Asian American Network for Cancer Awareness, Research, and Training (AANCART): Fifth Asian American Cancer Control Academy

Supplement to ***Cancer***

Seizing the Moment

California's Opportunity to Prevent Nutrition-Related Health Disparities in Low-Income Asian American Populations

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Presented at the Asian American Network for Cancer Awareness, Research, and Training (AANCART): Fifth Asian American Cancer Control Academy, Sacramento, CA, October 22–23, 2004.

Supported by the USDA, Food Stamp Program, an equal opportunity employer and provider, and through the California Nutrition Network for Healthy, Active Families, and by the National Cancer Institute NCI (Administrative Supplement CA086322).

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Received June 2, 2005; accepted July 25, 2005.

Asian Americans and Pacific Islanders (AAPI) have the fastest growing rate of overweight and obese children. Aggressive programs are urgently needed to prevent unhealthy acculturation-related changes in diet and physical activity and to promote the healthier aspects of traditional lifestyle habits. We conducted focus groups and key informant interviews to explore knowledge, attitudes, dietary practices, and physical activity levels among three low-income Asian American ethnic groups, Chinese, Vietnamese, and Hmong, in California. Content analysis was used to identify similarities and differences among the groups. Several common health beliefs clearly emerged. Participants noted the importance of fresh (not frozen) fruit and vegetable consumption and physical activity for general health. The concept of good health included having a harmonious family, balance, and mental and emotional stability. All groups also expressed the general belief that specific foods have hot or cold properties and are part of the Yin/Yang belief system common to Asian cultures. The lure of fast food, children's adoption of American eating habits, and long work hours were identified as barriers to a healthy, more traditional lifestyle. A California campaign for Asian Americans using multilevel strategies is recommended to counter the alarming rise of obesity among AAPI youth. Strategies directed to individual, community, and policy levels should emphasize maintenance of healthy traditional diets, informed selection of mainstream U.S. foods, and promotion of active lifestyles to prevent an impending burden from cancer and nutrition-related chronic diseases in AAPI populations. ***Cancer*** **2005;104(12 Suppl):2962–8.** © *2005 American Cancer Society.*

KEYWORDS: Five A Day, Asian Americans, Chinese, health disparities, Hmong, nutrition, obesity, physical activity, Vietnamese.

Cancer, diabetes, and cardiovascular disease account for two-thirds of all deaths in the U.S. and about $700 billion in direct and indirect economic costs per year.[1] The combination of poor diets and physical inactivity, resulting in overweight and obesity, causes more than 400,000 deaths a year, and an estimated one-third of all cancers as well, contributing more than any other risk factor except tobacco use to early mortality in the U.S. population.[2,3]

The prevalence of overweight and obesity has increased rapidly in the U.S. over the last two decades. Nearly two-thirds (64%) of U.S. adults are overweight, while greater than 30% meet the criterion for obesity.[4] Most American adults continue to gain weight throughout their lives,[5] and Californians are no exception.[6] Weight gain in adulthood is independently associated with the risk of cancer at several

DOI 10.1002/cncr.21514
Published online 7 November 2005 in Wiley InterScience (www.interscience.wiley.com).

sites: breast (among postmenopausal women), endometrium, prostate, colon, liver, ovary, pancreas, kidney, and gallbladder.[1,7] The prevalence of overweight in children has also increased dramatically,[8] doubling since 1980 for children and tripling for adolescents.[9]

Fruit and vegetable intake is the single most important qualitative aspect of diet for disease prevention.[10] The recent *Report of the US Dietary Guidelines Advisory Committee*[11] concluded that greater consumption of fruits and vegetables is associated with reduced risk of cancer, Type 2 diabetes, stroke, and perhaps other cardiovascular diseases and weight management. It is also clear that physical activity is associated with the prevention of weight gain in addition to other direct beneficial health effects. Evidence shows that for most adults about an hour a day of moderate-intensity activity is required to prevent significant weight gain.[12–15]

Immigration and Acculturation

Many immigrant groups arrive with relatively advantageous dietary and physical activity habits that deteriorate the longer they live in the U.S.[16,17] While they no longer face problems of endemic undernutrition, immigrant groups confront a whole new set of risks involving weight gain, physical inactivity, and increased availability and popularity of high-fat, high-sugar foods. Prompted by aggressive food marketing and lack of reinforcement of the value of traditional healthy food habits in the new environment, immigrant dietary patterns change quickly. At the same time, physical activity patterns often downshift to more sedentary lifestyles. While acculturation occurs at variable speeds, second-generation immigrants usually exhibit patterns of risk factors and disease mirroring those of the new environment. In the case of breast cancer, for example, Japanese American women living in San Francisco are five times more likely to develop the disease than Japanese women living in Japan, with breast cancer incidence rates now greater than those of non-Hispanic white women.[18] Such relatively rapid changes indicate that lifestyle factors are of greatest importance.[19]

Dietary changes after immigration to the U.S. have been most thoroughly documented in the largest immigrant population—Hispanics. Several studies have compared dietary patterns of first-generation with second-generation Hispanic immigrants or examined the diets of first-generation immigrants relative to time residing in the U.S. and have shown increasingly poor diet quality with time spent in the U.S.[20–25] Data from the national Longitudinal Study of Adolescent Health[26] also indicate rapid acculturation of overweight-related behaviors, including diet and inactivity among immigrant Hispanic adolescents, a striking increase between first and second generations, and a correlation between longer length of U.S. residence with overweight among first-generation Puerto Rican and Cuban immigrants. For Asian as well as Hispanic groups, children born outside the U.S. showed less obesity than those born in the U.S. of immigrant parents. This acculturation effect has been documented for Chinese,[27,28] Japanese,[29] and European adult immigrants[30] and for adolescents in Korean[31] and other Asian[26] immigrant families.

Health Disparities among Asian American and Pacific Islander (AAPI) Populations

The Asian American (AA) population is the fastest-growing ethnic subgroup in the United States. The AA designation, however, represents a highly heterogeneous collection of more than 30 groups from throughout east and south Asia. Currently 4% of the U.S. population (10.6 million people), AAs are expected to constitute 11–12% of the national population by the year 2050.[32] California is home to one-third (4.1 million) of the highly diverse AA population in the U.S., 70% of whom are first-generation immigrants.[33]

Despite this growth and significant population size, a paucity of data exists on health status and health-related behaviors of AAs in the U.S.[32] Recent studies, however, sound the call for action. Self-reported height and weight data from the 2001 California Health Interview Survey show that 42% of AA and Pacific Islander (PI) men and 22% of AAPI women were overweight or obese compared with 63% for men and 45% for women in the overall population. More than half (55%) of AAPI men and 42% of AAPI women reported significant weight gain (>20 pounds) since the age of 18 years, only slightly lower than the proportion in the overall population experiencing major weight gain in adulthood.[6] While rates of obesity and overweight are lower among Asian American adults than in the general population,[34,35] evidence is mounting that the level of risk to health for even mildly overweight AAs may be greater than for other ethnic groups. A greater tendency for visceral fat distribution in AAs appears to pose greater risk for impaired glucose tolerance and cardiovascular disease at lower body mass index (BMI) than other ethnic groups.[35–38] The effect on cancer incidence is unknown at this time, but the overall increase in weight at earlier age is of concern. For example, AA girls are starting their menses earlier as their weight increases at younger age than their Asian counterparts, and earlier onset of menses is a known risk factor for breast cancer.[39,40]

The impact of obesity and overweight on the

health of the AA population is especially important for children. A recent study based on the 1996 Medical Expenditure Survey Household Component found that among adolescents, AAPIs, along with Hispanics/Latinos, are more likely to be overweight than black or non-Hispanic white youth,[41] and an earlier study found a high risk of sedentary lifestyle among Asian American adolescents.[42] The California Pediatric Nutrition Surveillance System data reveal that from 1994–2003, overweight increased more sharply for California AAPI low-income children (from 7–15%) than for any other ethnic group.[43]

Opportunity to Avoid Diet-Related Cancer: California's Five A Day Campaigns

In the early 1980s, the tiny cancer control unit at the California Department of Health Services (DHS) embraced the promise of nutrition for cancer prevention[44] and the vision of developing large-scale approaches to dietary change. DHS sought to adapt the cancer prevention and the heart disease prevention approaches piloted in North Karelia, Finland, to the California population. The North Karelia project was implemented in the midst of the post–World War II epidemic increase in premature cardiovascular disease among Scandinavian adults. It was designed as a comprehensive community-level program with emphasis on promoting cholesterol-lowering dietary changes through health services, community organizations, media, businesses, and public policy.[45] The result was a dramatic decline in cardiovascular and cancer mortality in men ages 35–64.

A technical capacity grant, funded by National Cancer Institute (NCI) in 1986, laid the groundwork for the *California Five A Day* (five servings of fruits and vegetables a day) nutrition education campaign. In partnership with California's fruit and vegetable industry, a statewide mass media awareness campaign was undertaken in 1988 with the goal of increasing fruit and vegetable consumption. The media and the state's largest 18 supermarkets eagerly embraced the *Five A Day Campaign*. Interest spread across the country and around the globe. In 1991 California's *Five A Day* prototype was licensed to and adopted by the NCI and the Produce for Better Health Foundation, a new industry group with which government entities could work. With the newly established *National Five A Day Program,* NCI committed $16 million to related research, funding nine intervention trials. NCI also licensed state health departments to lead their own voluntary *Five A Day Program* efforts. An external evaluation concluded that, although funded modestly, the *Five A Day Program* had been successful and should be expanded.[46]

By the mid-1990s, the California Department of Health Services (DHS) was developing targeted *Five A Day Campaigns* to reach specific population segments. In 1993 it piloted the *California Children's Five A Day—Power Play! Campaign* aimed at children ages 9–11 years, designed for delivery through schools, community youth organizations, mass media, supermarkets, farmers' markets, and restaurants.[47] In 1994, the first Spanish-language *Five A Day Campaign* began, and in 1998 DHS began the *California Nutrition Network for Healthy, Active Families (Network),* funded by the USDA Food Stamp Program, which aims at increasing nutrition and physical activity among low-income families with school-age children. The *Network* grew from just four agencies in 1996 to nearly 200 public and nonprofit agencies in 2004—from just under $3 million to more than $90 million in local and state resources, earning an equal amount of federal matching dollars to support additional activities. This expansion allowed the *Network* to model itself after California's successful Tobacco Control Program, using a multilevel, comprehensive approach that stresses the changing of social norms to influence individual behavior through systems, policy, and environmental changes. The most recent expansions of the *Five A Day Campaigns* are the *Latino Five A Day Campaign,* the *African American Five A Day Campaign,* and locally generated fruit and vegetable initiatives including the nation's first systemwide phase-in of electronic redemption of Food Stamps at farmers' markets.[48–50]

In total, more than a dozen different intervention channels are being used to reach low-income families including mass media, local health departments, school districts, festivals and flea markets, churches, community colleges, and low-wage worksites. In 2003, evaluation of these efforts showed an increase in the proportion of the population believing that at least five daily servings of fruits and vegetables are needed for good health and possible increases were reported in consumption among the targeted low-income and Latino and African American populations.[51]

Asian American Formative Research Project

Despite the success of the *Five A Day* efforts in California and nationally, to date there have been no large-scale programs targeting nutrition or physical activity for Asian Americans. To inform the design of a proposed targeted *Asian Five A Day Campaign*, DHS and the UCLA School of Public Health partnered to conduct a qualitative exploration of the knowledge, attitudes, opinions, dietary practices, and physical activity among three low-income Asian American ethnic groups in California—Chinese, Vietnamese, and

Hmong. These three groups were selected based on a combination of factors: 1) their population size in California, 2) limited English proficiency, and 3) percentage of the population living in households at or less than 185% of the federal poverty level. Funding limitations did not permit us to include additional ethnic groups at this time.

Sample

A total of 236 participants were interviewed: 15 key informants, 116 adult (all parents) focus group participants, and 105 youth (ages 11–14 years) focus group participants. The adult focus group participants were all low-income, first-generation immigrants.

SUBJECTS AND METHODS

In June 2004, a series of key informant interviews and focus groups were held in northern, central, and southern California. Key informants were identified by community-based agency staff as leaders in the community who would be knowledgeable about the nutritional needs and physical activity behaviors of their community members. These individuals were given a gift certificate of appreciation of $45 for their participation in this project. Recruitment for the focus groups was conducted by word of mouth and flyers in each of the participating community-based organizations by the agency staff. Two focus groups were conducted in each geographic area, in-language, for each of the ethnic groups: Mandarin, Cantonese, Vietnamese, or Hmong. The participants received gift certificates as a gesture of gratitude for their assistance with the project ($30 for adults and $10 for youth).

The 15 key informant interviews and 24 focus groups were tape-recorded, transcribed verbatim, and then translated into English except for those key informant interviews conducted in English. The data were coded and analyzed using ATLAS.ti (v. 4.2, Eden Prairie, MN) software and further summarized first by ethnic group and then across groups using simple thematic content analysis.[52]

RESULTS

Commonalities Among Asian Americans

While considerable diversity among the three groups existed, adults in all ethnic groups were becoming aware of the problem of obesity in America, and some expressed concern about overweight and obesity in their own ethnic group. Several common perceptions of health and healthy living emerged that are relevant to the design of health promotion and nutrition education messages that emerged in these three communities. The general concept of health and healthy lifestyle for the Chinese, Hmong, and Vietnamese clearly involves eating nutritious foods, especially vegetables and fruits, and being physically active as well as a strong emphasis on mental and emotional health and a harmonious family. The latter concept was expressed differently in each group, but is clearly fundamental to their definitions of health.

The perception of healthy foods is dominated by the characteristic of 'freshness,' defined as not frozen, dried, canned, or preserved, and pesticide- and hormone-free. (For example, recently slaughtered meat or fish caught the day of purchase is considered fresh.) In terms of types of foods, vegetables, fruit, lean meat, fish, milk, and water were consistently cited as good for health. Dried and frozen foods, sodas, fried foods, fast food, and excessive sweets were consistently cited as unhealthy and cited as characteristic of American food. Home-cooked meals were considered healthier than restaurant food, and fast food establishments were considered to be unhealthy. Besides American fast food places, the term 'fast food' also signified take-out food, such as Chinese take-out, which was viewed as containing too much oil and fat and, therefore, not healthy.

All adult groups considered their traditional diets to be healthy. A wide variety of vegetables and fruits were cited as well liked and regularly consumed. Availability of vegetables and fruits, including traditional Asian items, was not cited as a problem with the plethora of Asian markets in the communities where these groups are concentrated. However, the cost of healthy foods was mentioned by some as a barrier.

The conceptual domain 'vegetables and fruits' seems to be qualitatively different from the Euro-American concept. Indeed, the concept of 'fruits and vegetables' as a single category was sometimes confusing for focus group participants and interviewees. All groups placed an emphasis on eating vegetables more than fruit. Vegetables are integral to traditional Asian main dishes and are generally eaten cooked. Fruits are consumed raw, and typically eaten after meals or as snacks. There was some feeling expressed that excessive fruit consumption may be unhealthy. The majority of participants reported a general lack of knowledge about recommended levels of fruit and vegetable consumption, physical activity, and their specific health benefits.

All three ethnic groups have native medical systems that influence perceptions of food and health. For instance, all groups expressed the general belief that specific foods have either hot or cold properties, irrespective of their physical temperature, and should be eaten separately and strategically to keep one healthy in various physical and emotional states and also appropriate to the hot/cold property of the spe-

cific season of the year.[53,54] Hot foods are related to soothing and healing the body, whereas cold foods are believed to refresh the body, but can also be related to sickness and adverse affects for women. The hot and cold qualities of the foods are not related to thermal temperature, and are part of the hot/cold balance or Yin/Yang belief system common to Asian cultures, which is similar to the Greek humoral theory of medicine and many indigenous medical systems.[55,56]

Physical activity and exercise were generally understood to benefit overall health by increasing energy and strength, improving physical and mental well-being, promoting weight management, and preventing sickness. Focus group participants cited sports and games, in addition to walking, household chores, and yard work, as forms of physical activity. The most common locations for participating in physical activities included parks, playgrounds, neighborhood streets, and home, but the availability and safety of these sites varied by group and by geographic location. Sedentary activities that children commonly participated in included doing schoolwork, watching television, using the computer, and playing video games.

The struggle between maintaining traditional Asian diets and adopting those of mainstream American culture was evident. Many parents expressed how they often gave in to their children's desire to eat and buy heavily marketed and less healthy foods more than foods served at home or available at school. Many mentioned the lure of fast food because of its easy availability, low cost, and efficiency for parents who are often both working long hours.

Next Steps

To prevent the deterioration of dietary quality and protect the beneficial traditional diet and physical activity patterns, the development of a nutrition and physical activity campaign is strongly recommended for California's low-income, immigrant Chinese, Vietnamese, and Hmong groups. Low English literacy and poor socioeconomic status make outreach and education to these communities complex, but some commonalities exist.

Integrated, multilevel risk factor reduction directed at changing social norms is gaining recognition as essential to attack the problem of nutrition-related chronic disease nationally and globally.[1,57] A considerable investment of expertise, time, and money will be required to target the multiple levels for social change: environment, social groups, communication media, including the ethnic media, markets, worksites and schools, churches, and temples. Healthcare professionals also must be involved.

Three strategies are recommended for a California campaign for Asian Americans. The first is to help reinforce the importance of traditional diets and empower immigrants to be advocates and role models for their children's health. At the individual level, focus on the mothers, who are universally seen as the person most influential in promoting the family's health, would seem most effective. Mothers are usually the ones who are in charge of food purchase and preparation. At the community level ethnic media, especially television and radio, would be effective outlets for the campaign message. In addition, community involvement of teachers, physicians, and community leaders is essential. Third, policy changes at the state and local levels are also needed. Strategies to highlight the problem of childhood obesity and expose food-marketing tactics targeted at ethnic communities should also be explored.

California needs to focus attention on its large and rapidly growing Asian American population. California is ideally positioned to help the AA populations of tomorrow prevent diet- and inactivity-related health disparities before they develop. Asian Americans are still largely first-generation immigrant groups. We now have the ability to prevent the impending rise in burden from cancer and other nutrition-related chronic diseases in the Asian American population by encouraging and reinforcing the maintenance of traditional vegetable-rich, low-fat eating patterns and active lifestyles. Let us seize the moment.

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