APIAHF
HEALTH BRIEF

CHINESE
IN THE UNITED STATES

HISTORY

Chinese immigration dates back to the mid-1800s. With the decline of the African slave trade and the discovery of gold, Chinese workers were brought to the U.S. to work in mines and on railroads. Later labeled the "yellow peril," the Chinese were barred from entering the U.S. on the basis of race by the Chinese Exclusion Act of 1882. This ban remained in effect until 1943, and it was not until 1952 before immigrant Chinese were able to become U.S. citizens. After changes in U.S. immigration laws in 1965, the Chinese American population quadrupled between 1960 and 1985 (Office of Women's Health).

DEMOGRAPHICS

The U.S. Census Bureau estimates that in 2000, over 2.4 million Chinese lived in the United States, the largest ethnic group among the API population (U.S. Census, 2000). This figure includes Taiwanese Americans as well. Chinese Americans make almost one-fourth of the total API population. The majority (63%) of Chinese are foreign born, with the most immigrating from mainland China, Hong Kong and Taiwan. China ranked second among the top ten countries of birth among the foreign-born population in 2000 (Kandula et al., 2004).

ENGLISH LANGUAGE PROFICIENCY

The ability to speak English has a tremendous impact on access to health information, public services (i.e. Medicaid, Medicare, SCHIP), effective communication with providers and emergency personnel, and the ability to understand and utilize medications properly.

Seventy-eight percent of Chinese (excluding Taiwanese) speak a language other than English at home, while 45% are limited English proficient (LEP). These figures are higher than the Asian aggregate figures of 73% and 36% respectively, but lower than for Taiwanese (91% and 51% respectively)(APIAHF, 2005).

In a large study of Chinese adults in San Francisco, low income and monolingual Chinese speaking respondents suffered from health problems such as heart trouble and high blood pressure significantly more than their higher income and more English proficient counterparts. The lack of access to care was reflected in low rates of preventive care usage. Forty-four percent of female respondents had not had a Pap test in the last 24 months, and 78% of male respondents had not had a prostate exam in the last 24 months (Jang, 1998).

POVERTY/INCOME

The relationship between income and health has been well established over the years. Poverty and lower income have been correlated with high rates of death and disease while higher income has been correlated with better health status. Large disparities in income have been linked to lower life expectancy in cross-national comparisons as well as higher mortality and obesity rates at the state level.

Chinese (excluding Taiwanese) and Taiwanese have similar income and poverty profiles. The median household income stands at $51,031 for Chinese and $52,792 for Taiwanese, both higher than the national median figure of $41,994. However, it is important to keep in mind that Asian Americans tend to have higher average household size, which is 2.9 people for Chinese households and 2.8 for Taiwanese, compared to the national figure of 2.6. Appropriately 13% of Chinese Americans and 15% of Taiwanese Americans live below the federal poverty level, slightly higher than the national average of 12% (APIAHF, 2005).

EDUCATIONAL ATTAINMENT

According to the Institute of Medicine (IOM), the likelihood of being insured rises with higher levels of educational attainment. Having a college degree is strongly associated with multiple factors that increase the likelihood of being insured—employment in sectors that are more likely to offer coverage, higher income, and a greater likelihood of choosing employment-based coverage if offered. Previous studies of Census data have shown that adults who did not graduate from high school were almost twice as likely to be uninsured as those with a high school diploma (38.5% compared to 19.6%).

Twenty-three percent of Chinese (excluding Taiwanese) have less than a high school education, higher than the 20% for the U.S. and much higher than the 7% for Taiwanese. Twenty-four percent of Chinese (excluding Taiwanese) have attained a Bachelor's degree at most,

which is more than the U.S. average of 16% and lower than for Taiwanese (30%)(APIAHF, 2005).

IMMIGRATION/CITIZENSHIP STATUS

Citizenship status also has significant and widespread effect on an immigrants' ability to access health services and obtain insurance coverage. While an estimated 15% of citizens lack health insurance, 42% to 51% of non-citizens lack health coverage.

Sixty-three percent of Chinese (excluding Taiwanese) are foreign-born, and 53% naturalize. For Taiwanese, 76% are foreign born and 55% naturalize (APIAHF, 2005).

HEALTH STATUS

It is difficult to characterize the health status of Chinese. Many studies on Asians do not differentiate between the various ethnicities studied. Small sample sizes make it difficult to generalize research findings. Finally, in some cases, data are just not available.

HEALTH INSURANCE COVERAGE

Access to health care among immigrant populations varies widely depending on immigration status, country of origin, and their ability to navigate cultural and linguistic barriers. For instance, immigrants admitted to the U.S. as refugees and asylees are automatically granted Medicaid coverage for five years as part of their asylum, though this does not apply to the rest of the immigrant population (Kandula et al., 2004). Like AAPIs overall, Chinese Americans have significantly less access to health care coverage than whites. In 1997, 20% of Chinese Americans (ages 0-64) were uninsured compared to 14% non-Hispanic Whites. The proportion of Chinese Americans in California that did not have health insurance was even higher (28%), twice the national average for whites (Brown et al., 2001).

Chinese Americans continue to have lower job-based coverage and lower participation rates in Medicaid (2% vs. 6% in Whites) resulting in a continuing disparity in uninsured rates. Lower Medicaid participation rates may be due to widespread concerns among immigrants that enrolling themselves or their children in Medicaid would jeopardize their applications for citizenship. For example, even among U.S. citizens who live in families with children and have family incomes below 200% of poverty (i.e., those who are most likely to be eligible for Medicaid), only 13% of Chinese Americans have Medicaid coverage compared to 24% of whites (Brown et al., 2000).

A random survey of over 1,800 Chinese American adults in San Francisco found that use of health services was strongly correlated with income, language, and citizenship status. Of the respondents who reported not having a particular place to go for health care two out of three were in the lower income group, and nine out of ten were monolingual Chinese speakers. Many cited "no insurance," "not enough money to pay for care," and/or "not able to find a doctor who speaks the same language" as reasons (Jang, 1998).

A qualitative study on the health care use among Chinese immigrants residing in Houston found that cultural and socioeconomic factors are strongly associated with access and utilization of health services (Ma, 2000). More affluent Taiwanese were likely to have health insurance and use Western systems than immigrants from mainland China.

CHRONIC DISEASES

HEART DISEASE & STROKE

A study examining prevalence of hypertension among Chinese adults in San Francisco revealed a high rate of 69% among the sampled population, with only 41% being on antihypertensive medications, compared to national prevalence of 29% and 59% on such medications (Lau et al., 2005). In addition, 45% of patients in self-management of hypertension programs used low-sodium diets and 49% reported regular exercise (as defined by at least 30 minutes, three or more times a week).

CANCER

A telephone survey using surnames as a sampling strategy was conducted to assess cancer beliefs of 798 Chinese immigrants residing in San Francisco, specifically interested in learning whether cancer is thought to be contagious (Wong-Kim et al., 2003). Survey results showed that approximately one out of four believed cancer was contagious. Length of stay with acculturation construct served as a significant predictor towards holding this belief, meaning that the longer the length of stay in the U.S., the more likely the respondent believed cancer is contagious. Those with a higher income were less likely to believe cancer is contagious. Researchers suggested a media campaign that utilizes print, television, radio, and a high-status, credible spokesperson in the community to demystify cancer may be the first step in increasing Chinese immigrant's comfort in talking about cancer.

Breast and Cervical Cancer

While breast cancer is the most commonly diagnosed cancer among Chinese American women (Data

Evaluation and Public Committee of the North American Association of Center Cancer Registries), many experience barriers to potentially life-saving preventive screening practices. Studies have shown that among Chinese American women over 60 years of age, insurance coverage for mammography, acculturation, low perceived need and lack of physician recommendation were significant predictors of whether or not they received mammograms (Tang et al., 2000). Other studies have also shown that cultural values with respect to modesty and sexuality, especially in unmarried women, pose barriers to breast screening. In addition, institutional barriers such as unavailability of information in Chinese languages, few female physicians, and an absence of educational campaigns also contribute to neglect of breast health (Mo, 1992).

A descriptive study using an adapted health belief model to examine predictors of breast cancer screening behavior among Chinese American women in an urban area of Michigan found that a little more than half (53%) in the sample had a mammogram in the past year (Yu & Wu, 2005). This rate is 11% lower than the general population for women aged 40 years and older and 23% lower for women aged 50 and older. Several variables had a direct effect on screening utilization, including access to health care, perceived barriers to mammography screening, need for breast health care, and information-seeking behavior, while cultural affiliation had an indirect effect on screening behavior.

A random sample of 332 Chinese American women residing in the Chinatown area of Chicago, IL, were interviewed to gain an understanding of factors associated with breast and cervical cancer screening knowledge and practices (Yu et al., 2001). Results indicated low screening rates among this sample compared to the general population. Only 35.2% of the Chinese American women sampled reported receiving a clinical breast exam, 12.3% for mammogram, and 36.1% for Pap smear test. These rates are considerably low compared to the national rates of 60.8%, 57.7%, and 94% for U.S. women, respectively, as well as the West Coast Chinese population. Women with more than an elementary level of education and who speak English are at least two to four times more likely to have such cancer screening tests. A major strength of this study was that it captured an underserved population, one that is often missed in national or mainstream surveys due to the group's limited English fluency.

It has been widely noted that culturally sensitive interventions are needed to increase cancer screening rates among minority women. A randomized controlled trial to evaluate the effectiveness of two culturally and linguistically appropriate cervical cancer control educational interventions was conducted among 482 Chinese women living in Seattle, WA and Vancouver, British Columbia (Taylor et al., 2002). One intervention included an outreach worker, educational materials, counseling, and assistance with logistic, while the second intervention group was subjected to a direct mail intervention only. Results showed that both interventions were effective in increasing Pap testing rates, and such interventions should be incorporated in ongoing activities of the U.S. Breast and Cervical Cancer Control Program.

An Asian grocery store-based health education program that took place in San Diego, California designed to examine Chinese women's attitudes and behaviors towards breast cancer screening was successful in identifying barriers to providing access to health promotion information (Sadler et al., 2000). Reasons such as lack of money, language, transportation, and fear were reported as barriers to screening. Participants also reported that the availability of Chinese speaking health care providers, a list of various facilities and cost, and more information about screening procedures and breast cancer would be helpful in easing the screening process. Using grocery store sites allowed researchers to reach Chinese women of all ages, socioeconomic groups, and varying levels of acculturation, and is a recommended strategy for future outreach and research programs.

California has a very established breast cancer early detection program (BCEDP program), including an 800 toll-free number made available in multiple languages: English, Spanish, Cantonese, Mandarin, Vietnamese, and Korean. A study examining the use of targeted advertising with role models demonstrated success in encouraging Asian Americans to call the 800 number and engage in a three-way translated call to qualify for free clinical breast exam and mammograms (Davis, 2003). Given that Asian Americans represent only 1.7% of all callers to the National Cancer Institute's Cancer Information Service, targeted newspapers and radio advertisements in native languages should be considered in future educational campaigns for cancer screening programs as well as other efforts.

DIABETES

National disaggregated prevalence data for diabetes among Asian Americans or Pacific Islanders is not available (American Diabetes Association), although

Asians in general have similar rates of diabetes as non-Hispanic Whites. Asians are 20% less likely than non-Hispanic whites to die from diabetes (Office of Minority Health).

In a qualitative study to examine how Chinese American families respond to type 2 diabetes, it was found that accommodation was the key response. Accommodation practice among persons with diabetes included negotiating disease disclosure (i.e. concealing the disease from others), protecting the family's meals (i.e. encouraging others to eat without restriction), and maintaining ease in family relations (Chesla & Chun, 2005). Accommodation by spouses also centered on negotiating the social and practical aspects of eating and expressing care of the person with diabetes. A pilot study to assess the feasibility and acceptability of a culturally appropriate diabetes management program tailored to Chinese Americans with type 2 diabetes was found to be effective, though further studies with larger sample sizes are needed (Wang & Chan, 2005).

OSTEOPOROSIS

Factors that increase a person's risk for osteoporosis include being female, having a small, thin frame, family history, being menopausal, and being of Caucasian or Asian race (Office on Women's Health). Data from a cross-sectional survey conducted in Chicago's Chinatown revealed that foreign-born Chinese American women are a high-risk group for osteoporosis and appear to have lower bone mass density than white women or American born Asian women (Lauderdale et al., 2003).

INFECTIOUS DISEASES

HEPATITIS B

Chronic hepatitis B virus (HBV) infection rates for Asian Americans stands at approximately 7%, although rates vary among U.S.-born (1.4%) versus foreign-born Asian Americans (ranging from 5%-15%)(Asian Liver Center, Stanford University). The variance is due to the fact that many adults who immigrate to the U.S. do not get tested and subsequently are not vaccinated for the disease. Chinese Americans have higher rates of HBV than the general population. A community-based survey reported low levels of knowledge and preventive practices (serological testing and vaccination rates) of HBV among Chinese American women living in Seattle (Thompson et al., 2002).

HIV/AIDS &SEXUALLY TRANSMITTED DISEASES

Data for HIV/AIDS among the API population is usually aggregated, with a limited number of studies focusing on specific ethnic groups. APIs have the lowest prevalence of HIV/AIDS cases compared to other racial / ethnic groups (Zaidi et al., 2005). In one epidemiology report on HIV/AIDS among APIs, 7.3% of all AIDS cases diagnosed between 1985 and 2002 were among individuals who were born in China, Hong Kong, or Taiwan (Zaidi et al., 2005).

Lin and colleagues (2005) conducted the first study of HIV/AIDS knowledge and sexual behaviors among 144 Taiwanese American college students using a web-based questionnaire and the Health Belief Model construct. Results indicated that self-efficacy is a significant factor associated with the number of sexual partners, sexual intercourse frequency, and consistency of condom use, while perceived barriers are related to frequency of sexual intercourse and perceived severity is associated with consistent condom use. Further, participants who were more educated and those who engaged in same-sex sexual behavior reported a higher number of sexual partners and more frequent sexual intercourse.

DOMESTIC VIOLENCE

In a random telephone survey of 262 Chinese men and women in Los Angeles County, 18.1% of respondents reported experiencing "minor physical violence" by a spouse or intimate partner within their lifetime, and 8% of respondents reported "severe physical violence" experienced during their lifetime. ["Minor-severe" categories were based on the researcher's classification criteria.] (Yick, 2000).

Several studies have examined the association between partner violence and depression among Chinese Americans. In a cross-sectional study conducted among Chinese American women in Boston, researchers found a dose-response effect in that partner violence was strongly and specifically associated with increased rates of and severity of major depression among this population (Hicks & Li, 2003). Partner violence was found to be a fairly common event, with 14% of the sample affected. Researchers suggest that partner violence be incorporated as a variable in future studies on major depression issues for women.

MATERNAL AND CHILD HEALTH

Qin and Gould (2006) conducted the first study ever to examine maternal risk factors and birth outcomes of major Asian ethnic subgroups in California, including Filipino, Chinese, Vietnamese, Korean, Cambodian/ Laotian, and Japanese. Overall results indicated that Japanese and Chinese had the lowest mortality rates,

while Cambodians/Laotians had the highest total mortality rates across the spectrum: neonatal, post-neonatal, and infant. Approximately 6.7% of births among Chinese Americans were preterm deliveries, defined as less than 37 weeks. Other significant predictors of maternal risk factors on neonatal and post-neonatal deaths among Chinese women include maternal age less than 20 years and late or no prenatal care.

MENTAL HEALTH

Depression

The Chinese American Psychiatric Epidemiological Study (CAPES), a five year study conducted in the mid 1990s comprising of more than 1,700 Chinese Americans living in Los Angeles, was the first and most sophisticated large-scale community study of an Asian American ethnic group that used rigorous diagnostic criteria and a longitudinal design (National Research Center on Asian American Mental Health). The study made significant contributions to advancing the understanding of mental health issues among this population, including examining the role of migration and acculturation in psychological adjustment, as well as the role of stress and socio-demographic variations in mental health problems. Following is a brief discussion on a number of studies that have used data from the CAPES study to examine risk factors related to issues such as depression and psychological well-being.

Hwang and colleagues (2000) examined the relationship between risk factors and first-onset major depression among a community sample of Chinese Americans in Los Angeles using data from the CAPES study. Study results revealed that the overall rate of 12-month current first-onset depression was 3.1%, a high incidence compared to previous studies conducted in China and Taiwan. Self-reported physical health status was found to be the most powerful predictor and concurrent associate of first-onset depression: Those who rated their health as poor reported higher depressive episode at follow-up observations. Other important predictors of risk included higher acculturation, greater stress exposure, and reduced social support.

Hwang and colleagues (2005) continued to examine data from the CAPES study in an effort to examine age of onset and gender differences for first onset major depression among Chinese Americans. Study participants reported a 6.9% rate of lifetime depressive episode with a median and mean age of 30.0 and 30.6 years, respectively. No gender differences were detected for depression onset, which is contrary to previous studies where women generally experience higher risk and earlier age of onset than men. Age of immigration and length of residence in the U.S. were found to be significant predictors of depression. The risk for depression decreases by 4% for every 1-year increase in length of residence. Results also showed that foreign-born Chinese Americans were more likely to experience their first depressive episodes at later ages, with the greatest risk at or soon after immigration.

Data from the CAPES study was used to examine predictors of help-seeking for emotional distress among Chinese Americans across formal and informal sources of care (Abe-Kim et al., 2002). Results indicated that individuals experiencing higher levels of family conflict had a higher probability of seeking both medical and mental health formal services. The presence of family conflict played a stronger role in help seeking than the absence of family support. Furthermore, negative life events, emotional distress, and insurance coverage also predicted the use of mental health service, while language barriers, stigma, and knowledge of services were not found to be predictors.

Kim & Ge (2000) conducted an exploratory, cross-sectional study examining parenting practices and adolescent depressive symptoms in Chinese American families in Northern California. The sample consisted of 195 families with the majority of adolescents (85%) being second or third generation American-born and a small number (15%) consisted of immigrants. Results of the study showed that Chinese American parents' depressive symptoms were significantly related to less effective parenting practices, which were in turn significantly related to adolescent depressive symptoms. These results mirrored parenting practices and adolescent depressive symptoms found among European Americans. To reduce adolescent depressive symptoms, researchers suggest efforts should focus on increasing parental involvement, monitoring effects and inductive reasoning while reducing harsh disciplinary practices.

Utilization of Mental Health Services

Barriers to the utilization of mental health services for Chinese Americans include 1) the cultural value placed on the avoidance of shame, 2) the pragmatism that results in the use of both Western and traditional Chinese practitioners and treatments, and 3) the inadequacy of Western-type services to meet the needs of the Chinese American immigrant population (Tabora, 1997).

A number of studies have reported low utilization rates of mental health services by APIs, with national figures indicating that APIs are 3 times less likely than White populations to use available mental health services. Further, results from the CAPES study showed that only 17% of Chinese Americans who experienced emotional problems or drugs and alcohol problems in the past 6 months sought care (Young, 1998). In a study by Spencer and Chen (2004) using data from the CAPES study, results indicated that language-based discrimination influenced patterns of mental health service use among Chinese Americans. Discrimination (resulting from speaking a different language and having an accent) was associated with greater use of informal services such as seeking help from friends or relatives but not with formal services. Those who used informal services more also held negative attitudes toward professional mental health services. Researchers called for more multilingual education on the availability of Medicaid and for increased funding to community-based agencies providing services for immigrant populations and the underinsured.

Somatization

Somatization, or the presentation of medically unexplained physical symptoms related to psychiatric disorders, is thought to be more common among Chinese Americans. A comparison of Chinese and White patients referred for psychiatric consultation found somatization to be significantly more common among Chinese American patients, and that complaints were mostly of cardiopulmonary and vestibular symptoms (Hsu, 1997).

A telephone survey of Chinese American adults residing in Los Angeles looked at somatization in relation to partner violence and depression (Yick et al., 2003). Among this sample, 6.8% reported experiencing physical violence in the last 12 months while 18.1% reported lifetime experience. The findings showed a positive correlation between depression and partner violence among those who were victimized, and those who perpetrated physical aggression were more likely to experience somatic symptoms.

TOBACCO USE

Smoking prevalence rates among the API ethnic group is as diverse as the people themselves. Chinese Americans have some of the lowest smoking rates compared to other Asian ethnic groups such as Southeast Asians (Vietnamese, Cambodians, Laotians). A sample in Philadelphia's Chinatown reported a 25% current smoking rate among men and 3% among women (Fu et al., 2003). A population-based survey conducted in Chicago's Chinatown found current smoking prevalence rate of 33.6% for men and 2.1% for women (Yu et al., 2002). Data from the California Health Interview Survey indicated smoking prevalence of 14.3% for Chinese men and 6.1% for Chinese women, and overall prevalence of 9.7% (Tang et al., 2005). A cross-sectional survey conducted in counties of Pennsylvania and New Jersey showed a 24.1% smoking rate among Chinese Americans sampled (Ma et al., 2003).

Chinese American adolescents have a different pattern of smoking initiation than White adolescents. The rate of smoking for Chinese American minors tends to be lower than White minors, but the initiation of smoking continues to rise even into late adolescence. The onset of smoking is also significantly associated with level of acculturation (Chen, 1999).

Fu and colleagues (2003) conducted a cross-sectional survey in Philadelphia's Chinatown to examine how linguistic acculturation influences smoking patterns among Chinese Americans, as language is relevant to the development of smoking cessation strategies. Higher linguistic acculturation (higher English proficiency) was found to be associated with a decrease in current smoking among Chinese American men, but had a reverse effect for women. More research is needed to understand why acculturation would increase rates for women, although it has been demonstrated through several studies that Chinese American women underreport smoking behavior. Researchers suggest that gender and acculturation level should be considered in the development of tobacco control interventions for this population.

In an effort to better understand the meaning and determinants of smoking among Chinese and Taiwanese American college students, a qualitative study was conducted at a large university campus in Southern California (Hsia & Spruijt-Metz, 2003). Results indicated that personal, functional, and socially relevant meanings of smoking, such as smoking to enhance self-worth, build relationships with others, and coping with stress serve as powerful determinants of smoking among this population. Sources of personal meanings of smoking derive from family education and parental attitudes towards smoking, while culture was closely related to all groups of meanings.

Brugge and colleagues (2002) conducted exploratory focus groups among Chinese and Vietnamese Americans in Boston in an effort to examine issues and

generate message concepts related to secondhand smoke. Recommendations included using themes that were consistent with cultural values of each group, while also reflecting the groups' desire to adapt to American norms in constructing health education messages.

Using data from the California Health Interview Survey, Tang and colleagues (2005) documented an interaction between English proficiency and gender in differentiating smoking status among Asian American adults. English proficiency for Chinese Americans in the sample are more balanced, along with Filipinos, though lower compared to South Asians and Japanese and higher compared to Korean and Vietnamese. The impact on gender revealed that Asian American women who reported higher English proficiency were more likely to smoke.

Smoking Cessation

Little is know about effective cessation interventions for Chinese American smokers. In a series of face-to-face interviews and focus groups among 795 Chinese Americans who frequented a health clinic in New York City's Chinatown, a study was conducted to examine the role of families, physicians, and the media (Ferketich et al., 2004). Results showed that although 90% of participants did not want smoking in their home, only 21% had a ban in place. The discrepancy in practice may be due to the fact that the male is most often head of the household and the smoker thereby the decision to ban smoking is in his discretion. Physicians are also highly regarded among the Chinese culture and should play a key role in any intervention. Participants indicated that an effective antismoking public health campaign should be delivered using Chinese language media by an individual who has suffered illness from smoking.

Ma and colleagues (2004) conducted a series of focus groups among Chinese American youth smokers aged 14-19 to identify appropriate cultural factors that would enhance smoking cessation curricula. Results indicated that youths perceived cessation programs important in helping them to quit and the importance of program facilitators to care, maintain confidentiality, and to display trustworthiness and nonjudgmental behavior. Survey results also revealed that many youth smokers are heavily influenced by perceptions of their peers as it relates to smoking, and that they smoked because of high parental expectations.

Depression and Smoking

Tsoh and colleagues (2003) conducted the first ever cross-sectional study to examine the association between depressive symptoms and smoking behaviors in Chinese American smokers in an effort to establish a knowledge base for developing appropriate smoking cessation interventions for this population. The sample, comprised of 199 smokers who were predominantly immigrants residing in Northern California, reported an 86.9% daily smoking rate with a mean of almost half a pack (8.9 cigarettes) smoked per day. Chinese smokers in this study reported significantly more depressive symptoms compared with a community sample of Chinese Americans from the same geographic area, with females reporting significantly higher rates. Other variables that were found to be associated with a higher level of depressive symptoms included unemployment, major depression or dysthymia within the past year, previous experience with nicotine withdrawal syndrome, and a high temptation to smoke under negative affect situations.

NUTRITION, WEIGHT AND PHYSICAL ACTIVITY

Consumption of saturated fats has been associated with higher risks for prostate cancer among Chinese Americans compared to blacks and whites, and with colorectal cancer when compared to Chinese in the People's Republic of China (Whittemore et al., 1995).

In a qualitative study to examine the relationship between diet, acculturation, and health in Chinese American women, results indicated that dietary acculturation appears to be a result of daily life issues such as convenience and cost (Satia et al., 2000). Breakfast is the first meal that changes after immigration, mostly due to convenience, as well as quality and availability. Given that Chinese hold a strong belief in the relation between health and diet, they are likely to be receptive to dietary interventions.

Research using a cross-sectional study design on risk factors associated with obesity in Chinese American children in Northern California indicate that children's age, a democratic parenting style, poor family communication acculturation level of the mother, and family affective responses contribute to an increased body mass index (BMI) (Chen & Kennedy, 2005). Authoritarian parenting style, in the context of Chinese culture, was found to facilitate healthy lifestyle, which may help protect against weight problems. Researchers suggest that improving family communication can help to promote a healthy lifestyle and maintain healthy weight in children.

California is home to a successful nutrition education campaign, Five A Day, a program that encourages

consumption of five servings of fruits and vegetables a day. Recent additions to the program include campaigns that are directed towards Latinos and African Americans. At the time of this writing, there currently is no program in place that specifically targets Asian Americans. The state health department and UCLA researchers have, however, recently convened a group of low-income Chinese, Vietnamese, and Hmong Americans to explore knowledge, attitudes, dietary practices, and physical activity levels (Harrison et al., 2005). Results of the focus groups indicate that the maintenance of healthy traditional diets, education on mainstream U.S. foods, and promoting active lifestyles are strategies to include in the creation of such a campaign.

Data from the National Health Interview Survey indicated that among Asian Americans, Chinese and Vietnamese immigrants were at lowest risk of overweight (Kandula et al., 2004). Data from the 2001 California Health Interview Survey was used to examine leisure time, non-leisure time, and occupational physical activity among Asian Americans (Kandula & Lauderdale, 2005), which found that Asian Americans as a group are at risk for low levels of leisure time physical activity. Among the specific groups examined, Chinese men reported less physical activy than Filipino and Vietnamese men, while Chinese women engaged in less active occupations than Filipino and South Asian women.

RESOURCES

The following agencies are able to provide additional information regarding the Chinese American community:

Organization of Chinese Americans
http://www.ocanatl.org/

Chinese American Historical Society
http://www.chsa.org/

Chinese for Affirmative Action
http://www.caasf.org/

Chinese Community Health Resource Center
(Health education materials in Chinese & English)
http://www.cchphmo.com/cchrchealth/download/index.htm

Chinese American Medical Society
http://www.camsociety.org/

Tufts University SPIRAL, patient information in Chinese language
http://spiral.tufts.edu/chinese.html

HICUP (Health Information in Chinese Uniting Patients, Physicians, and the Public)
http://library.med.nyu.edu/patient/hicup/

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ABOUT THIS SERIES

This health brief is part of a series of that includes Cambodian, Chamorro, Chinese, Filipino, Hmong, Japanese, Korean, Native Hawaiian, Samoan, South Asian, and Vietnamese. All are available for download at www.apiahf.org.

Purpose

The purpose of the series is to summarize published research findings of disparities in the health and healthcare of the selected group. The data presented is meant for community health advocates, grant writers, evaluators and students as a tool to raise awareness, guide program development and spark future research for the well-being of Asian American and Pacific Islander populations.

Methods

This brief was updated after a PubMed literature review. In order to find the latest information, the Pubmed literature search focused on the years 2000-present and each ethnic group was cross referenced with these focus areas: access to quality health services, arthritis, osteoporosis, and chronic back conditions, cancer, chronic kidney disease, diabetes, disability and secondary conditions, education & community-based programs, environmental health, family planning, food safety, health communication, heart disease and stroke, HIV, immunization, infectious disease, injury & violence prevention, maternal, infant & child health, medical product safety, mental health & mental disorder, nutrition & overweight, occupational safety & health, oral health, physical activity & fitness, public health infrastructure, respiratory disease, sexually transmitted disease, substance abuse, tobacco use, and miscellaneous topics. For the Chinese health brief, the search cross-referenced the terms Chinese American and Taiwanese American with the aforementioned areas.

Limitations

It is difficult to characterize the health status of specific Asian American or Pacific Islander ethnic populations. Many studies do not differentiate between the various ethnicities studied. Small sample sizes make it difficult to generalize research findings and in some cases, data are just not available. For these reasons, the data contained here provide only a rough estimate of health status and are not an exhaustive presentation of the findings, nor are they meant for medical decision-making.

Contributors

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