Smoke-Free Cities

Smoke-Free Laws Improve Health & Save Lives

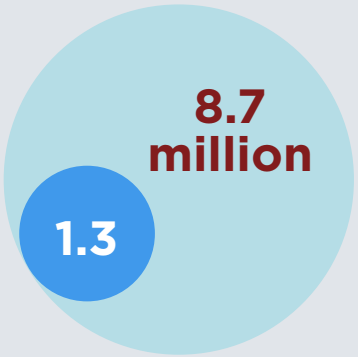
Secondhand tobacco smoke (SHS) is a primary source of air pollution in indoor workplaces and public places, including bars, restaurants and other public places. A mix of 7,000 chemicals, SHS causes lung cancer, respiratory disease, heart disease, stroke, sudden infant death syndrome and other serious conditions.[2]

Comprehensive smoke-free laws improve public health by reducing workers' and the public's exposure to toxic SHS, encouraging and helping smokers to quit, and discouraging youth from taking up smoking.

In 2004, Ireland became the first country to pass a comprehensive national smoke-free law. As of December 2024, at least 79 countries and territories have passed comprehensive smoke-free legislation, including 53 low-and-middle income countries. Hundreds of subnational jurisdictions (cities, provinces/states, etc.) have also passed these life-saving laws.

By reducing exposure to secondhand smoke, smoke-free laws reduce disease and death and save health care dollars. Smoke-free legislation is credited with preventing 5.4 million premature deaths between 2007–2014.[1]

Tobacco-Related Deaths Each Year



millions of deaths of non-smokers exposed to secondhand smoke

The 2019 Global Burden of Disease estimates that 1.3 million of the 8.7 tobacco-caused deaths each year are among non-smokers exposed to secondhand smoke.[1]

Smoke-Free Laws Reduce Exposure to Secondhand Smoke

Indoor air quality improves almost immediately when smoke-free laws are passed and implemented. This reduces exposure to the range of harmful chemicals in SHS, including carcinogens, toxic metals, and poisonous gases, consequently reducing workers' and patrons' risks of suffering the various health harms caused by SHS.[2] Environmental and biological markers of SHS include airborne nicotine and carbon monoxide (CO), cotinine in human blood and saliva, and fine particulate matter (PM2.5).

Montevideo, Uruguay

After a comprehensive national smoke-free law was implemented in 2006, the concentration of airborne nicotine particles fell by 91% in public spaces.[3]

São Paulo, Brazil

The concentration of carbon monoxide in restaurants, bars, night clubs and similar venues declined significantly after the implementation of a 2009 smoke-free law.[6]

Uruguay, Ireland and New Zealand

A 32-country study of public places from 2003–2007 found that the mean concentration of $PM_{2.5}$ was lowest in the countries with comprehensive national smoke-free laws: Uruguay, Ireland and New Zealand.[8]

Americas, Eastern Europe, Asia and Africa

A study examining the nicotine concentrations in bars and nightclubs in 24 cities in the Americas, Eastern Europe, Asia and Africa from 2007–2009 found that the median concentration of airborne nicotine in venues that permitted smoking was 17.5 times higher compared to smoke-free venues.[7]

Scotland

Salivary cotinine concentrations decreased significantly in non-smokers after smoke-free legislation.[9]

Smoke-Free Laws Improve Public Health and Save Lives

By reducing exposure to SHS, smoke-free laws, reduce the risk of developing heart disease and respiratory disease. Evidence suggests these laws may also reduce the risk of stroke and adverse birth outcomes.[10] Many of these improvements in health occur relatively soon after the smoke-free laws are implemented.

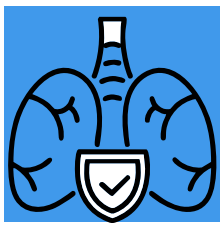
Cardiovascular Health

- In São Paulo, Brazil, hospital admissions for heart attacks decreased by 5.4% within three months of implementation of a comprehensive smoke-free law in 2009, and the overall mortality rate decreased by 11.9% within 17 months.[11]
- In Uruguay, hospital admissions for heart attacks declined by 22% two years after a comprehensive national smoke-free law was implemented in 2006.[12]
- A study of Ireland's 2004 comprehensive national smoke-free law found that implementation of the law was associated with a 12% reduction in hospital admissions for acute coronary syndromes (including heart attacks) within a year after the law was implemented.[13]
- A 2016 Cochrane review that included the analysis of 77 studies from 21 countries found evidence of a significant reduction in hospital admissions for heart attacks following implementation of smoke-free laws.[14]

Studies show a significant reduction in hospital admissions for heart attacks following smoke-free laws

Respiratory Health

- Within 3 months after Scotland's comprehensive smoke-free legislation was implemented, bar workers saw a 26% decrease in respiratory symptoms, and asthmatic bar workers had reduced airway inflammation.[15]
- According to a 2014 report of the U.S. Surgeon General, comprehensive smoke-free laws improve the respiratory health of bar and restaurant workers.[16]
- Comprehensive smoke-free laws are associated with decreased hospital admissions for asthma and lung infections.[18]
- A 2017 meta-analysis estimated that comprehensive smoke-free laws are associated with reducing hospital visits for asthma in children by 12.5%.[18]



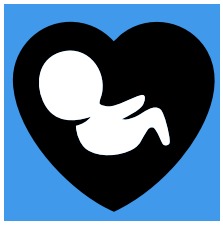
Smoke-free laws are associated with decreased hospital admissions for asthma and lung infections

- In Hong Kong, hospital admissions for lower respiratory tract infections in children decreased by 33.5% immediately after the implementation of a comprehensive smoke-free law in 2007 and decreased a further 13.9% within the first year.[19]
- In Uruguay, non-hospital emergency visits for bronchospasms decreased by 15% after the implementation of a comprehensive national smoke-free law in 2006.[20]

Smoke-free laws are associated with reductions in hospital admissions for stroke.

Cerebrovascular Health

- A 2024 meta-analysis found that smoke-free laws were significantly associated with reductions in the rates of hospital admissions for stroke.[21]



Smoke-free legislation was associated with beneficial birth outcomes

Perinatal Health

Some studies have shown reductions in adverse neonatal outcomes.

- A 2023 meta-analysis of of 144 population-level studies found smoke-free legislation was associated with beneficial birth outcomes.[22]
- A 2015 study in England found that smoke-free laws were associated with clinically important reductions in severe adverse perinatal outcomes such as stillbirths, low birth weight, and neonatal deaths.[23]

Smoke-Free Laws Encourage Smoking Cessation and Discourage Youth Initiation

In addition to reducing the direct health effects of secondhand smoke, smoke-free laws further improve public health by motivating and helping smokers to quit and by creating social norms that prevent youth from beginning to smoke.

- Smoke-free laws encourage and help smokers to quit by making it harder to smoke reducing opportunities for relapse for those trying to quit.[2]
- Smoke-free laws also change social norms and make tobacco use less socially acceptable, leading to more successful quit attempts by smokers and less initiation by young people.[24]

Laws that ban smoking in public places often have spillover effects and lead to less smoking or a no-smoking policy at home[25,26], one of the primary places of secondhand smoke exposure for household members, especially children.[2]

Key Takeaways

- **Smoke-free laws protect everyone's right to breathe clean air, reducing disease and death and saving healthcare dollars.**
- **Smoke-free laws improve indoor air quality quickly, reducing working and patron exposure to secondhand smoke.**
- **Worker health improves soon after smoke-free laws are in effect.**
- **Improvements in population cardiovascular and respiratory health have been documented in the wake of smoke-free laws.**
- **Smoke-free laws encourage and enhance cessation by smokers and reduce initiation by youth.**
- **Smoke-free laws encourage smoke-free homes, reducing exposure to household members, including children.**

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