

Smoke-Free Indoor Air Policies

We all know the harmful effects that secondhand smoke and vapor can have. Casinos, gaming venues, multi-unit housing, and bars – or any other public space we enjoy with family and friends – should have clean air to protect everyone’s health. Cities can put people’s health first by ensuring that businesses and other indoor spaces remain free from the smoke and vapor from tobacco (including e-cigarettes and heated tobacco products) and cannabis.

The Smoke Exposure Challenge

- According to the U.S. Centers for Disease Control and Prevention (CDC), tobacco use is the largest preventable cause of death, disease, and disability in the United States.¹ Secondhand smoke (SHS) contains more than 7,000 chemicals, many of which are toxic, and is a proven cause of cancer, heart disease, and other serious illnesses.²
- Every year, more than 40,000 adults in the U.S. die from exposure to secondhand smoke,³ and another 16 million Americans live with a smoking-related disease.¹ According to the CDC, there is no risk-free level of secondhand smoke exposure; even brief exposure can be harmful to health.⁴
- Further, the economic consequences of tobacco use exact a significant financial toll. The CDC reported that in 2018, cigarette smoking accounted for more than \$240 billion in healthcare costs and contributed to nearly \$372 billion in lost productivity.⁵
- Secondhand cannabis smoke (SCS) can also put non-users at risk: there is evidence that exposure impairs cardiovascular functioning,⁶ and SCS has many carcinogenic components in common with tobacco smoke.⁷

A Healthy Solution: Smoke-Free Indoor Air

- **Protects Millions of Workers**—Smoke-free indoor air protects workers from the harmful effects of secondhand smoke, particularly in high-risk settings, such as casinos and bars.⁸⁻¹¹
- **Doesn’t Lead to Negative Economic Consequences**—Having smoke-free indoor air policies does not interfere with profits for bars or restaurants, and can even improve business, while protecting the health of customers and employees. Smoking bans have been shown to have little effect on restaurant profits, while increasing dining out expenditures of families that do not smoke.¹²⁻¹⁴
- **Protects Low-Income Residents** – Multiple studies have shown that when smoke-free policies are implemented in multi-unit housing, particularly in housing with low-income residents, exposure to second-hand smoke decreases.¹⁵⁻¹⁷

What is the Evidence that Smoke-Free Indoor Air Policies Can Improve Health?

The Community Preventive Services Task Force, CDC's public health advisory body, found strong evidence of effectiveness for smoke-free indoor air policies, reducing SHS exposure and tobacco related diseases and deaths.¹⁸ Smoke-Free Indoor Air Policies have been shown to have multiple positive health benefits, often due to their effectiveness at reducing exposure to SHS.

- A systematic review and meta-analysis including 144 population level studies found that smoke-free legislation was associated with several health benefits, including decreased risk of cardiovascular disease events, respiratory system disease events, and adverse birth outcomes.¹⁹
- Smoke-Free Indoor Air policies can have positive implications for fetal health. A 2016 study found that the introduction of a comprehensive smoke-free law in England was associated with an immediate 7.8% reduction in stillbirths and a 7.6% reduction in neonatal deaths.²⁰
- Local Smoke-Free Indoor Air policies can have long-term health effects. A study of 83,727 Kentucky residents over the age of 50 who were newly diagnosed with lung cancer between 1995 and 2014 found that those living in communities with comprehensive smoke-free laws were 7.9% less likely to be diagnosed with lung cancer than those living in communities without comprehensive smoke free laws.²¹
- A study of the introduction of a smoke-free policy in public multiunit housing in Colorado in 2014-2015 found that the percentage of smokers who smoked every day decreased and that there was a significant decrease in breathing problems reported.²²

How Can Smoke-Free Indoor Air Help Address Health Disparities?

According to the CDC, there is no safe level of SHS exposure. In the U.S., Black children and adults are more likely to experience SHS exposure compared to every other racial group.²³ Additionally, low-income people, people with mental health or substance use disorders, and rural residents are disproportionately burdened by tobacco use.²⁴ Local Smoke-Free Indoor Air policies can help address these disparities, in part by protecting people who do not smoke themselves. The Smoke-Free Indoor Air medal criteria focuses on multiple locations to address health disparities: non-hospitality workplaces, restaurants and bars, public places, casinos and gaming industry venues, multi-unit housing and private rooms in nursing home facilities.

- A study of racially diverse seniors living in low-income multiunit housing (n=960) in 2013-2014 found that the percentage of residents reporting SHS exposure decreased after the implementation of a smoke-free policy.¹⁵
- Residents with a lower level of educational attainment and localities that have smaller proportions of workers living and working in the same locality stand to benefit more from new Smoke-Free indoor Air policies. A 2015 study of ten U.S. states found that across states, those populations had lower odds of being covered by 100% smoke-free laws.²⁵
- Low-income families may be at an elevated risk for second-hand cannabis smoke: In a convenience sample of 450 parents living in public housing in New York City in 2018 and 2019, 31% reported smelling cannabis smoke while at home with their child, signaling the importance of policy intervention.²⁶

What Are Some Future Issues to Consider?

Cities should determine if there are preemption issues at the county or state level. The CDC reports that states with the highest proportion of Black residents have stronger tobacco preemption laws,²³ which could pose a challenge in passing comprehensive Smoke-Free Indoor Air policies. Additionally, cities should consider the scope of their policy choices and the equity implications. A systematic review showed that comprehensive smoke-free legislation had a more positive impact on health equity than voluntary or partial smoke free policies.²⁴ It is also important that cities are specific about the inclusion of e-cigarettes in policies, as many assume that “smoke-free” only applies to cigarette smoke.²⁷ Finally, there is concern that the legalization of cannabis across states will weaken smoke-free policies. If desired, cities should carve out specific exceptions for cannabis smoke to ensure that the policy is clear about where cannabis smoke is not permitted.²⁸

Resources for Cities

ChangeLab Solutions: [Comprehensive Smokefree Places](#)

NACCHO: [Smoke Free Policy Guidelines for Local Health Departments](#)

World Health Organization: [Making Cities Smoke Free](#)

References

1. Centers for Disease Control and Prevention. Cigarette Smoking. Accessed August 5, 2025, <https://www.cdc.gov/tobacco/about/index.html>.
2. American Cancer Society. Health Risks of Secondhand Smoke. Accessed August 5, 2025, <https://www.cancer.org/cancer/risk-prevention/tobacco/secondhand-smoke.html>.
3. Centers for Disease Control and Prevention. Tobacco Data Statistics. Accessed August 5, 2025, https://archive.cdc.gov/www_cdc_gov/tobacco/data_statistics/fact_sheets/health_effects/tobacco_related_mortality/index.htm.
4. Centers for Disease Control and Prevention. About Secondhand Smoke. Accessed August 5, 2025, <https://www.cdc.gov/tobacco/secondhand-smoke/index.html>.
5. Centers for Disease Control and Prevention. Burden of Cigarette Use in the U.S. Accessed August 5, 2025, <https://www.cdc.gov/tobacco/campaign/tips/resources/data/cigarette-smoking-in-united-states.html>.
6. Wang X, Derakhshandeh R, Liu J, et al. One Minute of Marijuana Secondhand Smoke Exposure Substantially Impairs Vascular Endothelial Function. *J Am Heart Assoc*. Jul 27 2016;5(8):doi:10.1161/jaha.116.003858.
7. Moir D, Rickert WS, Levasseur G, et al. A comparison of mainstream and sidestream marijuana and tobacco cigarette smoke produced under two machine smoking conditions. *Chem Res Toxicol*. Feb 2008;21(2):494-502. doi:10.1021/tx700275p.
8. Babb S, McNeil C, Kruger J, Tynan MA. Secondhand smoke and smoking restrictions in casinos: a review of the evidence. *Tob Control*. Jan 2015;24(1):11-7. doi:10.1136/tobaccocontrol-2013-051368.

9. Farrelly MC, Nonnemaker JM, Chou R, Hyland A, Peterson KK, Bauer UE. Changes in hospitality workers' exposure to secondhand smoke following the implementation of New York's smoke-free law. *Tob Control*. Aug 2005;14(4):236-41. doi:10.1136/tc.2004.008839.
10. Rajkumar S, Huynh CK, Bauer GF, Hoffmann S, Rösli M. Impact of a smoking ban in hospitality venues on second hand smoke exposure: a comparison of exposure assessment methods. *BMC Public Health*. Jun 4 2013;13:536. doi:10.1186/1471-2458-13-536.
11. Klepeis NE, Dhaliwal N, Hayward G, et al. Measuring Indoor Air Quality and Engaging California Indian Stakeholders at the Win-River Resort and Casino: Collaborative Smoke-Free Policy Development. *Int J Environ Res Public Health*. Jan 20 2016;13(1)doi:10.3390/ijerph13010143.
12. Kim D, Yörük BK. The impact of restaurant smoking bans on dining out expenditures: Evidence from panel data. *Journal of Urban Economics*. 2015/07/01/ 2015;88:38-49. doi:<https://doi.org/10.1016/j.jue.2015.04.002>.
13. Shafer P. Impact of US Smoke-free Air Laws on Restaurant and Bar Employment, 1990-2015. *Nicotine Tob Res*. Mar 30 2019;21(4):547-550. doi:10.1093/ntr/ntx280.
14. Centers for Disease Control and Prevention. Smokefree Policies Do Not Hurt the Hospitality Industry. Accessed August 5, 2025, https://archive.cdc.gov/www_cdc_gov/tobacco/secondhand-smoke/protection/hospitality.htm.
15. Hollar TL, Cook N, Quinn D, Phillips T, DeLucca M. Smoke-Free Multi-unit Housing Policies Show Promise in Reducing Secondhand Smoke Exposure Among Racially and Ethnically Diverse, Low-Income Seniors. *Journal of Immigrant and Minority Health*. 2017/12/01 2017;19(6):1281-1289. doi:10.1007/s10903-016-0430-2.
16. Pizacani BA, Maher JE, Rohde K, Drach L, Stark MJ. Implementation of a Smoke-free Policy in Subsidized Multiunit Housing: Effects on Smoking Cessation and Secondhand Smoke Exposure. *Nicotine & Tobacco Research*. 2012;14(9):1027-1034. doi:10.1093/ntr/ntr334.
17. Levy DE, Adamkiewicz G, Rigotti NA, Fang SC, Winickoff JP. Changes in tobacco smoke exposure following the institution of a smoke-free policy in the Boston Housing Authority. *PLoS ONE*. 2015;10(9)doi:10.1371/journal.pone.0137740.
18. U.S. Department of Health and Human Services. Tobacco Use: Smoke-Free Policies. Office of Disease prevention and Health Promotion. Accessed August 17, 2025, <https://odphp.health.gov/healthypeople/tools-action/browse-evidence-based-resources/tobacco-use-smoke-free-policies#:~:text=The%20Community%20Preventive%20Services%20Task,and%20increase%20successful%20quit%20attempts>.
19. Akter S, Islam MR, Rahman MM, et al. Evaluation of Population-Level Tobacco Control Interventions and Health Outcomes: A Systematic Review and Meta-Analysis. *JAMA Network Open*. 2023;6(7):e2322341-e2322341. doi:10.1001/jamanetworkopen.2023.22341.
20. Faber T, Been JV, Reiss IK, Mackenbach JP, Sheikh A. Smoke-free legislation and child health. *NPJ Prim Care Respir Med*. Nov 17 2016;26:16067. doi:10.1038/npjpcrm.2016.67.
21. Hahn EJ, Rayens MK, Wiggins AT, Gan W, Brown HM, Mullett TW. Lung cancer incidence and the strength of municipal smoke-free ordinances. *Cancer*. Jan 15 2018;124(2):374-380. doi:10.1002/cncr.31142.
22. Young W, karp S, Bialick P, et al. Health, Secondhand Smoke Exposure, and Smoking Behavior Impacts of No-Smoking Policies in Public Housing, Colorado, 2014-2015. *Prev Chornic Dis*. 2016;13doi:10.5888/pcd13.160008.
23. Centers for Disease Control and Prevention. African American People Need More Protection From Secondhand Smoke Exposure. Accessed August 18, 2025, <https://www-cdc-gov.ezproxy.bu.edu/tobacco-health-equity/collection/african-american-secondhand-smoke.html>.

24. Hafez AY, Gonzalez M, Kulik MC, Vijayaraghavan M, Glantz SA. Uneven Access to Smoke-Free Laws and Policies and Its Effect on Health Equity in the United States: 2000-2019. *Am J Public Health*. Nov 2019;109(11):1568-1575. doi:10.2105/ajph.2019.305289.
25. Huang J, King BA, Babb SD, Xu X, Hallett C, Hopkins M. Sociodemographic Disparities in Local Smoke-Free Law Coverage in 10 States. *Am J Public Health*. Sep 2015;105(9):1806-13. doi:10.2105/ajph.2015.302655.
26. Sangmo L, Liu B, Elaiho C, et al. Reported Marijuana and Tobacco Smoke Incursions Among Families Living in Multiunit Housing in New York City. *Acad Pediatr*. Jan 16 2021;doi:10.1016/j.acap.2021.01.005.
27. Shi Y, Cummins SE, Zhu SH. Use of electronic cigarettes in smoke-free environments. *Tob Control*. Mar 2017;26(e1):e19-e22. doi:10.1136/tobaccocontrol-2016-053118.
28. Steinberg J, Unger JB, Hallett C, Williams E, Baezconde-Garbanati L, Cousineau MR. A Tobacco Control Framework for Regulating Public Consumption of Cannabis: Multistate Analysis and Policy Implications. *Am J Public Health*. Feb 2020;110(2):203-208. doi:10.2105/ajph.2019.305423.