

An exploratory study of smokers' and stakeholders' expectations of the implementation of a smoke-free policy in a university setting

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Abstract

Issues addressed: Smoke-free policies restricting tobacco use in public places are common in many middle- and high-income countries. Implementation of a smoke-free policy does not automatically result in a smoke-free environment, and appropriate enforcement procedures must be clearly communicated and implemented. Safety and restrictions in private spaces, especially student housing, are also issues that need to be explored. This research explored perceptions and attitudes of staff and student smokers and key stakeholders before the implementation of a complete campus ban on smoking at a large Australian university.

Methods: Interviews were conducted with staff and student smokers ($n = 9$) and stakeholders ($n = 9$). The interviews explored attitudes towards a completely smoke-free policy in the university environment, perceptions relating to enforcement of and compliance with a completely smoke-free policy, and support needed from the university for smokers.

Results: Participants generally supported a complete smoke-free policy. Key themes associated with the policy implementation included health implications, stigmatisation and labelling, liberty, and enforcement.

Conclusion: Smoke-free policies require careful planning, evaluation, and appropriate enforcement to ensure maximum impact. Further research is needed to improve compliance with smoke-free policies in outdoor environments and diverse spaces.

So what? A better understanding of attitudes and intentions towards a smoke-free policy before implementation may provide useful insight into the potential challenges and provide guidelines for the development of strategies to improve policy readiness and adherence. University support for smokers to quit is essential when implementing a smoke-free policy.

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Introduction

Smoke-free policies form a key strategy in the global tobacco control movement.¹ The capacity of such regulatory interventions to stimulate positive changes in population health outcomes and cultural mores is now clearly documented in the scientific literature. Reductions in smoking prevalence and consumption^{2–5} and lower exposure to environmental tobacco smoke^{6–8} in a variety of indoor contexts (e.g. workplaces, restaurants and bars) have served as strong catalysts for widespread implementation of such policies in many countries.

The global wave of smoke-free policy adoption has played an important role in shaping public perceptions of smoking. International research has found strong preferences for smoke-free environments and social expectations that generally predict high compliance.^{1,9–11} Positive attitudinal changes have been consistently reported after implementation of smoke-free legislation in public

places.^{6,9–11} This process of adaptation is important given that the effectiveness of smoke-free policies relies heavily on population support and endorsement.¹²

Smoking among university and college students has been found to be largely opportunistic and predictable according to perceived social norms, exposure to peer smoking, and accessibility to designated smoking areas.⁵ Research conducted in other workplaces shows that adherence to smoke-free policies is governed largely by attitudes towards the policy, self-efficacy beliefs about compliance, perceived social norms, and anticipated risk of enforcement.¹³ Transferability of these findings to a university context remains largely unknown in the light of unique challenges such as the diversity of campus occupants, and complexities associated with policy boundaries, monitoring and enforcement.¹⁴ Students from college campuses in the USA supported a smoke-free policy; however, they were less supportive of a total ban on campus grounds.^{15,16}

In January 2012, a large Australian University implemented a comprehensive smoke-free policy that applied to the entire university grounds (116 ha), including student housing and university vehicles. Prior to this, smoking had been restricted on campus in all buildings, indoor and outdoor cafes, and undercover areas. The main University campus houses ~32 000 undergraduate and postgraduate students and more than 5000 staff. This paper explores the perceptions of a campus-wide ban on smoking before implementation amongst staff and students who self-identified as smokers and key university stakeholders.

Methods

An interpretive, qualitative research method was chosen to assist the researchers to better understand the perceptions of members of the university community about a smoke-free campus.¹⁷ An interpretive approach involves stakeholders and provides them with an active voice.¹⁸ This supports the socio-ecological understanding of public health (which positions the individual in a dynamic relationship with their environment and personal behaviours) and, therefore, allows a more sophisticated understanding of their participation in complex and often challenging health issues such as tobacco use.¹⁹ Given the stigmatised nature of smoking, the use of an interpretive, qualitative approach allowed self-identified smokers, an often marginalised group, to confidentially share with researchers the meaning that smoking in the university environment holds for them.¹⁹ Purposively selected stakeholders were also included in the sample. These stakeholders all had experience with student and staff smokers in their roles in health services, teaching, Guild, housing and security.

Participants and procedure

A purposive sample of staff and student smokers and key university stakeholders were recruited from faculties and services across campus. A total of 18 participants were interviewed 3–4 months before policy implementation. These comprised six staff and three students who identified as smokers and nine key university stakeholders, purposively identified by the research team. Eligibility criteria for staff and students included: (1) aged 18 years or older; (2) a full- or part-time University staff member or student; and (3) a current smoker.

Staff and student smokers were recruited via interception on campus and invited to participate in semi-structured face-to-face interviews. Prevalence of smoking at this university has been found to be low (any smoking, 9.8%)²⁰ when compared with the Australian adult population (daily smokers, 17.4%).²¹ However smokers are visible and regularly congregate in key places around campus. A reluctance of potential participants to disclose smoking status or to become involved in the study was a common barrier experienced by researchers during recruitment. Recruitment of smokers, especially student smokers, was difficult, with several arranged interviews resulting in no-shows. A token gift was provided

to recognise participation; however, funding precluded providing any greater compensation. Key stakeholders were contacted via email and invited to participate in individual face-to-face interviews. Stakeholders were identified based on their professional involvement with staff and student smokers. Personnel were recruited from areas such as the health centre, housing, security and Guild. These staff members interact with smokers from a health and safety and social perspective regularly. Given the difficulty recruiting staff and student smokers, stakeholders were able to provide additional data. Stakeholders were in positions where they had a good understanding of the issues raised by smokers and were able to clearly articulate some of the key perceptions and issues raised by smokers. Written informed consent was obtained from all participants before being interviewed. Ethical approval for this study was obtained from the Human Research Ethics Committee at Curtin University (Approval number: SPH-28–2011).

Data collection

A total of 18 individual, semi-structured interviews were conducted during the period from September to November 2011. This approach provided a guided explorative framework that would maintain relevance to the research aims, but also provide flexible parameters to follow emerging ideas. The interviews were conducted by two trained research assistants (RA) to ensure consistency in interviewing techniques.²² Each interview lasted between 30 and 45 min and was conducted on campus. Permission to audiotape interviews was obtained from all participants and the interviewer took additional field notes.

The interview guide was informed by relevant literature on smoke-free policies, including issues associated with enforcement and compliance. The interview guide was reviewed by a panel of public health and tobacco control experts and tested with members of the target group before administration. Interview questions explored broad topic areas such as attitudes towards a smoke-free campus, perceived benefits and barriers, and expectations associated with enforcement and compliance issues.

Data analysis

Each interview was transcribed verbatim and carefully reviewed for accuracy alongside field notes by the RA and the primary analyst to maintain dependability and determine credibility.^{19,22} Descriptive codes were generated through a process of line-by-line analysis, in which words and phrases were examined to elicit shared meanings and perceptions across interviews. NVivo ver. 10 was used to manage the data by organising initial codes into more abstract conceptual themes. During the analytical process transcribed data were coded by the primary analyst for common themes relating to the research question. A total of 16 key tree nodes associated with perceptions of policy implementation were created, of which four nodes emerged after further analysis. To reduce bias and to enhance confirmability, the coding of themes and interpretations of the data were analysed by the whole research team.^{19,22}

Results

Smoker and stakeholder attitudes towards the implementation of a smoke-free campus were described through the key themes of health, stigmatisation and labelling, liberty, and enforcement. Key statements made by participants appear in *italics* and are marked by their role (i.e. stakeholder, staff or student), smoking status for staff and students, gender, and age (e.g. staff smoker, female, 43).

All stakeholders and staff and student smokers agreed the implementation of the policy was proactive and consistent with global tobacco control trends. Although stakeholders and smokers indicated the policy implementation to be positive in terms of health impacts, some smokers demonstrated feelings of resignation when discussing the intended implementation of the policy: 'The policy will be accepted by 90%. Everyone will be so happy that all the evil smokers are gone' (staff smoker, male, 42).

The introduction of a comprehensive smoking ban was considered to support general societal attitudes and changes to tobacco control policy in the broader community: 'I think the benefit is going to be that we're participating in a broader social trend towards reducing exposure to tobacco smoke. It's an ongoing social movement and an important one' (staff smoker, male, 42). With many participants acknowledging smoking as a socially undesirable behaviour, many smokers and stakeholders believed that the policy would be 'widely accepted' and something that smokers would adapt to: 'I think it will be accepted because there is so much of WA [state of Western Australia], especially now, which is smoke-free . . . a lot of people will give it the thumbs up' (stakeholder, female, 50). 'I thought it was a good thing and it's just something I'll have to get used to as a smoker' (staff smoker, male, 46).

Health implications

The potential health benefits for both smokers and non-smokers were identified by stakeholders and smokers as a positive aspect of a smoke-free campus. Smokers especially anticipated that eliminating opportunities to smoke on campus would decrease smoking frequency and provide a supportive environment for cessation. For example, one student commented, 'It will help me personally. I've tried quitting smoking, and I'm sort of looking forward to it. So now I have an excuse not to smoke on campus' (student smoker, male, 26). In several cases, changes in smoking behaviour in the work and study environment were also thought to transfer to other contexts: 'I was talking to another smoker and she has stopped smoking at work with a view to stopping totally when she's home' (staff smoker, female, 40). 'The benefit is for people who are smoking. People get used to not smoking on campus, then they realise that they can stop smoking all the time' (student smoker, male, 23).

However some smokers in this study demonstrated dissonance. While most agreed the implementation of the policy was a positive strategy and acknowledged the negative health effects of smoking, it was also recognised that not everyone wants to quit,

and those who do intend to quit are likely to find it difficult and need support.

I've seen some of the comments on the Curtin website when the policy was being promoted and a lot of people saying, 'Yeah, it's a disgusting habit', and I agree it is a disgusting habit, but it's a highly addictive habit [laughs]. I do agree with it in certain ways, but I think there should be some accommodation for smokers (student smoker, male, 26).

Consistent with the above comment, both stakeholders and students discussed the need for smokers to be considered when implementing tobacco control strategies. While the majority of staff and student smokers indicated their intentions to abstain, smoking was also regarded as a legitimate coping mechanism, the removal of which may threaten their ability to manage stressful situations: 'I think I will not smoke, but if I get too stressed I'll try to find somewhere when there is no one else around' (student smoker, male, 23).

Both smokers and stakeholders discussed positive environmental changes, especially in relation to second-hand smoke. Difficulties avoiding people smoking near building entrances and main thoroughfares were acknowledged as a current problem. 'People stand out here [outside the health service]. I mean you're sick and you come in here and you've got to breathe in smoke to get through the front door because there's an ashtray there, which basically says that this is a place you can smoke' (stakeholder, male, 51). 'It can be pretty gross when one or two or three people are smoking there [near the library]. There's not a lot of pathway so you can't get around them' (staff smoker, male, 42).

Stigmatisation and labelling

Stigmatisation and labelling of smokers was reflected in the comments of smokers and some stakeholders who acknowledged the issues faced by smokers. Smokers perceived themselves to be an 'easy target', which was associated with decades of labelling. Some smokers suggested they were being singled out when other health issues, including mental health, alcohol use and obesity-related issues, were more problematic for staff and students:

However, the perceived benefit of getting rid of all the evil smokers is obviously a positive because it makes everyone happy. They will have to find someone else to pick on now. You might have to ban alcohol or kebabs or caffeinated coffee. You're looking after the non-smoking staff; admittedly, that's what you're aiming at. However, I can go and get a double hamburger with extra cheese and large chips and put eight packets of salt on it (staff smoker, male, 42).

Others highlighted the stigma of being a smoker. This was especially true for smokers who had lived in other countries:

It's one of those things I'm quite self-conscious about. As soon as I came over to Australia, all of the smoking policies that came in within WA seemed to hammer

smokers completely, and I was conscious of smoking in the street, and I was conscious of going for a meal in a restaurant and going outside for a cigarette (staff smoker, male 41).

Liberty

Associated with the ongoing labelling of smokers, the liberty of smokers was seen as an important issue. Liberty was associated with the ability to choose where to smoke, which is particularly pertinent in a diverse community setting where people work, study, socialise and live. For smokers, the transition to a smoke-free environment was also said to be reinforcing 'nanny state' movements of the broader community. Although the negative health impacts of smoking were recognised, smokers demonstrated resignation to policy changes that have seen them banned from smoking in a range of public places: 'Smokers have been kicked out of their offices, restaurants and pubs, and I think that's probably fair enough, but they're used to it, being moved along, so it's just part of the course for smokers' (staff smoker, male, 42).

For some, abstaining from smoking was not a consideration. Thus, the inconvenience or inability to leave campus was acknowledged as the main deterrent to policy compliance: 'If you are desperate, smokers will just go out, look to see if there's any security around and they will still smoke' (student smoker, male, 26). 'I can't go off campus. I don't even get a break. I get a very short break because you know what it's like when you come to work, we're busy' (staff smoker, male, 52).

The implementation of the policy had an additional meaning when considering the rights of students who live on campus. Smokers and stakeholders raised concerns about restriction in private spaces such as student housing. As expressed by the following comment, some smokers perceived this restriction to be an invasion of smokers' rights: 'That's becoming completely draconian where you're telling people what they can and can't do in their own privacy [their own home]' (staff smoker, male, 52). One stakeholder indicated that management had identified this as being a difficult issue; however, the feeling that the policy was an important public health issue was considered more important. Stakeholders also identified the high proportion of international students living in student housing as an additional issue:

The University has 25% international students, but we have 70–80% international students in housing. And a lot of these students do come from countries where smoking is still acceptable. And so we saw that as an issue in terms of educating students and just the practical implementation to make sure students don't smoke (stakeholder, female, 53).

The issue of safety was also raised, especially for student housing residents. The size of the campus, especially the extensive grounds, poses additional issues, especially for staff and student who are on

campus in the evening and who may seek unsafe areas on the outskirts of the campus in which to smoke.

Yes, especially students living on campus in the student housing, those who are smokers who sort of try to do the right thing by not smoking within the housing, will need to leave the campus. They might decide to cross the road at 1 o'clock in the morning because they feel they really need a cigarette, and that might put them at risk. Someone might be lurking out there (stakeholder, female, 51).

Currently residential students are able to smoke in outdoor areas of student housing, with one student suggesting: 'They are pretty lenient about it as long as we don't trigger the fire alarm. We have balconies, and there are ashtrays on all the balconies'. The perception is that 'half the population there smoke socially at least' and that a total restriction would be difficult for many residents (student smoker, male, 24).

Enforcement

Despite the support for the policy, adequate enforcement was expected to be a major barrier to its successful implementation by both stakeholders and smokers. 'Enforcing it. That's going to be difficult as well, how [much the] University cares about that and how much of a hard line they want to take' (stakeholder, female, 28). Limited understanding of enforcement procedures, including the feasibility of enforcing and monitoring the policy across the entire campus grounds, was revealed among stakeholders, staff and students: 'The campus grounds are huge, you can't possibly get that many people to enforce the policy, so you have no way of ensuring people don't smoke' (student smoker, male, 26). Effective and sustainable enforcement was seen as unattainable without the allocation of sufficient resources: 'I just think the enforcement will become something that the university is probably not prepared for. If it wants to enforce it properly, it will cost them a fortune. I can't imagine that they're going to put a lot of money into providing new security guards with anti-smoking pads' (stakeholder, female, 59).

Discussion

Four thematic clusters exposed variation in attitudes, expectations and personal intentions associated with the transition to a smoke-free campus before the implementation of the policy. Although definitive conclusions cannot be made based on pre-policy opinions and assumptions, exploring and understanding the perspectives of those directly affected by smoke-free policies may inform the development of strategies to improve implementation and enforcement procedures. The recognised potential health benefits of a total smoke free campus community for both smokers and non-smokers was viewed by stakeholders and smokers as an enabler for policy implementation. The policy was seen to be consistent with social acceptance of smoke-free public places in the broader community. Challenges to the implementation of the policy included further stigmatisation and

labelling of smokers, threats to the liberty of smokers and the ability to appropriately enforce the policy.

Enablers for policy implementation

Despite some smokers' continued intentions to smoke, there was acknowledgement of the health benefits of smoke-free policies and this was seen as a justifiable reason for implementation. While levels of support for smoke-free policies often increase after their implementation,²³ the need to support smokers should be considered during the implementation process.

The creation of a 'clean air' environment by eliminating exposure to second-hand smoke, together with positive behavioural change through reduced cigarette consumption (potentially leading to successful quit attempts), were seen as the major advantages of a complete-campus smoke-free policy. These findings alone are promising, given the reported positive relationship between beliefs about health benefits and increased support and compliance with smoke-free policies.^{23,24} Likewise, weaker anticipated regret from tobacco-related health harms has been linked to higher rates of non-compliance with smoke-free laws.¹² Perceived health benefits suggested by participants of this study appear consistent with post-policy evidence in settings where comprehensive policies have been implemented, i.e. positive environmental and behavioural outcomes, including reduced exposure to second-hand smoke²⁵ and reduced smoking prevalence.^{4,5} As well as perceived health benefits, there was general recognition that the introduction of a smoke-free policy reflected a growing movement towards smoke-free public spaces in the broader community. Increasing global momentum for the introduction of smoking restrictions in workplaces, restaurants and bars has been critical in shaping public perceptions and de-normalising tobacco use in many countries.¹ Smokers have been shown to successfully adjust to, accept and comply with smoke-free legislation.²³ Efforts that shape perceptions of smoking as socially undesirable are believed to play a role in improving compliance with smoke-free policies by increasing feelings of dissonance, or discomfort associated with nonconformity.^{12,26} This may be particularly relevant in the university context, given previous research that emphasises smoking as a socially constructed and maintained behaviour.⁵

Challenges to policy implementation

Despite general acceptance, some smokers reflected resignation about the policy implementation, which was associated with years of general societal tobacco control restrictions. While efforts to increase the stigma associated with smoking has been recognised as a legitimate tool for tobacco control,^{26,27} there has been comparatively little attention directed towards the potential negative psychosocial impacts on smokers as they are forced to operate in an increasingly marginalised social world.²⁸ The effects of labelling,²⁹ which contributes to stigma, can be profound and warrant further investigation.

Aside from beliefs about increasing stigma and infringements on personal rights, safety concerns emerged as a potential negative consequence and important risk management issue for policy implementation. Compliance with a campus-wide ban will require smokers to travel outside campus boundaries to smoke. Safety issues associated with this were highlighted in relation to student residents and staff and students on campus at night. To date, legislative policies that pose restrictions in private spaces (such as student housing) have not been widespread,¹ and there is limited research to guide appropriate planning and implementation. This diverse campus is unique, given its physical size and student population, many of whom come from countries where smoking is common and minimal tobacco control strategies exist.⁸ Participants of this study highlighted the difficulty of leaving the campus during both the day and evening, and raised issues around the safety of students who may leave student housing to smoke. The characteristics of this setting complicate safety- and compliance-related issues. The need to consider and accommodate smokers as part of a comprehensive tobacco control policy was raised by several participants in this study.

Finally, while the research revealed high levels of pre-policy awareness and overall acceptance among participants, there was scepticism about the University's ability to effectively enforce the campus-wide ban. The majority of current smokers indicated their willingness to comply with the policy, but the addictive nature of tobacco, difficulties abstaining under stressful circumstances and the inconvenience of travelling off campus were acknowledged as likely barriers. Together with limited knowledge of policy-enforcement procedures and beliefs about being able to smoke on-campus without detection or penalty, these barriers may represent potential sources of low compliance commitment among staff and students. A study of four Canadian universities found smoke-free policies to be compromised by poor implementation and enforcement.³⁰

Policy implications

Public health policy, although effective in stimulating population-level behavioural change, requires more than implementation. Similarly, educational strategies designed to raise policy awareness and support in isolation are likely to be insufficient in creating a culture of compliance.^{14,24,31} The emerging literature dedicated towards understanding the mechanisms underlying policy adherence in post-secondary educational settings suggests a comprehensive approach that promotes the policy as a shared responsibility between staff and students, smokers and non-smokers.^{24,31}

Recommended components of a smoke-free policy agenda include consistent communication and advocacy and the provision of tobacco cessation and support services. The dissonance expressed by some smokers in this study highlights the need for sound strategies to support smokers, especially those

who are contemplating behavioural change. Enforcement strategies that both encourage smokers and non-smokers to participate in an environment of self-enforcement, but also provide clearly defined and actionable responses to non-compliance are warranted.^{14,24,31,32}

The need to ensure the safety of staff and student smokers should be considered in the development and implementation of the policy. Further support for residential student smokers, especially those from countries where smoking is more socially acceptable, is essential. Involvement of representatives from the university community, including staff and student smokers and non-smokers, in the planning and implementation phases of the policy is imperative. In the light of the perceived disadvantages and efficacy-related concerns identified in our study, this framework may prove worthwhile in considerations relating to the planning, implementation and management of such policies.

The low representation of student smokers and female smokers is a limitation of this study. It was our intention to recruit a larger sample of smokers; however, despite including face to face recruitment strategies smokers were reluctant to participate. Labelling and stigmatisation were evident among smokers who did participate and are likely to have contributed to difficulty recruiting participants. A larger sample of student and staff smokers would have enabled a more extensive analysis of constructs, such as labelling and dissonance, expressed by smokers. The limitations of this study should be considered when reviewing the results.

Conclusion

Smoke-free policies are undoubtedly effective in protecting the environment, bystanders and smokers from tobacco-related harms; however, to assume a direct link between implementation and the creation of a smoke-free environment is simplistic. Creating a strong culture of compliance at a University must be an immediate and ongoing priority, especially considering the size of this campus and the logistics associated with monitoring smoking in large outdoor spaces and on-campus housing. As demonstrated by our research, understanding attitudes and intentions towards a smoke-free policy before implementation may provide a useful insight into potential challenges and offer guidelines for the development of strategies to improve policy readiness and adherence. Further research to investigate the effectiveness of the implementation of this policy is warranted.

References

- Hyland A, Barnoya J, Corral JE. Smoke-free air policies: past, present and future. *Tob Control* 2012; **21**(2): 154–61. doi:10.1136/tobaccocontrol-2011-050389
- Bauer JE, Hyland A, Li Q, Steger C, Cummings KM. A longitudinal assessment of the impact of smoke-free workplace policies on tobacco use. *Am J Public Health* 2005; **95**(6): 1024–9. doi:10.2105/AJPH.2004.048678
- Chapman S, Borland R, Scollo M, Brownson RC, Dominello A, Woodward S. The impact of smoke-free workplaces on declining cigarette consumption in Australia and the United States. *Am J Public Health* 1999; **89**(7): 1018–23. doi:10.2105/AJPH.89.7.1018
- Fichtenberg CM, Glantz SA. Effect of smoke-free workplaces on smoking behaviour: systematic review. *BMJ* 2002; **325**(7357): 188–91. doi:10.1136/bmj.325.7357.188
- Seo D-C, Macy JT, Torabi MR, Middlestadt SE. The effect of a smoke-free campus policy on college students' smoking behaviors and attitudes. *Prev Med* 2011; **53**(4–5): 347–52. doi:10.1016/j.ypmed.2011.07.015
- Callinan J, Clarke A, Doherty K, Kelleher C. Legislative smoking bans for reducing secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database Syst Rev* 2010; **4**: CD005992. doi:10.1002/14651858.CD005992.pub2
- 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. *Tob Control* 2006; **15**(suppl 3): 51–8. doi:10.1136/tc.2005.013649
- Lazuras L, Zlatev M, Rodafinos A, Eiser JR. Smokers' compliance with smoke-free policies, and non-smokers' assertiveness for smoke-free air in the workplace: a study from the Balkans. *Int J Public Health* 2012; **57**(5): 769–75. doi:10.1007/s00038-012-0338-0
- Hyland A, Higbee C, Borland R, Travers M, Hastings G, Fong GT, Cummings KM. Attitudes and beliefs about secondhand smoke and smoke-free policies in four countries: findings from the International Tobacco Control Four Country Survey. *Nicotine Tob Res* 2009; **11**(6): 642–9. doi:10.1093/ntr/ntp063
- Mons U, Nagelhout GE, Guignard R, McNeill A, van den Putte B, Willemsen MC, et al. Comprehensive smoke-free policies attract more support from smokers in Europe than partial policies. *Eur J Public Health* 2012; **22**: 10–6. doi:10.1093/eurpub/ckr202
- Thrasher JF, Perez-Hernandez R, Swayampakala K, Arillo-Santillan E, Bottai M. Policy support, norms, and secondhand smoke exposure before and after implementation of a comprehensive smoke-free law in Mexico City. *Am J Public Health* 2010; **100**(9): 1789–98. doi:10.2105/AJPH.2009.180950
- Lazuras L, Eiser JR, Rodafinos A. Predicting smokers' non-compliance with smoking restrictions in public places. *Tob Control* 2009; **18**(2): 127–31. doi:10.1136/tc.2008.025841
- Verdonk-Kleinjan WMI, Rijswijk PCP, de Vries H, Knibbe RA. Compliance with the workplace-smoking ban in the Netherlands. *Health Policy* 2013; **109**(2): 200–6. doi:10.1016/j.healthpol.2012.11.006
- Fennell R. Should college campuses become tobacco free without an enforcement plan? *J Am Coll Health* 2012; **60**(7): 491–4. doi:10.1080/07448481.2012.716981
- Loukas A, Garcia MR, Gottlieb NH. Texas college students' opinions of no-smoking policies, secondhand smoke, and smoking in public places. *J Am Coll Health* 2006; **55**: 27–32. doi:10.3200/JACH.55.1.27-32
- Rigotti NA, Regan S, Moran SE, Wechsler H. Students' opinion of tobacco control policies recommended for US colleges: a national survey. *Tob Control* 2003; **12**(3): 251–6. doi:10.1136/tc.12.3.251
- Giacomini M. Theory matters in qualitative research. In Borgeault I, Dingwall R, de Vries R, editors. *The Sage handbook of qualitative methods in health research*. Los Angeles: Sage; 2010.
- Denzin NK, Lincoln YS. Introduction: the discipline and practice of qualitative research. In Denzin NK, Lincoln YS, editors. *The Sage handbook of qualitative research* (pp. 1–32). Thousand Oaks, California: Sage; 2005.
- Liampittong P. The science of words and the science of numbers. In Liampittong P, editor. *Research method in health: foundations for evidence-based practice*. South Melbourne: Oxford; 2013.
- Burns S, Jancey J, Bowser N, Comfort J, Crawford C, Hallett J, Shields B, Portsmouth L. Moving forward: a cross sectional baseline study of staff and student attitudes towards a totally smoke free university campus. *BMC Public Health* 2013; **13**: 738–43. doi:10.1186/1471-2458-13-738
- Australian Institute of Health and Welfare. 2010 National Drug Strategy Household Survey report. Drug statistics series no. 25. Cat. no. PHE 145. Canberra: Australian Institute of Health and Welfare; 2011.
- Bryman A. *Social research methods*. New York: Oxford University Press; 2004.
- Borland R, Yong H-H, Siahpush M, Hyland A, Campbell S, Hastings G, Cummings KM, Fong GT. Support for and reported compliance with smoke-free restaurants and bars by smokers in four countries: findings from the International Tobacco Control (ITC) Four Country Survey. *Tob Control* 2006; **15**(suppl 3): 34–41. doi:10.1136/tc.2004.008748
- Glassman TJ, Reindl DM, Whewell AT. Strategies for implementing a tobacco-free campus policy. *J Am Coll Health* 2011; **59**(8): 764–8. doi:10.1080/07448481.2010.529479
- Pickett MS, Schober SE, Brody DJ, Curtin LR, Giovino GA. Smoke-free laws and secondhand smoke exposure in US non-smoking adults, 1999–2002. *Tob Control* 2006; **15**(4): 302–7. doi:10.1136/tc.2005.015073

26. Blanco-Marquizo A, Goja B, Peruga A, Jones MR, Yuan J, Samet JM, Breyse PN, Navas-Acien A. Reduction of secondhand tobacco smoke in public places following national smoke-free legislation in Uruguay. *Tob Control* 2010; **19**(3): 231–4. doi:10.1136/tc.2009.034769
27. Borland R, Owen N, Hocking B. Changes in smoking behaviour after a total workplace smoking ban. *Aust J Public Health* 1991; **15**(2): 130–4.
28. Weber MD, Bagwell DAS, Fielding JE, Glantz SA. Long term compliance with California's Smoke-Free Workplace law among bars and restaurants in Los Angeles County. *Tob Control* 2003; **12**(3): 269–73. doi:10.1136/tc.12.3.269
29. Becker H. Outsiders: studies in the sociology of deviance. New York: The Free Press; 1963.
30. Baillie L, Callaghan D, Smith ML. Canadian campus smoking policies: investigating the gap between intent and outcome from a student perspective. *J Am Coll Health* 2011; **59**(4): 260–5. doi:10.1080/07448481.2010.502204
31. Hahn EJ, Fallin A, Darville A, Kercsmar SE, McCann M, Record RA. The three Ts of adopting tobacco-free policies on college campuses. *Nurs Clin North Am* 2012; **47**(1): 109–17. doi:10.1016/j.cnur.2011.11.002
32. Plaspohl SSD, Parrillo AVPC, Vogel R, Tedders S, Epstein A. An Assessment of America's tobacco-free colleges and universities. *J Am Coll Health* 2012; **60**(2): 162–7. doi:10.1080/07448481.2011.580030