Tobacco use prevention and control: implications for Native Hawaiian communities

Abstract: Despite the fact that the State of Hawai'i has the second lowest smoking prevalence rate in the nation, a higher proportion of Native Hawaiians continue to smoke cigarettes. Three data sources are examined and reveal that tobacco use and the health impact of tobacco use disproportionately affects Native Hawaiian adults and youths in Hawai'i. Studies have documented that dissemination of the approaches and methods shown to be effective will reduce the number of young people who become addicted to tobacco, increase the success rate of people trying to quit using tobacco, decrease the exposure of nonsmokers to environmental tobacco smoke, and decrease the burden of tobacco-related diseases and death. Strategies recommended for reducing tobacco use among Native Hawaiians include: (1) the development of collaboration with local school districts to implement school-based prevention programs in conjunction with community-based and media-based activities and (2) the Native Hawaiian Health Programs developing activities to implement the "5 A's" for brief clinical interventions. *Key Words:* Native Hawaiian, tobacco control

Henry M. Ichiho*

Introduction

Tobacco use is the single most preventable cause of death and disease in American society. In the United States, tobacco use annually causes more than 430,000 deaths and costs the U.S. approximately $50-$73 billion in medical expenses alone. While the people of Hawai'i are fortunate to have the second lowest rate of tobacco use in the nation with 18.4 percent of the adults using tobacco, its use still contributes to 16 percent of the deaths of our residents and an annual economic cost of $328 million in hospital and medical costs to smokers who have prematurely died and for treating those who still suffer from illnesses caused by tobacco and their disabilities and lost productivity[1].

Despite the fact that the State of Hawai'i has the second lowest rate in the nation with 18.4 percent of adult tobacco users, a higher proportion of Native Hawaiians (33.8 percent) continue to smoke cigarettes[2]. The impact of tobacco use on the Native Hawaiian population can be evidenced by the prevalence of chronic illness and premature mortality from the conditions that are secondary to tobacco use. The burden of heart disease, cancer, and diabetes is disproportionate among Native Hawaiians compared to other ethnic groups. Table 1 shows the comparison of mortality rates from major causes of death for 2000, and reveals that the mortality rate for Native Hawaiians due to circulatory diseases was 559.4 percent higher than for the state total population; 33.9 percent higher due to malignant neoplasms; and 138 percent higher for deaths due to diabetes[3].

Table 1. Rates of selected major causes of death, State of Hawai'I, rate per 100,000

Cause of Death	Native Hawaiian	Total
Circulatory Disease	471.0	295.5
Heart disease	372.3	221.9
Cerebrovascular	72.0	60.0
Other circulatory	26.7	13.6
Malignant Neoplasm	208.6	155.8
Diabetes	38.8	16.3

Source: Johnson, D.B. et al. A Millennium Update on Native Hawaiian Health, 2000. *Papa Ola Lokahi 2003.*

Tobacco use and Native Hawaiian populations

The availability of data related to tobacco use among the residents of Hawai'i is limited to three known sources: the Behavioral Risk Factor Surveillance System, the Hawai'i Youth Risk Behavior Survey, and the Native Hawaiian Smokers Study. This article assesses and compares the data from these sources and identifies factors that may have an impact on the tobacco use among Native Hawaiians. Also discussed are the evidence-based practices for the prevention, reduction, and control of tobacco use.

The *Behavioral Risk Factor Surveillance System* (BRFSS) is a collaborative effort between the state and the Centers for Disease Control and Prevention in which the Hawai'i Department of Health annually conducts a statewide survey using randomly generated telephone numbers to obtain information from adults 18 years and older about certain risk behaviors. The data are stratified by the following sociodemographic characteristics: age, sex, ethnicity, county of residence, education, employment status, and income. Questions related to tobacco use include the respondent's smoking status (current, former, never smoked), number of cigarettes smoked, and history of quitting smoking.

**Papa Ola Lokahi, 894 Queen Street, Honolulu HI 96813. Tel: (808)597-6550. Fax: (808)597-6552. Email: Ichiho@msn.com*

The survey results for tobacco use status in the 2002 BRFSS show that in Hawai'i, 21.0 percent of the adult resident population report themselves as current smokers (26.1 percent males and 16.0 percent females), 24.3% reported themselves as being former smokers and 54.7% as having never been a smoker. The data of all respondents based on socio-demographic characteristics reveal that the highest proportion of current smokers occurred among individuals 18-24 years old (30.3%), male gender (26.1%), unmarried (28.4%), high school graduate (28.9%), unemployed (48.6%), and income less than $15,000 (26.6%). In assessing the data for specific ethnic groups, of all the Native Hawaiians who responded, 33.8 percent reported being current smokers, 21.3 percent identified themselves as former smokers, and 44.9 percent reported having never been a smoker. The comparison of the smoking status among ethnic groups shows that Native Hawaiians have the highest proportion of current smokers among all the ethnic groups and the lowest proportion of respondents who have never smoked.

In assessing the data for the 1999 BRFSS (the most recent year this question was asked) to determine the quantity of cigarettes smoked per day among all current smokers in Hawai'i, 57.4 percent report smoking less than half a pack per day, 34.8 percent smoke half to one pack per day, and 7.8 percent smoke more than one pack per day. The data by ethnicity reveal that Native Hawaiians are moderate smokers in that 63.3 percent smoke less than half a pack per day, which is close to the overall total of 57.4 percent; 30.9 percent smoke half to one pack per day, which is, again, slightly lower than the state total of 34.8 percent; and only 5.7 percent smoke more than one pack per day, which is lower than the overall state total of 7.8 percent.

The data for the 1,201 current smokers who reported that they quit smoking show that, overall, only 49.0 percent of the respondents said they quit smoking for one day or longer and 51.0 percent did not quit smoking. In examining the data stratified by ethnicity, the highest proportion are Native Hawaiian respondents who reported that they quit smoking (53.5%) followed by the Japanese respondents with 51.7 percent, Filipino with 49.2 percent, and White with 48.1 percent.

In summary, the BRFSS data show that, of the respondents who identified themselves as Native Hawaiian, the proportion of current smokers was the highest (33.8%) among all the other ethnic groups and was higher than the overall state prevalence of 21.0 percent. The data assessing the quantity of cigarettes smoked showed that the Native Hawaiians were moderate smokers in that 36.9 percent reported smoking half a pack per day, 55 percent smoked half to one pack, and 7.4 percent smoked more than one pack. These proportions are comparable to the overall state total of 36.3 percent, 54 percent, and 9.7 percent, respectively. For those respondents who reported that they quit smoking, for the Native Hawaiian respondents, 53.5 percent reported that they quit smoking for one day or longer, the highest proportion among the ethnic groups.

The *Youth Risk Behavior Survey* (YRBS) was developed by the U.S. Federal Government's Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention and state Departments of Education to monitor health risk behaviors among youth. The YRBS is conducted with 6th -8th grade and 9th -12th grade students in the private and public schools in Hawai'i every odd numbered year. The sample of students surveyed for the YRBS was 1,255 students from public and private high schools combined; and 1,409 students from public middle schools.

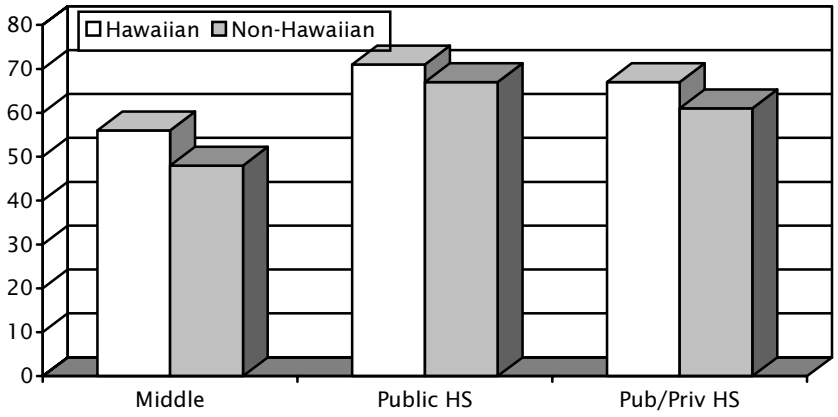
In the Hawai'i YRBS, the data to assess the lifetime prevalence reveal that, in all three survey groups (public middle school, public high school, and combined public and private high schools), the percentage of Hawaiian students who reported having tried smoking was higher than non-Hawaiian students. In the middle schools, 56 percent of the Hawaiian students reported having ever tried cigarette smoking as compared to 48 percent of the non-Hawaiian students. In public high schools, 71 percent and in the combined public and private high schools, 67 percent of the Hawaiian students reported having ever tried smoking as compared to 67 percent and 61 percent of the non-Hawaiian students respectively. In comparing the state data to a national survey, the American Legacy Foundation's *Legacy First Look Report*[4] surveyed middle school and high school students in the U.S. in 1999 to determine the lifetime

Table 2. BRFSS, smoking behavior by ethnicity, 1999 and 2002

Risk Factor	Native Hawaiian	White	Japanese	Filipino	Others	Total State
Currently smoking	33.8	21.0	15.6	19.8	19.0	21.0
Former smoker	21.3	28.3	25.5	20.9	19.5	24.3
Never smoked	44.9	50.7	58.9	59.3	61.5	54.7
Quit smoking for 1 day or longer	53.5	48.1	51.7	49.2	42.3	49.0
Smoke <half pack/day (1999 BRFSS)	63.3	50.1	60.5	59.3	56.6	57.4
Smoke half-1 pack/day (1999 BRFSS)	30.9	37.3	34.9	33.1	41.5	34.8
Smoke >1 pack/day (1999 BRFSS)	5.7	12.6	4.6	7.6	--	7.8

Source: 1999 and 2002 BRFSS, Health Promotion and Education Branch, Hawai'i Department of Health

Figure 1. Lifetime prevalence – cigarette smoking



prevalence of smoking, defined as ever having tried cigarette smoking. The survey showed that, nationally, 29.4 percent of the middle school students and 63.5 percent of the high school students reported having ever tried cigarette smoking.

Therefore, Hawaiian students in middle schools and high schools have a higher prevalence of having tried smoking than non-Hawaiian students in Hawai'i and students who responded to the 1999 National Youth Tobacco Survey.

The data to determine the age of first cigarette use show that, in the middle schools, a higher percentage of Hawaiian students less-than-10-years to 12 years of age smoked a whole cigarette for the first time when compared to non-Hawaiian students. However, at 12 years of age, the percentage of Hawaiian students is slightly lower than non-Hawaiian students until 14 years of age, at which time the percentages are equal between the two groups. These data suggest that a higher percentage of Hawaiian students in the middle schools tend to initiate smoking at an earlier age.

To indicate the progression to the regular use of cigarettes, the proportion of students who smoked cigarettes on 20 or more days over a 30-day period was determined. The data for Hawai'i show that, for middle school students, the percentage of Hawaiian students who smoked more than 20 cigarettes per day was higher (7%) than for non-Hawaiian students (4%). Ten percent of the Hawaiian students and 8 percent of the non-Hawaiian students in public high school reported smoking more than 20 days out of the last 30 days. As a comparison to national data, the results of the 1999 National Youth Tobacco Survey show that 2.2 percent of the middle school and 13.2 percent of high school students reported smoking on 20 or more days in the last 30 days[4].

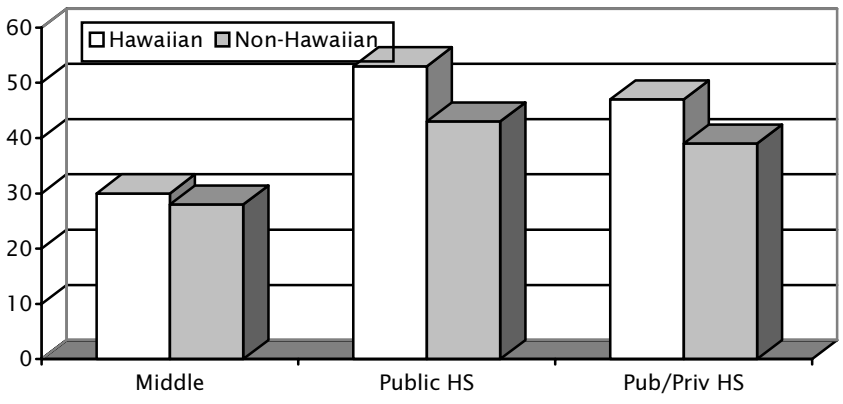
The method of obtaining cigarettes did not appear to vary too widely when comparing the Hawaiian students and non-Hawaiian students within the type of schools. For the middle school Hawaiian students, 8 percent gave someone money to buy cigarettes, 7 percent borrowed cigarettes, and 3 percent bought cigarettes; whereas 7 percent of the non-Hawaiian students borrowed cigarettes, 3 percent gave someone money to buy cigarettes, and 1 percent actually bought the cigarettes. The pattern for the high school students was similar in that the majority borrowed or bought the cigarettes, followed by giving someone money to buy the cigarettes for them. It is interesting to note that only 1 percent of the non-Hawaiian middle school students obtained cigarettes from vending machines and very few students reported stealing cigarettes.

For middle school students who reported trying to quit smoking cigarettes, 30 percent of the Hawaiian students and 28 percent of the non-Hawaiian students reported having tried to quit. Of the students in the high schools, the Hawaiian students (53% in the public high school group and 47% in the public/private high school group) were more likely to report having tried to quit smoking than non-Hawaiian students at 43 percent and 39 percent respectively.

In summary, in comparing the behaviors of Hawaiian youths and non-Hawaiian youths as it relates to smoking, it appears that Hawaiian students are more prone to try smoking, to initiate smoking at an earlier age, and smoke more numbers of days. The most popular methods of obtaining cigarettes are borrowing and buying. Finally, more Hawaiian students in high schools have tried to quit smoking.

The *Native Hawaiian Smokers Study* was sponsored by the Hawai'i Health Department's Tobacco Prevention and Control Program and Papa Ola Lōkahi and analyzed by the Qmark Research & Polling in May 2000. The primary objec-

Figure 2. Try to quit cigarette smoking



tives of the study were to: (1) determine the practices and attitudes Native Hawaiian smokers statewide have toward tobacco addiction and their willingness to quit smoking, (2) measure respondent's awareness of quit-smoking programs, and (3) ascertain the types of health problems currently experienced as a result of smoking cigarettes. The participating agencies included Hui No Ke Ola Pono, Hui Mālama Ola Nā ʻŌiwi, Nā Puʻuwai, Ke Ola Mamo, Hōʻola Lāhui Hawaiʻi, and Papa Ola Lōkahi. A convenience sample of 511 Native Hawaiian individuals who reported that they currently smoked cigarettes responded to the survey. The respondents were evenly distributed among the five health centers.

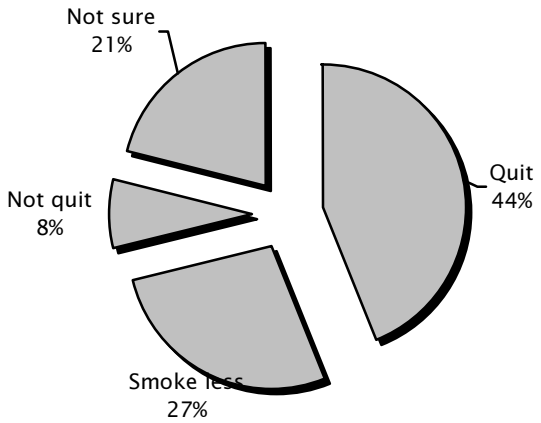
The socio-demographic profile of the population of smokers revealed that 44 percent of the respondents were male and 56 percent were female; 60 percent of the respondents had an education level of high school or less, 27 percent had some college, 7 percent were college graduates, and 2 percent were at the level of graduate school or professional degree. The age distribution showed that 3 percent were less than 18 years of age, 39 percent between 18-34 years, 45 percent between 35-54 years, and 13 percent 55 years and older.

Some of the factors related to smoking show that 79 percent of the respondents were under 18 years of age when they smoked their first cigarette and the average age of when they had their first cigarette was 15.4 years of age. In assessing the number of cigarettes smoked per day by the average age that the respondent started smoking, the data showed that respondents who smoke an average of two or more packs per day started smoking at a younger age (16.1 years) than those who smoke more than one but less than two packs (17.4 years) and those who smoke less than one pack (19 years). The data also show that male respondents smoked 16.3 cigarettes per day and female respondents smoked 14.5 cigarettes per day.

Data on current attitudes towards smoking among Native Hawaiians shows that 44 percent of the respondents would like to quit smoking completely, 27 percent would prefer to smoke less, 8 percent do not intend to quit smoking, and 21 percent are unsure of whether they want to continue smoking.

Of those who would like to quit smoking completely, 85 percent have already attempted to quit and 8 percent have participated in a quit-smoking program. Overall, 70 percent of the respondents have tried to quit smoking at some time in their life while 30 percent have not made any attempts. In examining recent attempts to quit, 45 percent of the respondents have attempted to quit smoking within the last year prior to the survey and have attempted to end their addiction an average of 1.9 times during the past year. In assessing the awareness of quit-smoking programs, only 28 percent of the respondents reported knowing of such

Figure 3. Current attitudes towards smoking



Source: Native Hawaiian Smokers Study, 2000

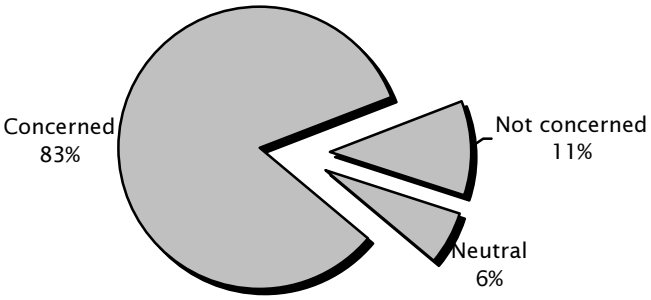
programs; and, of those who visited their physicians within the past year, 58 percent were unaware of quit-smoking programs and 10 percent were unable to recall of such programs.

In exploring the health concerns of the results of smoking, 54 percent of respondents think that their addiction has impacted their health. Of the health effects experienced, 16% reported high blood pressure, 14% identified asthma, 10% diabetes, 5% heart disease, and 2% emphysema. Other health concerns include respiratory problems (50%), fatigue (30%), lung disorders (7%), and coughing (6%).

When asked about the concern for children, 83% of the smokers expressed concern of their children's health from exposure to tobacco smoke while 11% were not concerned. In assessing the smokers by the number of cigarettes smoked, those respondents who smoke less than one pack per day (60%) and between one to two packs per day (52%) are more concerned about exposing children to smoke than those who smoke two packs or more per day (10%). Of those who are concerned about exposing their children, 88% have tried to quit smoking.

In summary, of 511 smokers who were surveyed, the mean age was 38 years, slightly more were female (56%), and the majority had a high school education or less (60%). The

Figure 4. Concern for children's exposure to smoke



Source: Native Hawaiian Smokers Study, 2000

average age of their first cigarette was 15.4 years and 79 percent of the smokers started before the age of 18 years. There is also a relationship between the age of initiation and the amount of cigarettes smoked in that the respondents who smoked more than two packs per day started at a younger age than those who smoke less. The data reveal that only 8 percent of the respondents had no intention to quit smoking; whereas 44 percent would like to quit, 27 percent would like to smoke less, and 21 percent are unsure. The data also show that within the past year 45 percent of the respondents have tried to quit smoking and have attempted on average 1.9 times to quit. A slight majority (54%) of the respondents think that smoking impacts their health, and those who smoke less than two packs are also concerned about exposing children to cigarette smoke with 88 percent of them attempting to quit smoking.

Evidence of effectiveness in reducing tobacco use

Tobacco use is the number one cause of preventable disease and premature death in the United States. As documented in *Reducing Tobacco Use*[5], the widespread dissemination of the approaches and methods shown to be effective, especially in combination, will substantially reduce the number of young people who become addicted to tobacco. These methods will also increase the success rate of people trying to quit using tobacco, decrease the level of exposure of nonsmokers to environmental tobacco smoke, reduce the disparities related to tobacco use and its health effects among different population groups, and decrease the future health burden of tobacco-related disease and death.

The currently available methods and techniques to reducing tobacco use include: educational, clinical, regulatory, economic, and comprehensive approaches. Of these approaches, the educational and clinical approaches have a smaller span of impact, but are found to be of greater importance in helping prevent and reduce tobacco use among individuals and are more likely to be implemented by individual health programs and providers. The economic, regulatory, and comprehensive approaches are more likely to have a larger span of impact and a greater long-term population impact and are more likely to be implemented by state agencies[5].

Educational approachs. The educational approaches to smoking prevention have evolved over the past three decades using different theoretical orientations and program methodologies. The early programs of the 1960s were based on the ***information deficit model*** which assumed that adolescents would not smoke if they were supplied with adequate information about the harmful effects of tobacco. The educational techniques used in these programs included lectures, demonstrations, films, posters, and books intended to raise levels of awareness of the health effects of tobacco use. Many programs did, as intended, increase the knowledge base of the students, but the programs were consistently found to be ineffective in dissuading young people from smoking. The limitations of those approaches led to efforts to identify personal factors related to smoking by young people. Studies in the 1970s observed that use of cigarettes was associated with negative or antisocial patterns of adolescent behavior which were interpreted as a reflection of reduced levels of perceived self-worth and poor attitudes toward family, school, and community. As a result, educational strategies focused on clarifying values, building self-esteem, and developing general skills for decision-making, communication, and assertiveness. These efforts to prevent smoking initiation by developing stronger intrapersonal resources and general social competence are collectively referred to as the ***affective education model***.

Evaluation of these programs demonstrated that they were not much more effective in reducing smoking among young people than programs based on the information deficit model. By the mid 1970s, research found that smoking experimentation by young people was associated with peer smoking, smoking by others in the immediate social environment, and other social and psychological factors. Psychosocial intervention programs, based on the ***social influences model***, were developed that focused on the development of social skills to resist social influences that encourage smoking. The positive results of the early programs stimulated an evolution of the approach through stages of development which then resulted in the currently recognized social influences model for school-based programs to prevent smoking. The main goal of this approach was to equip younger adolescents with specific skills and other resources that would help them to resist direct and indirect social influences to try smoking cigarettes. By the mid 1980s, the analysis of research results indicated that the social influences programs were more effective than programs based only on the information deficit or affective education models in preventing smoking. However, the primary limitation of these programs was that the effect was short-lived. Although the majority of the programs did not permanently protect young people from beginning smoking, they did delay the initiation of smoking for several years.

More recent research has expanded on the traditional school-based scope of educational methods to multifaceted programs to counteract the multiple sources of influences that promote the initiation of smoking. These multifaceted programs utilize the positive influences of parents, community organizations, and the mass media in conjunction with a strong school program based on the social influences model. Results show that these multifaceted programs can achieve smoking prevention effects that persist throughout the high school years more consistently than programs based only in schools. In conclusion, educational strategies

conducted *in conjunction with* community- and media-based activities can postpone or prevent smoking onset in 20 to 40% of adolescents.

Clinical Approach - Minimal Clinical Interventions: As the educational approaches focus on the aspects of preventing the initiation of smoking, the clinical approaches focus on promoting cessation and abstinence among current smokers. National survey data suggest that nearly 70 percent of American smokers make at least one outpatient health care visit each year; however, only 40-52 percent of the smokers reported that they had been advised by a health care professional to quit smoking. More than 50 percent of adult smokers in the U.S. saw a dentist in 1992, but fewer than 25 percent reported that the dentist had advised them to quit smoking[6].

The minimal clinical interventions are those that can be delivered briefly to smokers by health care professionals during the course of a regular health care encounter. However, many clinicians believe that they are not equipped to help smokers quit[6]. Training programs have been developed; however, data suggest that simply training clinicians may not be effective. Research has shown that strategies for institutional changes can increase the systematic delivery of minimal clinical interventions for smoking cessation.

The Clinical Practice Guideline *Treating Tobacco Use and Dependence*[6] has recommended that health care professionals use the "five A's" to help their patients quit smoking (Table 3). All patients seen in a primary care setting should be routinely **asked** about their smoking status. All patients who smoke should be **advised** to quit. Clinicians should **assess** their patient's willingness to quit and to **assist** those who want to quit. Clinicians should **arrange** for a follow-up visit to discuss smoking cessation within two weeks of the date to quit.

For patients who are not ready to quit, clinicians should use a brief intervention designed to promote the motivation to quit through education and reassurance. Such motivational interventions should be built around the "5 R's": relevance, risks, rewards, roadblocks, and repetition (Table 4).

Clinical Approach - Intensive Clinical Interventions: Formal or organized intensive clinical interventions are multi-session counseling programs involving intensive contact between a health care provider and a smoker. While these intensive interventions tend to be more expensive and reach fewer smokers, they are more successful at helping people quit smoking. The intensive clinical interventions may be characterized by "structure" or "content". The structural variables include the credentials and training of providers; type of treatment format - individual, telephone, or group; session length; number of sessions; and duration of follow-up. Relatively little research has been conducted on how the structural variables of intensive interventions affects the outcomes. However, research has shown that increased patient contact results in better outcomes. The content variables include the specific information, materials, and techniques to which smokers are exposed during the course of treatment.

The components of intensive interventions include: assessment, program clinicians, program intensity, program format, type of counseling and pharmacotherapy (Table 5).

Because intensive smoking cessation programs differ in structure and content, evaluation is hampered by variation in methodology and lack of research addressing specific treatment techniques. Other methods of intensive intervention such as aversion techniques, which include rapid smoking, satiation therapy, rapid puffing, and focused

Table 3. The "5 A's" for brief intervention

The 5 A's	Action
Ask about tobacco use.	Implement a system that ensures that, for every patient at every clinic visit, tobacco-use status is queried and documented.
Advise to quit.	In a clear, strong, and personalized manner, urge every tobacco user to quit.
Assess willingness to make a quit attempt.	Ask every tobacco user if he/she is willing to make a quit attempt at this time (within the next 30 days).
Assist in quit attempt.	Help the patient with a quit plan.
Arrange follow-up.	Provide practical counseling (problem solving/skill training). Provide intra-treatment social support. Help patient obtain extra-treatment social support. Recommend the use of approved pharmacotherapy. Provide supplementary materials. Schedule follow-up contact - either in person or by telephone.

Source: Public Health Service. Clinical Practice Guideline: Treating Tobacco Use and Dependence, June 2000.

Table 4. The "5 R's" - Enhancing motivation to quit tobacco	
Relevance	Encourage patient to indicate why quitting is personally relevant, be specific. Motivational information has great impact if it is relevant to patient's disease status or risk, family or social situation (children at home), health concerns.
Risks	Highlight risks that are relevant to patient. *Acute risk*: shortness of breath, harm to pregnancy, impotence, infertility. *Long term risks*: heart attack, strokes, lung cancer, chronic lung disease, long term disability. *Environmental risks*: Increased risk of cancer and heart disease in spouse, increase risk for low birth weight, SIDS, asthma, middle ear disease, respiratory infections in children of smokers.
Rewards	Identify potential benefits of stopping tobacco use. Improved health, food taste better, save money, feel better about self, set good example for children, healthier babies and children, feel better physically, perform better in physical activities.
Roadblocks	Ask about barriers or impediments to quitting and note potential elements of treatment that could address barriers: withdrawal symptoms, fear of failure, weight gain, lack of support, depression, enjoyment of tobacco.
Repetition	Motivational intervention should be repeated every time an unmotivated patient visits the clinic setting. Tobacco users who have failed in previous quit attempts should be told that most people make repeated quit attempts before they are successful.
Source: Public Health Service. Clinical Practice Guideline: Treating Tobacco Use and Dependence, June 2000.	

smoking; cue exposure; nicotine fading; motivational rewards; weight control; hypnosis, and acupuncture have not been shown to have long term effectiveness when used alone. However, some of these techniques may be useful when used as part of a multi-component treatment program.

Strategies for reducing tobacco use among Native Hawaiians

The current literature documents effective strategies for reducing tobacco use; however, these strategies have focused on mainstream cultures and have not been adapted for minority populations. Very little research has been done to determine the effective approaches and practices for tobacco prevention and cessation specifically for Native

Table 5. Components of an intensive intervention	
Assessment	Assessments should ensure that tobacco users are willing to make a quit attempt using an intensive treatment program.
Program Clinicians	Multiple types of clinicians are effective and should be used. The medical or health care clinician can deliver health risk and benefit messages and deliver pharmacotherapy; non-medical clinicians can deliver additional psychosocial or behavioral interventions.
Program Intensity	Based on the evidence of a strong dose-response relation, the intensity of the program should be: session length - longer than 10 minutes; number of sessions - four or more sessions; total contact time - longer than 30 minutes.
Program Format	Individual or group counseling; proactive telephone counseling may be effective; use of adjuvant self-help materials is optional; follow-up assessment intervention procedures should be used.
Type of counseling	*Practical Counseling:* Problem-solving/skills training to include recognizing danger situations, developing coping skills, basic education and information. *Intra-treatment Support:* Continued encouragement in the quit attempt, communicate caring and concern, encourage patient to talk about the quitting process. *Extra-treatment Support*: Train patient in support solicitation skills, assist and prompt support seeking, arrange outside support.
Pharmacotherapy	The first line agents include: bupropion SR, nicotine gum, nicotine inhaler, nicotine nasal spray, and nicotine patch.
Source: Public Health Service. Clinical Practice Guideline: Treating Tobacco Use and Dependence, June 2000.	

Hawaiian populations. Prior to implementation of any tobacco prevention or cessation programs, support from the Native Hawaiian community should be obtained and program approaches, materials, and services should be adapted to be culturally and age appropriate.

The data show that Native Hawaiians tend to start cigarette smoking at an earlier age, have the highest prevalence of smoking among the ethnic groups, and almost half of the smokers report that they would like to or have tried to quit. Therefore, two main intervention strategies that should be the primary focus of Native Hawaiian health programs include: (1) the educational strategies to prevent youth from initiating smoking and (2) the brief clinical strategies to identify smokers and assist them to quit.

Strategy 1. Develop collaboration with the local school district to implement school-based tobacco prevention programs in conjunction with community-based and media-based activities. The Center for Disease Control and Prevention, *Guideline for School Health Programs to Prevent Tobacco Use and Addiction*[7] recommends the following seven strategies that should be implemented together to achieve maximum impact: (1) Develop and enforce a school policy on tobacco use. (2) Provide instruction about the short and long term consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills. (3) Provide tobacco-use prevention education in kindergarten through 12th grade with instruction especially intensive in middle school and reinforced in high school. (4) Provide program-specific training for teachers. (5) Involve parents and families in support of school-based programs. (6) Support cessation efforts among students and all school staff who use tobacco. (7) Assess the tobacco-use prevention program at regular intervals.

Strategy 2. In clinics of community health systems, develop strategies and activities to implement the "5 A's" for brief clinical interventions. The following activities are recommended: (1) ASK - Implement a system-wide procedure that ensures that tobacco use status is documented for every patient at every clinic visit; some examples include expanding the vital signs to include tobacco use, use of a universal identification system such as tobacco use status stickers on patient charts or use of computerized reminder systems. (2) ADVISE - Urge every tobacco user to quit in a *clear*, *strong*, and *personalized* manner. (3) ASSESS - Determine the willingness to make a quit attempt. If the patient is not willing to quit, provide a motivational intervention built around "the 5 R's". (4) ASSIST - Help the patient with a quit plan: (a) set a quit date; (b) tell family, friends, and coworkers about quitting and request understanding and support; (c) anticipate challenges including nicotine withdrawal symptoms; (d) remove tobacco products from the environment; and (e) provide supplementary education materials. (5) ARRANGE – Help the patient by providing or arranging for services: (a) schedule follow-up contact either in person or by telephone; (b) provide problem-solving skills, training, and counseling; (c) provide intra-treatment support; and (d) help obtain extra-treatment social support.

Tobacco use presents a significant behavioral risk among Native Hawaiians because of the early initiation of tobacco use among teenagers and the higher proportion of Native Hawaiian adults who continue to smoke. Currently, culturally appropriate evidence-based practices to prevent and control tobacco use among Native Hawaiians do not exist. Much more research needs to be done to determine the culturally appropriate approaches that will effectively address the methods for preventing and controlling tobacco use among Native Hawaiians.

References

1. Hawai'i Community Foundation. *Tobacco Use Prevention and Control in Hawai'i: A Five-Year Plan for the State.* February 2, 2001.
2. State of Hawai'i, Department of Health. *Behavioral Risk Factor Surveillance System, 1999 and 2002.* Available at http://www.state.hi.us/health/stats/surveys/brfss02.html; accessed in 2004.
3. Johnson, DB, et al. *A Millennium Update on Native Hawaiian Health, 2000*. Honolulu, HI: Papa Ola Lōkahi; 2003.
4. American Legacy Foundation. *Legacy First Look Report: Cigarette Smoking Among Youth: Results from the 1999 National Youth Tobacco Survey*. Washington, DC: American Legacy Foundation; June 2000.
5. U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2000.
6. Fiore MC, Bailey WC, Cohen SJ. *Clinical Practice Guideline: Treating Tobacco Use and Dependence.* Rockville, MD: Department of Health and Human Services, Public Health Service; June, 2000.
7. U. S. Department of Health and Human Services, Centers for Disease Control and Prevention. *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction*. Atlanta, GA: MMWR 43(RR-2); 1-18; 02/25/1994.

■