SMOKE-FREE ENVIRONMENTS

Essential Facts

"The evidence is clear, there is no safe level of exposure to second-hand tobacco smoke. Many countries have already taken action. I urge all countries that have not yet done so to take this immediate and important step to protect the health of all by passing laws requiring all indoor workplaces and public places to be 100% smoke-free." —Dr. Margaret Chan, Director-General, World Health Organization.

Global exposure to secondhand smoke

- Worldwide, an estimated 33% of nonsmoking males and 35% of nonsmoking females are regularly exposed to secondhand smoke.[1]
- In many countries, the primary source of secondhand smoke exposure occurs at the workplace.

Exposure to secondhand smoke at the workplace, by country	
Bangladesh	63%[2]
China	63%[3]
Egypt	61%[4]
Russia	35%[5]

- Among children worldwide, 40% are exposed to secondhand smoke in public places.[1]

Harms of secondhand smoke

Secondhand smoke is a known cause of lung cancer, heart disease, low birth-weight births, and chronic lung ailments such as bronchitis, as well as other health problems.[7] There is no safe level of secondhand smoke exposure.[8]

- Every year, exposure to secondhand smoke causes over 600,000 premature deaths.[1]
  - Of all premature deaths, 47% (281,000) occur among nonsmoking women and 28% (166,000) occur among nonsmoking children.[1]
- Nonsmokers who are exposed to secondhand smoke at home or at work increase their risk of developing lung cancer by 20–30%.[7]
- Exposure to secondhand smoke increases the risk of coronary heart disease by 25–30%[9] and the risk of an acute coronary heart disease event by 25–35%.[10]

Smoke-free laws improve public health

Smoke-free laws improve public health by reducing the public's exposure to secondhand smoke, helping smokers reduce cigarette consumption, and helping smokers quit.

- A study of more than 1,800 public places in 32 countries found that the level of indoor air pollution was 89% lower in the places that were smoke-free.[11]
- A meta-analysis conducted by the United States Institute of Medicine concluded that smoke-free laws decreases acute coronary events, such as myocardial infarction.[9]
- A World Bank report on the global tobacco epidemic concluded that smoking restrictions can reduce overall tobacco consumption by 4–10%.[13]
- Nine months after Ireland's 2004 smoke-free law, 59% of smokers reported they had cut back because of the law, 46% reported the law made them more likely to quit, and, of those who quit, 79% said the law helped them succeed.[14]

Smoke-free laws benefit the economy

Healthcare costs associated with second-hand smoke are high. Smoke-free laws benefit the economy by eliminating healthcare costs associated with secondhand smoke. In addition, smoke-free laws have no negative impact on the hospitality industry.

- In the United Kingdom, exposure to secondhand smoke among children costs at least £9.7 million each year in primary care visits and asthma treatment, £13.6 million in hospital admissions, and £4 million on asthma drugs for children up to the age of 16.[17]
- A comprehensive review of 97 studies on the economic impact of smoke-free laws published before August 2002 concluded that: "All of the best designed studies report no impact or a positive impact of smoke-free restaurant and bar laws on sales or employment. Policymakers can act to protect workers and patrons from the toxins in secondhand smoke confident in rejecting industry claims that there will be an adverse economic impact."[19]
- In Argentina, a study of the smoke-free laws in Buenos Aires and the provinces of Cordoba, Santa Fe and Tucuman, showed that the laws did not negatively affect the sales at bars and restaurants. In the case of Buenos Aires, there is evidence that the smoke-free law produced a 7–10% increase in the sales at bars and restaurants.[21]

Partial smoke-free laws and designated smoking areas or rooms do not work

The only effective way to protect the public from secondhand smoke is to enact comprehensive smoke-free laws that cover all indoor workplaces and public places, including all restaurants, bars, and other hospitality venues.[22]

- In Spain, most workplaces went completely smoke-free in 2006. The law permitted hospitality venues to choose whether and how it would impose restrictions on smoking. This law resulted in no significant decreases in exposure to secondhand smoke, respiratory symptoms or salivary cotinine (a biomarker for secondhand smoke exposure) among workers in environments with partial or no restrictions on smoking.[23]
- The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), the leading association of ventilation professionals, concluded, "the only means of effectively eliminating health risk associated with indoor exposure is to ban smoking activity." ASHRAE found that no engineering approaches, including current and advanced dilution ventilation or air cleaning technologies, control health risks from environmental tobacco smoke exposure in spaces where smoking occurs.[26]
- Corporate documents from British American Tobacco (BAT) acknowledge that ventilation and air filtration were ineffective at removing environmental tobacco smoke. Despite such knowledge, BAT has extensively promoted these technologies to the hospitality industry since the mid-1990s.[27]

Article 8 of the Framework Convention on Tobacco Control

More than 170 countries have ratified the World Health Organization's Framework Convention on Tobacco Control (FCTC), the first global public health treaty.

- Article 8 of the FCTC obligates Parties to adopt and implement effective legislative measures "providing for protection from exposure to tobacco smoke in indoor workplaces, public transport, indoor public places and, as appropriate, other public places."

In 2007, member states of the FCTC unanimously adopted Article 8 Guidelines to assist Parties in meeting their Article 8 obligations. The Guidelines state:

- "Effective measures to provide protection from exposure to tobacco smoke, as envisioned by Article 8 of the WHO Framework Convention, require the total elimination of smoking and tobacco smoke in a particular space or environment in order to create a 100% smoke free laws environment."
- "Approaches other than 100% smoke free laws environments, including ventilation, air filtration, and the use of designated smoking areas... have repeatedly been shown to be ineffective and there is conclusive evidence, scientific and otherwise, that engineering approaches do not protect against exposure to tobacco smoke."
- To help ensure successful implementation and high compliance, "[o]nce legislation is adopted, there should be an education campaign leading up to implementation of the law, the provision of information for business owners and building managers outlining the law and their responsibilities and the production of resources, such as signage."

Smoke-free laws are popular and feasible

Many governments recognize the need for smoke-free laws. Citizens support the implementation of smoke-free laws and want to be protected from the dangers of secondhand smoke. The number of countries with smoke-free laws is on the rise, signaling growing global momentum for protection against exposure to hazardous tobacco smoke. Many countries, states, and cities of varying cultures, climates, and income levels have successfully implemented 100% smoke-free legislation.

- In Indonesia, nearly nine in 10 Indonesians (88%) favor prohibiting smoking in enclosed public places and workplaces. Even 73% of daily smokers support smoke-free policies.[28]
- In 2004, Ireland became the first country to pass a national 100% smoke-free law. One year after implementation, support rose from 67% to 93%, and 98% felt the workplace was healthier because of the law.[31] Compliance rates have been high at around 95%.
- Mexico City enacted 100% smoke-free law in April 2008. Support for the law rose from 50% in March 2008 to 66% by December 2008. During the first year after enactment, continuous public education and enforcement helped compliance rates increase from 80% to 95%.[32]

Key messages

- **Secondhand smoke is a known cause of death and disease. There is no safe level of secondhand smoke exposure.**
- **Smoke-free laws improve public health by reducing the public's exposure to secondhand smoke, helping smokers reduce cigarette consumption, and helping smokers quit.**
- **Smoke-free laws do not harm the hospitality industry. In fact, in some countries smoke-free laws have shown to benefit the economy.**
- **The only effective way to protect the public from secondhand smoke is to enact comprehensive smoke-free laws that cover all indoor workplaces and public places. Partial laws and/or designated smoking areas or rooms do not work.**
- **Parties to the FCTC are legally obligated to adopt and implement effective smoke-free legislation.**
- **Smoke-free laws are feasible for every country regardless of culture, climate, and income level.**

(1) Oberg M, Jaakkola MS, Woodward A, Peruga A, Pruss-Ustun A. Worldwide burden of disease from exposure to second-hand smoke: a retropective analysis of data from 192 countries. Lancet 2010. **(2)** Ministry of Health and Family Welfare Bangladesh, World Health Organization Country Office of Bangladesh. Global Adult Tobacco Survey: Bangladesh Report 2009: World Health Organization, 2009. **(3)** Centers for Disease Control and Prevention. Global Adult Tobacco Survey Fact Sheet: China. Atlanta: CDC, 2010. **(4)** Centers for Disease Control and Prevention. Global Adult Tobacco Survey Fact Sheet: Egypt: CDC, WHO, 2009. **(5)** Centers for Disease Control and Prevention. Global Adult Tobacco Survey Fact Sheet: Russian Federation: CDC, WHO, 2009. **(6)** U.S. Department of Health and Human Services. How tobacco smoke causes disease: the biology and behavioral basis for smoking-attributable disease: a report of the Surgeon General. Rockville, MD: Dept. of Health and Human Services, Public Health Service, Office of Surgon General, 2010. **(7)** U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, 2006. **(8)** World Health Organization International Agency for Research on Cancer. Tobacco Smoke and Involuntary Smoking. IARC Monographs on the Evaluation of Carcinogenic Risk to Humans. Lyon: WHO IARC, 2004. **(9)** U.S. Institute of Medicine. Secondhand smoke exposure and cardiovascular effects: Making sense of the evidence. Washington, DC: Institute of Medicine, 2009. **(10)** World Health Organization International Agency for Research on Cancer. Evaluating the Effectiveness of Smoke-free Policies. IARC Handbook of Cancer Prevention. Lyon: WHO IARC, 2009. **(11)** Hyland A, Travers MJ, Dresler C, Higbee C, Cummings KM. A 32-country comparison of tobacco smoke derived particle levels in indoor public places. Tob Control 2008;17(3):159-65. **(12)** New York City Department of Finance, Department of Health and Mental Hygiene, Department of Small Business Services, Economic Development Corporation. The state of smoke-free New York City: A one-year review. New York: Department of Health and Mental Hygiene, 2004. **(13)** The World Bank. Curbing the epidemic: Governments and the economics of tobacco control. Washington, DC: The World Bank, 1999. **(14)** Fong GT, Hyland A, Borland R, Hammond D, Hastings G, McNeill A, et al. Reductions in tobacco smoke pollution and increases in support for smoke-free public places following the implementation of comprehensive smoke-free workplace legislation in the Republic of Ireland: findings from the ITC Ireland/UK Survey. Tobbaco Control 2006;15 Suppl 3:iii51-8. **(15)** Botello-Harbaum MT, Haynie DL, Iannotti RJ, Wang J, Gase L, Simons-Morton B. Tobacco control policy and adolescent cigarette smoking status in the United States. Nicotine Tob Res 2009;11(7):875-85. **(16)** Mackay D, Haw S, Ayres JG, Fischbacher C, Pell JP. Smoke-free legislation and hospitalizations for childhood asthma. N Engl J Med 2010;363(12):1139-45. **(17)** Royal College of Physicians. Passive Smoking and Children: A report by the Tobacco Advisory Group of the Royal College of Physicians. London: Royal College of Physicians, 2010. **(18)** Behan DF, Eriksen MP, Lin Y. Economic effects of environmental tobacco smoke. Schaumburg: Society of Actuaries, 2005. **(19)** Scollo M, Lal A, Hyland A, Glantz S. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. Tob Control 2003;12(1):13-20. **(20)** van Walbeek C, Blecher E, van Graan M. Effects of the Tobacco Products Control Amendment Act of 1999 on restaurant revenues in South Africa--a survey approach. S Afr Med J 2007;97(3):208-11. **(21)** Gonzalez-Rozada M, Molinari M, Virgolini M. The economic impact of smoke-free laws on sales in bars and restaurants in Argentina. CVD Prevention and Control 2008;3(4):197-203. **(22)** World Health Organization. Protection from exposure to second-hand smoke: Policy recommendations, 2007. **(23)** Fernandez E, Fu M, Pascual JA, Lopez MJ, Perez-Rios M, Schiaffino A, et al. Impact of the Spanish smoking law on exposure to second-hand smoke and respiratory health in hospitality workers: a cohort study. PLoS One 2009;4(1):e4244. **(24)** Capital Medical University. Fine Particles Density Monitoring Research on the Air in Six Types of Places in Beijing. Beijing: Capital Medical University, 2008. **(25)** Erazo M, Iglesias V, Droppelmann A, Acuna M, Peruga A, Breysse PN, et al. Secondhand tobacco smoke in bars and restaurants in Santiago, Chile: evaluation of partial smoking ban legislation in public places. Tob Control 2010;19(6):469-74. **(26)** American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE). Environmental tobacco smoke: Position document. Atlanta: ASHRAE, 2005. **(27)** Leavell NR, Muggli ME, Hurt RD, Repace J. Blowing smoke: British American Tobacco's air filtration scheme. British Medical Journal 2006;332(7535):227-29. **(28)** Quirk Global Strategies. Smoke-free Support in Indonesia. Survey: Quirk Global Strategies, 2010. **(29)** Quirk Global Strategies. Smoke-free Support in Ukraine. Survey: Quirk Global Strategies, 2008. **(30)** Quirk Global Strategies. Smoke-free Support in Russia. Survey: Quirk Global Strategies, 2010. **(31)** Office of Tobacco Control. Smoke-Free Workplaces in Ireland; A One-Year Review. Clane: Office of Tobacco Control, 2005. **(32)** Crosbie E, Sebrie EM, Glantz SA. Strong advocacy led to successful implementation of smokefree Mexico City. Tob Control 2011;20(1):64-72.