactions.   | Sociocultural                      |
| casual clothing and in friendly interactions. Participants could talk   | casual clothing and in friendly interactions. Participants could talk leisurely with a Native Hawaiian physician (e.g., during lunch) and spend up to an hour with the participant during one-on-one screening. |                                    |
| leisurely with a Native Hawaiian physician (e.g., during lunch) and     |                                                                                                             |                                    |
| spend up to an hour with the participant during one-on-one screening.   |                                                                                                             |                                    |
| Native Hawaiian physicians (kauka) reviewed findings and pre-           | Native Hawaiian physicians (kauka) reviewed findings and prescribed follow-up on abnormal findings, completion of screenings not provided at the event, and relevant lifestyle changes. Responsibility (kuleana) for health was stressed. | Sociocultural                      |
| scried follow-up on abnormal findings, completion of screenings not     |                                                                                                             |                                    |
| provided at the event, and relevant lifestyle changes. Responsibility    |                                                                                                             |                                    |
| (kuleana) for health was stressed.                                      |                                                                                                             |                                    |
| The community was asked to help (kōkua) critique the event.             | The community was asked to help (kōkua) critique the event.                                                | Constituent-involving               |
| Some Native Hawaiians put caring for others before caring for self.     | Recruiters and physicians explained that people must care for themselves to be healthy enough to honor family roles and responsibilities (ʻohana, kuleana, kōkua). | Sociocultural                      |
| Recruiters and physicians explained that people must care for           | Recruiters and physicians explained that people must care for themselves to be healthy enough to honor family roles and responsibilities (ʻohana, kuleana, kōkua). |                                    |
| themselves to be healthy enough to honor family roles and responsibilities|                                                                                                             |                                    |
| Native Hawaiian researchers and clinic staff went into the community     | Native Hawaiian researchers and clinic staff went into the community to recruit individuals; they sat in front of grocery stores for 5 weekends before the event to build interest and trust (pili). | Constituent-involving and sociocultural |
| to recruit individuals; they sat in front of grocery stores for 5        |                                                                                                             |                                    |
| weekends before the event to build interest and trust (pili).           |                                                                                                             |                                    |

*aSource: Kreuter et al (8).*
Table 2. Comparison of Preintervention and 6-Month Postintervention Health Care Status Among Participants in `Ohana Day, Molokai, Hawaii, October 2003

| Health Care Status                              | No. of Participants | Preintervention No. (%) | Postintervention No. (%) | P Valuea |
|------------------------------------------------|---------------------|-------------------------|-------------------------|----------|
| Affiliated with Nā Pu`uwai                      | 73                  | 50 (68)                 | 73 (100)                | <.001    |
| Has health insurance                            | 73                  | 62 (85)                 | 73 (100)                | <.001    |
| Has seen a doctor within 5 y                    | 73                  | 68 (93)                 | 73 (100)                | .06      |

**Cancer screening examination**

| Cancer screening examination                     | No. of Participants | Preintervention No. (%) | Postintervention No. (%) | P Valuea |
|-------------------------------------------------|---------------------|-------------------------|-------------------------|----------|
| Prostate cancer screening among men aged ≥40 y   | 33                  | 13 (39)                 | 32 (97)                 | <.001    |
| Colorectal cancer screening among men aged ≥50 y | 28                  | 11 (39)                 | 21 (75)                 | .002     |
| Clinical breast examination among women aged ≥40 y| 38                  | 25 (66)                 | 38 (100)                | <.001    |
| Mammogram among women aged ≥40 y                 | 38                  | 25 (66)                 | 32 (84)                 | .02      |
| Colorectal cancer screening among women aged ≥50 y| 25                  | 9 (36)                  | 19 (76)                 | .002     |

aThe two-tailed exact test version of McNemar’s test was used to check for significance in changes in the number of participants.