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# **Evaluation of Tobacco Control Policies in San Francisco Homeless Housing Programs**

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#### **Abstract**

**Background**—The 2014 Surgeon General's Report noted that high smoking rates in vulnerable populations such as the homeless have been a persistent public health problem; smoking prevalence among individuals experiencing homelessness exceeds 70%. Historically, service providers for the homeless have not enacted comprehensive tobacco control policies.

**Method**—We conducted a qualitative study of homeless housing programs in San Francisco. Administrators representing 9 of the city's 11 homeless service agencies were interviewed to assess institutional smoking-related policies and cessation programs and perceived barriers and receptivity to instituting tobacco control interventions.

**Results**—Respondents indicated that although most programs had adopted smoke-free grounds and some had eliminated evidence of staff smoking, the smoking status of clients was assessed only when required by funders. None of the programs offered smoking cessation interventions. Most administrators were receptive to adopting policies that would promote a tobacco-free culture; however, they noted that their clients had unique challenges that made traditional smoking cessation programs unfeasible.

**Conclusions**—Homeless housing programs in San Francisco have not yet adopted a tobaccofree culture. Existing policies were created in response to external mandates, and smoking cessation programs may need to be modified in order to effectively reach clients.

#### **Keywords**

tobacco prevention and control; public health laws/policies; health disparities; qualitative research; health research

#### INTRODUCTION

The 2014 Surgeon General's Report noted that high smoking rates in vulnerable populations such as the homeless have been a persistent public health problem (U.S. Department of

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Health & Human Services, 2014). Although smoking prevalence has dropped to 15.1% in the general adult population (Jamal et al., 2016), prevalence in the homeless population remains over 70% (Agaku, King, & Dube, 2014; Baggett & Rigotti, 2010; Okuyemi, Caldwell, et al., 2006). Historically, tobacco use among people experiencing homelessness has not been viewed as a major public health concern. Well into the 1990s, homeless service providers encouraged smoking by providing cigarettes for their clients, and the tobacco industry marketed to vulnerable populations, including the homeless (Apollonio & Malone, 2005). Active support for clients' smoking among service providers began to decline as evidence accumulated that smoking is a leading health hazard for people experiencing homelessness, mental health disorders, and substance use disorders (Baggett et al., 2015; Hurt et al., 1996).

In the general population, multiple interventions have led to reduced tobacco use; these range from policy changes such as clean indoor air laws to efforts to increase quit attempts through increased awareness of the risks of smoking (Centers for Disease Control and Prevention, 1999). Clean indoor air laws in particular reduce the risk of secondhand smoke exposure and increase quit attempts and abstinence (Mills, Messer, Gilpin, & Pierce, 2009) and are estimated to have been responsible for 12.5% of the decrease in annual cigarette use in the United States between 1944 and 1988 (Gilpin, Farkas, Emery, Ake, & Pierce, 2002). Interventions to increase smoking cessation have been widely advertised (Centers for Disease Control and Prevention, 2017), and the provision of comprehensive treatment, including behavioral counseling and pharmacotherapy, has increased quit rates (U.S. Public Health Service, 2008).

Although there are few studies assessing the effectiveness of existing tobacco control interventions among individuals experiencing homelessness, some appear to be effective (Bryant, Bonevski, Paul, McElduff, & Attia, 2011; Courtney et al., 2015; Twyman, Bonevski, Paul, & Bryant, 2014). There is research supporting the enactment of clean indoor air policies in homeless housing programs; pilot studies suggest that such policies lead to reduced smoking rates and reduced carbon monoxide exposure (Businelle et al., 2015; Vijayaraghavan & Pierce, 2015). Providing on-site smoking cessation therapy in transitional housing has led to increased abstinence and reduced carbon monoxide exposure (Goldade et al., 2011; Okuyemi, Thomas, et al., 2006; Power, Mallat, Bonevski, & Nielssen, 2015; Segan, Maddox, & Borland, 2015; Shelley, Cantrell, Wong, & Warn, 2010). These policies can interact; when youth shelters in Los Angeles County enforced no-smoking policies, their clients expressed interest in on-site formal cessation interventions (Tucker, Shadel, Golinelli, Ewing, & Mullins, 2015). However some smoking cessation interventions that have been successful in the general population, such as referrals to cessation programs, appear to be less successful among people experiencing homelessness, whose housing instability may leave them unable to attend regular appointments and who may lack telephone or Internet access (Chen & Myers, 2015). In addition, the continued social acceptance of tobacco use in homeless service programs acts as a barrier to quitting (Okuyemi, Caldwell, et al., 2006). Overall, it is unclear how well findings from existing studies of tobacco control interventions can be generalized to homeless housing programs (Vijayaraghavan, Hurst, & Pierce, 2016).

Studies of tobacco cessation in other vulnerable populations provide some guidance for how to address smoking among individuals experiencing homelessness. There is significant overlap between individuals experiencing chronic homelessness and those experiencing substance use and mental health disorders; estimates suggest that 20% to 25% of the homeless population experiences severe mental illness, 38% are dependent on alcohol, and 26% are dependent on other drugs (Baggett et al., 2015; Baggett, Tobey, & Rigotti, 2013; Chen & Myers, 2015; National Coalition for the Homeless, 2009a, 2009b; Power et al., 2015; Substance Abuse and Mental Health Services Administration, 2003). Providing both environmental interventions and smoking cessation services has been effective in residential addiction treatment centers. In 1999 the State of New Jersey passed a licensure standard requiring that all residential addiction treatment providers (a) assess client smoking status, (b) offer cessation services, (c) allow no evidence of staff smoking, and (d) maintain tobacco-free grounds (Foulds et al., 2006). Smokers covered under this four-part policy reported that it helped them address their tobacco use (Foulds et al., 2006). New York later adopted a similar policy, and an assessment after 1 year showed it was successful in reducing tobacco use (Guydish et al., 2012). An expert panel of homeless stakeholder groups advised that this four-part policy strategy be extended to homeless service providers (Porter, Houston, Anderson, & Maryman, 2011).

Despite this advice, homeless service providers have been slow to establish tobacco control policies (Apollonio & Malone, 2005; Baggett, Tobey, & Rigotti, 2013; Glasser & Hirsch, 2015), although there is increasing interest (Arangua, McCarthy, Moskowitz, Gelberg, & Kuo, 2007). This slow rate of policy adoption does not reflect client preferences, given that smokers experiencing homelessness express the desire to quit at rates comparable to smokers in the general population (Baggett, Lebrun-Harris, & Rigotti, 2013; Baggett, Tobey, & Rigotti, 2013; Connor, Cook, Herbert, Neal, & Williams, 2002; Garner & Ratschen, 2013). Homeless smokers also express a desire for specific cessation interventions, including pharmacotherapy, behavioral therapy, and combined interventions (Connor et al., 2002; Nguyen, Reitzel, Kendzor, & Businelle, 2015; Okuyemi, Caldwell, et al., 2006).

Given the limited information available on existing tobacco control policies in homeless housing programs, we reviewed the nature and extent of these policies, and administrative support for them, among programs in San Francisco, California. San Francisco serves the greatest number of homeless clients in northern California (Henry, Cortes, & Morris, 2014). Although California law banned smoking in workplaces beginning in the late 20th century, certain types of workplaces could choose to designate rooms for smoking or to ban it (Health and Safety Code 118875-118915; 1976). New state laws in 2016 removed multiple exemptions to the workplace smoking law, yet long-term health care facilities are permitted to allow smoking areas (California Assembly, 2016), allowing substantial potential variation in policies at different sites. Our study compared existing current tobacco control policies at San Francisco homeless housing programs to the four-part policy strategy that experts have suggested is appropriate. We also asked program administrators to identify perceived barriers to enacting such policies and assessed their receptivity to expanding them. We anticipated that, consistent with past research on tobacco control in homeless housing programs in San Diego (Vijayaraghavan, Hurst, & Pierce, 2016), San Francisco programs had not consistently adopted comprehensive tobacco control policies and that program

administrators would identify tobacco control challenges specific to those experiencing homelessness.

# **METHOD**

We conducted a qualitative study that combined a structured survey with open-ended interviews among administrators of homeless housing programs in San Francisco. The study was approved by the institutional review board of University of California, San Francisco, in February 2015.

To identify the population of homeless housing programs in San Francisco, we used an online directory posted by the San Francisco Department of Public Health, conducted additional online searches by keyword, and asked for additional referrals during interviews. We included short-term and long-term housing programs for the homeless that offered housing for at least 3 months, because these programs had the capacity to offer tobacco cessation services on-site. We identified a total of 11 agencies in San Francisco that met the inclusion criteria; these agencies administered 17 different housing programs. As our study focused on policies and barriers to provision of services, the study population consisted of administrators, primarily those holding the title of program director. Administrators were recruited from each agency via phone call or an in-person visit; administrators representing 9 of the 11 identified agencies (82%) agreed to participate. Although this sample size is small, the share of agencies reached is consistent with sample size goals in qualitative research, which seek to collect evidence until no further new insights are provided by participants (DePaulo, 2000; Onwuegbuzie & Leech, 2005). Administrators who were responsible for multiple program sites were asked to assess all of their programs when responding.

The study was conducted in July–August 2015. After obtaining consent, administrators were asked to complete a short survey and interviewed for 30 to 60 minutes. Our semistructured interview instrument was based on a previously validated template developed by the RAND Survey Research Group. (A copy of the instrument is available in the supplementary table, available online at http://journals.sagepub.com/home/hpp.)

- Section I of the instrument was designed to assess the characteristics of
  participating programs. We asked administrators to identify the type of housing
  provided, capacity, maximum length of stay, and types of services offered. We
  also asked them to assess their clientele, to give information on the proportion of
  clients who smoked (if known), to identify their primary source of funding, and
  to describe the most common form of health insurance for clients.
- Section II of the instrument was designed to evaluate each program's smoking-related policies and programs. We assessed existing smoke-free policies by asking administrators to identify if they had implemented tobacco control policies that were consistent with the four-part New Jersey policy strategy, including (a) assessing the smoking status of clients and their interest in quitting, (b) offering smoking cessation programs or referrals to them, (c) allowing no evidence of staff smoking ("no evidence" was defined as staff members who did

not smoke in the presence of clients, did not come to work smelling of tobacco, and did not have cigarettes on display in the work area), and (d) having smoke-free grounds. For housing programs with these policies, we asked follow-up questions about enforcement. For those without these policies, we asked follow-up questions to assess why they had not been instituted. In addition to assessing current policies and programs, we sought information about any relevant policies that had existed in the past. We also asked administrators to indicate their interest in developing interventions to address tobacco addiction and what would constitute a feasible smoking cessation program for their clients.

- Section III of the instrument was designed to identify barriers that administrators
  perceived were preventing the establishment of tobacco control policies in their
  programs.
- Section IV of the instrument assessed administrators' receptivity to developing tobacco control policies in their programs using a 5-point Likert-type scale.
   These surveys were completed before the collection of interview data.

The analysis of the data included both quantitative and qualitative assessments. Closed-ended questions (*yes/no* and Likert-type scale) were summarized using descriptive statistics. The interviews were recorded and transcribed, then reviewed and coded for common themes. Preliminary codes were assigned to quotes related to policies, programs, barriers, and receptivity using the qualitative data analysis program ATLAS.ti. The preliminary and final codes were reviewed individually by both authors, and disagreements were discussed until the coders reached agreement.

# **RESULTS**

## **Facility Characteristics**

Of the nine participating homeless service agencies, two ran shelters, five offered transitional housing, and two offered permanent housing. The client population served included families (5/9), individual adults (3/9), veterans (1/9), and youth (1/9). All the agencies offered a variety of supportive services including case management, wellness, mental health, and substance use disorder counseling. The San Francisco Department of Public Health (SFDPH), which mandates documentation of smoking status for the reimbursement of mental health services, funded three of the nine agencies. Most administrators were unable to estimate the share of their clients who were current smokers. All agencies reported that the majority of their clients were insured by Medi-Cal (Medicaid). The results are provided in Table 1.

### **Policies**

The tobacco-related policies of the shelters were assessed relative to the New Jersey fourpart standard and are summarized in Table 2. Representative quotes from respondent interviews are provided in Table 3.

**Assessing Client Smoking Status**—Only one of the nine programs had a policy to ask all clients about their smoking status at intake and inform them about the residential

smoking policy if they were identified as smokers. Three programs assessed smoking status for the subset of clients who received mental health services from SFDPH (assessment of these clients is required by SFDPH as a condition of receiving funding.) The remaining five programs did not have a policy to assess clients' smoking status at intake. Of those five, two reported that they informally assessed clients' smoking status during case management sessions, followed up by determining their willingness to quit. Other than these two programs, none of the other seven (including those that had a policy to assess the smoking status of clients) assessed their clients' willingness to quit if they were identified as current smokers.

Offering Cessation Services (or Referring Clients to Them)—None of the nine programs reported that they offered smoking cessation services. Four programs had referred clients to services offered by the Veterans Affairs Health Care System, San Francisco Community Health Network or Kaiser Permanente. Of these four, one had offered a smoking cessation workshop in the past, which had been discontinued, and another offered routine education on the health effects of smoking. The administrators at the five programs that did not have a referral system in place reported that if asked, they referred clients to services that they found by searching online.

**Allowing No Evidence of Staff Smoking**—Six of the nine programs banned evidence of staff smoking. Two programs did not have policies addressing staff smoking, and one was not able to provide an answer.

Maintaining Tobacco-Free Grounds—Five of the nine programs reported that they had a policy of 100% smoke-free grounds. An additional three programs had partially smoke-free grounds; specifically, two had designated smoking areas, and one prohibited smoking in common areas. One program allowed smoking in all areas. All the administrators who indicated that there were full or partial smoke-free grounds indicated that these policies were created in response to external mandates. Smoke-free or partially smoke-free programs that operated on privately owned grounds had enacted their policies in response to landlord rules, while those that operated multiple-unit housing complexes were covered by a smoke-free ordinance enacted by SFDPH.

# Perceived Barriers to Instituting Tobacco Control Policies

Facility administrators' perceived barriers to instituting tobacco control policies in their programs are organized into two categories: administrative and cultural. Representative quotes describing these findings are provided in Table 4.

Administrative—Two major themes were identified as administrative barriers to smoking cessation in particular. First was the format of existing smoking cessation programs. Four of nine administrators stated that many of their clients had been disconnected from health care or living with mental health disorders. As a result, tasks like remembering appointment times and arriving at a specific location could be insurmountable challenges. They felt that traditional programs, in which participants are expected to attend multiple weekly meetings, were unrealistic for their clients. Second was a lack of resources for smoking cessation.

Three of the administrators stated that they had not been trained to assist clients with smoking cessation and were unaware of what services were available or effective. None of the administrators interviewed was aware that smoking cessation interventions (e.g., nicotine replacement therapy and counseling) were covered by Medi-Cal. Even the administrators whose programs routinely assessed smoking status for clients receiving mental health services were unaware that smoking cessation was covered.

**Cultural**—Eight out of nine administrators expressed the opinion that quitting smoking was not a priority for their clients. Given multiple competing needs and concerns about finding jobs and housing, it was rare for smoking to be addressed during case management or to become a priority. Consistent with past research, five out of nine administrators stated that they felt smoking was a reasonable coping mechanism for clients. These administrators reported that clients experienced extreme stress as a result of their homelessness and that they respected their clients' decision to smoke as a stress management strategy. Three of nine administrators stated that they perceived smoking was lower risk than alcohol and other drug use, despite research showing the opposite. They also claimed that smoking was a legal addiction and believed, based on past experience securing housing for clients, that landlords were more likely to rent to individuals who smoked than to individuals who used other drugs or who interviewed for housing while holding an open container of alcohol.

The final barrier identified was that preventative health was not a priority for their clients. Three of nine administrators reported that clients were more likely to seek medical attention when smoking-related symptoms presented rather than addressing their smoking addiction proactively. They noted that clients were not motivated to quit by long-term benefits and felt that they were more responsive to immediate incentives.

## **Establishing Tobacco Control Policies**

**Smoking Cessation**—Administrators were asked what might characterize a feasible smoking cessation program for their clients. Eight of the nine administrators were interested in creating such a program. These administrators proposed the following program elements: (a) offering stress management workshops, (b) having easy onsite access to information about smoking cessation, (c) collaborating with health professionals to offer health education, (d) implementing a peer educator model, (e) offering positive incentives such as gift cards, and (f) expanding smoking cessation services to cover staff members.

**Tobacco-Free Culture**—Four of nine administrators agreed that adopting a tobacco-free environment was important to the mission of the organization while six agreed that fostering a tobacco-free culture was important for clients' well-being. All participating administrators reported that providing referrals to clients interested in quitting was feasible. Five of nine administrators agreed that their staff were ready to adopt changes to promote a tobacco-free culture in their programs.

# **DISCUSSION**

#### Conclusions

We assessed the extent of policies and programs among San Francisco homeless service providers designed to reduce smoking, as well as barriers to creating a tobacco-free culture in their programs. Our study offers additional insights to existing literature regarding the potential role of service providers in addressing tobacco addiction among people experiencing homelessness and identifies previously unrecognized barriers and facilitators to providing such services.

Consistent with previous research (Vijayaraghavan, Hurst, & Pierce, 2016), we found that although program administrators were generally supportive of smoke-free policies, they viewed them as a low priority, in part due to the observation that smoking was "legal" and in part due to the persistent attitude that smoking offered clients "one way to cope with stress." Similarly, staff still smoked with clients at some sites, and administrators expressed concern about the lack of resources to address smoking addiction. Research conducted in substance use treatment and mental health treatment programs has identified similar barriers (El-Guebaly, Cathcart, Currie, Brown, & Gloster, 2002; Fuller et al., 2007).

Our findings suggest new insights for developing tobacco control interventions for this population. All the program administrators we interviewed indicated that they had changed their policies in response to external mandates, including instituting smoke-free grounds to comply with landlord or government policies and assessing the smoking status of clients receiving mental health treatment when the SFDPH began requiring assessment as a condition of receiving funding. In addition, administrators identified specific features of existing smoking cessation programs that they believed were ineffective for their client population, such as asking clients to appear at weekly sessions at a specific time and place. This finding provides insight into why recent pilot efforts to build the capacity to offer smoking cessation services on-site at shelters may have been successful (Vijayaraghavan, Guydish, & Pierce, 2016). It also suggests that attempting to increase referrals to outside programs could have limited effectiveness. Finally, none of the administrators we interviewed were aware that smoking cessation services (counseling and nicotine replacement therapy) were covered by Medi-Cal, which insured the majority of their clients.

# Limitations

Our study has limitations. It was conducted in one locality, San Francisco, and the results may not be generalizable to other areas, particularly given that California is a leader in tobacco control policy. Our results are consistent, however, with a recent study of homeless programs in Los Angeles and San Diego County, suggesting that these findings may be representative of current policies and attitudes in California. In addition, our sample did not include all the homeless housing programs in San Francisco, leading to potential selection bias. Finally, even though we conducted interviews with administrators from each agency, we cannot rule out the possibility that any individual respondent's perspective may reflect personal views rather than attitudes commonly held in the program.

#### **Recommendations and Implications**

Our research suggests that more work needs to be done in assessing what kinds of tobacco control programs and policies are most relevant and feasible for homeless service providers, and offers insights into why some existing interventions have worked. Although expert recommendations to establish the New Jersey four-part tobacco control strategy in homeless housing programs have not been translated into practice, public health agencies have a number of policy tools available that could encourage these programs to expand their tobacco control efforts. Pilot efforts to use these policy tools have been successful; examples include local government requiring programs to assess the smoking status of a subset of clients as a condition of funding and landlords demanding enforcement of clean indoor air laws on program sites. Tying program funding to a mandate to assess smoking status could be expanded to all clients or to encompass provision of smoking cessation interventions or referral to these interventions. However, program administrators identified specific problems with referrals to outside treatment programs, which they believed made unrealistic participation demands on individuals that did not have secure housing; this belief is consistent with existing research. Expanding smoking cessation services at homeless housing programs, as well as creating stronger tobacco control policies that ensure smokefree grounds and ban evidence of staff smoking, may better address smoking among individuals experiencing homelessness than interventions focused on increasing referrals to cessation services.

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# References

- Agaku IT, King BA, Dube SR. Current cigarette smoking among adults: United States, 2005–2012. Morbidity and Mortality Weekly Report. 2014; 63:29–34. [PubMed: 24430098]
- Apollonio DE, Malone RE. Marketing to the marginalized: Tobacco industry targeting of the homeless and mentally ill. Tobacco Control. 2005; 14:409–415. [PubMed: 16319365]
- Arangua L, McCarthy WJ, Moskowitz R, Gelberg L, Kuo T. Are homeless transitional shelters receptive to environmental tobacco control interventions? Tobacco Control. 2007; 16:143–144. DOI: 10.1136/tc.2006.018697 [PubMed: 17400954]
- Baggett TP, Chang Y, Singer DE, Porneala BC, Gaeta JM, O'Connell JJ, Rigotti NA. Tobacco-, alcohol-, and drug-attributable deaths and their contribution to mortality disparities in a cohort of homeless adults in Boston. American Journal of Public Health. 2015; 105:1189–1197. DOI: 10.2105/ajph.2014.302248 [PubMed: 25521869]
- Baggett TP, Lebrun-Harris LA, Rigotti NA. Homelessness, cigarette smoking and desire to quit: Results from a US national study. Addiction. 2013; 108:2009–2018. DOI: 10.1111/add.12292 [PubMed: 23834157]
- Baggett TP, Rigotti NA. Cigarette smoking and advice to quit in a national sample of homeless adults. American Journal of Preventive Medicine. 2010; 39:164–172. DOI: 10.1016/j.amepre.2010.03.024 [PubMed: 20621264]

Baggett TP, Tobey ML, Rigotti NA. Tobacco use among homeless people-addressing the neglected addiction. New England Journal of Medicine. 2013; 369:201–204. DOI: 10.1056/NEJMp1301935 [PubMed: 23863048]

- Bryant J, Bonevski B, Paul C, McElduff P, Attia J. A systematic review and meta-analysis of the effectiveness of behavioural smoking cessation interventions in selected disadvantaged groups. Addiction. 2011; 106:1568–1585. DOI: 10.1111/j.1360-0443.2011.03467.x [PubMed: 21489007]
- Businelle MS, Poonawalla IB, Kendzor DE, Rios DM, Cuate EL, Savoy EJ, Reitzel LR. Smoking policy change at a homeless shelter: Attitudes and effects. Addictive Behaviors. 2015; 40:51–56. DOI: 10.1016/j.addbeh.2014.08.013 [PubMed: 25222848]
- California Assembly. Assembly Bill No 7, Chapter 4. Sacramento: State of California; 2016.
- Centers for Disease Control and Prevention. Achievements in Public Health, 1900–1999: Tobacco use-United States 1900–1999. Morbidity and Mortality Weekly Report. 1999; 48:986–993. [PubMed: 10577492]
- Centers for Disease Control and Prevention. Tips from former smokers. 2017. Retrieved from https://www.cdc.gov/tobacco/campaign/tips/
- Chen TC, Myers MG. A comprehensive approach to tobacco cessation for the homeless. Journal of Clinical Psychiatry. 2015; 76:e908–e910. DOI: 10.4088/JCP.14com09514 [PubMed: 26231026]
- Connor SE, Cook RL, Herbert MI, Neal SM, Williams JT. Smoking cessation in a homeless population: There is a will, but is there a way? Journal of General Internal Medicine. 2002; 17:369–372. [PubMed: 12047734]
- Courtney RJ, Naicker S, Shakeshaft A, Clare P, Martire KA, Mattick RP. Smoking cessation among low-socioeconomic status and disadvantaged population groups: A systematic review of research output. International Journal of Environmental Research and Public Health. 2015; 12:6403–6422. DOI: 10.3390/ijerph120606403 [PubMed: 26062037]
- DePaulo, P. Sample size for qualitative research. Quirk's Marketing Research Review. 2000. Retrieved from https://www.quirks.com/articles/sample-size-for-qualitative-research
- El-Guebaly N, Cathcart J, Currie S, Brown D, Gloster S. Smoking cessation approaches for persons with mental illness or addictive disorders. Psychiatric Services. 2002; 53:1166–1170. DOI: 10.1176/appi.ps.53.9.1166 [PubMed: 12221317]
- Foulds J, Williams JM, Order-Connors B, Edwards N, Dwyer M, Kline A, Ziedonis DM. Integrating tobacco dependence treatment and tobacco-free standards into addiction treatment: New Jersey's experience. Alcohol Research & Health. 2006; 29:236–240. [PubMed: 17373415]
- Fuller BE, Guydish J, Tsoh J, Reid MS, Resnick M, Zammarelli L, McCarty D. Attitudes toward the integration of smoking cessation treatment into drug abuse clinics. Journal of Substance Abuse Treatment. 2007; 32:53–60. DOI: 10.1016/j.jsat.2006.06.011 [PubMed: 17175398]
- Garner L, Ratschen E. Tobacco smoking, associated risk behaviours, and experience with quitting: A qualitative study with homeless smokers addicted to drugs and alcohol. BMC Public Health. 2013; 13:951.doi: 10.1186/1471-2458-13-951 [PubMed: 24112218]
- Gilpin EA, Farkas AJ, Emery SL, Ake CF, Pierce JP. Clean indoor air: Advances in California, 1990–1999. American Journal of Public Health. 2002; 92:785–791. [PubMed: 11988448]
- Glasser I, Hirsch E. Smoking cessation and social justice. American Journal of Public Health. 2015; 105:e3.doi: 10.2105/ajph.2014.302461
- Goldade K, Whembolua GL, Thomas J, Eischen S, Guo H, Connett J, Okuyemi KS. Designing a smoking cessation intervention for the unique needs of homeless persons: A community-based randomized clinical trial. Clinical Trials. 2011; 8:744–754. DOI: 10.1177/1740774511423947 [PubMed: 22167112]
- Guydish J, Tajima B, Kulaga A, Zavala R, Brown LS, Bostrom A, Chan M. The New York policy on smoking in addiction treatment: Findings after 1 year. American Journal of Public Health. 2012; 102:e17–e25. DOI: 10.2105/ajph.2011.300590
- Henry, M., Cortes, A., Morris, S. The 2013 Annual Homeless Assessment Report (AHAR) to congress. 2014. Retrieved from https://www.hudexchange.info/resources/documents/ahar-2013-part1.pdf; https://www.hudexchange.info/onecpd/assets/File/2013-AHAR-Part-2.pdf
- Hurt RD, Offord KP, Croghan IT, Gomez-Dahl L, Kottke TE, Morse RM, Melton LJ. Mortality following inpatient addictions treatment: Role of tobacco use in a community-based cohort.

- Journal of the American Medical Association. 1996; 275:1097–1103. DOI: 10.1001/jama. 1996.03530380039029 [PubMed: 8601929]
- Jamal A, King BA, Neff LJ, Whitmill J, Babb SD, Graffunder CM. Current cigarette smoking among adults: United States, 2005–2015. Morbidity and Mortality Weekly Report. 2016; 65:1205–1211. DOI: 10.15585/mmwr.mm6544a2 [PubMed: 27832052]
- Mills AL, Messer K, Gilpin EA, Pierce JP. The effect of smoke-free homes on adult smoking behavior: A review. Nicotine & Tobacco Research. 2009; 11:1131–1141. DOI: 10.1093/ntr/ntp122 [PubMed: 19633273]
- National Coalition for the Homeless. Mental illness and homelessness. 2009a. Retrieved from http://www.nationalhomeless.org/factsheets/Mental\_Illness.pdf
- National Coalition for the Homeless. Substance abuse and homelessness. 2009b. Retrieved from http://www.nationalhomeless.org/factsheets/addiction.pdf
- Nguyen MA, Reitzel LR, Kendzor DE, Businelle MS. Perceived cessation treatment effectiveness, medication preferences, and barriers to quitting among light and moderate/heavy homeless smokers. Drug and Alcohol Dependence. 2015; 153:341–345. DOI: 10.1016/j.drugalcdep. 2015.05.039 [PubMed: 26072221]
- Okuyemi KS, Caldwell AR, Thomas JL, Born W, Richter KP, Nollen N, Ahluwalia JS. Homelessness and smoking cessation: Insights from focus groups. Nicotine & Tobacco Research. 2006; 8:287–296. DOI: 10.1080/14622200500494971 [PubMed: 16766421]
- Okuyemi KS, Thomas JL, Hall S, Nollen NL, Richter KP, Jeffries SK, Ahluwalia JS. Smoking cessation in homeless populations: A pilot clinical trial. Nicotine & Tobacco Research. 2006; 8:689–699. DOI: 10.1080/14622200600789841 [PubMed: 17008196]
- Onwuegbuzie AJ, Leech NL. The role of sampling in qualitative research. Academic Exchange Quarterly. 2005; 9:280–284.
- Porter J, Houston L, Anderson RH, Maryman K. Addressing tobacco use in homeless populations: Recommendations of an expert panel. Health Promotion Practice. 2011; 12(6 Suppl 2):144S–151S. DOI: 10.1177/1524839911414412 [PubMed: 22068577]
- Power J, Mallat C, Bonevski B, Nielssen O. An audit of assessment and outcome of intervention at a quit smoking clinic in a homeless hostel. Australasian Psychiatry. 2015; 23:528–530. DOI: 10.1177/1039856215593396 [PubMed: 26139703]
- Segan CJ, Maddox S, Borland R. Homeless clients benefit from smoking cessation treatment delivered by a homeless persons' program. Nicotine & Tobacco Research. 2015; 17:996–1001. DOI: 10.1093/ntr/ntv062 [PubMed: 26180225]
- Shelley D, Cantrell J, Wong S, Warn D. Smoking cessation among sheltered homeless: A pilot. American Journal of Health Behavior. 2010; 34:544–552. [PubMed: 20524884]
- Substance Abuse and Mental Health Services Administration. Blueprint for change: Ending chronic homelessness for persons with serious mental illness and/or co-occurring substance use disorders. Rockville, MD: Department of Health & Human Services; 2003. DHHS Publication No. SMA-04-3870
- Tucker JS, Shadel WG, Golinelli D, Ewing B, Mullins L. Motivation to quit and interest in cessation treatment among homeless youth smokers. Nicotine & Tobacco Research. 2015; 17:990–995. DOI: 10.1093/ntr/ntu261 [PubMed: 26180224]
- Twyman L, Bonevski B, Paul C, Bryant J. Perceived barriers to smoking cessation in selected vulnerable groups: A systematic review of the qualitative and quantitative literature. BMJ Open. 2014; 4:e006414.doi: 10.1136/bmjopen-2014-006414
- U.S. Department of Health & Human Services. The health consequences of smoking-50 years of progress. A report of the surgeon general. 2014. Retrieved from https://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf
- U.S. Public Health Service. A clinical practice guideline for treating tobacco use and dependence: 2008 update. American Journal of Preventive Medicine. 2008; 35:158–176. DOI: 10.1016/j.amepre.2008.04.009 [PubMed: 18617085]
- Vijayaraghavan M, Guydish J, Pierce JP. Building tobacco cessation capacity in homeless shelters: A pilot study. Journal of Community Health. 2016; 41:998–1005. DOI: 10.1007/s10900-016-0182-x [PubMed: 26983929]

Vijayaraghavan M, Hurst S, Pierce JP. Implementing tobacco control programs in homeless shelters: A mixed-methods study. Health Promotion Practice. 2016; 17:501–511. DOI: 10.1177/1524839915618364 [PubMed: 26678988]

Vijayaraghavan M, Pierce JP. Interest in smoking cessation related to a smoke-free policy among homeless adults. Journal of Community Health. 2015; 40:686–691. DOI: 10.1007/s10900-014-9985-9 [PubMed: 25559109]

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TABLE 1

Homeless Housing Facility Characteristics by Type, San Francisco, 2015

Characteristics	Emergency Shelter (N = 2)	Transitional Housing (N = 5)	Permanent Housing Program (N = 2)
Range of maximum length of stay (months)	3–5	18–24	Not applicable
Capacity (no. of beds)	32–334	30–70	90–260
Client population served <sup>a</sup>			
Family	1	3	1
Individual	1	1	1
Veteran	0	1	0
Youth	0	1	0
Services			
Case management	2	5	2
Wellness service <sup>b</sup>	2	4	1
Mental health service	2	2	1
Substance abuse service	0	3	0
Contract with San Francisco Department of Public Health	1	1	1
Current smoker	20% and unknown	15%-70%	Unknown
Primary health plan of clients			
Medicaid	2	4	2
TRICARE	0	1	0

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 $<sup>{}^{</sup>a}$ Individual = 18 years old and above; youth = 18 to 24 years old.

bWellness service = offering health education or on-site nurse visits.

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TABLE 2
Smoking-Related Policies Reported by San Francisco Homeless Housing Programs

Policy		Partial	No
Ban smoking on the grounds?	5	3	1
Ban evidence of staff smoking? <sup>a</sup>		0	2
Ask smoking status of clients?	1	3	$5^{b}$
Assess willingness to quit?	2	0	7
Provide smoking cessation services?		0	9¢
Interest in creating a program to address tobacco addiction?		0	1

<sup>&</sup>lt;sup>a</sup>One program did not provide a response.

 $b_{\mbox{\scriptsize Two programs}}$  indicated that they informally assessed smoking status.

 $<sup>^{\</sup>it C}\!\!$  Four programs had a referral system in place; one previously offered smoking cessation services.

**TABLE 3**Representative Quotes: Implementing Smoking-Related Policies and Programs

Topic	Comments	
Smoke-free grounds	"How do you work with someone, again, someone in our program who has extreme mental health issues, who just doesn't want to abide by the rules And we haven't been mandated as yet by the city and county, or from HUD [U.S. Department of Housing and Urban Development]."	
	"I mean ideally they would want everyone to be smoke-free. We're following that harm reduction thing I'm always adhering to clients' choice."	
Banning evidence of staff smoking	"I don't think we have anything written up for the staff but we give this [residential smoking policy] to the families and I think it's just more expected that staff would follow the same policy."	
	"We try our best to really try not to smoke with them, but it does happen at times."	
Asking smoking status of clients	"I go through the packet and they sign papers, I ask, 'Do you smoke? Because if you do this is our policy.' But that's as far as it goes for tobacco smoking I don't ask preliminarily if they smoke. Marijuana, yes. Cigarettes, no."	
Assessing willingness to quit smoking	"Once a family moves into the program, we do talk more with them about more specific health issues, and smoking is certainly one of those issues. And if a family does identify as smokers, we really try to support them in stopping."	
Offering or referring to smoking cessation programs	"DPH [The San Francisco Department of Public Health] has us record if they smoke, how much [for clients receiving mental health services] There's no follow-up that we do specifically or that we're mandated to do I'm sure the idea is to incorporate that into treatment and have a conversation with them but there's no specifics."	
	"We want it to be something that pertains to everyone. We're not going to talk about smoking for an hour long to a group of 15 people if it only applies to 3."	
	"We do also encourage people to talk to their doctors about smoking programs. We talk with doctors about getting the patch. And we also talk with them in a broader context around stress, addiction issues. It comes up around money management as well because it's so expensive. It comes up around child health, [we] talk a lot about secondhand smoke."	
	"I would just say because it has not been offered. There hasn't been any curriculum or any programs or any training about it. Nobody's ever suggested it, as far as letting us know how we might do that."	

**TABLE 4**Representative Quotes: Perceived Barriers to Instituting Tobacco Control Policies

Barrier Types	Comments
Cultural: Quitting smoking is a low priority	"I mean I hate to say it but smoking cessation tends to fall pretty far down the list as far as urgencies. There are things that are really jeopardizing people's ability to remain in the shelter So [smoking cessation] is something I would obviously love to see more of but sometimes I feel it's lower down on the priority list."
	"There are so many underlying issues So many of our clients, just at the top of their list of things they want to resolve, they want to talk about the substance use, mental health issues, or their children's health. So smoking, if it has not become a problem to them, then they just [continue]."
Cultural: Smoking is a reasonable coping mechanism	"Like, you know, you're facing a lot of stress and a lot of hardship in your life, and smoking is one way to cope with stress, so you take that away, what are you going to replace that coping mechanism with. There has to be something else that they have to fall back on."
	"It's kind of like the tea kettle needs to let off steam. So I mean on some level we do try to be respectful of the fact that this is their coping mechanism and they need it right now."
Cultural: Tobacco use is socially and legally accepted	"I would agree that it's kind of considered the lesser of the evils, and so then if you were trying to get people to address one thing it tends to be the thing that's impairing their functioning most. When working with the homeless population, if the goal is we're trying to get them a house, they can't go meet a landlord drunk, but they could go meet a landlord with a cigarette. It's that different level."
	"I think it is, but it's not so much their primary goal and I think in the harm reduction spectrum we are trying to help people with the—we're trying to support the coping strategies they use that are less detrimental or dangerous than some others. Usually compared to their crack use, cigarette [use] is not the primary barrier to keeping their housing, so most staff [members] don't see it as the biggest problem either."
	"I'm more concerned that they're not smoking crack or shooting up drugs, like in the scheme of harm reduction if you can reduce use of those other things and you're still smoking, I can live with that. That's a bit of the attitude we have just because our folks are often dealing with much, much more severe illicit drug use."
Cultural: Preventive health is a secondary concern	"A lot of our folks see a lot of people die in their buildings and they're not thinking about when they're 80 or when they're 70, they're much more focused on the immediate. I think in looking at smoking cessation it would have to be tied to the immediate benefit they would see in their lives."
Administrative: Lack of resources regarding smoking cessation services	"I think it would be getting a staff member trained in that specific program. If one of the staff wanted to do that group, getting some programming around it, like what are the philosophies behind helping people quit, [be]cause I don't know what they are. I think it would just be getting more resources. Figuring out if other people are doing the groups and what are they talking about, how are they structuring it."
Administrative: Format of traditional cessation service is not appropriate for clients	"It's just the format of those resources for smoking cessation, our tenants have not been super successful sticking with those. They're more likely to take a pill or a patch or something that is a medical intervention to reduce their cravings than to learn cognitive behavioral therapy over months The likelihood of having people come to one group, yes, two groups, maybe, three consecutive groups over three weeks, you would get different people every group. The traditional 8-week, 10-week programs, or models that have the most success for smoking cessation are not ideal [for our clients]."
	"So it's a lot due to their illness, like being disorganized and having difficulty not always knowing oh, it's Tuesday, the drop-in hours of that clinic are Tuesdays at 3:00, the logistics of knowing where to go and when, so they often need some guidance in the big picture and follow-up."