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'Imi Hale – The Native Hawaiian Cancer Awareness, Research, and Training Network: Second-Year Status Report

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Abstract

Purpose—The purpose of this paper is to describe 'Imi Hale, a program developed and managed by Native Hawaiians to increase cancer awareness and research capacity among Native Hawaiians. This US subgroup of indigenous people of the Hawaiian islands has disproportionately high rates of cancer mortality and low rates of participation in health and research careers.

Methods—As a community-based research project, 'Imi Hale spent its first year gathering data from Native Hawaiians about their cancer awareness and research priorities. These findings guide 'Imi Hale's community and scientific advisors, a community-based Institutional Review Board, *Na Liko Noelo* (budding researchers), and staff in developing and carrying out projects that address these priority areas. Emphasis is placed on transferring skills and resources to Native Hawaiians through training, technical assistance, and mentorship. A biennial survey assesses the extent to which community-based participatory research principles are being followed.

Principal Findings—By the end of the second year, statewide and island-specific awareness plans were produced, and 9 funded awareness projects are supporting the development and dissemination of Hawaiian health education materials. Research accomplishments include the enrollment of 42 Native Hawaiian *Na Liko Noelo* (budding researchers), 22 of which are involved in 14 funded research projects. The biennial evaluation survey found that 92% of our advisors felt that 'Imi Hale was promoting scientifically rigorous research that was culturally appropriate and respectful of Native Hawaiian beliefs, and 96% felt that 'Imi Hale was following its own principles of community-based participatory research.

Conclusion—'Imi Hale's community-based approach to promoting cancer awareness will result in a sustainable infrastructure for reducing the cancer burden on Native Hawaiians.

BACKGROUND

About half a million Americans identify themselves as *Kanaka Maoli* (Native Hawaiians), descended from the people who lived in the Hawaiian Islands prior to Western contact in 1798. About half of them reside in Hawai'i, comprising 20% of the state's population. Also represented in the state are Caucasians (25%), Japanese (25%), Filipinos (15%), Chinese (5%), and small percentages of other groups (Korean, South-East Asian, Samoan, Africa American, Latino, Micronesian, and others). Native Hawaiians have the worst health and social indicators in the state, including disproportionately high rates of cancer morbidity and mortality.¹⁻⁴ When compared nationally, Native Hawaiians have the third highest mortality rates in the country, following African Americans and Alaska Natives.⁵⁻⁷

Although this ethnic group could benefit from research that examines the causes of high cancer mortality rates and ways of reducing them, Native Hawaiians have become increasingly suspicious of research (and, to some extent, Western medicine) and reluctant to participate in it. This is due, in part, to a history of discrimination and disempowerment experienced by this group, growing attention placed on the poor health status of Native Hawaiians, and attempts by non-Hawaiian researchers to study and publish findings about Hawaiian health issues. Unfortunately, communities have felt excluded from the development of research hypotheses and processes, have perceived themselves as “guinea pigs,” and have seen little benefit from research. Some individuals who participated in cancer screening demonstrations were found to need further testing or treatment, but these services were not provided and those who were uninsured or underinsured could not afford them. Other Native Hawaiians have become concerned about inadequate monitoring of researchers, misinterpretation of data, and misuse of research findings.⁸⁻⁹ Additionally, Native Hawaiians are underrepresented in professional occupations, including research and medicine.¹⁰

This paper describes *‘Imi Hale*, a program developed and managed by Native Hawaiians to increase cancer awareness and research capacity among Native Hawaiians. The work of *‘Imi Hale* enjoys broad-based support because it involves the community in planning, addresses community priorities, respects and incorporates Native Hawaiian values, and demonstrates commitment to transfer knowledge and skills to the community.^{3,7,11-12} Presented here is a status report on *‘Imi Hale* after two years of operation.

‘IMI HALE: A SPECIAL POPULATION NETWORK FOR NATIVE HAWAIIANS

As part of a national effort to address racial and ethnic disparities in cancer, the National Cancer Institute (NCI) funded eighteen “Special Population Networks” in 2000. According to NCI, the major goal of this initiative was “to establish a robust and sustainable infrastructure to promote cancer awareness within minority and medically underserved communities and to launch from these more research and cancer-control activities aimed at specific population subgroups.”¹³

Papa Ola Lokahi is a consortium of Native Hawaiian not-for-profit organizations and public agencies that provides a focal point for advocacy, research, training, and technical assistance to improve the health status of Native Hawaiians. Building on the momentum established by reports and advocacy work with the Native Hawaiian community, *Papa Ola Lokahi* successfully applied to NCI to establish a Special Population Network (SPN) to address cancer among Native Hawaiians. Called *‘Imi Hale*—the Native Hawaiian Cancer Awareness, Research, and Training Network, it is the only community-based SPN, with funds going directly to a community-based, non-profit agency.

Mission, Goals, and Values

The mission of *‘Imi Hale* is to reduce cancer incidence and mortality among Native Hawaiians through the establishment of sustainable infrastructures to promote cancer awareness within Native Hawaiian communities and to initiate cancer research, training, and control activities. Its goals are to:

1. Foster and facilitate the development and implementation of programs to increase cancer awareness among Native Hawaiians.
2. Create programs and opportunities to increase the number of Native Hawaiian researchers through the training of promising young students, graduates, and physicians.

3. Develop programs to increase the number of research grants addressing cancer in Native Hawaiians with a particular emphasis on projects designed to reduce risk behavior and improve cancer survival.
4. Develop mechanisms to educate and increase awareness of Native Hawaiians about clinical trials.
5. Utilize a culturally appropriate, participatory research process to support scientifically rigorous research that is respectful of Native Hawaiian cultural beliefs, practices, and customs.

'Imi Hale's mission, goals, and activities are driven and sustained by adherence to principles of community-based participatory research (Table 1). The initial proposal built on recommendations from multiple community events related to Hawaiian health, including community-based meetings throughout the state, a 1998 Hawaiian Health Summit, and a 1999 survey of Community Health Centers in Hawai'i.

The words *'imi* (Hawaiian for to look or to search, pronounced "ee-me") and *hale* (Hawaiian for "house," pronounced ha-lay) take on a broader meaning when coupled together. As a phrase, *'Imi Hale* means "to seek and establish an inheritance for one's children" and "to form a friendship so close that one feels welcome in the house of the other."¹⁴ The name signifies that *'Imi Hale* will work to reverse the negative effects of cancer and leave a powerful legacy and inheritance for future generations based on good health and well-being.¹⁵ This name speaks to the Hawaiian values that underpin *Papa Ola Lokahi*'s commitment to improving the health and wellness of Native Hawaiians, including *papa* (foundation), *ola* (health) and *lokahi* (balance or harmony).¹⁴ As a *kupuna kane* (male elder) stated, "By using our language for a name, we are invoking and honoring our ancestors, our culture, language, and restoration as a nation."⁹

Infrastructure

Staffing and Governance—The staffing and governance of *'Imi Hale* reflect a commitment to foster Native Hawaiian leadership and to demonstrate respect for cultural beliefs, values, and practices (Figure 1). Partnering with existing Native Hawaiian community health entities, *'Imi Hale* provides administrative and fiscal support to Community Outreach Staff (COS) on each of the five major Hawaiian islands who are responsible for cancer awareness and research activities involving their constituencies. Two-thirds of the management and outreach staff is Native Hawaiian. Three groups advise *'Imi Hale* activities, including a Community Council (eleven members, all of whom are Hawaiian), a Scientific Council (eleven members, six of whom are Hawaiian), and a Steering Committee (ten members, seven of whom are Hawaiian). The first two groups advise on the community appropriateness and scientific merit of activities, respectfully, while the Steering Committee establishes policy.

Na Liko Noelo (Budding Researchers)—In concert with its goal to nurture Native Hawaiian researchers, *'Imi Hale*'s *Na Liko Noelo* program identifies and supports Native Hawaiians who want to become cancer researchers and/or learn more about cancer research. The program's name is Hawaiian for budding researchers; *na liko* refers to plant buds and *noelo* refers to research. The program currently includes over 42 *Na Liko* with varied educational backgrounds, from high school students to individuals who are pursuing or have earned doctoral degrees. Support for *Na Liko* includes: 1) training in cancer epidemiology, research design, statistical methods, and grant writing; 2) technical assistance with proposal and manuscript development; 3) participation in on-going cancer awareness and research programs; 4) researcher stipends; 5) support to attend national cancer conferences; 6) participation on *'Imi Hale* committees; and 7) information on training and funding

opportunities in the area of cancer prevention and control. Project application and review processes were established so that *Na Liko Noelo* could benefit from the expertise of the *‘Imi Hale’s* steering committee and council members, thus assuring that research addresses community priorities, adheres to cultural protocol, is scientifically sound, and has broad-based support.

Partnerships—Through memoranda of agreement and letters of commitment, *‘Imi Hale* has established partnerships with 18 community and scientific organizations that increase Native Hawaiian access to services, training, mentorship opportunities, and technical assistance. These relationships and linkages offer both cultural and scientific expertise for staff and investigators and assure a more holistic perspective to cancer awareness and research. This network has the potential to overcome research distrust issues stemming from lack of inclusion in the research process and lack of benefits derived from full participation.

Institutional Review Board (IRB)—A critical component of *‘Imi Hale’s* infrastructure is the Native Hawaiian Health Care Systems (NHHCS) IRB. Administered by *Papa Ola Lokahi*, the NHHCS-IRB is responsible for the ethical conduct of research and for protecting the safety of research participants and their respective communities as detailed in the federal law.¹⁶ Established shortly after *‘Imi Hale*, membership includes representatives from scientific and non-scientific sectors and Hawaiian communities on all the major islands. This IRB appropriately offers a cultural perspective that is lacking in other IRBs and is even more important because of the history of distrust among many Native Hawaiians toward research. At the same time, research focused on improving health programs is especially valuable for Native Hawaiian communities, and the NHHCS IRB has become a forum to increase the knowledge and involvement of Native Hawaiians in the research process.

‘IMI-HALE ACTIVITIES IN ITS FIRST TWO YEARS

Numbers at a Glance

Table 2 is a summary of *‘Imi Hale’s* achievements during its first two years in the areas of infrastructure, priority setting, cancer awareness, research, and training. Several of these projects are described in more detail in the next sections of the paper.

Priority-Setting Activities—Much of the project’s first year was devoted to involving Native Hawaiians and *‘Imi Hale* partners in identifying priority areas for the project (Table 2). The earliest efforts included a key informant survey (n=121) and focus groups with Native Hawaiian cancer survivors (n=45), and these individuals specified five cancer awareness and research priorities—lifestyle issues (e.g., smoking, diet, exercise), timely cancer screening, specific types of cancer (e.g., breast, colon, lung, prostate), access issues (e.g., culturally appropriate treatment, transportation, insurance, personalized contact with Native Hawaiian role models), and biological and genetic research. Additional surveys were administered to specific groups to guide future activity, for example, with Native Hawaiian smokers (n=200), with cancer care physicians (n=47), with primary care physicians (n=231), and with Native Hawaiians interested in research training (n=62). A few of these projects are summarized here.

Native Hawaiian Smokers Survey—Native Hawaiians have the highest rates of smoking behavior in the state (30% vs. 10–20% for other ethnic groups). In collaboration with several partners, Hawaiian smokers on five islands completed questionnaires tapping attitudes toward smoking, willingness to quit, awareness of quit-smoking programs, and other issues related to health and lifestyle. Adhering to community-based participatory research principles, the project was careful to craft a user-friendly questionnaire that

gathered data of interest to all partners, to develop a data-collection strategy that was not burdensome, to return useful data to the partners in a timely manner, and to expand community capacity for future health promotion action.¹⁷ Findings were incorporated into a monograph, *Tobacco Use, Prevention and Control: Implications for Native Hawaiian Communities*, that included Hawaiian-specific data on tobacco use, information on assessing other data on tobacco use, and a summary of the literature on effective smoking-cessation programs. Communities are using the monograph, along with technical assistance from ‘*Imi Hale*, to develop their own programs and proposals. Most notable is work in Hana, a remote rural community on the east coast of Maui, where the Hana Youth Center Tobacco Cessation Initiative used the report and technical assistance to train coalition members, plan a community-wide training on “Communities of Excellence in Tobacco Control,” and submit a successful proposal for their “No Smoke Hana Project.”

Oncologists’ Knowledge, Attitudes, and Practices Related to Cancer

Treatment Clinical Trials—Although Native Hawaiians have a high incidence of cancer diagnosed in late stages, they are underrepresented in cancer clinical trials. Working with the Cancer Research Center of Hawai‘i (CRCH), *Na Liko Noelo* developed a survey to explore knowledge, attitudes, and practices of Hawai‘i oncologists with regards to cancer treatment clinical trials and Native Hawaiian participation in them. Findings suggest that most cancer specialists are supportive of clinical trials; however, physicians identified a number of barriers to Native Hawaiian participation in them. These data are being used to recommend interventions to increase Native Hawaiian participation in clinical trials and to design educational sessions for physicians.¹⁸ Additionally, workshops based on NCI’s clinical trials awareness curriculum are being planned for Community Outreach Staff affiliated with ‘*Imi Hale* and other community health entities.

Cancer Awareness

A Strategic Planning Task Force was convened to review data gathered through our priority-setting activities, to inventory existing services and events, to identify gaps in awareness programs, and to recommend directions for awareness. The five Community Outreach Staff, as key members of this task force, developed activity plans for their respective islands, and this work fed into the statewide strategic plan for cancer awareness. A list of activities is provided in Table 3, and several are described here.

“Talk Story” Breast Cancer Booklets—With support from the Hawai‘i affiliate of the Susan G. Komen Breast Cancer Foundation, ‘*Imi Hale* developed, pre-tested, and distributed four culturally sensitive booklets for Native Hawaiian women addressing breast cancer. Modeled on materials developed by the Native American Cancer Initiative, the booklets incorporated a “talk study” format through which 12 Native Hawaiian breast cancer survivors share their personal experiences with breast cancer and offer their heart-felt encouragement to other Hawaiian women to get screened regularly. The messages are personal, yet brief, with emphasis on visual communication, simple illustrations, and photographs of the cancer survivor storytellers. Support from the regional Medicare office enabled *Papa Ola Lokahi* to make Hawaiian-language versions available to our native speaking constituents.

The first two booklets—*Breast Health Care* and *Discovering We Had Breast Cancer*—addressed breast cancer screening and early detection. A 12-item evaluation survey of these booklets was administered in Fall 2000 to assess acceptability and usefulness, and over 250 evaluation responses were received. Findings suggest that Hawaiian women found the booklets useful (or very useful) for: 1) teaching breast self-exam and breast cancer warning signs; 2) persuading women to get a clinical breast exam and mammogram when

recommended; 3) increasing confidence to ask one's doctor questions about breast cancer; and 4) convincing women to encourage female family and friends to participate in regular screening. Respondents also agreed (or strongly agreed) that the booklets were easy to read, positive and encouraging, and effective because they were stories by Hawaiian women.¹⁵

The last two booklets in the series—*After-Diagnosis – Now What?* and *The 'Ohana's (Family's) Role in Supporting Loved Ones with Breast Cancer*—were developed in FY 2001 with additional funds from the Susan G. Komen Breast Cancer Foundation. These booklets addressed concerns that Hawaiian women may have after being diagnosed with breast cancer—from communicating with one's physician and treatment options to coping with physical and emotional changes and the role of family members when a woman has breast cancer. Utilizing the same story-telling format, survivors emphasized the Hawaiian values of *kokua* (helping another), *malama 'ohana* (caring for the family), and *laulima* (working together). Booklets have been distributed to the Native Hawaiian Health Care Systems (5 statewide), Community Health Centers (10 statewide), the network of Native Hawaiian physicians (80-member association), and various other agencies and providers that service Native Hawaiian women throughout the state. We currently are providing staff training for targeted integration and use of these Native Hawaiian Breast Cancer education pamphlets in clinical settings, particularly in Breast and Cervical Cancer Control Program (BCCCP) provider sites.

Community Partnership with the Association of Hawaiian Civic Clubs—*'Imi Hale* and the Association of Hawaiian Civic Clubs (AHCC) are collaborating on a five-year initiative emphasizing cancer education and screening activities. Hawaiian Civic Clubs are dedicated to expanding educational opportunities for Native Hawaiians and building skills in civic and political processes. AHCC is the umbrella organization for 43 Civic Clubs in Hawai'i and the mainland U.S., with approximately 4,000 Native Hawaiian members in all. Through their formal resolution process, AHCC has introduced and passed two resolutions related to their partnership with *'Imi Hale*. As a result, AHCC members have co-sponsored cancer awareness and screening activities at their annual conventions (which attract 800–1,000 members each year), invited *'Imi Hale* to address individual Civic Clubs about cancer, and participated in focus groups and surveys about colorectal cancer in summer 2001.

Cancer Research and Researchers

Though the project's *Na Liko Noelo* program, efforts are being made to increase the number of Native Hawaiian researchers as well as the number of research grants addressing cancer in Native Hawaiians (Table 4). Described here are several *Na Liko Noelo* projects, all of which emphasize Native Hawaiian participation and cultural values.

Supports and Barriers to Cancer Survival for Hawaii's Indigenous People—

Using qualitative methods, four *Na Liko Noelo* were involved in the examination of the hypothesis that high cancer mortality rates among Native Hawaiians were due to poor access to care, fatalistic attitudes toward the disease, and lack of consideration of Native Hawaiian cultural values in western approaches to healthcare. *Na Liko* and Community Outreach Staff were trained in focus group methods, and eight focus groups were held on five islands, attracting 45 Native Hawaiian cancer survivors from both rural and urban locales. Survivors' experiences with cancer diagnosis, treatment, and recovery were explored, with *Na Liko Noelo* paying close attention to cultural protocol, e.g., gaining community input on study design, incorporating Native Hawaiian rituals into the focus group, and engaging participants in the interpretation of the data. We found that, similar to cancer survivors of other ethnicities, these individuals demonstrated success in accessing healthcare information, professionals, facilities, and insurance; ability to overcome many of the access

barriers they confronted; proactive health behaviors regarding screening, diagnosis, and treatment; and few fatalistic attitudes toward cancer. They also demonstrated ways in which they were sustained through the cancer experience by Native Hawaiian values, e.g., by relying on God and family for personal support and by helping others around the issue of cancer. However, they gave numerous examples of how poor access, fatalistic attitudes, and alienation from standard healthcare approaches presented barriers for other Native Hawaiians with cancer.¹⁹ These findings have led to the development of culturally appropriate awareness and treatment programs, and funds to pilot several of these interventions have been received. Additionally, the four *Na Liko* have been successful in employing focus group methods in subsequent independent research projects.

Developing a Culturally Appropriate Intervention to Increase Colorectal Cancer Screening (CRC) among Native Hawaiians—One of the new interventions being tested concerns CRC, as Native Hawaiians have the lowest rates of CRC screening and disproportionately high mortality rates from this disease. Two *Na Liko Noelo* worked in partnership with AHCC during the summer of 2001 to gather survey and focus group data that would inform the development of a culturally appropriate intervention. Findings suggested that a successful CRC intervention would need to be offered at a club's monthly meeting, that education be delivered by a Native Hawaiian physician and Native Hawaiian CRC survivor, that participants be given free stool cards and mailers, that they be called several times following the education session with reminders to complete the test and assistance in problem solving barriers to screening, and that they be challenged to engage one family member age 50 and older in screening. Testing of an intervention that incorporates these elements began in summer 2002, funded by NCI. CRC knowledge, attitudes, and screening practices are being compared between eight Civic Clubs receiving the culturally appropriate intervention and eight Civic Clubs receiving standard CRC education from a non-Hawaiian nurse.

Exploring the Feasibility of *Ho'oponopono* for Enhancing Adjustment and Adaptation To Breast Cancer Diagnosis and Treatment among Native Hawaiians—Another *Liko* is testing a culturally appropriate intervention for breast-cancer survivors involving *ho'oponopono*, a traditional Hawaiian healing strategy. The *ho'oponopono* process begins with a prayer to set the tone for sincere and responsible truth telling. The problems facing the family (e.g., conflict resulting from illness-related changes) are stated, and procedures for seeking solutions are identified. The emotional and spiritual forces of the family are pooled to enable those in need of help. The facilitator ensures that problems are handled one at a time and engages family members in "setting problems to right" through apology, forgiveness, restitution, and mutual release from transgression. When family balance is restored, the family moves toward prayer to close the session. This NCI-funded study is teaching breast cancer patients and their partners to use *ho'oponopono* as a means for enhancing adjustment and adaptation within their families. Research questions include: Is *ho'oponopono* a feasible psychosocial intervention for enhancing adjustment and adaptation to cancer among Native Hawaiian patients and their partners? What is the relationship of spirituality, problem solving, social support, and family coping to the adjustment and adaptation of Native Hawaiian cancer patients and partners who participate in *ho'oponopono* training?

Health Behaviors and Cancer Awareness among Native Hawaiian Men—Another *Liko* received funds from the American Cancer Society to explore health behaviors and cancer awareness among *na kane* (Native Hawaiian men). Eight Native Hawaiian men have been trained in focus group methods and began gathering data from *na kane* across the state in summer 2002. The purpose of this formative research project is to generate

hypotheses about men's health practices and how cancer screening and help-seeking behaviors can be improved. In addition, the male facilitators are increasing their own knowledge and skills about cancer; they are serving as sources of information/referral and as healthy role models for the men that attend their focus groups.

Training Activities

Training activities are important in sharing findings from *'Imi Hale* activities, engaging the community in the interpretation of data, and transferring research knowledge and skills to Native Hawaiians (Table 5). Several of *'Imi Hale's* training programs are described here.

Training High School Students in Natural Products Research—Very few Native Hawaiians pursue cancer research as a career. *Na Liko Noelo* working at Kamehameha Schools have received supplemental funding to expand their training of Native Hawaiian high school students interested in natural products research. These students will be given additional, intensive training in the identification and gathering of Native Hawaiian healing plants and laboratory skills to analyze the anticancer properties of these plants. Among the first plants to be tested are papaya seeds, breadfruit bark, and pandanus roots. Students are learning how to document their findings and enter science competitions, and can be linked to internships in local and national science labs. Also involved on the teaching faculty are *na kupuna* and native healers who teach about the traditional ways of selecting, harvesting, and using the plants so that balance (*lokahi*) among people, spirit, and *'aina* (land) are maintained. Although a primary goal of this project is to give Native Hawaiians a head start on cancer research careers, the program has been encouraged to forward promising plant extracts to NCI for further testing.

Collaboration with Oregon Health and Sciences University—*'Imi Hale* partners with the Oregon Health and Sciences University (OHSU) to provide training opportunities in research methods and technical assistance to *Na Liko Noelo*. Since 2001, 10 native researchers from Hawai'i participated in the Native Researchers' Cancer Control Training Program, a two-part course held in Oregon and Arizona each year that is designed to help develop research skills for the design, implementation, and evaluation of cancer control programs in native communities. Successful applicants received full scholarships to this training program, following which they are expected to develop proposals for cancer research and/or evaluation projects.

Annual *Na Liko Noelo* Training in Honolulu—Additionally, *'Imi Hale* sponsors a Hawaii-based annual training for *Na Liko Noelo* each year featuring local cancer researchers, along with those affiliated with the OHSU program. The August 2001 workshop featured day-long workshops in research methods and grant writing, and 44 researchers attended. The August 2002 agenda includes sessions on manuscript preparation and an introduction to genetic research. OHSU staff and a number of local researchers set aside time prior to and following these annual trainings to provide one-on-one assistance to *Na Liko Noelo* in proposal and manuscript development.

Evaluation

A biennial survey of *'Imi Hale* advisors is conducted to assess the extent to which community-based participatory research principles are being followed. A questionnaire was adapted from the Detroit Community-Academic Urban Research Center Board²⁰ and, in 2001, responses were received from 28 (87.5%) of *'Imi Hale's* 32 advisors. The survey included 44 items rated on a 5-point Likert scale that measured advisors' perceptions of general satisfaction, impact, trust, working relationships, and organization and structure of meetings. Overall, advisors expressed strong or general agreement toward positively worded

statements and expressed disagreement or neutrality toward negatively worded statements. For example, 92% were generally satisfied with the activities, 88% felt resources were distributed in a fair and equitable manner, and 100% felt that diverse opinions were allowed and respected at meetings. In terms of research, 92% felt that *Imi Hale* was promoting scientifically rigorous research that was culturally appropriate and respectful of Native Hawaiian beliefs, and 96% felt that *Imi Hale* was following its own principles of community-based participatory research. However, 27% indicated that they would like to have more input into decisions, 15% felt that some individuals' opinions got weighed more than they should, and 12% frequently thought of dropping out. These data suggest that a generally high level of satisfaction with *Imi Hale*, but that more effort could be made to make sure all voices are heard.

CONCLUSION

Native Hawaiians show a disproportionate burden from cancer. *Imi Hale* seeks to reduce this burden by using a community-based approach to promoting cancer awareness among Native Hawaiians, training Native Hawaiian researchers, and initiating culturally appropriate cancer research. We believe that *Imi Hale's* efforts in community engagement and capacity building will result in a sustainable infrastructure for reducing the cancer burden on Native Hawaiians and leaving an inheritance of good health for the indigenous people of Hawai'i.

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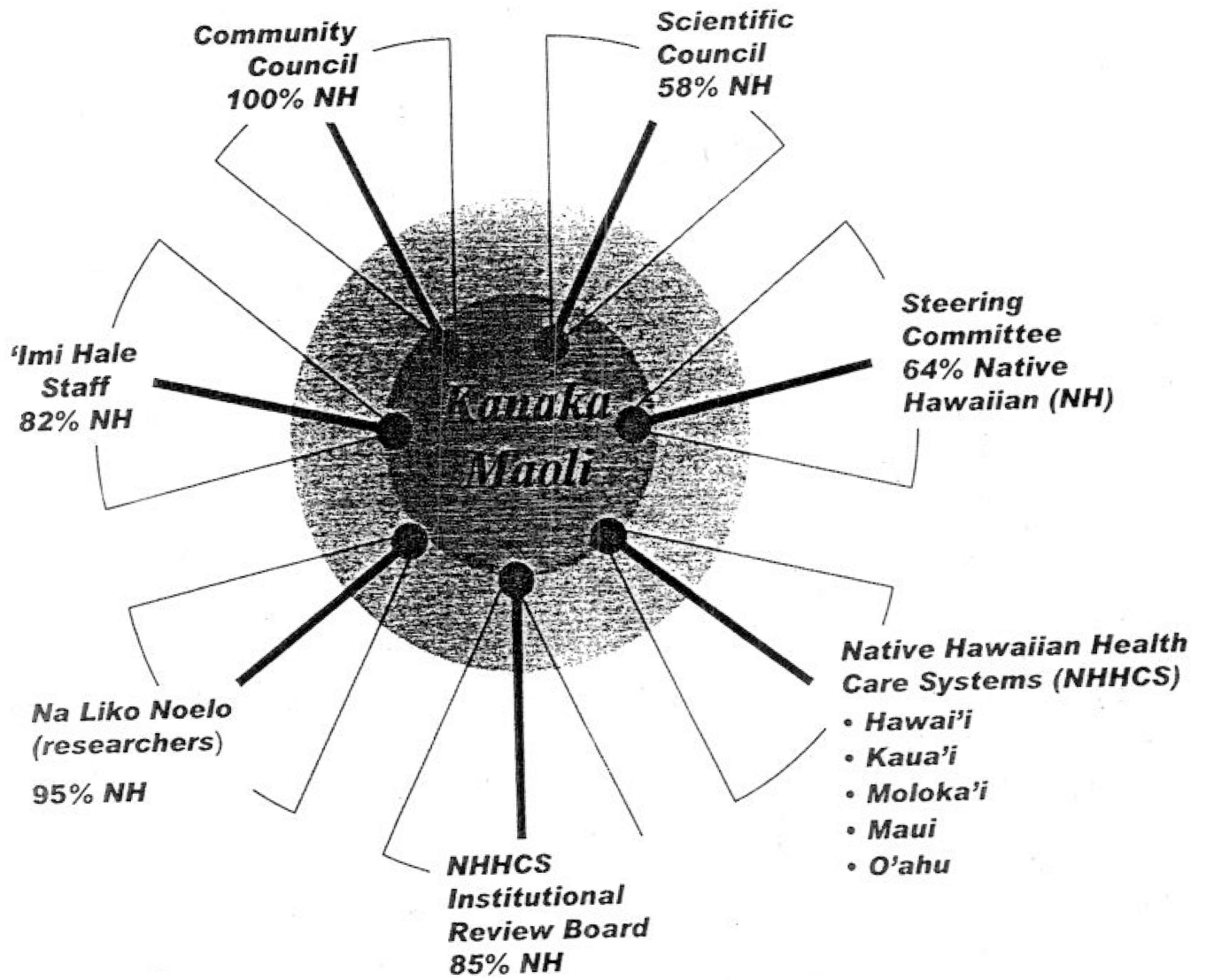


Figure 1.
'Imi Hale Infrastructure

Table 1*'Imi Hale's* Principles for Community-Based Participatory Research

<ul style="list-style-type: none">• Address issues within the broader cultural, social, economic and political context.• Involve community at all levels, from priority setting and planning to interpretation and dissemination of findings.• Identify community needs and concerns to be addressed.• Build on strengths and resources within the community.• Promote co-learning and knowledge transfer.• Provide tangible benefits to the community.
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Table 2**Imi Hale Achievements at a Glance**

Infrastructure	
12	Administrative and outreach staff (66% Native Hawaiian)
32	Policy, community, and scientific advisors (74% Native Hawaiian)
42	Na Liko Noelo (budding researchers, 100% Native Hawaiian)
1	Native Hawaiian Institutional Review Board established (85% Native Hawaiian)
18	Agency partners (9 community organizations and 9 academic/research organizations)
Priority Setting	
121	Key informants responded to cancer-awareness-and-research priorities survey
47	Cancer-care MDs responded to a survey on Native Hawaiians and cancer treatment trials
231	Primary care MDs responded to a survey on Native Hawaiians and cancer screening and prevention trials
200	Native Hawaiian smokers responded to a survey on smoking and attempts to quit.
62	Native Hawaiians interested in research responded to a survey on training needs.
45	Native Hawaiians cancer survivors participated in focus groups.
13	Staff and partners collaborated to develop a strategic plan for cancer awareness.
Cancer Awareness	
5	Native Hawaiian Health Care Systems receive partial staff funding for cancer awareness
5	Islands sponsor cancer awareness activities
14	Local conference presentations given
9	Proposals for awareness-related programs funded (\$137,000)
4	Native Hawaiian booklets on breast cancer produced/tested
1	MD curriculum to increase competence caring for Native Hawaiians produced/tested
206	Native Hawaiians reached through cancer awareness and screening events
Research	
14	Research proposals funded (totaling \$450,000)
6	Papers published
13	National presentations given
Training	
180	Participants in Annual Cancer Symposia (2001 and 2002)
107	Participants in other continuing medical education events (37 MDs and 70 non-MDs)
44	Participants in the August 2001 Native Hawaiian Researcher

Infrastructure

	Training in Honolulu
48	Attendees at the 2002 'Imi Hale Report to the Community
10	Na Liko Noelo attended the Oregon Health and Sciences University's Native American Researchers Training in Oregon
5	Na Liko Noelo linked to NCI-sponsored training
30	IRB members participated in at least of four IRB education events
1	Grant funded to support the education of IRB members (\$18,000)

Table 3

Awareness Activities

- "Talk Story" breast cancer booklet series *
- Hawaiian Civic Club resolutions, annual screening, and other partnership events *
- Cancer survivors speakers bureau
- Cancer survivors conference
- Community events, e.g., Susan G. Komen Race for the Cure
- Colorectal cancer screening education project
- Smoking cessation programs on two islands

* Described in text

Table 4

Research Activities

- Supports and barriers to cancer survival for Hawaii's indigenous people *
- Health and cancer awareness among *na kane* *
- Testing culturally relevant interventions:
 - Increasing screening for colorectal cancer *
 - *Ho'oponopono* (a traditional Hawaiian approach to problem resolution) *
 - Family-centered care for women diagnosed with breast cancer
 - Distribution of mammogram vouchers
 - Increasing screening for breast and cervical cancer
- Comparing Native Hawaiians with other ethnic groups on:
 - Breast cancer histology
 - Bronchial cilia
 - Demographic, social, and psychological correlates of smoking
 - Pain expression and treatment

* Described in text

Table 5

Training Activities

- Training for high-school students in natural products research *
- Links to Oregon-based Native Researchers Training program *
- Annual Hawaii-based Native Researchers Training workshop *
- *Na Lokahi Wahine* training to increase cultural competence of physicians
- Links to training opportunities at NCI and other mainland centers
- Monthly research roundtables
- Semi-annual CME events
- Annual cancer symposium for cancer-care professionals and the community

* Described in text