Clearing the Air: The Case for Comprehensive Smoke-Free Multi-Unit Housing Policies (MUH) in California

Miah Chao, Adam J. Landeros MPH MS, Chuanjie Deng MS, Alice Kuo MD PhD MBA, & Hannah Kwak MD MPH
Division of Medicine-Pediatrics and Preventive Medicine, Department of Medicine, UCLA Health
Los Angeles, CA

Abstract

Despite California's smoke-free public space policies, many residents remain exposed to secondhand smoke—particularly those living in multi-unit housing (MUH). These residents, often from marginalized groups, face higher smoking-related health disparities. Furthermore, within municipalities that do have some form of regulation, many exclude e-cigarettes. This brief examines the potential benefits of city-wide smoke-free MUH ordinances, including preventing exposure to secondhand smoke, reducing tobacco-related health disparities, and minimizing economic costs due to smoking-related expenses. It also addresses major concerns of MUH operators and local decision makers, such as implementation and enforcement issues and effects on the economic environment of a city. The article outlines various steps that healthcare providers can take in their community to expand smoke-free MUH. The Anti-Vaping Champions at UCLA advocate for city-wide smoke-free MUH ordinances and urge healthcare providers to educate and support patients, communities, and policymakers to protect public health and advance health equity.

Background

Decades of research shows that secondhand smoke (SHS) contributes to risks of cancer, birth defects, and other harms. This has led to the deaths of approximately 2.5 million nonsmoking individuals from health problems associated with exposure to SHS since 1964.[1] From prohibiting smoking in state parks to mandating smoke-free workplaces, many California residents are protected from exposure to SHS in areas where they work, eat, play, and more. Yet, communities are still exposed to SHS at home, especially in multi-unit housing (MUH) residences.

MUH residents are especially vulnerable to SHS exposure compared to residents of detached, single-unit housing. In California, adult MUH residents have higher smoking rates (13.1%) compared to those living in single-unit homes (9.7%).[2] Smoke can drift into various units through shared ventilation systems, electric outlets, elevator shafts, hallways, and more.[3] A national survey found that children living in apartments in which no one smokes indoors had 45% higher levels of cotinine—a commonly tested biomarker that indicates SHS exposure—than children living in detached homes.[4]

Approximately 12 million California residents live in MUH complexes. The effects of SHS can disproportionately impact residents of MUH, who are also more likely to have low income, lack a high school diploma, not have health insurance, and identify as a person of color compared to those living in single-unit housing.[1] These priority populations not only are exposed to more secondhand smoke, but are known to have higher rates of primary tobacco use and, consequently, smoking-related disease.[5]

To protect the lives of those around people who smoke, smoke-free ordinances have become crucial. As of October 2024, 101 jurisdictions in California (20.9%) have passed ordinances regulating smoking in private units of MUH, covering over 6 million (16.2%) of the state population. Additionally, smoke-free outdoor air policies have been enacted in 75% of California jurisdictions, protecting almost 35 million (88.5%) of the state population from SHS in outdoor dining and bar areas, public events/venues, recreational areas, transit stops/shelters, public easements/rights of way, and

About Anti-Vaping Champions at UCLA: Anti-Vaping Champions, a project of the UCLA Health Division of Medicine-Pediatrics and Preventive Medicine, was formed as an initiative between UCLA and the California Department of Public Health following concerning trends in e-cigarette and vape use in recent years. Our team works toward three goals: making a statewide impact in the creation and adoption of vaping-related policies, testing improved processes in the clinical treatment of vaping and nicotine addiction, and developing cutting-edge educational curricula. Our shared mission is to decrease vaping and other harmful forms of nicotine and tobacco use through education and advocacy.

places of employment. Still, 288 municipalities in California (59.8%) lack any regulation of smoking in MUH.[6] Although a significant number of cities have made progress on specificallysmoke-free MUH ordinances, a considerable number do not include e-cigarettes among the list of prohibited devices, as many of the existing ordinances were passed before they became popular. Within Los Angeles County alone, four jurisdictions do not include e-cigarette use in their policy: Burbank, Culver City, Glendale, and West Hollywood.

Anti-Vaping Champions at UCLA is a community coalition dedicated to tackling tobacco use throughout California, and we believe additional smoke-free MUH regulation is crucial to reduce the impacts of SHS on youth and families, advance health equity throughout the state, and achieve California's Tobacco Endgame.

> *Endgame: "Efforts aimed at permanently altering the structural, political, and social dynamics that [created and continue to] perpetuate the tobacco [and vaping] epidemics…"* [7]

The goals of this paper are to: 1) describe the benefits of smoke-free MUH ordinances, 2) explore additional implementation considerations, and 3) inform health care providers on how they can educate their patients, communities, and policymakers on this issue.

Potential Benefits

Preventing Youth and Vulnerable Individuals from Secondhand Smoke

Smoke-free MUH and public space ordinances prevent individuals and communities from SHS exposure and its lasting negative impacts on cardiovascular and respiratory health. In one survey of LA County MUH residents, nearly 40% reported tobacco exposure due to drifting SHS,[8] and in another survey of California MUH residents, up to 4.8 million individuals report experiencing SHS infiltration.[9] Research shows that SHS has the potential to cause coronary heart disease, stroke, lung cancer, adverse reproductive health effects, and lifelong chronic illness.[10] Nonsmoking MUH residents often report health effects including lung irritation, dizziness, headache, nausea, tachycardia, and asthmatic attacks because of SHS infiltration.[11]

Homes are the primary source of SHS exposure for children.[12] Thirdhand smoke—a term used to describe pollutants left on surfaces long after tobacco smoke has dissipated—poses the greatest danger for infants and toddlers, who may be exposed to leftover carcinogenic materials by placing items in their mouths or while crawling on rugs or furnishings. Infants ingest dust at twice the rate of adults, which can be especially worrying if contaminated.[13] A recent study found that detectable levels of the potent tobacco-specific carcinogen nitrosamine NNK were found in children's homes with indoor smoking bans, demonstrating that thirdhand smoke is a major concern. The same study found that nicotine was detectable on all surfaces in the homes of children who lived with people who smoke.[14] Implementing smoke-free MUH policies are vital to protecting the lives of children, given that SHS is harmful to their well-being. In 2006, SHS was added to Proposition 65's list of chemicals known to California to cause cancer, birth defects, or other reproductive harms.[15] The U.S. Surgeon General has also declared that "there is no risk-free level of exposure to tobacco smoke," [16] demonstrating the clear need for smoke-free MUH and public space ordinances.

Reducing Disparities in Tobacco Use and Tobacco-Related Disease

Smoke-free MUH policies also serve to reduce tobacco-related health inequities, especially for communities that have been historically targeted by the tobacco industry. In California, adult residents of MUH complexes are more likely to be people of color, have low income, currently smoke, lack a high school diploma, and not have health insurance.[1] These populations also experience higher rates of tobacco use and tobacco-related disease.[17] For example, those living in poverty experience higher lung cancer rates than those with higher income, and over 45% of MUH residents in California have low income.[18,19]

Secondhand smoke exposure is also more common in MUH homes compared to single-family homes, exacerbating existing health disparities. For instance, in MUH, female residents, households with children, and households living under the poverty level report higher rates of SHS exposure.[20] Additionally, about one-quarter of low-income households in California live in government-subsidized housing, and a large proportion of those living in government-subsidized MUH are already at higher risk for chronic diseases and overall poorer health.[21] Actions must be taken to reduce risk of SHS exposure, thereby advancing health equity by reducing tobacco-related health disparities.

Decreasing Costs from Smoking-Related Expenses and Tobacco-Related Disease

Smoke-free MUH and public space policies also have the potential to greatly reduce costs from smoking-related expenses. For example, between 2012 and 2016, smoking was the leading cause of home fire deaths. During this period, US fire departments reported responding to over 18,000 smoking-related structure fires, connected to 1,130 injuries, 590 deaths, and notably, $476 million in direct property damage.[22] Furthermore, fire mortality disproportionately impacts African American males, American Indian males, and elderly people.[23] Smoke-free MUH policies would both reduce fire-related health disparities and save owners millions of dollars. Some estimates show that these policies would save California property owners around

$18 million in renovation expenses every year. On average, California property owners with partial smoke-free policies reported an average of $9,573 in smoking-related costs per year, while those with full smoke-free policies reported an average cost of only $1,866 per year.[24]

Aligning with Community Members' Smoke-Free Housing Preferences

A major fear of decision makers is that residents will be unhappy with newly implemented smoke-free MUH policies. While some residents may indeed be unhappy, the data shows that the majority of MUH residents support these policies. According to a survey conducted by the American Lung Association, 55% of Californians supported laws to restrict smoking in all areas of apartment buildings.[25] Another survey of adults across the United States found that 76.9% of respondents were in favor of smoke-free MUH.[26] Furthermore, 74.0% of respondents supported prohibiting e-cigarette use in MUH.[27] Even among current smokers, 51% supported prohibiting both cigarette and e-cigarette use in MUH.[27] Thus, lawmakers and advocates can wield the preexisting support of residents to implement smoke-free MUH policies.

Additional Considerations

Potential Costs for Property Managers

It is important to consider the concerns of property managers and the potential costs they may experience. A meta-analysis of smoke-free MUH literature identified several perceived barriers by MUH operators, including "implementation and enforcement issues, objections from existing residents, concerns about limiting the potential pool of residents, concern about legality and liability, increased vacancy, increased turnover, and increased staff time." However, survey results following the implementation of smoke-free MUH policies largely disproved these concerns, showing that the policies did not affect "vacancy rates, turnover rates, rental costs, maintenance costs, or management time." [20] In fact, in one study, half of the surveyed MUH operators reported that the policy decreased required staff time to manage the building, only one operator had to actually "enforce their lease against a non-compliant tenant," and no operators faced any legal action against them.[28] Furthermore, in a separate study, the majority of operators reported they "never" receive complaints about the policy.[29] Therefore, it is important to openly discuss and correct misperceptions held by property managers.

Concerns Over Economic Impacts on Cities

Local policymakers have posed concerns regarding the economic impacts of smoke-free MUH. In Madera, for example, a 100% smoke-free MUH policy was opposed by city council members due to concerns that it would negatively impact the business environment within the city. The council members emphasized that they did not want to be perceived as "anti-business" and harm local businesses.[30] Local housing and realtor organizations supported their concerns and also opposed the policy, following similar positions in which they have not supported efforts to regulate the housing industry. Furthermore, policymakers held a sentiment that smoke-free MUH policies should be 'voluntarily adopted' by managers of privately owned properties, but supported implementing smoke-free MUH for public housing.[30] To combat these concerns, it is important for advocates to emphasize the economic benefits and the clear legality of city-wide smoke-free MUH policies, particularly when speaking to local legislators.

Inclusions of E-Cigarette Regulation into Smoke-Free MUH Policies

While a large portion of California jurisdictions have passed smoke-free MUH ordinances, at least 11 jurisdictions exclude e-cigarette use in their ordinances.[6] This can be problematic; research indicates indoor e-cigarette use can expose non-users to harmful chemicals; e-cigarettes release aerosol containing carcinogenic chemicals such as formaldehyde, metals (lead, cadmium, and nickel), and nitrosamines.[31] The American Society of Heating, Refrigerating, and Air Conditioning Engineers have reported that "acceptable indoor air quality" requires the absence of any and all environmental tobacco smoke, which includes any emissions produced by electronic smoking devices.[32] Furthermore, recent studies have indicated that SHS exposure due to e-cigarettes could increase risk of asthma symptomatic days in children, as well as increase risk of bronchitis symptoms in young adults.[33,34] Various health authorities and indoor air experts, such as the U.S. Surgeon General, the State of California Tobacco Education and Research Oversight Committee, and the American Society of Heating, Refrigerating, and Air Conditioning Engineers all support the inclusion of electronic smoking devices in tobacco regulations.[1] Understandably, many smoke-free laws were enacted before e-cigarettes entered the market, but it is vital for existing laws to be edited to include e-cigarettes.

Opportunities for Future Research on Health Outcomes

While the potential health benefits of smoke-free MUH policies are clear, no complete studies have been released that assess the long-term health effects of smoke-free MUH.[35] Thus, the actual long-term health impacts of these type of policies are yet to be confirmed. Further studies should hopefully fill this gap in literature.

Recommendations for Providers

Anti-Vaping Champions at UCLA is committed to supporting health care providers in combatting smoking in MUH throughout California. Several opportunities for health care providers and their advocacy groups to take action, both in their clinics and broader communities, have been identified and are listed below.

Clinical Education and Patient Care

Smoking in MUH affects individuals from all age groups, ethnicities, and more. Providers can immediately take action by educating their patients and following the recommended steps:

1. Provide culturally inclusive resources to all patients and their parents/guardians explaining the impacts of direct, secondhand, and thirdhand cigarette and e-cigarette smoke.
2. Promote smoke-free homes to all patients. Even if quitting may not be a current option for patients, maintaining smoke-free environments can still protect others from SHS.[36]
3. Provide evidence-based cessation resources to current smokers. A common sentiment shared by smoking residents is that cities lack cessation resources for smokers wishing to quit, and smoke-free MUH policies are sometimes implemented so quickly that residents do not have enough time to figure out how they can quit smoking.[37]

Community Engagement and Outreach

As frontline health care workers, providers have the opportunity to offer their unique perspectives to the broader community and spread awareness regarding the importance of smoke-free MUH ordinances. To do so, we recommend the following strategies:

1. Initiate or respond to media commentary by authoring an opinion editorial (op-ed) or letter to the editor that highlights the advantages of 100% smoke-free MUH and explains the detrimental effects of smoking in such environments.
2. Participate in community events such as workshops or town hall meetings. Start conversations in these spaces and emphasize the collective benefits of a smoke-free environment.
3. Prepare and submit case studies to professional conferences and similar events, sharing your experiences with patients affected by smoking in MUH.
4. Educate landlords, homeowners associations, and other property managers about the importance of maintaining smoke-free MUH.[36]

Policy Advocacy and Leadership

There is also a vital opportunity for providers to play active roles in advocacy efforts to establish city-wide smoke-free MUH ordinances. The Anti-Vaping Champions recommend the following methods:

1. Meet with your local city council members and educate them on the harmful effects of smoking in MUH, particularly on children, low-income residents, and other groups disproportionately impacted by SHS. During these conversations, it may be especially useful to also emphasize the economic benefits of smoke-free MUH policies.
2. Identify neighboring cities that do not mention or include e-cigarettes in their smoke-free MUH ordinances and inform local legislators about the need to include e-cigarettes in these regulations.
3. Join or form an advocacy committee in your respective provider organization to advocate for smoke-free MUH legislation on the local and state levels.

Conclusion

As of April 2024, only 190 out of 482 municipalities in California have established some form of smoke-free MUH regulation.[6] While this is significant progress, residents outside regulated areas continue to be exposed to SHS, especially tobacco control priority populations such as low-income individuals and racial and ethnic minorities. Furthermore, within the municipalities that do have some regulation, many policies are not completely comprehensive; some only include common areas, exclude e-cigarettes, exclude condominiums, and more.[6] Although implementing smoke-free MUH policies requires careful consideration, current evidence demonstrates that these policies provide significantly more benefits and are essential for protecting public health and advancing health equity. We urge healthcare providers to actively educate their patients, communities, and policymakers about the dangers of SHS and the critical need for comprehensive, city-wide smoke-free MUH.

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