Smoking

Environmental tobacco smoke

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UK workplace regulations leave hospitality trade workforce unprotected

Bans on smoking in public places and workplaces, including bars and restaurants, have recently been introduced in California and New York City and have been announced in Ireland. In addition, the UK Chief Medical Officer¹ and the EU Health Commissioner have recently called for a ban on smoking in public places. Despite clear evidence that environmental tobacco smoke (ETS) adversely affects health and is an important occupational health hazard, the current UK policy response and regulatory framework for occupational ETS exposure remains inadequate with no discernable scientific rationale.

ETS is a complex mixture of over 3800 gaseous and particulate components, including more than 50 known or suspected human carcinogens and 100 toxic chemicals. Exposure to ETS through passive smoking has been associated with many diseases including lung cancer, and cardiovascular and respiratory diseases.^{2,3} The impact on cardiovascular disease is particularly important from an occupational and public health perspective. Steenland *et al* recently estimated that in the USA there are 2000–3000 deaths annually among non-smokers from cardiovascular related disease due to occupational exposure to ETS.⁴

Occupational exposure to ETS is widespread, with an estimated 7.5 million workers in the EU and 1.3 million workers in the UK exposed to ETS for at least 75% of their working time.⁵ Many are employed in the hospitality industry on a casual basis in bars, pubs, restaurants, hotels, and nightclubs. Studies have shown high ETS marker concentrations levels in a range of hospitality settings.^{6,7}

“Control measures should be implemented to reduce occupational exposure”

The UK has no specific regulatory framework for occupational ETS exposure. The Health and Safety at Work Act (1974) requires employers “to provide and maintain a safe working environ-

ment which is so far as reasonably practicable, safe, without risks to health ...”. Each year, The Health and Safety Commission (HSC) publishes occupational exposure standards (OESs) and maximum exposure limits (MELs) for pollutants.⁸ The Control of Substances Hazardous to Health (COSHH) Regulations, 2002⁹ state that employers should prevent exposure of their employees to substances hazardous to health or, where this is not reasonably practicable, ensure that exposures are adequately controlled. If substances cannot be eliminated, then control measures should be implemented to reduce occupational exposure, for example by enclosure of the source, localised ventilation, or as a last resort, by using respiratory protection. However, there is no occupational exposure standard for ETS, although many constituents of ETS have OESs or MELs (for example, benzene). The recent classification of involuntary tobacco smoke exposure as a class I carcinogen by the International Agency for Research in Cancer (IARC),¹⁰ should increase pressure on the HSC to set a standard for ETS.

In 1998, the UK Government announced in the white paper “*Smoking kills*” that it would consult about the introduction of an Approved Code of Practice (ACoP) on workplace passive smoking.¹¹ The ACoP consultation document¹² set out a hierarchy of measures with the preferred option being a complete ban on smoking “where it was reasonable and practical” to do so. Other possibilities included physical separation of smoking and non-smoking employees, and not restricting smoking but “adequately” ventilating the workplace. The HSC recommended immediate implementation of the ACoP in October 2000, arguing that it would have significant health benefits, but the government has taken no action to do so.

The other main component of the UK Government’s policy on passive smoking is the Public Places Charter,¹¹ which is a voluntary, self-regulatory, charter supported by the main hospitality industry organisations. Compliance with this charter includes provision of

no-smoking areas with or without mechanical ventilation, and even allowing smoking throughout the premises, provided that this is clearly indicated using visible signs and supported by a written smoking policy. The latter option was adopted by 49% of Charter compliant pubs in 2003. The Charter does not address (nor was it designed to address) occupational exposure to passive smoking. This voluntary Charter is monitored and promoted in the hospitality industry by Atmosphere Improves Results (AIR),¹³ which is a lobby group funded by the Tobacco Manufacturers Association.

“The level of ETS exposure at which risk becomes acceptable is undefined”

The Public Places Charter and the draft ACoP both promote ventilation as a method for addressing ETS exposure in public places and workplaces. However, the benefits are described with reference to improved comfort rather than reduction in risk. There is little research on the effectiveness of general ventilation in removing ETS or in estimating associated reductions in risk. Indeed, the level of ETS exposure at which risk becomes acceptable is undefined. A recent UK study¹⁴ found that the concentrations of a range of ETS markers, though still high, were significantly lower ($p < 0.05$) in non-smoking compared to smoking areas of pubs. However, ventilation systems (sophisticated HVAC systems and extractor fans in either the on or off mode) did not significantly reduce ETS marker concentrations in either smoking or non-smoking areas. This suggests that existing ventilation systems may be ineffective in reducing ETS exposure and hence have little effect in reducing health risk for staff and public in hospitality environments.

The ventilation systems currently used in pubs and bars have generally not been installed to control ETS exposure of employees but rather to improve physical comfort for customers. Alternative ventilation approaches may be effective but these will require objective assessment before the industry’s claims for ventilation solutions can be accepted. An essential requirement for assessing ventilation solutions will be the development of a consensus ETS guideline or standard value that the ventilation system must achieve, as called for in the ASHRAE 62 ventilation standard for acceptable air quality.¹⁵

On current evidence, the only measure guaranteed to protect employees from health risks associated with occupational ETS exposure is removal of the

source of exposure—that is, by providing smoke free hospitality environments. Support for this approach comes from a study in San Francisco which showed that the introduction of smoke-free bars was associated with a rapid improvement of respiratory health among bartenders.¹⁶

“Smoke-free policies do not have a negative impact on revenue or jobs”

The main objection raised to providing smoke-free environments in the hospitality industry is that it will result in ruinous economic consequences due to loss of revenue from smoking customers. This is not supported by evidence. A recent systematic review found that of 21 well designed studies on the impact of smoke-free policies in the hospitality trade, none showed a negative impact on revenue or jobs.¹⁷ Furthermore, there is clear evidence of public support in the UK for restrictions on smoking in the workplace and public places.¹⁸

It is clear that for informed policy decisions about involuntary occupational ETS exposure to be made, a health based review of safe exposure levels for workers and the public, and subsequent development of health based exposure limits is urgently required. More research is needed to determine whether sophisticated ventilation systems or other available engineering solutions are effective in reducing exposure to ETS and minimising adverse health effects.

Until there is clear evidence that ventilation systems can reduce personal ETS exposures of employees to a level at which there is no significant health risk, the most rational regulatory solution is to require that workplaces are smoke-free, including in the hospitality sector. In the absence of effective ventilation control measures and the continued (but disputed) argument made by the hospitality industry that

banning smoking is not reasonably practicable on economic grounds, the remaining alternative according to the COSHH hierarchy of control measures would be to provide and enforce the use of personal protective equipment, a measure that would probably be unacceptable to staff, customers, and the industry. If, despite increasing scientific evidence about the dangers of occupational exposure to ETS, the hospitality industry does not act and is hence not seen to exercise its duty of care towards its employees, it is potentially opening itself up to future, costly litigation. Does the hospitality industry really want to take that risk?

Occup Environ Med 2004;**61**:385–386.
doi: 10.1136/oem.2003.011692

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Competing interests: Richard Edwards is unpaid Chair of North West Action on Smoking and Health and a member of the Royal College of Physicians Tobacco Control Group

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