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The Health And Economic Impact Of Tobacco Exposure

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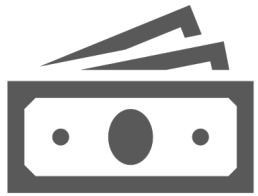
Why is tobacco a problem?

- **Tobacco causes 7.2 million deaths per year**
  - Approx. **1 million people per year in the Americas**
  - The only legal sale product, which **kills between one third and half of its consumers** when used as indicated by its manufacturers
  - Average **loss of 15 years of life**

- **Tobacco costs the world USD 1.4 trillion a year**
  - **422 billion in direct health expenditures**
  - 1 trillion in indirect costs (loss of productivity)
  - Equivalent to: 1.8% of world GDP or 40% of the public budget in education in the world (2012)



- **Tobacco increases inequalities**
  - There is a **clear link between poverty and tobacco**
  - In low-income countries, more than 10% of the family budget is spent on tobacco → **displaces other expenses**
  - Tobacco-related illnesses affect catastrophically and disproportionately those who have less → impoverish the poorest
  - The industry depends on child labor and moves them away from schools

Tobacco: A threat to sustainable development

Target 3.a: Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

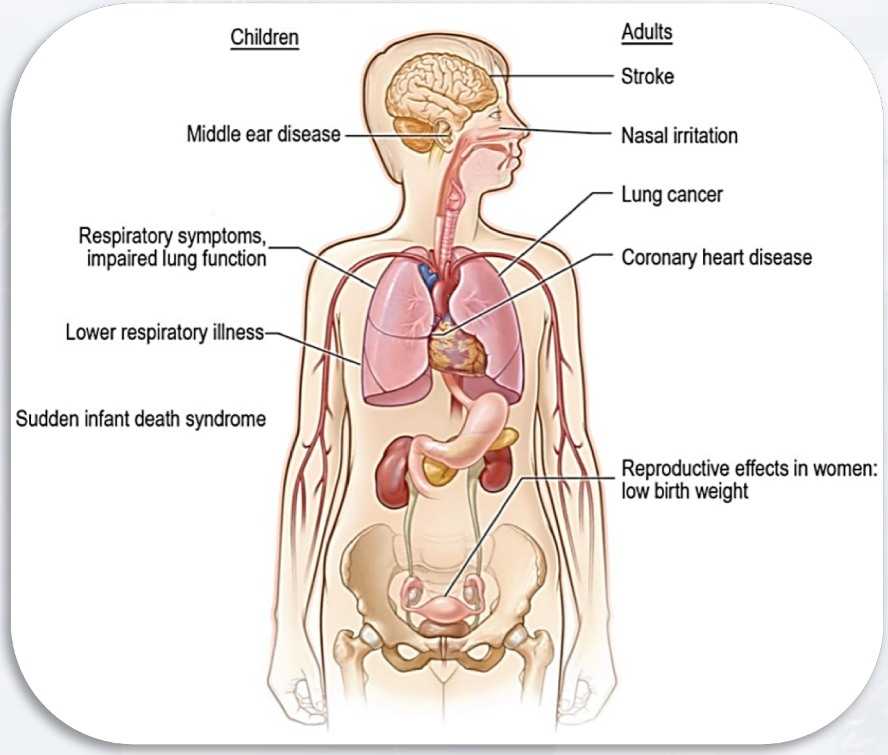
FCTC-Article 8

"Parties recognize that **scientific evidence has unequivocally established that exposure to tobacco smoke causes death, disease and disability**"

FCTC
WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

Impact of second hand smoke (SHS)

Health Impacts [1]



Globally: 600,000 deaths/ year attributable to SHS[2]

Economic Impact

- **USA**
  - Costs exceed US$ 10billion/ year (lost productivity and medical costs) [3]
  - USA,NYC annual cost of remedial services due to SHS exceed US$99 million/year[4]
- **Canada**
  - Costs CA$371 million per year
- **U.K.**
  - Yearly costs of primary care visits and hospital admissions attributable to SHS among children exceeds £ 21 million[5]

Sources: **(1)** U.S. Department of Health and Human Services. The health consequences of smoking—50 years of progress: a report of the Surgeon General, 2014.**(2)** Oberg M. Et al. Lancet. 2011; 377(9760). **(3)** Behan D. et al. Society of Actuaries, 2005. **(4)** Florence et al. J Health Care Finance. 2007. **(5)** Frijters P. et al. J R Stat Sic Ser A Stat Soc. 2011.

"**There is no safe level of exposure to secondhand smoke…comprehensive smoke-free measures are the only effective means of fully protecting the public** from the risks associated with secondhand smoke exposure"

Source: NIH/WHO Monograph on the Economics of Tobacco and Tobacco Control

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Comprehensive smoke-free policies: Impact

- **Improved air quality,** (air particle concentration; biomarkers of SHS exposure)

- **Smoking behavior**
  - Decreases social acceptability
  - Reduces opportunities to smoke and smoking intensity
  - Discourages initiation
  - Increases cessation rates and avoid relapses
  - Promotes voluntary adoption of smoking restrictions at home

- **Health outcomes for both smokers and non-smokers**
  - Short term effects:
    - Reduces cardiovascular diseases → reduces acute coronary events
    - Improved respiratory health → reduces asthma exacerbations & airway inflammation
    - Improved infant and birth outcomes→ reduced rates of preterm birth and asthma hospital admissions
  - Benefits increase over time

Source: NIH/WHO Monograph on the Economics of Tobacco and Tobacco Control

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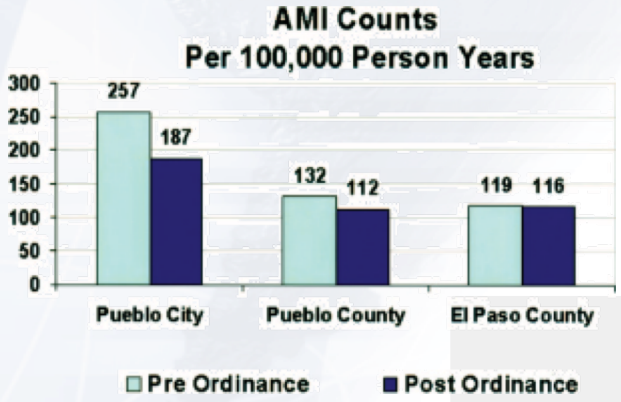
Smoke-Free Environments: evidence on cardiovascular and respiratory health outcomes

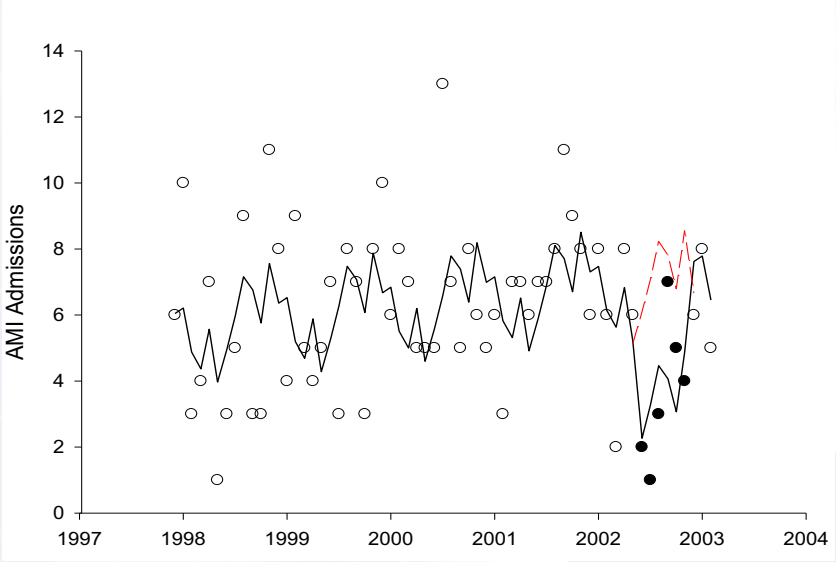
- **Scotland**
  - Smoke-free legislation was associated with significant early improvements in symptoms, spirometry measurements, and systemic inflammation of bar workers. Asthmatic bar workers also had reduced airway inflammation and improved quality of life (1)
- **Ireland**
  - A total workplace smoking ban results in a significant improvements in measured pulmonary function tests and significant reductions in self-reported symptoms and exposure levels in nonsmoking barmen after the ban(2)
- **Italy**
  - National law banning smoking in public resulted in a short-term reduction in hospital admissions for acute myocardial infraction (AMI) (3)
- **Pueblo, Colorado, USA**
  - Public ordinance reducing exposure to secondhand smoke was associated with a decrease in AMI hospitalizations (4)



Sources: (1) Menzies D, et al JAMA. 2006;296:1742-1748, (2) Goodban P, et al. AJRCCM 2007, (3) Barone-Adesi F. EURHEARTJ. 2006 (4) Bartechi, C et al Circulation. 2006;114:1490-1496

Smoke-Free Environments: evidence on cardiovascular and respiratory health outcomes

- **Uruguay**
  - Two years after the smoke-free policy was enacted, hospital admissions for AMI fell by 22% (1)
- **Panama**
  - An observed decrease in the relative risk for acute myocardial infarction after application of a nationwide comprehensive smoking ban(2)
- **Helena, Montana, USA**
  - During the six months the law was enforced the number of admissions fell significantly, from an average of 40 admissions during the same months in the years before and after the law to a total of 24 admissions during the six months the law was effect. Outside Helena there were no significant changes in admissions.

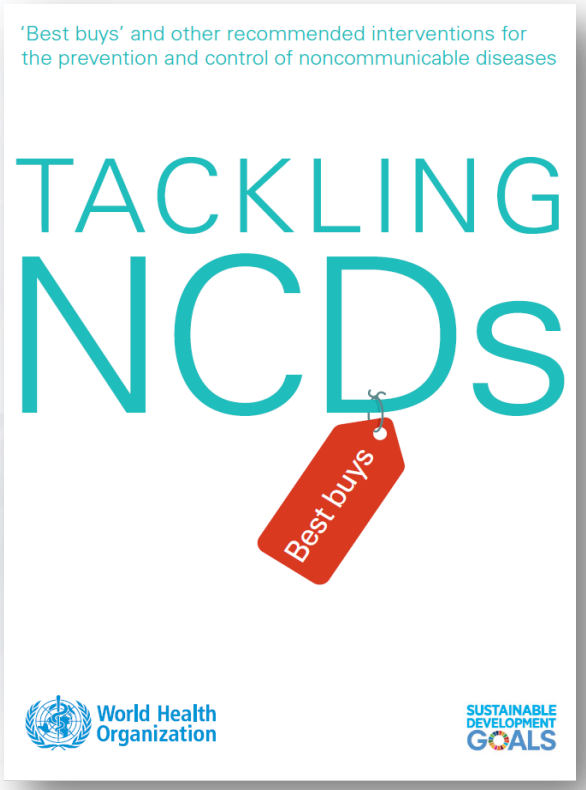


Sources: (1) Sebrié E, et al Tobacco Control. 2013;22:e16-e20. (2) Jan C, et al. Plos One 2014, (3) Sargent R. Et al. BMJ. 2004;328

Comprehensive smoke-free measures are cost-effective

Best-buys: Effective interventions with cost effectiveness analysis ≤ I$ 100 per DALY averted in LMICs

1. **Increase tobacco excise taxes** and prices
2. Implement plain packaging and/or large graphic health warnings on tobacco packages
3. **Ban** tobacco **advertising, promotion and sponsorship**
4. **Create by law completely smoke-free environments in all indoor workplaces, public places, and public transport**
5. **Warn people** of the dangers of smoking/tobacco use through mass media campaigns



Source: Updated Appendix 3 of the WHO GLOBAL ACTION PLAN FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

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Smoke-Free Environments in the Caribbean:
Progress Indicator Report, 2017

Antigua and Barbuda	○
Bahamas	○
Barbados (2010)	●
Belize	○
Dominica	○
Grenada	○
Guyana (2017)	●
Haiti	○
Jamaica (2013)	●
Saint Kitts and Nevis	○
Saint Lucia	○
Saint Vincent and the Grenadines	○
Suriname (2013)	●
Trinidad and Tobago (2009)	●

● Fully achieved

This indicator is **considered fully achieved if all public places in the country are completely smoke-free** (or at least 90% of the population covered by complete subnational smoke-free legislation)

◐ Partially achieved

This indicator is considered **partially achieved if three to seven public places are completely smoke-free**, or the law allows designated smoking rooms with strict technical requirements in five or more places

○ Not achieved

The indicator is considered not achieved if less than three public places and workplaces are completely smoke free

Why aren't more countries in the Caribbean implementing this cost-effective measure?

Source for indicator definitions: Noncommunicable Diseases Progress Monitor, 2017.

The main challenge to comprehensive smoke free measures:

Around the world, the **tobacco industry is the greatest obstacle to enacting comprehensive smoke-free policies, often by arguing that smoke-free policies are followed by economic downturns**

(despite strong evidence to the contrary)

Source: Hyland A. et al. Tobacco Control. 2012; 21 (2): 154-61

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Comprehensive smoke free measures:
Evidence of economic impact on businesses

"Existing evidence from developed countries indicates that smoke-free workplace policies have a net positive effect on businesses; the same is likely to be the case in developing countries"

-International Agency for Research on Cancer

Source: International Agency for Research on Cancer. Evaluating the effectiveness of smoke-free policies. IARC handbooks of cancer prevention: tobacco control

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Comprehensive smoke free measures:
Evidence of economic impact on businesses

- **No adverse effects in bar and restaurant sales**[1]
  - Systematic review of 165 studies Most rigorous studies concluded that smoke-free regulations do not cause adverse economic outcomes for hospitality industry
  - Studies that concluded adverse outcomes did not meet scientific standards and were funded by industry
  - Evidence from available from: US, Spain, Canada, China, Australia, New Zealand and South Africa, Norway, Mexico City, Santa Fe (Argentina)
- **No significant change or small positive impact on employment** [2]
  - Evidence from Kentucky (US), Canada, New Zealand, Mexico City
- **No effect on the number of establishments (openings or closings)**
  - Evidence from Kentucky[3] and Ottawa[4]
- **Improves business value of restaurants** [5,6]
  - After controlling for underlaying economic factors, value is 16% higher is smoke-free jurisdictions

Sources: **(1)**Scollo M, et al. Summary of studies assessing the economic impact of smoke-free policies in the hospitality industry, 2008. **(2)** International Agency for Research on Cancer. Evaluating the effectiveness of smoke-free policies. IARC handbooks of cancer prevention: tobacco control **(3)** Pyles M. Tob Control. 2007; 16(1):66-8. **(4)** Bournus B.et al. KPMG; 2002. **(5)** Almar B. et al. Contemp Econ Policy.2004; 22 (4):520-5. **(6)** Almar B. et al. Am J Public Health. 2007; 97():1400-2.

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Comprehensive smoke free measures:
Other economic effects

- **Decreased cleaning and maintenance costs**
  - Approximately US$728 less per year per 1,000 square feet of workplaces[1]
- **Lower insurance premiums**
  - Smoking employees premiums are 50% higher in US than non-smoking employees[2]
  - Fire insurance costs attributable to smoking in workplaces approx. £5million/ year in Scotland[3]
- **Increased worker productivity and decreased absenteeism**
  - Smoke-free → increased cessation and decreased intensity → decreased mortality & improved health
  - Smokers are absent between 7.7-10.7 more days than non-smokers in Sweden[4]
  - Smoking breaks cost employers in Canada an average of CA$3,053 per employee[5]
- **Decreased government health-care costs**

Sources: **(1)** Javits H. et al. Clin Occup Environ Med, 2006; 5(1):9-29. **(2)** Penner M. et al. J Occup Med. 1990;32(6):521-3. **(3)** Parrott S. Et al. Tob Control. 2000;9(2):187-92. **(4)** Lundborg P. Et al. To Control . 2007; 16(2):114-8. **(5)** Conference Board of Canada. Smoking an the bottom line. 2006.

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Conclusions

1. There is **no safe level** of exposure to secondhand smoke
2. Exposure to second hand smoke is **detrimental** for health, economies and development
3. Comprehensive smoke-free policies are **cost-effective means** of reducing exposure to secondhand smoke
4. Comprehensive smoke-free policies have **positive health impacts** measurable in the **short term**
5. Comprehensive smoke-free policies **do not cause economic downturns**

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#beatNCDs

TOGETHER LET'S BEAT TOBACCO

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