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Rapid Assessment for Establishing Evidence of an Underground Cigarette Market in Oakland Chinatown: A Dual Approach

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Summary:

We conducted a preliminary study to rapidly assess (1) whether an underground cigarette market exists in the area known as *Oakland Chinatown* in Oakland, California; and if so, (2) who consumes untaxed cigarettes in this ethnic enclave for further investigation.

Keywords

Untaxed cigarettes; foreign-brand cigarettes; ethnic enclave; underground cigarette market; Chinatown; black market cigarettes; street corner survey; littered pack methodology; rapid assessment

Underground cigarette markets undermine public health efforts aimed at eliminating smoking and smoking-related health disparities by increasing access to lower-cost cigarettes for smokers and youth.^{1,2} Low-income, disadvantaged minority communities that disproportionately bear the burden of tobacco-related consequences and suffer from inadequate resources for quitting—such as ethnic enclaves—are especially affected by an illegal market in untaxed cigarettes.³ Ethnic enclaves are neighborhoods with high concentrations of an ethnic group, and serve as ports-of-entry for immigrants to the United States. High concentrations of recent immigrants with low socioeconomic status and educational attainment are important characteristics of ethnic enclaves.⁴ Studies among Asian American populations have consistently found that these characteristics are associated with higher rates of smoking and lower rates of cessation.^{5–8} Prevalence of smoking among Chinese Americans within ethnic enclaves is high, with rates of current smoking (i.e. having smoked 100 cigarettes in their life and smoking cigarettes every day) as high as 30.3% among male residents.^{7–12}

China is the world's largest consumer and producer of tobacco,¹³ and takes the lead in the illicit tobacco trade including smuggling, illicit manufacturing, and counterfeiting tobacco products.¹⁴ Current estimates of counterfeit cigarettes produced in China are up to 400 billion per year.¹⁵ The role of ethnic enclaves in underground markets has not been previously studied, but a content analysis of 931 media reports suggests that cigarettes produced in China have been smuggled into Chinese enclaves throughout the United States, United Kingdom, Australia, Canada, South Africa, and the Philippines.¹⁶ It is likely that Chinese/Chinese American smokers may access and consume untaxed cigarettes in Chinese enclaves. In only one known published study in New York City's two Chinese enclaves, 26% of the respondents reported purchasing their cigarettes through a private supplier, referring to smuggled cigarettes through unlicensed retailers.¹² Access to untaxed cigarettes seriously challenges tobacco control and prevention efforts aimed at eliminating smoking-related health disparities.^{1,17,18, 19, 20}

We conducted a preliminary study to assess rapidly (1) whether there may be an underground cigarette market in the area known as *Oakland Chinatown* in Oakland, California; and if so, (2) who may be consuming untaxed cigarettes in this ethnic enclave for further investigation. Our dual approach includes (1) obtaining physical evidence of an underground cigarette market using the *littered pack methodology* within identified boundaries, and (2) conducting *street corner surveys* in this ethnic enclave to understand who consumes untaxed cigarettes such as those collected on the streets. Each method generated pieces of information, which together provided evidence suggesting that an underground cigarette market may exist, increasing access to untaxed cigarettes among Chinese/Chinese American smokers in Oakland Chinatown.

We defined an ethnic enclave as a set of contiguous tracts with each tract containing 40% or more residents of a single ethnic group.⁴ Using tract-level data from the American Community Survey, 2007–2011, we found that Oakland Chinatown, which includes businesses, residences, and cultural facilities, encompasses two census tracts. The total population in these tracts is 6,328. Chinese/Chinese American residents make up 55.4%. Nearly 60% are foreign-born. About half of residents five years and older speak Chinese at home; 42.9% live in linguistically isolated households. The median household income is \$50,099. Nearly 19% of the foreign-born population with an income earned in the past 12 months lives below the poverty level.

First, we collected discarded cigarette packs on the streets of Oakland Chinatown. This methodology has been used to estimate the prevalence of untaxed and lower taxed cigarettes in Chicago,²¹ and other large cities.²² The strength of this approach is that the location of purchase is identified by the tax stamp while the location of consumption can be assumed from where the cigarette pack is found.²¹ We selected three main streets of four to six blocks each within the boundaries that we defined to be the commercial area of Oakland Chinatown. We collected all observed littered packs at three different daytime occasions by walking up and down these streets at each time. Each data collection lasted between one and two hours. We covered about 18% of Oakland Chinatown from 97 identified blocks. Collected littered packs were sorted, counted, and analyzed. The California tax stamp is affixed outside of the cellophane so only packs with cellophane were considered. Forty-six

total discarded cigarette packs were collected. Thirty packs (65.2%) retained their cellophane. Of the packs with cellophane, 66.7% (n = 20) had no tax stamp. Of the untaxed packs, 18 (90%) were Chinese foreign-brand cigarettes and two were American-brand cigarettes. We collected 14 different Chinese brands of cigarettes (e.g., *Honghe*, *Lu Shan*, *Hongtashan*). Two of these Chinese brands, *Chunghwa* and *Double Happiness*, are legally sold in tobacco outlets in California.²³ However, we found untaxed *Chunghwa* and *Double Happiness* cigarettes as well.

Next, we conducted street corner surveys with two Mandarin- and Cantonese- speaking surveyors (see Table 1) among adult smokers during two weekdays at busy street corners in Oakland Chinatown's commercial district. This low-cost methodology is designed to access all people engaged in various activities on the street, such as shopping and walking to and from work.²⁴ It has been used successfully in an inner-city community, and is especially effective for accessing members of the study population within a defined urban geographical area.^{24,25} The survey and consent form were translated into Mandarin (the most widely spoken and written of the large group of related languages referred to as *Chinese* in the U.S.). We recruited participants by asking passersby on the street if they would fill out a five-minute survey for \$5, and screened potential respondents (i.e., 18 years or older and current cigarette smoker) for eligibility. We collected 23 surveys in four hours.

Of the 23 respondents, about half (n = 12) lived in Oakland Chinatown, 52.2% (n = 12) worked in Oakland Chinatown, and around 39% (n=9) both worked and lived in this community. Nearly 65% (n = 15) were born in mainland China or Hong Kong. Eighteen (78.3%) self-reported their race/ethnicity as Chinese/Chinese American; 73.9% (n=17) spoke Chinese as their primary language. Four participants were female and the rest male. The average number of years in the U.S. for those who were foreign-born was 8.86 years.

Over one-third of participants, 34.7% (n = 8), reported having purchased untaxed cigarettes in the past year, and an additional 17.4% (n = 4) reported having purchased cigarettes from a private supplier/importer. Of the 14 respondents who reported that they purchase their cigarettes in Oakland Chinatown, 21.4% (n=3) reported having purchased their cigarettes from a private supplier/importer. Of the 13 participants who both reported buying cigarettes from Oakland Chinatown and indicated the brand that they *usually* smoke, about half (53.8%) reported a Chinese brand of cigarettes. Importantly, these brands included brands not legally sold in California, and corresponded with brands of untaxed packs found from our littered pack methodology. Twenty-five percent (n = 3) and 41.7% (n =5) of those who lived and worked in this enclave respectively reported buying untaxed cigarettes in the past year. Finally, six out of 18 (33.3%) Chinese/Chinese American adult smokers responded that they purchased untaxed cigarettes in the past year. We found very few littered untaxed cigarette packs, especially of Chinese brand cigarettes, outside the borders of this ethnic enclave.

Research focusing on tobacco-related health disparities among vulnerable immigrant populations need to account for underground cigarette markets in ethnic enclaves, given the high rates of smoking, and concentrated poverty in these neighborhoods. At the same time, few culturally and linguistically appropriate smoking cessation programs and supports for

Chinese American communities exist.^{26,27,28} Immigrants, moreover, often face significant challenges to seeking and accessing health care services, including provider advice to quit smoking due to language and cultural barriers, and a lack of health insurance.^{29,30,31}

Therefore, significant tobacco policy and prevention implications would result from research on underground cigarette markets, especially for the poor and underserved. For example, a finding of easy access to untaxed cigarettes in licensed tobacco retail outlets may lead to a call for stronger enforcement and penalties to deter such illegal sales. A finding of widespread access through unlicensed tobacco retailers (e.g., pharmacies, street vendors, cafés) may lead to a call for increased surveillance by city and health officials. Another potential policy is to encourage private residents to anonymously report retailers that illegally sell untaxed cigarettes, such as through a website (for example, checkthestamps.org, developed by the Chicago Department of Public Health). Informing parents about the accessibility of such products to minors and the associated health risks may be another strategy. Culturally tailored public education campaigns that raise awareness of the public safety and health consequences of the illicit tobacco trade have been effective in reducing the use of untaxed cigarettes.¹⁷ Findings of pervasive smoking of untaxed cigarettes among Chinese/Chinese Americans in the community may call for improved protocols to screen for such use among patients at local providers. Finally, allowing access to Chinese brands of cigarettes through legal channels or increasing the number of Chinese brands that can be legally sold such as in California may remove the motive to seek these products in underground markets, if there are reasons other than costs for smoking these cigarettes which point to the need for further research.

Establishing evidence of an underground cigarette market may be the first step to preventing and reducing tobacco-related health disparities experienced by a disproportionately impacted group. However, given the challenges with collecting data on untaxed cigarettes, especially among low-income, minority, and hard-to-reach populations with limited English ability, the dual approach described in this paper offers several advantages, including its rapidity with data collection, cost effectiveness, and complementarity. Data from the street corner surveys reinforced the physical evidence found by collecting littered cigarette packs to suggest an underground market of untaxed foreign Chinese brand cigarettes in Oakland Chinatown, which may be consumed by Chinese/Chinese American smokers who live and work there. While the rapid assessment was used only to establish that untaxed cigarettes present a potential problem in this Oakland Chinatown, we found that the street corner surveys proved an effective recruiting strategy as well. In this study, we assessed whether the street corner surveys could be used to recruit Chinese/Chinese American adult smokers for follow-up qualitative interviews. Of the 18 respondents that we asked, nine expressed interest in participating in the interviews and provided their contact information (i.e., name, phone number, and email address).

Results from this preliminary study will lead to a larger investigation using the dual approach combined with a qualitative component to explore in-depth, perceived socio-cultural and physical environments that promote and reinforce the availability, channels of access, and use of untaxed cigarettes among Chinese/Chinese American smokers in an ethnic enclave. For example, we aim to understand Chinese/Chinese American smokers'

behaviors, values, beliefs, and attitudes toward smoking; social and cultural influences among peers, friends and family on use of untaxed cigarettes (e.g., social identity, cultural familiarity with Chinese brand cigarettes, norms around giving Chinese brand cigarettes as presents); and about the availability of and access to untaxed cigarettes through private suppliers/importers, neighborhood stores, and social networks in the community. Examples of questions that might be asked are: “Can a person buy untaxed Chinese brand cigarettes in Chinatown?” “Can anyone get these cigarettes?” “How does a person get them?” “How much do these Chinese brand cigarettes cost?” “Do Chinese smokers prefer Chinese brand cigarettes? If so, do you know why Chinese smokers may prefer Chinese brand cigarettes beyond the cost of them?” Ultimately, this research is significant for developing culturally tailored strategies to prevent smokers in ethnic enclaves from consuming untaxed cigarettes sold in an underground market, and address tobacco-related health inequities.

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Table 1.

Street Corner Survey

1. Do you live in Oakland's Chinatown?	Yes	No
2. Do you work in Oakland's Chinatown?	Yes	No
3. Do you buy your cigarettes in Oakland's Chinatown?	Yes	No
4. In the past year, have you purchased any tax-free cigarettes?	Yes	No
5. In the past year, where did you buy your cigarettes? Circle all that apply.		
Online and duty free/overseas		1
Private supplier/importer		2
Neighborhood store		3
Indian reservation		4
Other (<i>please specify</i>)		12
6. What brands of cigarettes do you usually smoke?		
7. Where were you born?		
United States		1
Mainland China		2
Hong Kong		3
Taiwan		4
Other (<i>please specify</i>)		12
8. If you were born outside the U.S., how many years ago did you immigrate to here?		
9. What is your primary language?		
10. Which of the following choices best represents your race/ethnicity? Circle all that apply.		
Chinese/Chinese American		1
Asian/Asian American		2
White		3
Black or African American		4
Hispanic or Latino		5
American Indian, Native Hawaiian or Pacific Islander		6
Other (<i>please specify</i>)		12