Smoke-free laws

Growing evidence for new benefit of clean indoor air laws: reduced adolescent smoking

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An unexpected benefit of smoke-free laws may be a reduction in smoking among adolescents

As the evidence for the risks of harm from exposure to second-hand smoke has grown, so laws and policies to protect workers, children, and other community members from exposure have escalated. Clean indoor air laws are gradually becoming more common, even in traditionally hard to change venues such as restaurants and bars, with countries such as Ireland, Norway, New Zealand, Italy, most Australian states, and a growing number of US states and cities having passed laws eliminating indoor smoking in such venues. While this is good news for protecting the health of non-smokers, researchers have begun to document another less obvious, but equally welcome, consequence of these changing circumstances in where people can freely smoke.

Until now, only cross sectional research studies had noted a relationship between clean indoor air laws and reduced adolescent smoking.[1–3] In this issue, Siegel and colleagues report findings from the first longitudinal study to have linked variation in the existence and strength of community level smoke-free policies to youth smoking uptake.[4] They found that youth living in towns with smoke-free restaurant laws that completely banned smoking had lower rates of progression to smoking than those youth living in towns with weaker or no laws. Effects were stronger when smoke-free laws had been in place for longer, and were not explained by a large number of possible individual or community level covariates.

INFLUENCE OF BAN ON YOUTH SMOKING

In terms of criteria for causation,[5] the advent of clear findings for benefit from this cohort study substantially improves the evidence base that clean indoor air laws can influence youth smoking. Although further cohort studies from different communities or countries would build more confidence in such a conclusion, it is helpful to reflect upon the mechanism or pathway through which such a relationship could occur.

Perhaps more than any other tobacco control strategy, limiting where individuals may smoke in the community substantially changes social norms for tobacco use. Social norms relate to community wide perceptions about acceptable behaviour, as distinct from the more direct (and important) influence of family and friends. With the exception of school policies, laws and policies that create smoke-free environments are primarily designed to regulate the smoking behaviour of adults. Breaking the nexus between freedom to smoke and adulthood may counter the normative association of smoking as an acceptable adult behaviour.

UNRESTRICTED SMOKING

As suggested by Alesci and colleagues,[6] unrestricted smoking in public places may influence youth smoking in four ways. First, adults who may freely smoke anywhere increase the amount of negative role modelling to youth. Second, in such environments, youth are presented with more opportunities to smoke. It is well known that smoke-free policies limit opportunities for smokers to smoke cigarettes.[3] Particularly at work, smokers who are subject to smoke-free policies never completely compensate for cigarettes foregone if they had been able to smoke freely. Studies indicate that this applies equally among adolescent workers, limiting the likelihood that low rate opportunistic smoking might consolidate into regular adult smoking.[7 8]

Third, as a consequence of the second point, unrestricted smoking permits opportunities for social or non-commercial exchange of cigarettes between youth. Studies have shown repeatedly that other adolescents are the most important source of cigarettes for many young smokers, especially the youngest.[9 10] Formal restrictions on where they can smoke as well as social disapproval of smoking in public reduce their opportunities for smoking in groups.

Finally, if smoking is freely permitted, smoking is implicitly communicated to be an acceptable behaviour for members of a society. Consistent with this last point, Alesci *et al* showed that the more visible smoking is, the more it is perceived by adolescents as socially acceptable and normal.[6] Thus, clean indoor air laws that include social venues such as restaurants may have indirect influences on youth smoking through substantially influencing the pattern of adult smoking in a community. More generally, measures of tobacco related social norms such as perceived social acceptability of smoking[11] and perceived smoking prevalence[11 12] have been demonstrated to be significant predictors of adolescent smoking and uptake. Tworek and colleagues have shown that in US states where adult smoking rates are high, adolescent smoking rates are similarly high.[13]

Cross sectional studies also point to beneficial effects on youth smoking of smoking bans in the home[2 8] and strongly enforced smoke-free policies at school.[2 14] A recent study found that adolescents with a household smoking ban were more likely to perceive lower adult smoking prevalence, and perceive there to be greater disapproval of adult and youth smoking.[15]

The Siegel *et al*[4] study adds another important argument and more evidence to the already overwhelming case for a ban on smoking in indoor public locations. It also suggests that clean indoor air laws ought to be included in the compendium of evidence based tobacco use prevention methods.

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REFERENCES

1 **Wasserman J**, Manning WG, Newhouse JP, Winkler JD. The effects of excise taxes and regulations on cigarette smoking. *J Health Econ* 1991;**10**:43–64.
2 **Wakefield MA**, Chaloupka FJ, Kaufman NJ, *et al*. Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: cross sectional study. *BMJ* 2000;**321**:333–7.

3 **Brownson RC**, Hopkins DP, Wakefield MA. Effects of smoking restrictions in the workplace. *Annu Rev Public Health* 2002;**23**:333–48.
4 **Siegel M**, Albers AB, Cheng DM, *et al*. Effect of local restaurant smoking regulations on progression to established smoking among youths. *Tobacco Control* 2005;**14**:300–6.
5 **Hill AB**. The environment and disease: association or causation? *Proc R Soc Med* 1965;**58**:295–300.
6 **Alesci NL**, Forster JL, Blaine T. Smoking visibility, perceived acceptability, and frequency in various locations among youth and adults. *Prev Med* 2003;**36**:272–81.
7 **Pierce JP**, Naquin M, Gilpin E, *et al*. Smoking initiation in the United States: a role for worksite and college smoking bans. *J Ntl Cancer Inst* 1991;**83**:1009–13.
8 **Farkas A**, Gilpin E, White M, *et al*. Association between household and workplace smoking restrictions and adolescent smoking. *JAMA* 2000;**284**:717–22.
9 **Emery S**, Gilpin EA, White MM, *et al*. How adolescents get their cigarettes: implications for policies on access and price. *J Ntl Cancer Inst* 1999;**91**:184–6.
10 **Harrison PA**, Fulkerson JA, Park E. The relative importance of social versus commercial sources in youth access to tobacco, alcohol, and other drugs. *Prev Med* 2000;**31**:39–48.
11 **Eisenberg ME**, Forster JL. Adolescent smoking behavior: measures of social norms. *Am J Prev Med* 2003;**25**:122–8.
12 **Bauman KE**, Botvin GJ, Botvin EM, *et al*. Normative expectations and the behavior of significant others: an integration of traditions in research on adolescents' cigarette smoking. *Psychol Rep* 1992;**71**:568–70.
13 **Tworek C**, Giovino G, Yang J, *et al*. *Exploring the relationship between cigarette smoking among adolescents and adults in the United States*. 2003, Chicago: ImpacTeen Research Paper Series, No 26, University of Illinois, http://www.impacteen.org/ab_RPNo26_2003.htm.
14 **Moore L**, Roberts C, Tudor-Smith C. School smoking policies and smoking prevalence among adolescents: multilevel analysis of cross-sectional data from Wales. *Tobacco Control* 2001;**10**:117–23.
15 **Conley Thomson C**, Siegel M, *et al*. Household smoking bans and adolescents' perceived prevalence of smoking and social acceptability of smoking. *Prev Med* 2005;**41**:349–56.

EDITORIAL

The fate of papers rejected from *Tobacco Control*

Rejecting papers is among the hardest tasks that editors must perform. We have strict page limits of 72 pages per issue and typically publish 11 original articles per issue—66 a year. We would like to publish more but our subscriber base and financial situation currently precludes this. Competition to get published is therefore tough. Of the 214 papers submitted to the journal in 2005 (as at 11 August) where decisions have been made, we have rejected 150 (69.7%), with 127 (59% of all decisions) being rejected before review. As authors ourselves, we know how disappointing a rejection can be. But it need not be the end of the road.

In July 2005, we searched the PubMed database for all 286 papers rejected by *Tobacco Control* between March 2002 and December 2003. We searched by the first author's name and examined all papers with identical or similar titles to those submitted to *Tobacco Control*. Ninety (31.4%) papers had been published in one of 59 different PubMed indexed journals. *Preventive Medicine* (7), *Nicotine and Tobacco Research* (6), and the *European Journal of Public Health* (4) published most. The vast majority (81%) of the papers we were unable to publish were published by other international journals, with the remainder finding homes in national or regional journals. In all but six cases, the papers were published in journals with lower impact factors than *Tobacco Control*'s (3.159 in 2004).

In recent months we have been receiving an increasing number of emails where authors ask for a preliminary opinion, before submission, about a paper's likelihood of being accepted. The editors of *Tobacco Control* perform their editorial duties on a part time basis on top of their professional work. We receive over 400 manuscripts a year, all of which must be read. We simply do not have the time to also read potential or draft manuscripts or to give authors preliminary assessments.

The average number of days we take to reach a first decision has fallen from 37.6 days in 2002 to 13.7 days in 2005. The average number of days from submission to publication has fallen from 214.3 days to 110 days in the same period.

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