

Smoke-free policies: cleaning the air with money to spare



One reason that politicians are reluctant to invest in aggressive tobacco control policies and programmes is the perception that the costs (money and the risk of irritating tobacco companies) come now, whereas the benefits (reduced disease and medical costs) are years away. In *The Lancet*, Jasper Been and colleagues' meta-analysis¹ adds another dimension to the already strong case² that this perception is wrong.

Drawing on 11 studies done in North America and Europe, including more than 2.5 million births and nearly 250 000 asthma exacerbations, Been and colleagues show that smoke-free workplace and public place laws were followed by immediate drops in preterm births (10.4%, 95% CI 2.0–18.8%) and childhood emergency department visits and hospital attendances (10.1%, 5.0–15.2). Although there was no significant change in low birthweight (–1.7%, –5.1 to 1.6%), there was a decline in children being very small for gestational age (5.3%, 5.2–5.4). In addition to clearing the air, smoke-free laws bring rapid health benefits and improved lives, whilst, at the same time, reducing medical costs by avoiding emergency department visits and admissions to hospitals.¹

Smoke-free laws are also followed by benefits for adults, including drops in hospital admissions for cardiac disease, cerebrovascular accidents, and respiratory disease, and reduced ambulance calls.² This fall in adverse events shows up in hospital costs: after German states enacted weak smoking restrictions in restaurants (policies that generally allowed smoking in small bars and parts of large restaurants), hospital costs for angina pectoris and acute myocardial infarction dropped by 9.6% and 20.1%, respectively, totalling €7.7 million in the first year.³ Because stronger laws are followed by bigger declines in admissions to hospital,² political compromises like those made by German politicians to exempt some venues come with substantial health and economic costs.

Smoke-free workplace and public place laws stimulate people to make their homes smoke free voluntarily,^{4,5} which reduces second-hand smoke exposure and supports quitting. This effect is particularly crucial for infants and children who have no control over their environment. Furthermore, living in a smoke-free home and the perception of being covered by a public

smoke-free law are associated with smoking a decreased number of cigarettes, increased attempts to quit,⁶ increased use of pharmaceutical cessation aids, and increased cessation success.⁷

Children exposed to second-hand smoke have a 1.4 times increased odds of emergency department visits and, in children with asthma, 2.2 times greater odds of admission to hospital compared with unexposed children.⁸ Furthermore, children admitted to hospital for asthma with detectable cotinine (a biomarker of second-hand smoke exposure) had a 1.5 times greater odds of readmission within 1 year.⁹ Achievement of such substantial reductions in medical costs through smoke-free policies is a less expensive and faster solution than other present options, including individualised home-based environmental interventions that, although beneficial, can cost more than US\$10 000 per patient.¹⁰ Medical expenses for asthma exceeded US\$50 billion in the USA in 2007,¹¹ and US\$20 billion in Europe in 2006.¹² If asthma emergency department visits and admissions to hospital decreased by even 10%, the savings in the USA and Europe together would be US\$7 billion annually.

The speed of such health improvements and medical cost reductions helps to explain the rapid and huge returns on investment in aggressive tobacco control programmes. For example, between 1989 and 2008, implementation of California's tobacco control programme cost US\$2.4 billion and resulted

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in US\$243 billion in medical cost savings, a 100 to one return on investment.¹³

The cigarette companies, their allies, and the groups they sponsor have long used claims of economic harm, particularly to restaurants, bars, and casinos, to oppose smoke-free laws despite consistent evidence to the contrary.² By contrast, the rapid economic benefits that smoke-free laws and other tobacco control policies bring in terms of reduced medical costs are real. Rarely can such a simple intervention improve health and reduce medical costs so swiftly and substantially.

Indeed, the largest cost is paid by politicians who have to stand up to the tobacco companies and their lobbyists. Been and colleagues¹ add to the case that it is a cost well worth paying.

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