



E OLA MAU THE NATIVE HAWAIIAN HEALTH NEEDS STUDY

COMPENDIUM OF EXECUTIVE SUMMARIES

The Native Hawaiian Health Research Consortium ALU LIKE, INC.

Honolulu, Hawaii

December 1985

RH 362.1 RH 362.1

ALU LIKE, Inc. Native Hawaiian Library 458 Keawe Street Honolulu, HI 96813



PREFACE

In FY1984 the United State Senate Appropriations Committee included a directive in the Supplemental Appropriations Bill for the U.S. Department of Health and Human Services (DHHS) to conduct a comprehensive health needs study of Native Hawaiians. On September 7, 1984, Senator Daniel K. Inouye sent a letter to Dr. Edward Brandt, Jr., Assistant Secretary for Health, requesting follow-up information on the health care needs study. Dr. Brandt referred the matter to Dr. Sheridan Weinstein of the Department of Health and Human Services (DHHS), Region IX.

Copies of the correspondence between Senator Inouye and Dr. Brandt were sent to interested parties in the community. ALU LIKE decided to pursue the health needs study further. ALU LIKE is a non-profit community organization assisting the Native Hawaiian community toward economic and social self-sufficiency. In November, ALU LIKE called together a group of University of Hawaii and community people with interests in the health needs of Native Hawaiians. The Hawaiian Health Research Consortium (HHRC) was formed as a result of this meeting. At a subsequent meeting, HHRC members decided to submit a health needs study concept paper to DHHS. The concept paper outlined the procedures for conducting the health needs study.

Dr. Sheridan Weinstein of DHHS-Region IX acknowledged receipt of the concept paper, but deferred action until the results from another research report were submitted.

In June 1985, DHHS provided funds to the Waianae Coast Comprehensive Health Center (WCCHC) to conduct the health

needs study. WCCHC was selected as the prime contractor because the Center had existing ties with DHHS and an established system to disburse the funds. WCCHC then subcontracted the study to ALU LIKE for the overall administration of the project.

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The contract called for a comprehensive review of existing health data on Native Hawaiians. The entire project was to be completed within a six-month time period. In order to accomplish the study within this short time-frame, the HHRC decided to organize the project around five task forces. Each task force would be responsible for health data within its assigned area. The five task forces included 1) Mental Health Task Force, 2) Medical Task Force, 3) Nutrition/Dental Task Force, 4) Historical/Cultural Task Force, and 5) Strategic Health Plan Task Force.

The short notice as well as the short time available to conduct this study created some limitations. The limited time prevented a thorough and comprehensive analysis of the health data and necessitated narrowing the scope of the study. The time constraint required task force members to commit a substantial portion of their time to the completion of the study, within approximately five months, and many individuals who were interested in working on the task forces could not do so because of prior commitments.

A second limitation is the relatively few number of health professionals who are Native Hawaiian. The lack of Native Hawaiians in the field prevented the HHRC from gaining more representation of Native Hawaiian perspectives on the various aspects of health and health care. This limitation is addressed in the Recommendations sections of the various Task Force Reports.

A third limitation involves the different definitions of "Hawaiian" used in various research studies. The United States Census uses a self-report definition of ethnicity. The Census asked people to select the ethnic group which best described them. The Hawaii Health Surveillance Survey uses a parentage definition - if one or more parents are Hawaiian or Part-Hawaiian, then the individual is classified as Hawaiian or Part-Hawaiian. The U.S. Census estimated that the Hawaiian population in 1980 was 118,251. The Health Surveillance Survey estimated the Hawaiian population at 175,909, a difference of over 50,000 people.

In this report, the term "Native Hawaiian" is defined as "any individual, any of whose ancestors were natives of the area which consists of the Hawaiian Islands prior to 1778." This is the definition contained in the 1975 Title VIII Native American Programs Act declaring that Native Hawaiians are Native Americans eligible for special funds to provide services "to promote the goal of economic and social self-sufficiency." Thus, this definition is an inclusive definition comprising groups of people who have been categorized as "Part-Hawaiian" or "Hawaiian." When other research studies reviewed in this report deviate from this definition, this deviation will be noted.

COMPENDIUM

The Executive Summaries of the following four Task Forces of the Native Hawaiian Health Needs Study are presented in this Compendium:

Mental Health

Medical

Nutrition/Dental

Historical/Cultural

The report of the fifth Task Force (Strategic Health Plan) is entitled "A Preliminary Plan for Improving Native Hawaiian Health Through Health Promotion, Disease Prevention and Health Protection," and has no Executive Summary.

Copies of the five complete reports may be obtained from -

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MENTAL HEALTH TASK FORCE

MENTAL HEALTH TASK FORCE EXECUTIVE SUMMARY

Purpose

The purpose of this report is to present the findings and recommendations from a study of the mental health needs of Native Hawaiians residing in the State of Hawaii. The study was conducted by an eight-member task force working under the auspices of ALU LIKE, INC., a Native Hawaiian community action organization. Task force members included a spectrum of service providers and researchers familiar with Native Hawaiian mental health problems. Four members of the task force were Native Hawaiians. The study was conducted over a three-month period from July 15, 1985 to October 15, 1985.

The specific purposes of the study were: (1) to identify existing data bases and reports which addressed the topic of Native Hawaiian mental health, especially those which discussed rates of psychiatric disorders, exposure to psychiatric risks, and service utilization patterns; (2) to assess the validity and reliability of these reports; (3) to collect and generate needed supplemental data; (4) to prepare a culturally relevant context; (5) to prepare an extensive bibliography of relevant English language and Hawaiian language mental health materials; (6) to prepare supplemental materials including glossaries, personal statements, and literary quotations; and (7) to prepare conclusions and recommendations.

Conceptual Orientation

The present report identifies and evaluates available psychiatric and psychosocial research on Native Hawaiian mental health, including current records of psychiatric diagnostic rates, stress profiles, and service utilization patterns; however, discussions of this material were conducted with an explicit awareness of the cultural biases and limitations of the existing research and an awareness of the necessity of recognizing and being responsive to traditional Hawaiian conceptions of health and illness. The report asserts that these conceptions, rather than impose Western

conceptions, should provide the basis for assessing Native Hawaiian mental health needs, since it is precisely the imposition of Western values and life styles that has been responsible for much of the cultural dislocation and disintegration leading to the current crises in Native Hawaiian mental health.

The present report asserts that Native Hawaiian mental health needs are a function of a complex pattern of pernicious economic, political, educational, and social circumstances which have deprived the Native Hawaiian of those psychosocial foundations which are necessary for promoting and maintaining a good mental health including: (1) a positive sense of ethnic identity; (2) a positive self-concept and sense of self worth; (3) a culturally consistent set of values and beliefs which are at least partially continuous with historical tradition; (4) a respect for one's ancestry and heritage; (5) a sense of political and economic empowerment; (6) a social formation which supports these characteristics; (7) a health system which provides accessible and acceptable services; and (8) an opportunity to establish and maintain a strong attachment to the 'aina (land).

In contrast to Western concepts of mental health which frequently separate psychological and somatic functioning, traditional Hawaiian conceptions emphasize the unity of body, mind, and spirit. The harmony of these dimensions emerges from a sense of psychic relationship with the land, the sea, and the spiritual world. The present study found that for many Native Hawaiians, the detachment from traditional beliefs and life styles based on harmonious relationships with nature and the spiritual world has created a felt sense of marginality, helplessness, and alienation. Thus, the present report emphasizes the importance of promoting traditional beliefs and life styles as alternatives to Western ways.

The task force recognizes that although there are many benefits to be derived from increased westernization for Native Hawaiians, there are also many risks, especially if the process of acculturation and assimilation is not buffered by the

promotion of Hawaiian culture. Without the latter, there are no roots for socialization and social control, there is no frame of reference to guide morality and relationships, there is no felt sense of continuity with the past and no sense of community. The outcomes of this condition are mental illness, substance abuse, crime, delinquency, anomie, alienation, and a pervasive sense of anger and frustration. For many Native Hawaiians, there is a feeling that they are strangers in their own land, unwelcomed participants in society.

The task force also asserts that traditional Hawaiian values offer Western people an important alternative for finding personal meaning and growth in our contemporary world. Under the constant pressures to achieve personal power and material wealth, Western people also experience alienation and self devaluation and need a belief system and a way of life which can mediate their adjustment. Further, suppression and disdain for minority ways of life can only bring a false sense of superiority to the majority and deny them the opportunity for an honest appraisal of their own worth. The oppressed and the oppressor are both losers in the pursuit of happiness and fulfillment. By devaluing minority ways of life, the majority populations are denied alternatives which may assist them in understanding and describing their world. Westernization is not modernization! Westernization is not progress! Westernization is simply a way of life whose final test, like all ways of life, is its ability to bring its followers peace, harmony, and personal meaning.

Organization of Report

The report consists of five chapters and six appendices. Chapter 1 discusses the background and methods. It also discusses the limitations of the study including the short time available for the completion of the report (three months), the many definitions of "Native Hawaiian," the limited number of Native Hawaiian mental health professionals available for participation in the study, and the serious problems with the existing data bases. Chapter 2 discusses Western and Hawaiian conceptions of

mental health and the extensive but unused literature on Hawaiian health concepts and practices.

Chapter 3 discusses the theoretical assumptions that guided the study and relevant socio-demographic data on Native Hawaiians. It also presents the results of analyses of existing data bases and resources. Chapter 4 examines service utilization patterns of Native Hawaiians and the lack of cultural accommodation within the mental health system. The chapter closes with a discussion of the many activist movements and activities of Native Hawaiian people, a fact which the task force believes signals a growing revitalization of Hawaiian culture. Chapter 5 presents the conclusions and the recommendations. The recommendations are divided into those which address program needs and research needs.

The appendices provide valuable supplementary material for the report including coverage of pertinent Hawaiian terms, personal statements of Native Hawaiians testifying to the quality of their life, a compendium of relevant mental health literature, quotes from Hawaiian literature designed to provide insights about the nature of the Native Hawaiian experience, and supplementary tables from statistical reports.

The present report was intentionally structured to provide readers with a comprehensive understanding and appreciation of Native Hawaiian mental health needs by juxtaposing technical material with literary and subjective accounts of the Hawaiian experience. It was felt that this perspective would offer a deeper awareness of the Native Hawaiian condition.

The Native Hawaiian Population

An analysis of current social and demographic data on Native Hawaiians revealed that they constitute approximately 12% to 18% of the state's population, depending upon the definition of "Hawaiian" which is used. Native Hawaiians are, on the average, younger than the state population and live in larger households and families. There are more female household heads among Native Hawaiians. In addition,

Native Hawaiians have lower levels of educational attainment and lower average incomes. They are also less likely to be employed in executive, managerial, and professional positions.

The report summarizes the many different definitions of Native Hawaiian which are used by public and private agencies. The variations in these definitions point to a serious problem in identifying the Native Hawaiian population. The report also points out the fact that there are many different patterns of identification with Native Hawaiian life styles. Clearly, Native Hawaiians are not a uniform group. But it is also clear that the largest numbers of Native Hawaiians include those who are disenfranchised from participating in the dominant society and who are forced to live marginal existences caught between a devalued past and unacceptable present and future.

Methods

Within the brief amount of time available for the preparation of this report, the task force gathered all published and unpublished reports on Native Hawaiian mental health and also conducted brief surveys to supplement the findings. Most of the materials collected and analyzed were reports from state health agencies and from community action groups serving Native Hawaiians. Additional surveys of health officials and workers were conducted to provide data on cultural accommodation to Native Hawaiian life styles and sensitivity to Native Hawaiian problems.

A thorough evaluation of these materials revealed that they were characterized by many methodological problems which limited the validity of the findings. For example, the state health reports are often not standardized by age and they use diagnostic records which are notable for their unreliability. Community surveys are few in number and are not representational of the Native Hawaiian community. As a result, the statistical findings are, at best, a crude index of the Native Hawaiian mental health needs.

General Findings

The study indicated that, in comparison to statewide population estimates, Native Hawaiians have:

- Higher proportions of social problems with family, people, and children, including higher proportions of assaultive acts and antisocial behavior;
- 2. Higher proportions of alcohol and narcotics use;
- 3. Higher proportions of school performance impairment;
- 4. Higher rates of suicide among young adult and elderly males; •
- 5. Higher rates of child abuse and neglect (second only to Samoan populations);
- 6. Higher rates of residence in correctional institutions;
- 7. Higher rates of academic failure and poor school performance; and
- 8. Higher levels of stress as indexed by leading stress markers including poverty, educational level, single family households, dwelling density, and so forth.

The study also revealed that Native Hawaiians under-utilize mental health services because they are unacceptable as presently structured and delivered because they fail to accommodate Native Hawaiian values and life styles. There is little use of Hawaiian values and norms as treatment goals, there is little use of Hawaiian beliefs to describe problems, there is little awareness of Hawaiian cultural beliefs and practices regarding health, and there is little use of Hawaiian language terms in health care.

Virtually no training in Hawaiian culture is provided to public mental health workers. Further, there are few Native Hawaiian mental health professionals. There are some examples of successful Hawaiian-based mental health programs such as Hale Ola and the Opelu Project, but these are exceptions and even they do not receive the full financial support deserved and required to achieve their goals. The outcome of this indifference and this failure to accommodate Native Hawaiian ways of life is an

absence of professional resources for mediating mental health problems and high personal, social, and economic costs to the community.

The study found that there is an extensive history of Hawaiian health beliefs and practices which could be used to provide culturally relevant mental health services. Practices such as holoponopono and lomi lomi could easily be included in existing service delivery programs. The former is a potent form of counseling which has proved to be a successful method of intervention throughout the Native Hawaiian community. But what is required in order to implement these health beliefs and practices is a major change in the ideologies and practices of the public mental health system.

Lastly, the study found that there is a growing sense of activism among Native Hawaiians which can be tapped to promote mental health. The report documents an extensive series of organizations and activities which reflect the Native Hawaiian struggle for empowerment, cultural pride, and competence. They demonstrate the potential vitality which is present in the Native Hawaiian — a vitality which could be used as the basis of promoting Native Hawaiian mental health and preventing illness and alienation.

Recommendations

The task force's recommendations are extensive. They include program recommendations and research recommendations. Recause of their length, they will not be presented in toto in the present summary. The recommendation section should be read in its totality to fully appreciate the effort that is needed to cope with the mental health needs of Native Hawaiians.

The program recommendations argue for:

- The renewal and perpetuation of Hawaiian values to assist in the promotion of pride, self confidence, and personal power among Native Hawaiians.
- The development of autonomous mental services which are community based and controlled by Native Hawaiians and which are committed to Hawaiian culture,

history, and language.

- 3. The development of educational training programs within the school system and within higher education institutions to facilitate an increase in the number of Native Hawaiian mental health professionals.
- 4. The implementation of cultural sensitivity and awareness programs under continuing education program auspices for mental health service providers. Certification of professional competence for dealing with Native Hawaiians should be required.
- 5. The development of political, economic, educational, and social programs to encourage empowerment.
- 6. The development of more programs to increase the availability of land to Native Hawaiians since it is from a relationship with the 'aina that all mental and spiritual health flows.

The research recommendations proposed by the task force were shaped by the mental health needs which the study revealed and by the following guidelines for conducting relevant research: (1) mental health researchers should be cognizant of and sensitive to Native Hawaiian culture, history, and language (2) research should be directed toward building community competence; and (3) research should involve Native Hawaiian people in the planning, conduct, and interpretation of investigations.

The following research recommendations were proposed:

- Conduct social epidemiological studies which focus on role expectations, performances, and adjustments rather than psychiatric epidemiological studies, which emphasize rates of severe mental disorders.
- Conduct studies of natural support systems and networks.
- 3. Conduct studies of mental health service delivery options and preferences.
- 4. Conduct translation studies of Hawaiian language materials which involve health beliefs and practices.

- 5. Conduct evaluation studies of the effectiveness of existing educational programs including both public and private schools and institutions.
- 6. Conduct studies of ethnocultural identity and develop measures of alternative life styles and their impact on health practices and outcomes.

MEDICAL TASK FORCE

MEDICAL TASK FORCE EXECUTIVE SUMMARY

Purpose

The purpose of this report is to present a description of the current health needs of Native Hawaiians residing in the State of Hawaii, to identify factors which negatively affect Native Hawaiian use of health care services, and to suggest recommendations for adapting health care delivery to more effectively address the needs of this population.

The report is the result of a study conducted by task force members over a five-month period in 1985. The limited time and resources available to the task force prevented the systematic collection of new data and necessitated restricting the focus of the study to serious health problems having high prevalence among Native Hawaiians, specifically health problems associated with pregnancy and infant morbidity, diabetes, hypertension, heart disease and cancer. Furthermore, the field interviews were confined to health care programs on the Island of Oahu.

Within these limitations, the study undertook the following tasks: 1) to analyze existing data sets in order to compare the health status of Native Hawaiians with other ethnic groups in Hawaii; 2) to summarize data from existing agency reports regarding the relative prevalence of risk factors for disease among Native Hawaiians; 3) to summarize data from existing agency reports regarding the utilization of health services by Native Hawaiians; 4) to interview administrators and health workers in selected programs regarding apparent barriers to health services experienced by Native Hawaiians; 5) to describe the health

needs of Native Hawaiians within a comprehensive conceptual framework; and 6) to develop recommendations based on the study for improving health services delivery to Native Hawaiians.

Conceptual Orientation

The Medical Task Force Report begins with a recognition that the health problems of Native Hawaiians reflect in large measure the social situation of contemporary Native Hawaiians. Native Hawaiians during the past 200 years have faced traumatic social changes. These changes have resulted in the loss of many traditions and have raised serious questions about the survival of Native Hawaiians as a distinctive people. Furthermore, the political and economic transformations of Hawaii, culminating with statehood and a modern commercial and service economy, have had the consequences of the loss of control over land and the loss of political power. Native Hawaiians currently are socioecomically disadvantaged compared with the ethnic groups who have entered the Islands during the past 200 years. The combination of disculturation and low socioeconomic status is reflected in high rates of many social problems, a life expectancy about 6 years lower than the state average, and a high prevalence of many health problems in the contemporary Native Hawaiian population.

There is a tendency today to blame low status groups who experience health problems on improper behavior, and to approach improving health through efforts at controlling "undesirable" behavior, such as overweight, drinking, and smoking. There can be no question about the fact that these behaviors underlie health problems. However, many of these behaviors are themselves the product of stressful social conditions and a lack of resources

NUTRITION/DENTAL TASK FORCE EXECUTIVE SUMMARY

I. PURPOSE

The purpose of this Task Force was to determine the nutritional and dental needs of Native Hawaiians. By assessing their needs, we would be more equipped to plan intervention programs suited to these needs. Thus, such programs may be effective in the solution of their nutritional and dental problems.

Three areas were selected as key indicators of the nutritional needs of Native Hawaiians. These areas were selected because of their importance and availability of data pertaining to the Native Hawaiians. The first area chosen was maternal and child health because of the vulnerability of this population to nutritional deficiencies which have lasting effects in later life. Second, was the relationship between diet and chronic diseases such as heart disease, diabetes, arthritis, gout and cancer. Third was dental problems because of its importance to physical health and the relationship between diet and dental health.

II. METHODS

Two major sources of data were used for this study. The first was a review of literature on the nutritional and dental status of Native Hawaiians. The nutrition literature review was arranged according to the nutrition problems of the general population and various groups such as pregnant women, infants (0-1 year), preschool children (1-6 years), school-age children (7-16 years) and adults. The review of the nutritional status of the general population traced the development of the dietary practices of Native Hawaiians from ancient times to the modern age. The account on the dietary

practices of modern Native Hawaiians started in 1954 up to the present.

The dental literature review also traced the development of dental health from ancient to modern times. The first methodical study showing a breakdown into different ethnic groups including the Native Hawaiian was done in 1940. Recent sources of data regarding utilization of dental services, dental insurance coverage and dental health manpower were obtained from reports by the Hawaii State Department of Health and interviews with dental health professionals working in the State of Hawaii.

The second source of data were based on the results of medical, dental and nutritional information obtained from records of patients who came to the Maternity and Infant Care Project (MIC) in Waimanalo, Oahu. Two time periods were selected for data collection: visits from 1970 to 1973 and 1980 to 1982 for pregnant women; 1972 to 1973 and 1981 to 1982 for infants; and 1972 to 1973 and 1982 for preschool children (1-5 years old). Two time periods were selected to provide a basis for comparison of data between the 1970s and 1980s. A total of 399 records were abstracted of which 201 were from pregnant women, 100 from infants and 98 from preschool children. Data collected from 1970 to 1973 and from 1980 to 1982 were pooled so that trends between the two decades could be noted.

The Waianae Coast Comprehensive Health Center (WCCHC) was the other site of data collection. The Nutrition Department of WCCHC has a caseload of 1,300 patients of which 1,200 are WIC participants. Of the 1,300 total population, approximately 900 are Native Hawaiians. A chart audit of Native Hawaiian patients who came to the WCCHC was conducted during the week of October 14 to 21,

1985. Recent risks status for entrance into the program were obtained from the certification form and tabulated.

Information from the review of literature and data collected from the MIC Project and WCCHC were summarized. Recommendations for planning nutrition and dental programs were delineated based on the assessment of needs and problems.

III. MAJOR FINDINGS

A. NUTRITION

1. General Population

Early reports have described the ancient Hawaiians as having fine physique and being generally in good health prior to their contact with foreign civilization. Their principal foods were fish, taro, sweet potato, breadfruit, yams, banana, greens, limu (seaweed), coconut, sugar cane and mountain apple. Their diet was simple and limited in variety but adequate to promote growth and maintain good health.

As early as 1954, dietary surveys have shown a decline in the nutritional value of the diet of the Native Hawaiian. A survey conducted in 48 families in Oahu of which half were Native Hawaiians showed that 50% of them had diets that were deficient in calories, protein, phosphorous, iron and vitamin C; three-fourths had insufficient amounts of vitamin A and thiamine.

It has been noted in 1968 that the modern Native Hawaiian still use their traditional foods of taro and poi, but since they are no longer abundant and are expensive, they have resorted to readily available foods in the supermarkets. Their choices are foods high in energy, fats and sugars. Thus, we have seen an overall decline of the diet of the ancient Hawaiian from a simple,

nutritious diet of fish, taro, breadfruit, yams and greens to one that is high in energy, fat and sugar. The change in dietary practices with urbanization and westernization seems to be a pattern which occurred in various countries of the Pacific Basin.

Two other dietary surveys have been conducted recently.

However, one did not include ethnicity data and the other was done on a limited extent having been conducted only in young adults aged 18-26 years. Thus, since 1954, there have been no dietary survey data about Native Hawaiian families to determine any changes in dietary practices that may have occurred since that time.

2. Pregnant Women

Compared with other ethnic groups in Hawaii, the pregnant Native Hawaiian women have poor pregnancy outcomes. They have more fetal deaths, higher infant mortality rates and have a higher percentage of low birth weight infants. They also have a high number of teenage pregnancies. MIC data showed that compared with women in the 1970s, women in the 1980s had more miscarriages; their babies also had lower Apgar scores at 5 minutes (measurement of the overall condition of the neonate such as heart rate, respiration, muscle tone, reflex ability and color at delivery). Pregnant Native Hawaiian women in the 1980s also had poor diets and more women drank alcohol. More women had anemia as evidenced by low hemoglobin values. However, women in the 1980s were less overweight, they had access to prenatal care early in their pregnancy and they utilized more of the government programs such as Medicaid and the Supplemental Food Program for Women, Infants and Children (WIC) as compared with women in the 1970s. Thus, there were some improvements in the overall health of pregnant Native Hawaiian women due to the use of these programs. However, they only had a minimal impact on the mother's dietary practices and her pregnancy outcome.

3. Infants

The prevalence of breast-feeding at hospital discharge in the Native Hawaiian mother had increased from 29% in 1969 to 81.5% in 1984. However, only 52% of these Native Hawaiian mothers were exclusively breast-feeding at hospital discharge and 22% stopped breast-feeding at 8 weeks. The mothers who were most likely to discontinue breast-feeding were mix feeders. The Hawaii Milk Bank survey of 1984 indicated that Native Hawaiian women were most likely to mix feed compared with mothers from other ethnic groups. The two reasons most commonly cited for discontinuance of breast-feeding was insufficient milk and sore nipples. Health professionals from the MIC Project stated that lack of support from the hospital and family contributed to the failure to breast-feed.

MIC data in the 1980s showed that bottle-feeding has declined. The introduction of semi-solid and solid foods has shifted from 2 months in the 1970s to 4 months in the 1980s. Infants in the 1980s as compared with those in the 1970s had generally good status as evidenced by greater lengths and weights and less anemia. Infants in the 1980s were also consuming more food compared to the infants in the 1970s and this may be due to the food supplied from the WIC Program. Overfeeding has led to more overweight babies in the 1980s than in the 1970s. Infants in the 1980s had lower head circumference (measure of brain growth) and lower Apgar scores. This may be related to the poor diet and intake of alcohol by their mothers during pregnancy.

4. Preschool Children

Both extremes of energy malnutrition (overweight and underweight) was found in the preschool population both in the 1970s and 1980s. Native Hawaiian preschool children were taller and heavier than their Oriental counterparts. Among the children attending the WIC Program in the 1980s, 10% were above the 95th percentile of weight for height indicating overweight. On the other hand, more than 10% of Native Hawaiian children at various months had low height/age and more than 10% had low weight/height at 12-23 months and 30-35 months indicating undernutrition.

MIC data indicated that Native Hawaiian preschool children in the 1980s weighed less at 1 to 3 years than children in the 1970s. However, by 4 years of age they were more overweight than children in the 1970s. More children in the 1980s were shorter at 3 to 6 years than children in the 1970s. Children in the 1980s were better fed than children in the 1970s and fewer children have anemia. The shorter height at 3 to 6 years and lighter weights at 1 to 3 years of children in the 1980s may be due to the mother's poor diet during pregnancy. However, with the use of additional foods from the WIC Program they were able to catch up in weight by 3 to 5 years. This showed the beneficial effect of the WIC Program in improving the health of children.

5. School-age Children

Native Hawaiian school-age children were as tall as mainland United States children but were heavier than mainland and Oriental children in Hawaii. A dietary assessment of the intakes of school-age children in 1980 revealed that the Native Hawaiian elementary school children had the highest energy intake among all

the other ethnic groups. They also had the greatest intake of high sugar and high fat foods. At the junior high level, they had the highest intake of sugar and second highest intake of fat and calories. At the senior level, they still ranked third highest among all others in caloric intake.

6. Adults

The Native Hawaiian adult was at greatest risk for cardiovascular disease, myocardial infarction, diabetes, hypertension, arthritis, gout and cancer of the breast, lung and stomach than adults of other ethnic groups in Hawaii.

Two nutritional factors contributory to the incidence of heart disease in the Native Hawaiian were being overweight and a diet high in energy and saturated fat. Native Hawaiian adults were taller and heavier than their Oriental counterparts and this was evident from preschool years. Their diets were generally high in energy due to large intakes of food or on some occasions, alcohol. There was also a record of a sporadic or widely fluctuating caloric intake ranging from 1000 kcal for one day and 4000 kcal during weekends. A high percentage of calories from the diet were from fat and mostly from saturated fat.

A high fat diet has also been implicated in the incidence of prostate and breast cancers. Dietary intake studies at the Cancer Research Center of Hawaii showed that Native Hawaiians had the second highest intake of fat in the diet next to the Caucasians. Another dietary factor suspected to be a risk factor in cancer was the high concentration of mutagens in some Hawaiian foods such as dry/salted fish and kalua pig.

B. DENTAL

Prior to 1778, there was very little tooth decay in the young Native Hawaiians and it was virtually non-existent in the young child. By 1930, tooth decay was endemic in Hawaii and the majority of Native Hawaiian children had dental decay. In 1960, a survey revealed that the caries attack rate in Hawaii for the permanent teeth among children 6-14 years was one of the highest in the nation. Dental caries was identified as a serious public health problem and the most prevalent chronic disease affecting the people of Hawaii at that time. Native Hawaiian children had one of the highest DMF (decayed, missing and filled teeth) rates. Subsequent studies also showed that they have one of the highest periodontal disease rates and the poorest dental hygiene.

One of the factors attributed to the decline in dental health was a change in diet from a high starch, low refined sugar diet to a high sugar, low starch diet. Native Hawaiian children had the highest frequencies of consumption of caries-producing foods such as sweet beverages, dessert items, snacks and candy or gum. Other foods which were found to be associated with plaque formation were sweet rolls, sweet breads, manapua (Chinese dim sum or meat and vegetable wrapped in a wheat or rice flour casing) and poi. Poi, the traditional staple food of the Hawaiians, was shown to be positively associated with the number of teeth with heavy plaque accumulation.

Another factor responsible for the high caries rate in Hawaii was the negligible fluoride content of Hawaii's civilian water supply and the repeated defeats of proposals to fluoridate it.

Efforts are underway to get legislation passed for fluoridation of

water supply. There are various programs in the community designed to improve dental health either through education or treatment on an individual or statewide basis, but these have had only a very minimal impact on the reduction of dental problems.

IV. RECOMMENDATIONS

A. NUTRITION

1. Nutrition Education

There is a need to help the Native Hawaiians recognize the essentials of a good diet through nutrition education. Pregnant women need to be informed of the relationship between diet and intake of alcohol and other substances to pregnancy outcome. Children need to learn how to select a balanced diet at home and in school to prevent obesity, anemia and other nutritional problems. Nutrition education should be taught in day care centers and be part of the curriculum in elementary and high schools. Adults need to be shown the benefits of a sensible dietary guideline in the prevention of chronic diseases. These guidelines include eating a variety of foods, maintaining a desirable body weight, avoiding excessive fat, saturated fat, cholesterol, sugar and salt intake, eating foods with adequate starch and fiber, and limiting the consumption of alcohol.

2. Research

Several areas were identified in which data is lacking. These areas include the nutritional status of pregnant and lactating women, infants, preschool children and adults. No studies had been done to elucidate the relationship between the diet of a pregnant Native Hawaiian woman and her pregnancy outcome. There have been no dietary intake studies of Native Hawaiian lactating women to determine the relationship of their diet to the quality of her

breast milk and her infant's nutritional status. Data on the dietary intakes of Native Hawaiian infants, preschool children and adults are outdated since they have been done in the 1970s. Thus, research needs to be done and fostered through support of research funding and facilities.

3. Nutrition Surveillance

State legislators, state and county agencies and private sectors should coordinate efforts to develop a good system of nutrition data collection, retrieval, dissemination and surveillance of the general population. State agencies should coordinate efforts to compile nutritional data according to ethnicity and use this as baseline information to monitor the nutritional status of the population and as basis for formulating nutrition policies.

4. Promotion of Breast-Feeding

Although breast-feeding has increased from 29% in 1969 to 81.5% in 1984, there remains a need to encourage women to breast-feed exclusively, where possible, and follow the 1990 Objectives for Hawaii which states that exclusive breast-feeding should be increased to 75% at hospital discharge and 65% at 8 weeks. Health professionals in the hospital and community needs to encourage women to breast-feed. Pregnant women need to be taught the advantages of breast-feeding and how to breast-feed before delivery. Establishment of support groups in the community to help new mothers to breast-feed successfully is also needed.

5. Continued Funding of Nutrition Programs

The beneficial effects of nutrition programs especially among vulnerable groups such as pregnant women, infants and children have been documented. These programs include the MIC Project, WIC,

Headstart, School Lunch, Expanded Food and Nutrition Education

Program (EFNEP), Nutrition Education and Training (NET) and others.

There should be continued funding of these programs since they are presently being reduced under the current federal administration.

These programs should also be maintained because the Native Hawaiian population have increased their use of these programs and in some instances such as the WIC Program, they were shown to be the greatest users of this program.

6. <u>Provision and Promotion of Native Hawaiian Cultural Food</u> Resources

Sources of Native Hawaiian foods such as fish, taro, sweet potato and yams have decreased due to urbanization. Legislation is needed to restore these food supplies by promoting economic feasibility for farming and restoration of fishing rights. The use of traditional foods should also be encouraged among the Native Hawaiians.

B. DENTAL

1. Fluoridation of Water Supply

Efforts should be enhanced to support the fluoridation of the civilian water supply. Incentives or assistance should be offered to owners of private water systems in fluoridating their water system. Alternative methods of fluoridation such as self-applied fluoride programs should be provided to all children until they have access to fluoridated water.

2. <u>Dental Education</u>

Educational programs addressing oral hygiene, routine preventive dental care for caries and periodontal disease control should be made available to all families. Children in public and private schools should be educated on dental health and hygiene

using methods that are geared to the Native Hawaiian population.

3. Research and Early Dental Treatment

Public and private agencies should work together to do regular surveys of the dental status of Hawaii's population, especially of children. Immediate and appropriate treatment should be provided close to the survey site at no or low cost to those without dental insurance.

4. Dental Protection in Sports

There should be maximum protection against dental injuries for all youngsters involved in competitive sports such as basketball, soccer and hockey by providing them with appropriate mouth and head guards.

HISTORICAL/CULTURAL TASK FORCE

HISTORICAL/CULTURAL TASK FORCE EXECUTIVE SUMMARY

I. Purpose of Report

To provide historical and cultural context to \underline{E} Ola Mau (Hawaiian Health Needs Study Report) with appropriate conclusions and recommendations.

II. Conclusions

- A. Historical and cultural health data on <u>ka po'e Hawai'i</u> (Native Hawaiians) are not adequate. The reasons include lack of systematic attention to health indices for Native Hawaiians, varying definitions and ascertainments of "Hawaiian," and dramatic historical changes in, but irregular enumeration of, Native Hawaiian population bases.
- B. Nevertheless, the available historical information reveals that for more than 1,500 years prior to 1778, there flourished a generally robust native po'e adapting well over the centuries to their island ecosystems in a cluster of midpacific islands later to be called Hawai'i. Cultural values and practices stemmed from basic concepts of lookahi (unity) with a living, conscious and communicating cosmos; harmony with self--na'au (mind), kino (body), 'uhane (spirit), wailua (dream soul), and others--'ohana (family), kupuna (ancestors), 'aumākua (ancestral gods), and nature; observance of kapu (sacred law) and communication with the spiritual realm to maintain mana (special energy). These beliefs and practices were generally effective in promoting wellness and preventing and controlling illness.
- C. Western impact, beginning in 1778, resulted in spiritual devastation and almost complete eradication of the Native

Hawaiians.

The main factors in this decimation were introduced infections, native hypersusceptability and lack of immunity, and happersusceptability and lack of immunity, and happersusceptability and lack of immunity, and happersusceptability and military control, with resulting Native Hawaiian despair and, for many, loss of will to live in a world that had become hostile and no longer meaningful.

D. The illegal overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersusceptable overthrow of the Hawaiian kingdom by a happersu

Most <u>po'e Hawai'i</u> have not adapted to the dominant <u>haole</u> economic, social, political and educational system, unlike many Asian immigrants. Yet, too many Native Hawaiians have embraced some harmful western ways, such as ingestion of excessive malnutrients (fat and sugar) and inadequate dietary fibre; tobacco, alcohol and drug dependence; lack of physical fitness; and malcoping with ko'iko'i (stress).

The current health care system has failed to address and improve the health status of <u>ka po'e Hawai'i</u>.

E. In spite of the grim health profile of our <u>po'e</u>, some traditional Hawaiian cultural strengths persist, and are even admired by some non-Hawaiians, e.g.,: reverence for nature, expressed as <u>aloha 'aina</u> (love of the land), communication with the

spiritual realm, group affiliation over individual assertion, sensitivity to others' moods, avoidance of confrontation, minimization of risk ("ain't no big ting"); child-rearing; desire to continue a basic lifestyle close to the land and sea within an extended 'ohana; and pride of heritage, such as in revitalization of mele (song), hula (dance), other arts and crafts, lawai'a (fishing), mahi'ai (farming), and lapa'au (Hawaiian medicine).

- F. Two main options appear available:
- 1. Continue to ignore Native Hawaiian health problems as has been usual in the past.

Two subsets of po'e Hawai'i will emerge:

a. Native Hawaiians who will undergo further de-Hawaiianization and become assimilated as \underline{non} -Native Hawaiians, even though they may occasionally be identified as Native Hawaiians.

Most of the relatively small number of affluent Native Hawaiians already belong to this class. By attaining personal achievement in and on hawaiian cultural group affiliation. Health problems and other social ills, as "Hawaiian," cease to exist for them. This goal of assimilation was the official mission of the missionaries; was, and still may be, the goal of the Kamehameha Schools; and is still advocated by some Native Hawaiians and many non-Native Hawaiians for Native Hawaiians.

- b. Native Hawaiians who will continue as the landless, dispossessed, culturally-confused, sick, and thus, will persist as "the Native Hawaiian problem."
- 2. <u>Kāko'o</u> (support) Native Hawaiians in furthering our spiritual and cultural identity, so that through our improved coping skills,

self-esteem and support systems for political self-determination and economic self-sufficiency, we may regain our land base for pursuit of more meaningful lives and thus, improved well-being, including health.

- G. We Native Hawaiians may recover and maintain our ethnic identity in two main ways:
- 1. Resistance to the dominant <a href="https://example.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.com/haple.c
- a. Passive resistance, while we quietly maintain aspects of our culture.
- b. Active resistance, through confrontation and control, and thus, with loss of some of our traditional ways.
- 2. Biculturalism (Native Hawaiian and haole), which requires:
- a. Tolerance, respect, understanding and $\underline{kako'o}$ by non-Native Hawaiians.
- b. By po'e Hawai'i:
- (1) Reconstruction: adaptation by adoption of some non-Hawaiian modern technological advances, especially in urban centers.
- (2) Revitalization: use of traditional cultural concepts and practices, where applicable, especially in rural areas.

III. Recommendations

A. Appropriate holistic awareness that health is only one aspect of well-being, and for Native Hawaiians as Native Hawaiians, pride of heritage is paramount.

Thus, the historical and cultural basis for our health plight must be the major consideration, and not merely concern for proximate causal factors, such as specified in the currently-fashionable government model of lifestyle, environment,

health care and biological factors; with programs only in terms of physical health promotion, disease-prevention and intervention.

- B. Primary concern and <u>kāko'o</u> for <u>ka po'e Hawai'i</u> in the following main ways:
- 1. Input by <u>ka po'e Hawai'i</u> in <u>all</u> stages of planning and implementation, with the goal of control by Native Hawaiians ourselves in programs for ourselves. If "none are qualified," then prompt on the job training should begin. This also includes respect for Native Hawaiian sensitivities in the process and use and strengthening of existing Native Hawaiian networks and support systems.
- 2. Build upon current Native Hawaiian cultural strengths by incorporation of appropriate mea pono Hawai'i (valid Native Hawaiian values and practices), such as the basic concept of <u>lokāhi</u> with the cosmos, self, others, land and sea, and <u>'aumākua</u> in nurturing and maintaining mana; and <u>'olelo Hawai'i</u> (Hawaiian language) as essential to restoring and maintaining our culture, and thus, our health.
- 3. Monitoring to assure that programs are of definite benefit to ka po'e Hawai'i, and not merely for promoting non-Native Hawaiian researchers and sustaining administrative bureaucracies.
- C. Systematic and continuous collection, tabulation, and analysis of critical health data by Native Hawaiians on Native Hawaiians for health needs assessments and specific health programs for Native Hawaiians, with the setting of priorities based on importance of need, expertise available, receptiveness of <u>ka po'e Hawai'i</u>, and availability of funds and other resources.

The appropriate agency for these important tasks needs to be

carefully determined.

- D. Definition of realistic, practical and meaningful goals.
- Emphasis on health-promotion in the holistic sense,
 disease-prevention and control within appropriate cultural contexts,
 rather than exclusive end-stage intervention in hospitals.
- 2. Instead of mere improvement of health statistics, such as prolongation of life expectancy of <u>ka po'e Hawai'i</u> to that of <u>haole</u>, with nursing homes for abandoned elderly, we should realize that modern <u>haole</u> lifestyle factors may be largely responsible for illhealth of <u>ka po'e Hawai'i</u>; and <u>haole</u> standards are not necessarily ideal or appropriate for <u>ka po'e Hawai'i</u>.
- 3. Avoidance of simplistic, romantically-idealized, politically-expedient "solutions," that are at high risk for failure, such as the folly of the U.S. Leprosy Investigation Station at Kalawao from 1909 to 1911, and the Hawaiian Homes Rehabilitation Act of 1920.
- E. Health education for Native Hawaiians by trained po'e Hawai'i
- 1. Within the <u>lohana</u> and at the local Native Hawaiian community level.
- Emphasize appropriate Native Hawaiian cultural concepts,
 language and practices.
- 3. Use modern communication methods, where appropriate, such as sophisticated television programs, produced by <u>po'e Hawai'i</u>, using Native Hawaiian cultural motifs and <u>'olelo Hawai'i</u> (Hawaiian language).
- 4. Target specific groups with specific health problems, such as: pregnant teenagers, preschool youngsters with dental caries, youths with cigarette, alcohol and drug-abuse; patients with diabetes, high

blood pressure, obesity, and those at high risk for coronary heart disease and cancer.

- 5. Focus on: prudent nutrition, physical fitness, avoidance of harmful substances, stress-coping, self-care, understanding of common illnesses and complications, optimal use of health-care resources, avoidance of faddism, commercialism, and excessive dependence on professionals.
- F. Education of health personnel.
- Of culturally-experienced and sensitive Native Hawaiians.
- 2. At all levels beginning with hispo (eldest sibling), mākua (parents, uncles, aunts), kūpuna (grandparents, elders), as teachers among peers and to juniors, within extended 'ohana and local Native Hawaiian community existing social support networks.
- 3. Education of Native Hawaiian health professionals, to include not only physicians and nurses, but health educators, health aides, health advocates, health coordinators, health planners, health researchers, and health administrators.
- 4. Support appropriate training of respected native healers.
- 5. Native Hawaiian cultural-awareness training of non-Native Hawaiian health professionals.
- G. Coordination with existing health agencies and institutions, public and private, on specific health programs.
- 1. Appointment of Native Hawaiian health administrator in Hawai'i State Department of Health, at the state level and for each county, to coordinate government health programs for Native Hawaiians with non-government programs, to avoid unnecessary duplication and to fill the gaps, maintain continuity and stability of needed and effective programs, and discontinue ineffective ones.

2. Native Hawaiian community inter-disciplinary Hale Ola (local family health centers) with local governing boards to assure availability, accessibility, acceptability within appropriate cultural context, focused on health-promotion and holistic medical care.

Some suitable models include: Hale Ola Ho'opākōlea, Hale Lōkāhi, Kahumana Counseling Center, Queen Lili'uokalani Children's Center Leeward Unit, Wai'anae Rap Center, Wai'anae Hawaiian Cultural Heritage Center, 'Ōpelu Fishing Project, Ka'ala Farm, Mākaha Farm, Wai'anae Adolescent Family Life Project, Nānākuli Fishing Village, Respite Care, Quick Kōkua, Family Planning Clinic, and Wai'anae Coast Comprehensive Health Center as units in the Wai'anae Coast Coalition for Human Services; Kupulani Project and Queen Lili'uokalani Children's Center Windward Unit; Waimānalo Maternal and Child Clinic and Youth Project; Dr. Emmett Aluli's "barefoot physician" approach on Moloka'i, and the Moloka'i Heart Study.

3. Investigation of reinstituting free medical care for needy po'e Hawai'i at the Queen's Hospital, Kapi'olani Hospital, and Lunalilo Home.

- H. Integration of health programs with others concerned with:
- 1. Land: Regain and maintain Native Hawaiian land base through federal reparations for U.S. illegal overthrow of the kingdom and violation of Native Hawaiian indigenous people's rights. Return of federal ceded lands, pressure for state ceded lands and the Hawaiian Home lands, and proper protection of private Native Hawaiian lands, such as the Bishop Estate, Lili'uokalani Trust, Queen Emma lands, and threatened private Native Hawaiian family lands. Proper use of Native Hawaiian lands for Native Hawaiians: homes, access for

farming, fishing, hunting, wood and plant-gathering; Native Hawaiian community facilities, such as pā and marae (enclosed clearing), for Native Hawaiians' 'aha (gathering), hālāwai (meeting), hō'ike (show), celebrations, ceremonies; and for human services for Native Hawaiians.

- 2. Population control of further in-migration to prevent further unhealthful crowding and its other consequences, such as crime and destruction of natural resources.
- 3. Law: State civil rights law to assure representative health care for po'e Hawai'i.

Laws to restrict sale and use of harmful substances, such as tobacco, alcohol, and specified harmful processed foods.

Education of more Native Hawaiian culturally-sensitive attorneys, legal aides and mediators, with their placement in needed Native Hawaiian communities. Workshops on Native Hawaiian rights.

4. Political self-determination: Locally-elected Native Hawaiian councils and governing boards.

Representation of po'e Hawai'i on all government bodies.

Workshops on political organization and effective action on Native Hawaiian issues. Register every eligible Native Hawaiian to vote; provide transportation to voting booths.

5. Economic self-sufficiency: Job-training, especially for self-sufficiency in living from the land and the sea (<u>vide infra</u> - see below).

Native Hawaiian banks for loans at low interest to <u>po'e Hawai'i</u>.

Restraints on foreign multi-national control of Hawai'i economy and expecially of Native Hawaiian lands.

6. Environmental protection against pollution and destruction of

our natural resources by government, developers, tourism, other commercial interests and the military.

7. Education: Hawaiian language and culture in all public and private schools, with instruction on Native Hawaiian rights and history of exploitation of Native Hawaiians, coordinated with health instruction at all levels.

Increased alternative education programs for Native Hawaiian school age youngsters incorporating health instruction within Native Hawaiian cultural context.

- 8. Housing: Preference for needs of local Native Hawaiians over desires of <a href="mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:mailto:ma
- 9. Transportation: Limitation on automobiles and roads to reduce auto-related morbidity and mortality, and restrictions on destructive air and sea transportation facilities and practices.
- 10. Energy: More use of natural energy sources; less dependence on foreign oil.
- 11. Historic sites: Protection, restoration, maintenance and proper cultural use of Hawaiian historic sites in regular celebrations, ceremonies, cultural laha (gathering), and historical dramas.
- 12. Communication: Appropriate representation (about 20%) of Native Hawaiian culture, language and personnel in all major media (TV, radio, newspapers).

Restriction of commercial advertising of health-harmful marketed products.

13. <u>Lawai'a</u> (fishing): Restoration of <u>nā loko</u> (fishponds) to be maintained by <u>po'e Hawai'i</u>; subsidized cooperative <u>lawai'a</u> until

- such programs become self-sustaining. Appropriate nurturing and protection of Native Hawaiian marine food sources.
- 14. Mahi'ai (farming): Subsidized cooperative, diversified mahi'ai for local needs, engaging Native Hawaiians, until farming programs become self-sustaining; promotion of individual home gardens, and small-scale farming for family subsistence of Native Hawaiian food sources, such as, taro, 'uala (sweet potato), uhi (yam), 'ulu (bread-fruit), mai'a (banana). Models include Ka'ala and Makaha farms.
- 15. Language and culture: 'Aha Pūnana Leo (language nest) for preschool, child-care Native Hawaiian culture-language centers, conducted by trained Hawaiian language speakers and incorporating traditional Native Hawaiian cultural concepts, literature, and practices. Thus, a new generation of Native Hawaiian language speakers will replace the few remaining elderly ones.