Published in final edited form as:

Occup Environ Med. 2014 June ; 71(6): 385–387. doi:10.1136/oemed-2014-102145.

Encouraging and supporting smoking cessation in the workforce

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Historically, smoking was ingrained in the workday. Cigarette supplies were kept filled and ashtrays emptied. Camel's 'Calms your nerves' campaign from the 1930s featured employees—such as reporters, secretaries, pilots—reaching for a cigarette (figure 1). In that high-pressure age, 'smokes' were touted as both sedative and stimulant, a cure for the stress of striving for success.

In stark contrast to industry marketing, smoking is not good for business. Tobacco use increases unproductive time, absenteeism and healthcare costs.^{1,2} Further, identification of the harms of secondhand smoke (SHS) has changed workplace acceptance of tobacco. Lead, mercury, formaldehyde and arsenic are just a few of more than 5000 hazardous chemicals in SHS,³ and the US Surgeon General's 2006 Report on Secondhand Smoke concludes that 100% smoke-free workplace policies are the only 'effective way to eliminate secondhand smoke exposure in the workplace'.⁴ Domestic airlines enacted the first US industry-wide smoking ban in 1988, followed by hospitals 4 years later. In 1990, the first municipal workplace clean air policy banning smoking was established in Sacramento County, California. Americans' for Nonsmokers Rights (ANR) reports that as of January 2014, smoking bans in all non-hospitality workplaces cover 65% of the US population enacted in hundreds of communities, 29 states and Washington DC.

Globally, the WHO recommends enacting legislation requiring all indoor work-places be 100% smoke-free to protect the health of all workers. Currently, 54 nations have adopted national indoor workplace smoking bans in non-hospitality work-places, and comprehensive smoke-free laws doubled from 2008 to 2010, yet still 89% of the world population remains unprotected.⁵

Yong *et al*⁶ report on tobacco use, interest in quitting and quit attempts among the US working population and examine correlates of intentions and quitting behaviours, including worksite and home smoking bans. The authors analysed 2010 National Health Interview Survey (NHIS) data on 17 524 adults employed in the year prior to interview; 19% were

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Contributors JJP led the scope and writing of this commentary, and CGB-J contributed to sourcing information and manuscript revisions.

Competing interests None.

Provenance and peer review Commissioned; internally peer reviewed.

current smokers. Of current smokers, 65% expressed interest in quitting, 54% had made a quit attempt in the past year and 7% reported quitting in the past year and being quit for more than 6 months, all estimates in line with national surveys of the US adult population,⁷ not surprising given that adult surveillance samples have a majority of participants employed.

Of greater interest was correlates with intention and behaviour around quitting. Some findings replicated prior research—for example, older age and smoking more than half a pack per day were both associated with less motivation and quitting behaviour, although the association with age was largely found among those 65 years and older (a small group, n=55 smokers) and likely reflects socioeconomic factors driving employment beyond traditional US retirement age.

More novel findings highlighted factors in the workplace and home. In multivariate models, interest in quitting smoking was less likely among those working 48 h or more per week, and more likely among workers worried about becoming unemployed and those who reported frequent skin and/or respiratory exposures to chemicals, vapours, dust, gas or fumes at work. Making a quit attempt in the past year was more likely among workers reporting being threatened, bullied or harassed on the job and less likely among workers living in a home permitting smoking. The study's definition of recent cessation was constrained to a small window (ie, now quit for 6 months or more within the past 12 months), resulting in small sample sizes when examining correlates of quitting. The analyses indicated respondents were nearly 2–3 times more likely to have quit smoking if they had medical insurance, lived in a home that did not permit smoking and worked in a setting without frequent tobacco smoke exposure.

While interpretation of identified associations, including the direction of effects, is unclear given the cross-sectional nature of the data, factors likely to induce stress and distress (ie, employment instability, hostile work environment, environmental exposures) were associated with greater intention and attempts to quit smoking. Perhaps perceptions of the negative consequences and costs of smoking were more salient among those concerned about economic instability, interpersonal stress and other environmental threats.

At a policy level, the findings suggest the importance of access to healthcare, standard working hours and smoking bans in worksites and even homes. Smoking bans have demonstrated significant beneficial effects. A 2010 Cochrane review concluded smoking bans reduced SHS exposure with evidence of improvement in health outcomes, the strongest being reduction of hospital admissions for acute coronary syndrome.⁸

The NHIS did not assess respondents' methods for quitting smoking. That only 7% of the sample was quit suggests efforts were largely unassisted. A majority was interested in quitting and had made a quit attempt in the past year, supporting work-sites as venues for treating tobacco, where most adults spend a third of their day. A 2008 Cochrane review of 53 tobacco cessation worksite interventions concluded intensive behavioural and pharmacological approaches were successful, while self-help and support were less effective; there was little evidence that competitions and incentives improved participation;

and interventions broadened to address multiple risks had little effect on smoking prevalence.⁹ More recent research on providing employee incentives for cessation outcomes (ie, cotinine-confirmed abstinence) revealed challenges in real-world implementation, with employers and non-smoking employees preferring the stick (ie, charging more for insurance premiums) to the carrot approach.¹⁰

Though not part of Yong *et al*'s analysis,⁶ it is also critical to consider tobacco use among those seeking employment. Increasingly, employers are adopting hiring policies that exclude smokers, with non-nicotine hiring policies legal in 20 states and court decisions finding that smokers are not a protected class nor tobacco use a disability. Our recent analysis of tobacco use in California found that compared with the employed (15%), the job-seeking unemployed were more likely to be current smokers (21%) and less likely to be former smokers.¹¹ Seeking employment may be a time of particular motivation for quitting, with employment service agencies uniquely situated to offer treatment. As a further incentive for quitting, recent research on genetically identical twins quantified significant loss in long-term income and earnings for smokers, which held after controlling for educational, health and personality factors.¹²

Path to the future or back to the past? With the potential to disrupt workplace smoking bans, it is worthwhile considering the rapidly emerging market of electronic cigarettes (e-cigarettes), now a \$1.5 billion industry. E-cigarettes are battery-powered devices that generate an aerosol for inhalation typically containing nicotine, being promoted for use in places that ban conventional cigarettes, including workplaces. Some propose e-cigarettes could save lives, by removing combustion and carbon monoxide, while others warn that aggressive marketing, child-friendly flavourings (eg, cotton candy, gummy bears) and unregulated access of e-cigarettes could hook a new generation on nicotine and re-normalise smoking. Evidence to date indicates no benefit of e-cigarettes for quitting tobacco¹³ and high rates of sustained dual use, with use of e-cigarettes in settings where tobacco is banned. According to ANR, only three states include e-cigarettes within workplace smoking bans, though 17 additional states ban worksite e-cigarette use in 103 municipalities. Australia and New Zealand have national bans against the sale, advertisement and import of e-cigarettes and related products containing nicotine.

Worksites are a unique location for enacting clean air policies and treating smoking. Economies rise and fall with workforce health, and tobacco is the major preventable cause of premature death. Yong *et al*'s national investigation of smoking among US workers suggests factors supportive of intention and quitting behaviour that can inform future policy and treatment interventions.⁶

Acknowledgments

We acknowledge the Stanford Research into the Impact of Tobacco Advertising (SRITA) research group, with its comprehensive searchable catalogue of tobacco and electronic cigarette advertising (<http://tobacco.stanford.edu>), and the Americans for Nonsmokers' Rights Association (ANR) (<http://www.no-smoke.org/>), for its ongoing monitoring of smoking ban legislation. As a resource, ANR provides model language for smoke-free workplace policies <http://www.no-smoke.org/pdf/modelworkplacepolicy.pdf>

Funding This editorial was supported by a grant from the State of California Tobacco-Related Disease Research Program (21BT-0018).

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Figure 1. Tobacco industry advertising promoting cigarette use in the work setting. *Source:* <http://tobacco.stanford.edu>.