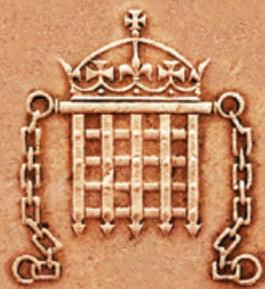


All Party Parliamentary Group on Smoking and Health



Inquiry into smoking in private vehicles

APPG Members who have participated in this Inquiry:

Bob Blackman MP
Alex Cunningham MP
Lord Faulkner of Worcester
Ian Mearns MP
Lord Rennard
Lord Ribeiro
Viscount Simon
Virendra Sharma MP
Lord Walton of Detchant
Stephen Williams MP, Chair

Other parliamentarians present

Derek Twigg MP

Speakers

Professor John Britton, Director UK Centre for Tobacco Control Studies and Head of Department for Epidemiology and Public Health, University of Nottingham

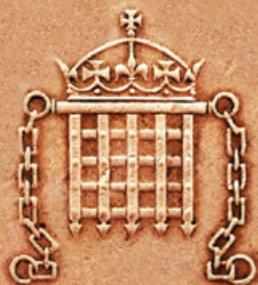
Geoffrey T. Fong, Professor of Psychology and Health Studies at the University of Waterloo and Senior Investigator at the Ontario Institute for Cancer Research, Canada

Martin Dockrell, Director of Policy and Research, Action on Smoking and Health

Katherine Huntly, Press and Campaigns Manager, British Lung Foundation

Ian Gray MBE, Principal Policy Officer for the Chartered Institute of Environmental Health

Richard Ashcroft, Professor of Bioethics, School of Law, Queen Mary, University of London



ISBN: 978-1-872428-88-8

© Copyright 2011

Copies of the full report can be downloaded from the ASH website at: www.ash.org.uk/APPGnov2011

The executive summary is available at: www.ash.org.uk/APPGnov2011sum

All rights are reserved. Please contact the All Party Parliamentary Group Secretariat for permission to reproduce any part of the content of this report.

ASH provides the secretarial support for the APPG on Smoking and Health and funded the printing of this publication.

Graphic design by frank@WeeCreative.co.uk

All Party Parliamentary Group on Smoking and Health

Inquiry into smoking in private vehicles

Contents

About the All Party Parliamentary Group on Smoking and Health	4
About the Inquiry	4
Foreword	5
Executive Summary	6
Summary.....	6
Conclusions	7
Recommendations	7
APPG Inquiry Findings, Conclusions and Recommendations	8
Background	8
The harm caused by smoking in cars	8
Findings and Conclusions	8
Recommendations	10
Regulation of smoking in private vehicles	10
Findings and Conclusions	10
Recommendations	12
Public debate and the knowledge and behaviour of smokers	12
Findings and Conclusions	12
Recommendations	13
Annexes: Expert submissions to the Inquiry	
The harm caused by smoking in cars	
1.0 The harm caused by secondhand tobacco smoke	14
<i>Professor John Britton, Director UK Centre for Tobacco Control Studies,</i>	
<i>Head of Department for Epidemiology and Public Health,</i>	
<i>University of Nottingham and chair of the Royal College of Physicians Tobacco Advisory Group</i>	
2.0 Levels of exposure to smoke in cars and the Canadian experience	16
<i>Geoffrey T. Fong, Professor of Psychology, University of Waterloo;</i>	
<i>Senior Investigator, Ontario Institute for Cancer Research; and</i>	
<i>Sara C. Hitchman, Doctoral Candidate, University of Waterloo</i>	
Regulation of smoking in private vehicles	
3.0 Smokefree vehicles: changes in attitudes, changes in behaviour	22
<i>Martin Dockrell FRSPH, Director of Policy and Research, Action on Smoking and Health</i>	
4.0 Regulation and enforcement issues with respect to smoking in cars.....	29
<i>Ian Gray MBE, Principal Policy Officer, Chartered Institute of Environmental Health</i>	
<i>Research by Matthew Willetts, Student Member, Chartered Institute of Environmental Health</i>	
Public debate and the knowledge and behaviour of smokers	
5.0 Legislation on smoking in private vehicles - ethical and civil liberties issues	35
<i>Richard Ashcroft, Professor of Bioethics, School of Law, Queen Mary, University of London</i>	
6.0 Laws banning smoking in vehicles carrying children - International overview	38
<i>Canadian Cancer Society</i>	

About the All Party Parliamentary Group on Smoking and Health

The All Party Parliamentary Group (APPG) on Smoking and Health is a cross-party group of Peers and MPs which was founded in 1976 and is currently chaired by Stephen Williams MP. Its agreed purpose is to monitor and discuss the health and social effects of smoking; to review potential changes in existing legislation to reduce levels of smoking; to assess the latest medical techniques to assist in smoking cessation; and to act as a resource for the groups' members on all issues relating to smoking and public health. The Secretariat of the group is provided by Action on Smoking and Health, which is funded by the British Heart Foundation and Cancer Research UK for carrying out this work.

About the Inquiry

The All Party Parliamentary Group on Smoking and Health launched this Inquiry in response to the Smoking in Private Vehicles Bill 2010-11, introduced to parliament by Alex Cunningham MP under the Ten Minute Rule. The aim of the bill is to ban smoking in private vehicles where there are children aged under 18 present.

The bill had its first reading in the House of Commons on 22nd June 2011 and was supported by 78 votes to 66 against. The APPG was keen that the best available evidence should inform the debate stimulated by the bill and in particular the second reading, scheduled for 25th November. The purpose of this Inquiry was therefore to examine the most up-to-date evidence on the harm caused by smoking in cars and the regulatory issues raised by the proposed legislation.

The APPG put out a call for evidence and held an oral evidence session on 1st November 2011 at which six expert witnesses presented evidence. Their written submissions are included as Annexes to this report. The report summarises this evidence and provides a concise set of recommendations for advancing both legislative and non-legislative policy.

Foreword

The harm caused by smoking in cars carrying children has been put firmly on the political agenda by Alex Cunningham MP's Ten Minute Rule Bill earlier this year. The bill, which called on the government to ban smoking in cars where there are children present, was put to the vote and passed its first reading. This is highly unusual for a Ten Minute Rule Bill and shows how seriously parliament takes this issue.

Campaigners on the harm caused by smoking in cars have been accused of having only anecdotal evidence to call upon. For this reason the APPG on Smoking and Health decided to hold an Inquiry and to produce a report in advance of the second reading of Alex Cunningham's bill at the end of November.

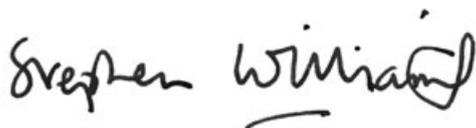
The evidence presented to us was compelling. The killer fact for me was that just one cigarette smoked in a car during a typical thirty minute journey with the windows closed leads to levels of secondhand smoke about seven times those of the smoky bars that existed in this country before 2007. Given our knowledge about the damage that secondhand smoke causes both to children and to adults, levels such as this are clearly harmful.

The evidence remains contested by the tobacco industry. Indeed Imperial Tobacco wrote to the APPG stating that it "believes that the scientific evidence, taken as a whole, is insufficient to establish that other people's tobacco smoke is a cause of any disease". Imperial wanted to participate in the Inquiry - this was an offer we refused.

To quote the WHO Framework Convention on Tobacco Control guidelines on this issue: "There is a fundamental and irreconcilable conflict between the tobacco industry's interests and public health policy interests." As a party to the WHO treaty the UK has legal obligations to prevent tobacco industry interference in the development of tobacco policy. The APPG takes these obligations just as seriously as the government, which quite rightly refused to involve the industry in the development of its Tobacco Plan.

We're pleased that the government has committed to a marketing campaign to encourage smokers to make their cars and homes smokefree in Spring 2012. However, it is clear from the evidence submitted to this Inquiry that one campaign will not on its own suffice.

Alex Cunningham MP's private members' bill may not pass into law this time, but this issue is now firmly on the political agenda and the APPG and its members will do all they can to ensure that progress is made. The debate prior to the passing of comprehensive smokefree legislation in 2006 was mainly focused on the rights of adults and the need to protect employees. It is now time to turn the debate to how best to protect children from secondhand smoke.



Stephen Williams MP for Bristol West
Chair, All Party Parliamentary Group on Smoking and Health
November 2011

Executive Summary

Summary of the evidence

Evidence of the harm to health from inhaling secondhand smoke is well established. One in five of all sudden infant deaths is linked to secondhand smoke. Among children, secondhand smoke is a cause of respiratory infections, wheeze, asthma, ear infections and meningitis. Among adults, secondhand smoke causes lung cancer, cardiovascular disease and chronic obstructive pulmonary disease.

Existing smokefree legislation has been highly effective in protecting people from secondhand smoke in workplaces, public buildings and public transport. Private vehicles are not covered by the legislation, except where they are mainly used for business purposes. Yet exposure to secondhand smoke can be particularly acute inside cars because of the confined space. The evidence from Canada is that a single cigarette smoked inside a moving car with its windows closed produces a level of secondhand smoke seven times higher than the level formerly found in an average smoky bar. When the driver's window is open, secondhand smoke levels fall to two thirds of the level of the smoky bar. This is still a serious health hazard for the occupants of the vehicle.

The exposure of children to secondhand smoke in cars is a matter of public concern because they have little, if any, control over the behaviour of adult smokers. However, adults also suffer harm from secondhand smoke in cars, especially adults with heightened vulnerability due to existing respiratory or cardiovascular conditions. Adults may have greater autonomy than children but they do not always understand the risks they face from exposure to secondhand smoke within the confines of a car and they may not be aware of their own vulnerability if pre-existing conditions such as heart disease are undiagnosed.

Across the world, many jurisdictions have passed laws prohibiting smoking in cars carrying children and one, Mauritius, has banned smoking in all cars carrying passengers. Such laws inevitably involve a cost: interference with the privacy of the vehicle user. However, this cost must be weighed against the cost of exposing children to high levels of secondhand smoke. Furthermore, a car is not an entirely private space as driving a car involves constant interaction with other road users. There is also a public interest argument for prohibiting smoking in cars due to the increased risk of accidents caused by the distraction of smoking.

A key challenge for any new legislation would be ensuring and maintaining compliance. The enforcement of existing smokefree laws relating to commercial vehicles is not straightforward as regulatory officers do not have legal powers to stop vehicles, and securing evidence of smoking is difficult. A prohibition on smoking in cars carrying children would further complicate enforcement due to the lack of visibility of infants and the difficulty of establishing the age of older children.

Although there is considerable public support for prohibiting smoking in cars carrying children, there has not yet been a full public debate about all the policy options available as was the case with the smokefree laws. Such public debate plays an important role in gaining support and ensuring compliance, but will not change behaviour on its own: the evidence from smokefree public places is that legislation will also be necessary.

Conclusions

There is a strong case for government intervention to reduce the harm from smoking in private vehicles. However it is not yet obvious what the most effective and appropriate form of intervention would be.

For laws to be effective they have to be generally accepted and enforceable. Greatest popular support exists for laws to prohibit smoking only in cars carrying children and this is the option most likely to gain political support. However, laws prohibiting smoking in cars carrying children would not ensure the protection of vulnerable adults and would not be easy to enforce, nor would they resolve the road safety issues caused by drivers smoking.

While non-smokers accept that smoking in vehicles is harmful, many smokers have still to be convinced. There is scope to build acceptability for legislative change, especially among smokers, through wider public debate. Enforcement problems must also be addressed, even if this means rethinking the parameters of the policy or legislative change.

There is a need for more detailed consideration of the policy options available to tackle the harm from smoking in private vehicles. Wider public consultation and debate will, in itself, help to improve smokers' knowledge and change their behaviour.

Recommendations

1. Parliamentarians should continue to use all channels, including private members' bills, to further advance the popular debate on smoking in cars and to encourage the government to support a legislative response.
2. The forthcoming spring 2012 Department of Health marketing campaign about the dangers of secondhand smoke should make clear the severity of the risks of smoking in cars to both children and adults and be evaluated to monitor its impact.
3. The Department of Health should conduct a public consultation on the range of policy options available to reduce the harm of smoking in private vehicles. This should include both legislative and non-legislative options.
4. This consultation should include a systematic review of the evidence, detailed consideration of all the relevant legal and ethical issues, and impact assessments of the identified policy options. It should give due consideration to the risk to adults smoking in cars, as well as the risk to children.
5. The consultation should be used as a springboard for a wider media and public debate about the issues of secondhand smoke in cars.
6. Following the consultation, specific policy options should be identified and taken forward.

APPG Inquiry Findings, Conclusions and Recommendations

Background

1. In March this year the coalition government launched *Healthy Lives, Healthy People: A Tobacco Control Plan for England*. The plan identifies the serious harm of secondhand smoke and acknowledges that “people are today most likely to be exposed to the harmful effects of secondhand smoke in their own homes and private motor vehicles”. However the plan stopped short of proposing new legislation to deal with this issue, opting instead for a voluntary approach to promoting behaviour change. In this spirit, a marketing campaign is planned for spring 2012 to remind smokers of the harms of secondhand smoke and to encourage smokers to make their homes and cars smokefree.
2. The government’s strategy was published at a time when the public debate on smoking in cars had already broached the option of legislative change. In March 2010 the Royal College of Physicians called for the banning of smoking in all vehicles in its report *Passive Smoking and Children*. Later that year the British Lung Foundation launched its Children’s Charter campaign with a focus on protecting children from secondhand smoke. The campaign includes a petition calling for smoking in cars to stop where children under the age of 18 are present.
3. This year the Royal College for Paediatrics and Child Health called for all cars carrying children to be smoke free while the British Medical Association voted to support a ban on smoking in private vehicles regardless of who is present as they considered this to be safest for children, easiest to enforce, and the most effective option.
4. This is an issue of great public interest with a growing evidence base. The Ten Minute Rule Bill introduced by Alex Cunningham MP in June this year has provided a clear focus for debate on this issue. The APPG is eager to ensure that this debate is informed by the best available evidence and addresses the practical and ethical issues raised by the legislation. These are the concerns of this Inquiry.
5. The APPG notes that the Welsh Government has followed a similar route to the coalition government in Westminster by choosing to pursue a mass media campaign focused on stimulating changes in smokers’ behaviour in cars with children. However, the Welsh Government has stated its intention to legislate if the campaign is ineffective. The Northern Ireland Executive has gone further and committed to a consultation which is due to be completed by spring 2012.

The harm caused by smoking in cars

Findings and Conclusions

6. Smoking in cars causes several distinct harms. Firstly, there is the harm to the smoker from inhaling tobacco smoke. Secondly, there is the harm to other adults and children in the vehicle from inhaling secondhand smoke. Thirdly, there is the potential harm to children and young people from witnessing smoking as normal adult behaviour, as this increases the risk of smoking uptake. Finally, there is the potential harm to driver, passengers and other road users from the driver’s temporary loss of full control of the vehicle.

7. Evidence of the harm from inhaling secondhand smoke is well established. This evidence underpinned the development of smokefree legislation which was specifically designed to protect non-smokers from secondhand smoke in enclosed spaces such as bars, workplaces and work vehicles. Secondhand smoke contains a cocktail of carcinogens including arsenic, cadmium, formaldehyde and benzene. Exposure to these and the other pollutants within secondhand smoke, especially fine particles, increases the risk to the individual of illness, hospital admission and death. Because of its carcinogenic content, there is no safe level of exposure to secondhand smoke.
8. The harm from secondhand smoke begins before birth: pregnant women who are exposed to secondhand smoke have a raised risk of giving birth to underweight babies. Once born, infants exposed to secondhand smoke are at particular risk of sudden infant death, which is more than twice as common in households in which one or more people smoke as it is in non-smoking households.
9. Children exposed to secondhand smoke have a raised risk of lower respiratory infections, wheeze, asthma, middle ear infections and meningitis. Every year, exposure to secondhand smoke leads to an estimated 165,000 additional cases of these conditions among children. Many of these cases are serious, leading to an estimated 8,500 hospital admissions.
10. Among adults, daily exposure to secondhand smoke from twenty cigarettes increases the risk of lung cancer by 37% for men and 24% for women. Secondhand smoke also increases the risk of chronic obstructive pulmonary disease and cardiovascular disease. The increase in the risk of coronary heart disease is as great for people who are heavily exposed to secondhand smoke as it is for people who are light active smokers. The introduction of smokefree legislation led to a 14% decrease in hospital admissions for acute coronary syndrome in Scotland and 1,200 fewer myocardial infarction admissions in England, in the year following implementation.
11. The hazard that is secondhand smoke is clear. However, the risk to any individual from this hazard also depends on his or her level of exposure and on the degree of personal vulnerability to the pollutants that define the hazard. The first of these risk factors is key to the argument for pursuing policy to reduce smoking in cars. Exposure to secondhand smoke is greater within confined spaces than outside; the more confined the space, the greater the exposure and the greater the risk. The interior of a car is a particularly small space in which to produce and share secondhand smoke.
12. Exposure to secondhand smoke in cars can reach levels far higher than the levels experienced in buildings. A single cigarette smoked in a stationary car with its windows closed can produce a level of secondhand smoke eleven times higher than the level found in an average bar where smoking is permitted. In a moving car, the level of secondhand smoke produced by this single cigarette is still exceptionally high at seven times the average level of the smoky bar.
13. Standard strategies for reducing secondhand smoke in cars such as using air-conditioning, opening the driver's window and positioning the cigarette at the window reduce secondhand smoke levels further but exposure for occupants remains significant. When the driver's window is open and the cigarette held at the opening by the smoker when not puffing, the level of secondhand smoke produced by a single cigarette falls to two thirds of the level of the average smoky bar.
14. The risk presented by such excessive exposure to the serious hazard that is secondhand smoke is high for any passenger of any age. The risk is increased further for those with greater vulnerability to the pollutants in secondhand smoke. Infants and children are particularly vulnerable but so are many adults, including those with cardiovascular and respiratory conditions. In England, nearly one in five (19%) young people report that they are often exposed to secondhand smoke in cars.

15. Although it is difficult to identify the specific health impacts of secondhand smoke within cars, because people exposed within cars also tend to be exposed within the home, it is logically evident that the risk of harm is likely to be high, given the severity of the hazard and the scale of the exposure.
16. Children and young people are also affected by witnessing smoking as a normal adult behaviour. Children who live in households where adults smoke are much more likely to become smokers themselves than children growing up in non-smoking households. For every 10 children from non-smoking households who start smoking, 27 children from households where both parents smoke will start smoking themselves. Overall, if there is any smoker in a household, the likelihood that children within that household will start smoking is almost doubled. This modelling effect is responsible for about 20,000 young people becoming smokers by the age of 16 every year.
17. Smoking also affects driving safety. The Highway Code identifies smoking as one of several distractions that compromise safe driving. Unlike the use of mobile phones, smoking by drivers remains permitted. Yet the ‘inattentive blindness’ caused by using a mobile phone is also experienced when carrying out smoking-related tasks such as finding and preparing cigarettes, lighting up, and extinguishing the cigarette. International evidence demonstrates that the distraction created by smoking increases the risk of having a motor vehicle accident.
18. Although the evidence for these many harms is clear, care is needed in developing policy responses in order to avoid unexpected adverse outcomes. For example, critics of the ban on smoking in public places argued that it would result in an increase in children’s exposure to secondhand smoke in the home. In fact, this outcome did not occur: reductions in exposure to secondhand smoke have been observed in both public and private places since the enactment of smokefree legislation.

Recommendations

- Educational interventions and media campaigns are needed to highlight the risks of secondhand smoke and the benefits of maintaining smokefree cars.
- Legislative options should be considered by government as well as non-legislative options, given the risk associated with exposure to secondhand smoke in cars.

Regulation of smoking in private vehicles

Findings and Conclusions

19. Extending smokefree legislation to cover smoking in private vehicles raises both practical and ethical issues. The practical issues are primarily ones of enforcement. The ethical issues concern the potential infringement of the privacy of the vehicle user.
20. Since July 1st 2007 it has been illegal to smoke in virtually all enclosed public spaces and workplaces. It is also illegal for anyone to smoke in vehicles that are used to transport members of the public, including buses, coaches, taxis and other private hire vehicles. Vehicles that are used by more than one person for the purposes of work, paid or unpaid, whether they are travelling in the vehicle at the same time or not, are also required to be smokefree.
21. If a vehicle is required to be smokefree, it is an offence for either driver or passengers to smoke. This means that drivers are not permitted to smoke in their vehicles even when they are not carrying passengers and even where they have a separate cab or compartment. Private vehicles are not required to be smokefree, even where they are also used for work purposes provided that they are mainly used for private purposes.
22. Various options are available to local authority officers to enforce current legislation. These

include verbal warnings, written warnings, fixed penalty notices and legal proceedings enforced by the police in the same way as seatbelt laws. However officers face four key problems in carrying out these enforcement measures.

23. Firstly, it can be difficult to obtain evidence of smoking taking place in a vehicle, especially if the vehicle is moving. Anyone accused of smoking in a vehicle can claim that the cigarette or pipe was not lit or that they were using an electronic cigarette (though the smell is hard to disguise).
24. Secondly, it is not always clear if the legislation applies. A commercial vehicle is exempt if it is only ever used by one person and a private vehicle is exempt unless it is primarily used for business purposes. These distinctions are not always obvious in practice. Smokefree signs within vehicles are not intended to identify smokefree vehicles but to advise drivers and passengers.
25. Thirdly, local authority officers do not have the legal powers to stop vehicles. They must rely on police support to achieve this, which must be planned in advance and so inhibits spontaneous enforcement action.
26. Fourthly, local authority officers do not have the power to require drivers or passengers to prove their identity; nor can they detain them. Again, they must rely on the police to achieve these goals if required.
27. These practical enforcement problems would be just as pertinent were smokefree legislation to be extended to private vehicles carrying children. However there would be further difficulties, in particular in determining the age of the child and physically observing small children and infants in cars. Drivers of private vehicles might also be reluctant to cooperate with the law. If these challenges made the law unenforceable, the law could be brought into disrepute, which could in turn undermine voluntary compliance.
28. The prohibition of smoking in private vehicles carrying children would also fail to address the risks to children travelling in cars that are still polluted with secondhand smoke, despite the smoker having ceased smoking before the journey. However the enforcement of a prohibition on smoking in all vehicles that are regularly used by children would be all but impossible to define or enforce.
29. These additional problems could be avoided if the extension of smokefree legislation to private vehicles was not limited to cars carrying children but became a universal prohibition of smoking in all vehicles enforced by the police in the same way as seatbelt laws. This would be more straightforward to enforce but is harder to justify given current levels of support.
30. Any case for a prohibition of smoking in private vehicles must take account of ethical as well as practical issues. There may be a strong public health case for protecting children from exposure to secondhand smoke in private vehicles but this case must be weighed against the case for preserving the liberty and privacy of the vehicle user.
31. The balance of these arguments is the crucial issue. The fact that legislation has been proposed to prohibit smoking in cars rather than smoking in people's homes is arguably because the case for prohibiting smoking in cars has both a stronger public health claim and a weaker privacy defence than the case for prohibiting smoking in private dwellings. Exposure to secondhand smoke in the confined interior of a car is likely to be particularly harmful to children, much more so than within a room in a dwelling. However the prohibition of smoking in cars carrying children involves far less interference with the privacy of the user than would be involved in prohibiting smoking within private dwellings.
32. The case for protecting the privacy rights of adults within a car is further weakened by its disregard for the rights of the children travelling in the same vehicle who have little or no control over the smoking behaviour of adults in their presence. Although 86% of children who are exposed to secondhand smoke in cars would like the smokers to stop, only 31%

feel able to tell their parents to stop.

33. The balance of arguments shifts if the prohibition on smoking is extended to all private vehicles, at all times. This would take account of the considerable impacts of secondhand smoke on adults, especially vulnerable adults such as those with cardiovascular or respiratory conditions. However, adults are assumed to have more power over smokers' choices than children do, so the interference with individuals' privacy is greater than when children are exposed.
34. We should not, however, assume that adults are making fully informed, autonomous choices about their personal risk when accepting exposure to secondhand smoke. They may not be aware of the toxicity of secondhand smoke, especially in confined spaces; they may not be aware of their own vulnerability if they have undiagnosed conditions such as heart disease; and, in many cases, they may feel unable to ask the smoker to stop.
35. The civil libertarian defence of smoking in cars naturally focuses on the side of the argument that stresses the importance of protecting the privacy of the vehicle user. The counter arguments described above focus on the harms to other private individuals, especially children, within the vehicle. However there is also a strong public interest argument for extending smokefree legislation to private vehicles, given the impact on driver safety of the distractions involved in finding, lighting and disposing of cigarettes and other smoking materials. Cars are not private spaces in the manner of homes; their use involves constant engagement with public space and other road users. The defence of any behaviour by drivers and passengers within cars must take account of the risks of those behaviours to those beyond the vehicle. There is therefore a case for prohibiting drivers from smoking on grounds of road safety.

Recommendations

- As well as prohibiting smoking in cars carrying children, the option of prohibiting smoking in all private vehicles should be explored as this would be much more straightforward to enforce than a prohibition limited to smoking in vehicles carrying children. This would also help to address the existing breaches of smokefree legislation in vehicles that are also workplaces, and would improve road safety.
- Wider public consultation is needed to identify the most appropriate and effective approach to legislation, and to build public support for change.

Public debate and the knowledge and behaviour of smokers

Findings and Conclusions

36. Public attitudes to secondhand smoke have changed markedly over the last decade. The extensive public debate about smokefree environments prior to the enactment of smokefree legislation raised public awareness and stimulated behaviour change among smokers. The focus of the legislation may have been the workplace and public buildings but the media attention given to the harm from secondhand smoke changed attitudes to smoking in private spaces too. Children's exposure to secondhand smoke in the home declined significantly in the four years prior to the implementation of legislation in 2007.
37. When smokefree legislation was finally implemented in July 2007, the public acceptability of the measures had already been secured. This is likely to be a key reason why compliance has been so high. According to the Department of Health, there has been 98% compliance from day one. In contrast, there is still only 54% compliance with the 30mph urban speed limit, introduced in 1930.
38. Since 2007 many more homes have gone smokefree, rising from 67% in 2007 to 80% in

2011. The biggest decline has been in homes with partial restrictions on smoking, falling from 21% to 12%. The proportion of homes where smoking is permitted throughout has fallen from 13% to 8%.

39. Public support for legislation to protect children from exposure to smoke in cars is now high. Recent research conducted by YouGov for Action on Smoking and Health found that 78% of all adults and 62% of smokers support a ban on smoking in cars with children under 18.
40. Despite these improvements, public knowledge of the hazards of secondhand smoke is far from universal. Although smokers' knowledge has improved over the last four years, many still underestimate the harm of secondhand smoke: 29% of smokers believe that secondhand smoke has little or no impact on the health of children. Likewise 30% of smokers believe secondhand smoke has little or no impact on the risk of sudden infant death. The specific risk created by secondhand smoke in the confined space of a motor vehicle is not recognised by all smokers: those who do smoke in cars in the presence of children tend not to believe that secondhand smoke is dangerous.
41. The home and private vehicles remain the source of most exposure to secondhand smoke. There is clearly a need for further work to educate both smokers and non-smokers about the dangers from secondhand smoke and the specific risks of smoking in cars. The government's marketing campaign on this issue, scheduled for spring 2012, is a welcome contribution to this task. However, there is scope for generating wider media interest and public discussion by consulting on specific policy options, including legislative options, to tackle the harm of smoking in cars. The evidence from the development of smokefree legislation suggests that this would in itself have a major impact on smokers' behaviour, as well as making interventionist options more acceptable.

Recommendations

- Parliamentarians should continue to use all channels, including private members bills, to further advance the popular debate on smoking in cars and to encourage the government to support a legislative response.
- The APPG should consider supporting private members bills to further advance the popular debate on smoking in cars.
- The spring 2012 marketing campaign about the dangers of secondhand smoke should be accompanied by an evaluation to identify its impact on the knowledge, attitudes and behaviour of both smokers and non-smokers.
- The government should stimulate a wider national debate on the harm from secondhand smoke and the dangers of smoking in cars through public consultation on further legislative and non-legislative policy options.

The harm caused by secondhand tobacco smoke

Professor John Britton

Director UK Centre for Tobacco Control Studies, Head of Department for Epidemiology and Public Health, University of Nottingham and chair of the Royal College of Physicians Tobacco Advisory Group

Synopsis

- 1.0 Secondhand tobacco smoke is highly toxic and has significant health impacts at all ages. Preventing passive smoking is therefore a key public health priority.

Toxicity of tobacco smoke

- 1.1 Cigarette smoke is highly toxic.^{1,2} It contains thousands of toxic chemicals, many of them carcinogenic and most of them hazardous. Secondhand tobacco smoke contains the same toxins but in higher concentrations than the smoke inhaled by smokers because they arise from the slower burning tip of the cigarette when it is not being smoked, as well as the smoke exhaled by smokers.
- 1.2 Secondhand tobacco smoke is therefore highly toxic, and causes significant health harms to anyone exposed to it. It is estimated that exposure of adult non-smokers living with smokers is equivalent to about 1% of that of active smoking, though exposure of children is likely to be higher, because young children spend more time in the home, and because breathing is relatively deep in young children.¹

Health hazards in adults

- 1.3 The health hazards of passive smoking in adults, relative to that of active smoking, differ substantially according to the health impact considered. For lung cancer for example, for which the risk among smokers increases in direct relation to the number of cigarettes smoked, the risk from passive smoking is around 1-2% of that of an active smoker - that is, is in approximate relation to the amount of exposure.
- 1.4 For heart disease however, the risk from passive smoking is disproportionately high, because some of the mechanisms that cause heart disease are triggered by extremely low levels of exposure; indeed, heavy passive smoking carries a risk of serious heart disease that is similar to that of light active smoking.³
- 1.5 Consistent with this disproportionately high effect, hospital admissions for acute coronary disease fell substantially after smokefree legislation was introduced in the UK. There was a 14% decrease in hospital admissions for acute coronary syndrome in Scotland⁴ and 1,200 fewer myocardial infarction admissions in England in the year following implementation.⁵ There are around 2.7 million people with coronary heart disease whose health is at significant risk from exposure to secondhand smoke.⁶
- 1.6 Passive smoking also increases the risk of stroke and chronic obstructive pulmonary disease, and probably, to a degree, all other diseases caused by active smoking. Passive smoking in adults is estimated to cause over 10,000 deaths each year in the UK.²

Health hazards in children

- 1.7 In young children there is no comparator for active smoking, but the effects of passive smoking are clearly present and important. Among pregnant women, passive smoking results in a modest but significant impact on birth weight, of about 40 grams (compared

to about 250 grams in active smokers), and a possible risk of developmental abnormalities such as cleft palate.

- 1.8 Very young children whose parents smoke are more likely to succumb to sudden infant death syndrome (around 40 cases per year in the UK), and as they grow older, to suffer from respiratory infections, wheezing, asthma, middle ear disease and meningitis, accounting for around 165,000 new cases of disease, over 300,000 GP consultations and over 9,000 hospital admissions in the UK each year. The health costs of passive smoking among children are estimated, for 2005-6, at around £23 million.
- 1.9 Children and young people are also affected by witnessing smoking as a normal adult behaviour. Children who live in households where adults smoke are much more likely to become smokers themselves than children growing up in non-smoking households. For every 10 children from non-smoking households who start smoking, 27 children from households where both parents smoke will start smoking themselves. Overall, if there is any smoker in a household, the likelihood that children within that household will start smoking is almost doubled. Around 20,000 children also take up smoking before the age of 16 each year as a result of exposure to smoking behaviour by parents and siblings, and in consequence, many are sentenced to a lifetime of tobacco dependence and a premature death.¹

Health hazards of smoking in cars

- 1.10 Smoking in cars results in very high levels of passive exposure, particularly among children, but because most parents who smoke in cars carrying children also smoke in the home, it is difficult to tease out a specific health impact of smoking in cars. However, after adjustment for home smoking, exposed children in one Irish study reported significantly higher levels of wheezing, and non-significantly increased risks of bronchitis and asthma, than non-exposed children.⁷

Conclusions

- 1.11 Overall therefore, secondhand smoke is highly toxic and a significant cause of premature death and disability in the UK. Since exposure levels from smoking in cars are especially high, the risks from this exposure are likely to be particularly acute. Therefore action is needed to prevent this health hazard to children and to adults.

References

1. Royal College of Physicians. Going smoke-free: the medical case for clean air in the home, at work and in public places. A report on passive smoking by the Tobacco Advisory Group of the Royal College of Physicians. London: RCP; 2005.
2. Royal College of Physicians. Passive smoking and children. A report by the Tobacco Advisory Group of the Royal College of Physicians. London: RCP; 2010.
3. Whincup PH, Gilg JA, Emberson JR, Jarvis MJ, Feyerabend C, Bryant A et al. Passive smoking and risk of coronary heart disease and stroke: prospective study with cotinine measurement. *Br Med J* 2004;329:200-205.
4. Pell JP, Haw S, Cobbe SM, Newby DE, Pell ACH, Fischbacher C, et al. Smokefree legislation and hospitalizations for acute coronary syndrome. *NEJM* 2008;359:482-91.
5. Sims M, Maxwell R, Bauld L & Gilmore A. The short-term impact of smokefree legislation in England: a retrospective analysis on hospital admissions for myocardial infarction. *BMJ* 2010;340:bmj.c2161
6. Scarborough, P. et al. (2010) Coronary heart disease statistics 2010 edition. London: British Heart Foundation.
7. Kabir Z, Manning PJ, Holohan J, Keogan S, Goodman PG, Clancy L. Second-hand smoke exposure in cars and respiratory health effects in children. *Eur Respir J* 2009;34:629-633.

Where not specified data in this annex is from the RCP report on Passive Smoking and Children.

Levels of exposure to smoke in cars and the Canadian experience

Geoffrey T. Fong

Professor of Psychology, University of Waterloo;
Senior Investigator, Ontario Institute for Cancer Research; and

Sara C. Hitchman

Doctoral Candidate, University of Waterloo

Synopsis

- 2.0 It is well established that secondhand smoke (SHS) is a significant health hazard, and this has been the starting point for the creation of laws to reduce/eliminate SHS in public places, including the United Kingdom's own comprehensive smoke-free laws. But there are other important venues where SHS can reach levels that are much higher than in pubs, where smoking is already banned. Most notably, this includes smoking in cars. A study published in 2009 found that just a single cigarette smoked in the small interior space of a car produced levels of secondhand smoke over 11 times greater than that of the average pub where smoking was allowed. Standard strategies for reducing SHS in a car (air conditioning, opening the driver's window and positioning the cigarette at that opening when not puffing) still left the levels of secondhand smoke at hazardous and unhealthy levels.
- 2.1 This and other similar studies have led eight of the ten provinces in Canada and one of the three territories to pass laws banning smoking in cars with children. The Canadian experience with such laws has been extremely positive: results from the International Tobacco Control (ITC) Survey in Canada has shown that over 80% of adult smokers support banning smoking in cars with children and similar levels of support have been found in the UK.
- 2.2 The conclusions are that:
 1. it is established that SHS is dangerous to humans, particularly to children,
 2. there are very high levels of SHS in cars, even when typical strategies to reduce smoke are employed,
 3. most Canadian provinces have passed a ban on smoking in cars containing children, and Canadian smokers have been very supportive, with support continuing to increase,
 4. support among adult smokers in the UK is continuing to climb; it is now over 80%.

Levels of exposure to smoke in cars

- 2.3 It is logical to conclude that the smaller air volume within a car compared to an enclosed public space would lead to higher SHS concentrations when smoking takes place. But the question of how much this is the case and how far air conditioning/ heating and opening windows might reduce SHS needs testing.



Figure 1. Placement of air quality monitoring device in Sendzik, Fong, Travers, & Hyland (2009) study

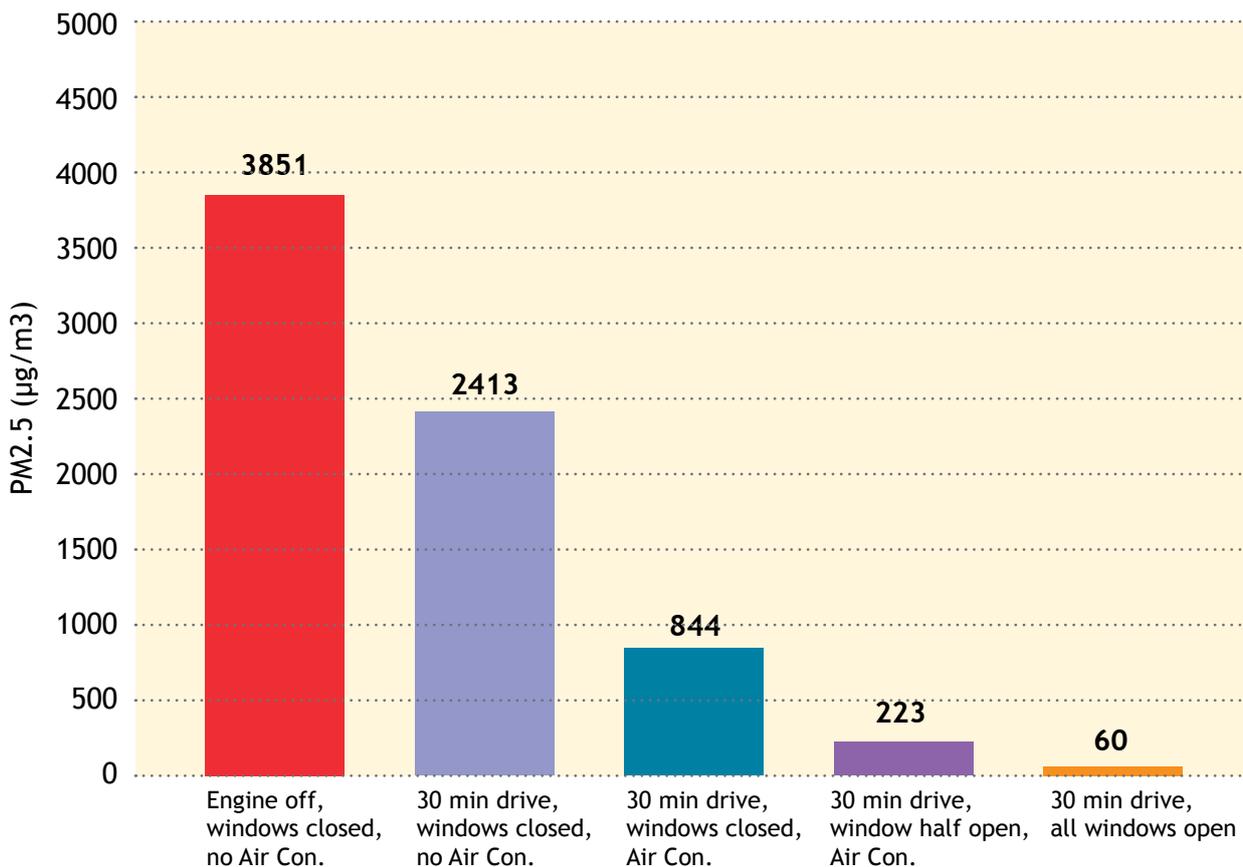
- 2.4 A study conducted by our research team and published in a peer reviewed journal in 2009 addressed both of these questions.¹ We used an air quality monitoring device to measure levels of very fine particulate matter, known as PM_{2.5} (which stands for particulate matter less than 2.5 microns in diameter). This is recognised as the component of outdoor air pollution that leads to significant negative health consequences. It is also an established measure of SHS, and studies have shown that in indoor spaces, SHS accounts for 85-90% of total measured PM_{2.5}.
- 2.5 We sought to measure the level of SHS that would potentially be taken in by a child sitting in a car seat placed in the centre of the back seat. We set up the air quality monitoring device so that the collector wand was approximately in that position. Figure 1 shows the set-up.
- 2.6 In a worldwide study of the level of SHS in 87 Irish pubs where smoking was still permitted, the average level of PM_{2.5} was 340 µg/cm³ (micrograms per cubic cm).² As an indication of how high this is with reference to regulatory standards, Figure 2 shows the proposed rule (2009) for categorisation of PM_{2.5} levels with respect to the Air Quality Index in the United States. The final rule has not yet been issued by the Environmental Protection Agency(EPA).

Figure 2. Proposed Rule for Air Quality Index Reporting and Corresponding Levels of PM2.5, 2009 (U.S. Environmental Protection Agency)

Air Quality	PM2.5 (µg/m ³)	Health Advisory
Good	≤15	None
Moderate	16-35.4	Usually sensitive people should consider reducing prolonged or heavy exertion.
Unhealthy for Sensitive Groups	35.5 - 55.4	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion.
Unhealthy	55.5 - 150.4	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion. Everyone else should avoid prolonged or heavy exertion.
Very Unhealthy	150.5 - 250.4	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion. Everyone else should avoid prolonged or heavy exertion.
Hazardous	250.5+	People with heart or lung disease, older adults and children should remain indoors and keep activity levels low. Everyone else should avoid all physical activity outdoors.

- 2.7 This proposed rule pertains to outdoor air pollution. It should be noted (although not often expressed by researchers in the area) that the presence of many toxic constituents in tobacco smoke, including known human carcinogens, means that this table, and accompanying labels and health advisories, are likely not appropriate for use when the source of PM2.5 is from tobacco smoke. It is virtually certain that the levels of hazard for PM2.5 from tobacco smoke are reached at much lower levels of PM2.5 than in the above table. In support of this position, the U.S. EPA, over 20 years ago, identified SHS as a “Group A Carcinogen” which means that SHS is within a category of substances that strictly has “no safe limits.”³
- 2.8 In our study of SHS levels in cars, we measured the levels of PM2.5 in eight cars resulting from a single cigarette being smoked. We did so under five conditions for each car:
- Condition 1: Engine off, windows closed
 - Condition 2: Driving at about 50 km/h, windows closed, air conditioning off
 - Condition 3: Driving at about 50 km/h, windows closed, air conditioning on
 - Condition 4: Driving at about 50 km/h, driver window open about 18cm
 - Condition 5: Driving at about 50 km/h, all four windows open all the way
- 2.9 These conditions were chosen to simulate commonly used strategies to reduce SHS in cars. Condition 3 is common in hot weather and in cold winter weather (where heating provides essentially the same ventilation levels as air conditioning in the summer). Condition 4 is common among smoking drivers. And we included Condition 5 (all windows open) as an extreme ventilation strategy, which is not a practical strategy.

Figure 3. Average PM2.5 level in cars while one cigarette is being smoked (Sendzik et al., 2009)



2.10 Figure 3 presents the average levels of PM2.5 in cars while one cigarette is being smoked under these five conditions during the five to seven minute time of the single cigarette being smoked.

2.11 These levels are disturbingly high:

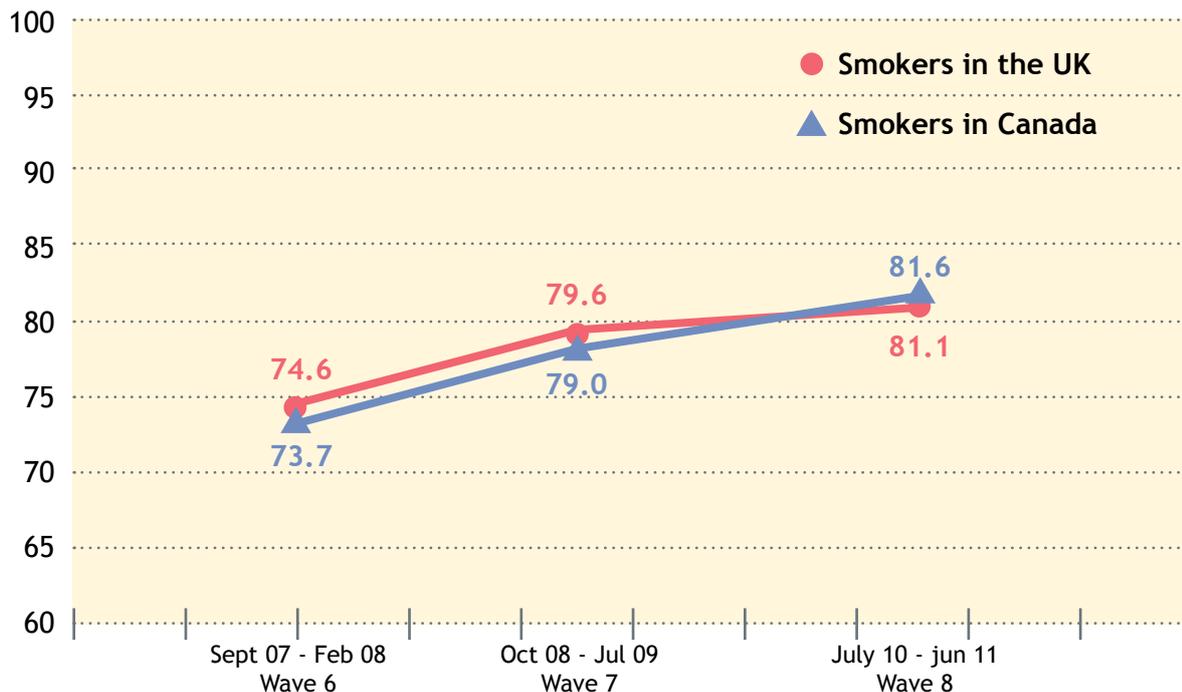
- For a stationary car with its engine off, with windows closed, a single cigarette leads to a peak PM2.5 level of 8,215 µg/cm³, and an average of 3,851: over 11 times the level found in the average smoky bar in the international study.
- During driving with the windows closed, the average is 2,413, about seven times the level of a smoky bar.
- When driving with the windows closed, but with air conditioning (very common in summer and in winter), the average is 844, or over 2.5 times the level of a smoky bar.
- It is only when the driver’s window is open that the level of PM2.5 drops below the level of the average smoky bar to 223, which is still about 2/3 the level of a smoky bar. It should be noted that 223 is in the EPA’s category of “Very Unhealthy”, which, as mentioned above, is almost certainly an underestimate of the likely health hazard, given the potent toxicity of tobacco smoke relative to outdoor air pollution.
- Finally, even when all four windows are wide open, the average PM2.5 level is still 60, which is in the EPA category of “unhealthy”; again, this category is an underestimate of the likely level of hazard.

2.12 There have been other studies that confirm the basic conclusion: that the level of SHS in a car constitutes a very potent health hazard and that children, especially, should be protected.^{1,2,3,4}

Laws banning smoking in cars with children: Around the world and the Canadian experience

- 2.13 A number of jurisdictions around the world have now banned smoking in cars carrying children.⁸ These jurisdictions include states and provinces in Australia, Canada, and the United States. To date, three countries - South Africa, Mauritius, and Bahrain - have passed such laws. Mauritius's ban is notable because it is the first country to ban smoking in cars carrying passengers of any age. Given the status of SHS as a Class A Carcinogen, laws protecting all passengers in a car would be entirely appropriate.
- 2.14 In Canada, laws to ban smoking in cars with children have been implemented by eight of the ten provinces and one of the three territories; Quebec and Alberta are the only two provinces not to have passed such a law.⁹
- 2.15 The level of support for laws to ban smoking in cars with children has been measured by the International Tobacco Control Policy Evaluation Project (ITC Project), a large consortium of over 100 researchers and experts in tobacco control across 23 countries, which is conducting longitudinal surveys to measure the effectiveness of the WHO Framework Convention on Tobacco Control (FCTC) tobacco control policies. I am the Founder and Chief Principal Investigator of the ITC Project. Since 2002, the ITC Project has conducted nearly-annual longitudinal surveys of adult smokers in Canada, United States, Australia, and the United Kingdom.¹⁰ The sample sizes are large (over 1,500 adult smokers in each country), with probability sampling achieved via random-digit dialing methods.
- 2.16 The ITC surveys include questions designed to evaluate many FCTC policies, including health warnings and packaging, advertising and promotion bans, taxation and price, and smoke-free laws; they also include measures relevant to possible future policy initiatives, including banning smoking in cars with children.
- 2.17 For the past three survey waves (since the 2007-08 survey wave), we have included questions to measure support for a law banning smoking in cars with children. It should be noted that our respondents in Canada, UK, US, and Australia are adult smokers—those least likely to support such a law given that they would be the ones affected most by such a law.
- 2.18 As can be seen, in Fig 4, even four years ago, the level of support for a law banning smoking in cars with children was very high among smokers. But in both countries, the support has become even higher. At the 2010-11 survey wave, 81.6% of smokers in Canada and 81.1% of smokers in the UK are supportive of such a law.
- 2.19 Of additional note is the level of support continuing to increase among smokers in Canada during the time period when eight out of the ten provinces passed the law.
- 2.20 It is clear that substantial support for a law banning smoking in cars with children exists among smokers in the UK, and so combined with what surely must be even higher levels of support among **non-smokers**, it is fair to conclude that there is overwhelming support for such an action. What is clear is that what is right for public health corresponds with what the vast majority of people are calling for and would support: a law banning smoking in cars with children.

Figure 4. Percentage of smokers who support a law banning smoking in cars with children in Canada and the UK across three waves of the ITC Survey



References

- 1 Sendzik T, Fong GT, Travers MJ, Hyland A. An experimental investigation of tobacco smoke pollution in cars. *Nicotine Tob Res.* 2009; 11(6):627-34.
- 2 Connolly GN, Carpenter C, Travers M, Cummings KM, Hyland A, Mulcahy M, Clancy L. How smoke-free laws improve air quality: A global study of Irish pubs. *Nicotine Tob Res.* 2009;11:600-605.
- 3 U.S. Environmental Protection Agency. Respiratory health effects of passive smoking: lung cancer and other disorders (Publication No. EPA/600/6-90/006F). Washington, D.C. 1992.
- 4 Rees VW, Connolly GN. Measuring air quality to protect children from secondhand smoke in cars. *Am J Prev Med.* 2006; 31(5):363-8.
- 5 Ott W, Klepeis N, Switzer P. Air change rates of motor vehicles and in-vehicle pollutant concentrations from secondhand smoke. *J Expo Sci Env Epid.* 2008; 18(3):312-25.
- 6 Jones MR, Navas-Acien a, Yuan J, Breyse PN. Secondhand tobacco smoke concentrations in motor vehicles: A pilot study. *Tob Control.* 2009; 18(5):399-404.
- 7 Invernizzi G, Ruprecht AA, Mazza R, et al. Smoking in car: monitoring pollution of particulate matter, of organic volatile compounds and of carbon monoxide: The effect of opening the driver's window. *Epidemiol Prev.* 2010; 34(1-2):35-42.
- 8 Canadian Cancer Society. Laws banning smoking in vehicles carrying children - international overview. August 30, 2011.
- 9 Saltman D, Hitchman SC, Sendzik T, Fong GT. The current status of bans on smoking in vehicles carrying children: A Canadian perspective. *Report Card on Cancer in Canada.* 2009-10; 12:5-9.
- 10 Fong GT, Cummings KM, Borland R, Hastings G, Hyland A, Giovino GA, Hammond D, Thompson ME. The conceptual framework of the International Tobacco Control (ITC) Policy Evaluation Project. *Tobacco Control.* 2006; 15(Suppl III):iii3-iii11.

Smokefree vehicles: changes in attitudes, changes in behaviour

Martin Dockrell FRSPH
Director of Policy and Research
Action on Smoking and Health

Synopsis

- 3.0 Adults are increasingly aware of the risk of secondhand smoke and are taking greater steps to protect children in the home. However, voluntary action on smoking in private is driven more by whether an adult smokes, than by the presence of children. Smokers' attitudes and beliefs on this issue lag behind those of the rest of the population, especially in relation to the risk to adults.
- 3.1 The evidence from the introduction of smokefree legislation is that, on its own, while welcome, the government marketing campaign planned for Spring 2012 is unlikely to achieve the necessary behaviour change amongst smokers. While behaviour change occurred in the private domain prior to implementation of the new legislation, it only occurred in pubs and bars after the legislation was implemented. Smokers support for the legislation grew significantly during and after the implementation of the legislation.¹
- 3.2 The example of smokefree legislation shows that paid-for marketing campaigns when supported by earned or unpaid media can have some effect in changing attitudes and behaviour, especially amongst non-smokers compared to smokers, but that these favourable changes pale in comparison to the impact of legislation on changing behaviour. While marketing campaigns are important for raising awareness and for stimulating debate and support for such a law, the evidence is that the passage and proper enforcement of a law is by far the most effective method of changing behaviour.

Introduction

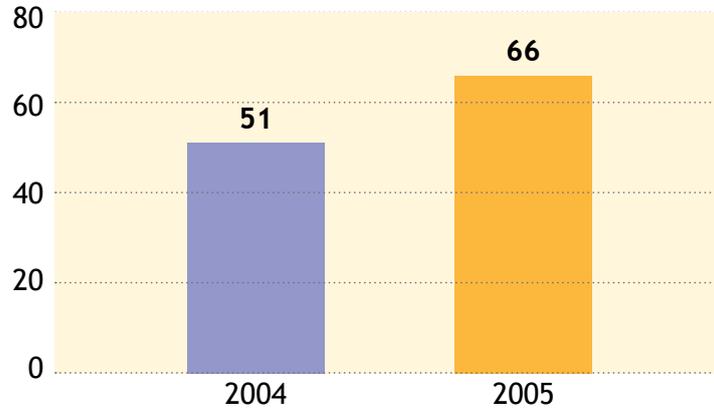
- 3.3 Secondhand smoke causes significant harm to children, and children from disadvantaged families bear the heaviest burden of secondhand smoke.² Smokers greatly underestimate these risks as do - to a lesser extent - non-smokers. Consequently children are exposed to secondhand smoke in their own home and in homes they visit. Nineteen per cent report that they are often exposed to secondhand smoke in cars (compared to 26% exposed at home and 32% in other people's homes).³

Lessons to be learnt from the smokefree legislation

- 3.4 From 2003 to 2007 there was a rich mix of public education and debate on the harm caused by secondhand smoke and whether legislation was the appropriate policy response. The Chief Medical Officer for England's Report for 2002 (published in July 2003) argued that previous action had been inadequate and set out the benefits of "a comprehensive workplace smoking ban".⁴ The CMO's report was followed by a government campaign, *If You Smoke, I Smoke*.
- 3.5 From this time on, until legislation was implemented in July 2007 in England, there was significant media coverage of the issue week in week out. This included widespread coverage of a letter to the Times from the Presidents of the royal colleges of medicine, a series of consultations including the DH consultation in 2004, and reports by the BMA and the Royal College of Physicians (RCP).⁵ Changes in popular beliefs, attitudes and behaviours on secondhand smoke were also shaped by parliamentary action such as the Liverpool City Council Prohibition of Smoking in Places of Work Bill (2005)

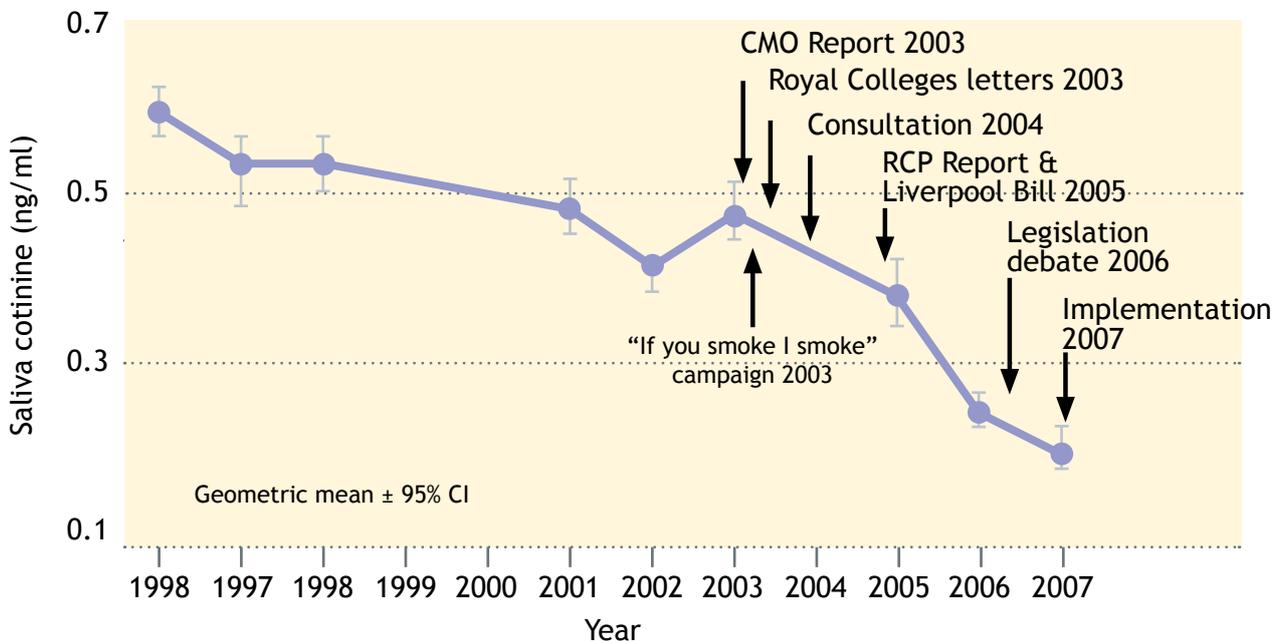
followed by the Government sponsored Health Bill brought before Parliament in 2005/6 and implemented in July 2007. This was accompanied by an increase in support for comprehensive smokefree legislation from one half to two thirds of the population in just 18 months.⁶

Figure 1. Public support for smokefree pubs and bars in England.
 Arnott A., et al. *Tobacco Control* 2007;16:423-428



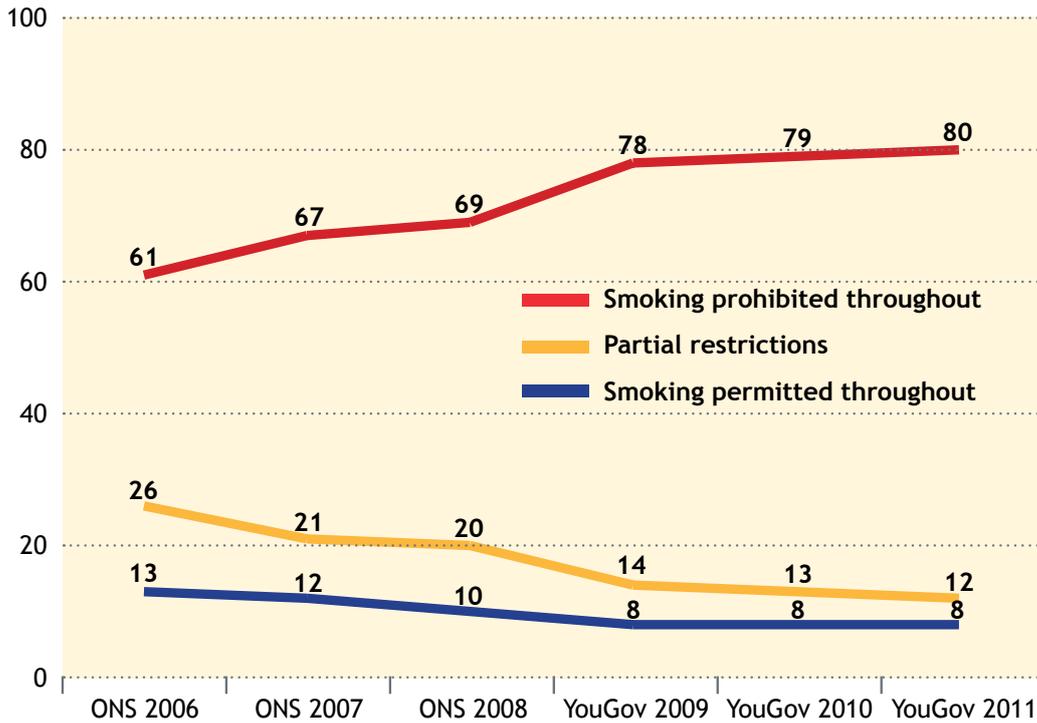
3.6 Critics of a comprehensive ban on smoking in public places argued that it would result in an increase in children’s exposure to secondhand smoke. It was suggested that this would arise from displacing smoking in public environments to the home.⁷ To the contrary, reductions in exposure to secondhand smoke have been observed in private and in public places subsequent to the legislation⁸ with a significant decline in children’s exposure to secondhand smoke.² (Fig 2)

Fig. 2 Children’s exposure to secondhand smoke has declined measurably (Cotinine data: Passive smoking and children. RCP 2011)



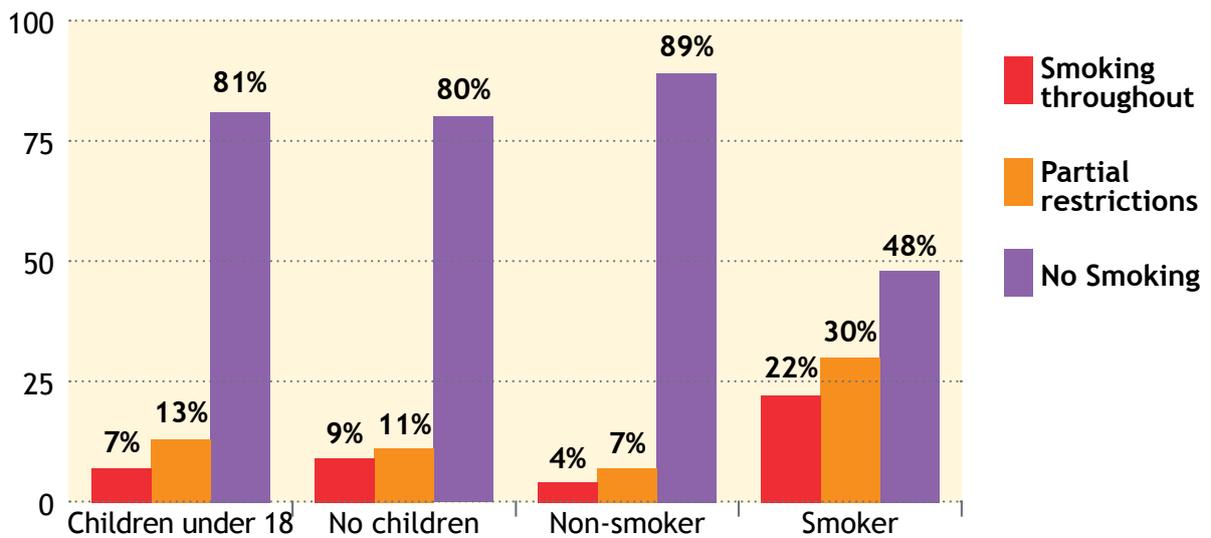
3.7 Before the legislation came into effect smoking was already prohibited in two thirds of homes in England. Since 2006 the proportion of homes that are completely smokefree has increased 19 percentage points from 61% to 80%. In 2011 we found the number of people who reported “people can smoke anywhere in my home” to be 8%, only 5 percentage points lower than that found by the ONS in 2006. The number of homes where smoking is permitted throughout has declined only slightly. (Fig 3)

Fig 3 Smoking is prohibited in 80% of homes in England



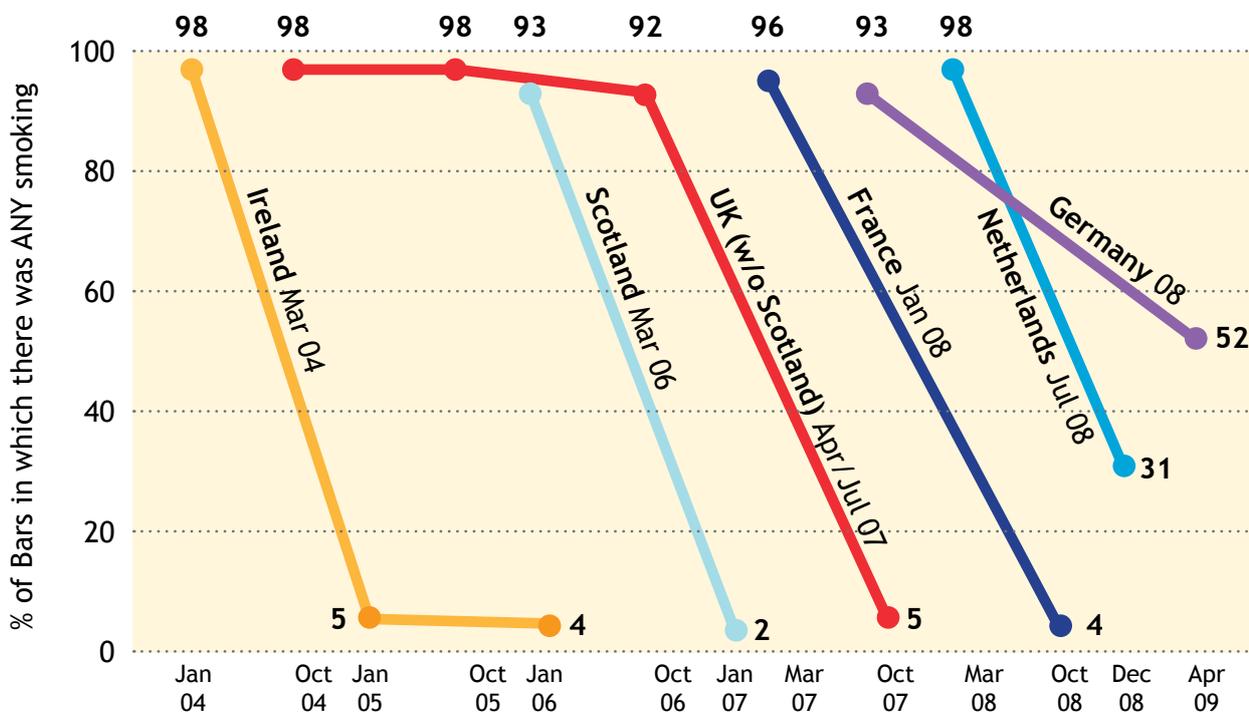
3.8 However, this change has been most marked among non-smokers, 89% of whom report that smoking is not permitted in any enclosed part of their home. By contrast more than half of smokers (52%) permit smoking in all or part of their home. The presence of children makes very little difference to the rules in force in a given household; 19% of homes with children under the age of 18 permit smoking in all or parts of their home compared with 20% of homes with no children at all. (Fig 4)

Fig 4 Smoking permitted in the home 2011 (by smoking status)



3.9 The findings of the International Tobacco Control Policy Evaluation Project (ITC Project) on comprehensive smokefree laws in public places in the UK, Ireland, France, and other countries shows definitely that the vast majority of the behaviour changes amongst smokers (in this case, NOT smoking in restaurants or bars) took place with the advent of the law. This is shown in Fig 5.

Fig 5 Smoking prevalence in bars before and after smokefree laws were implemented in six jurisdictions in Europe (ITC Project)



3.10 Figure 5 shows that the prevalence of smoking in bars declined very slowly in the UK during 3 waves of the ITC survey: October 2004 = 98%; October 2005 = 98%; October 2006 = 92%, the time period when only mass media campaigns and other attempts to educate the public about the dangers of SHS and other attempts to encourage people not to smoke in public places such as restaurants and pubs were taking place. It is clear that very little behaviour change took place. It was only when the smokefree law was implemented in April and July 2007 that the prevalence of smoking in pubs fell dramatically (from 92% to 5% by October 2007), thus following the same pattern as in Ireland and Scotland before, and France afterwards.

3.11 And even in countries where such laws have been much less successful due to lack of support from the Government (i.e. no public education campaign and no media support prior to the law), such as in Germany and The Netherlands, the implementation of the law has led to significant changes in behaviour (significant reduction in prevalence of smoking in restaurants and bars).

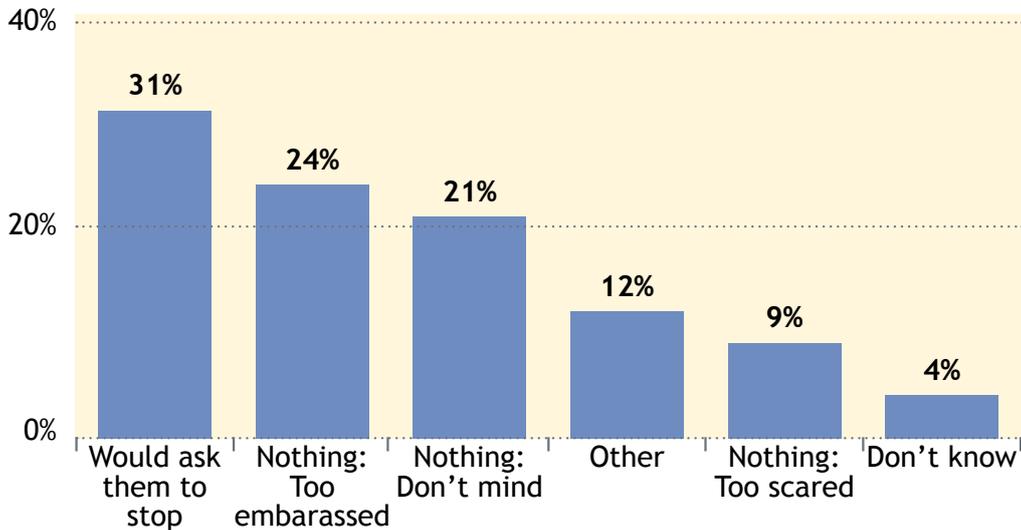
3.12 It is worth noting that public support for the legislation including pubs and bars continued to rise after the legislation came into effect. It went from 72% in April 2007 before it came into force in England, to 80% by 2010, with the increase in support coming primarily from smokers, as support from non-smokers was already overwhelming.

Smoking in cars

3.13 Unpublished data from the ITC Study cited by the RCP shows that 15% of smokers reported smoking in cars in the presence of children. These tend to be regular heavier smokers,

fewer of whom believe that smoking is dangerous.² The British Lung Foundation found that fewer than one third of children would ask an adult to stop smoking in a car while a third would not ask because they were too frightened or embarrassed. One in five would do nothing because they do not mind. (Fig 6)

Fig 6 What do children do when adults smoke in the car (BLF/TNS)

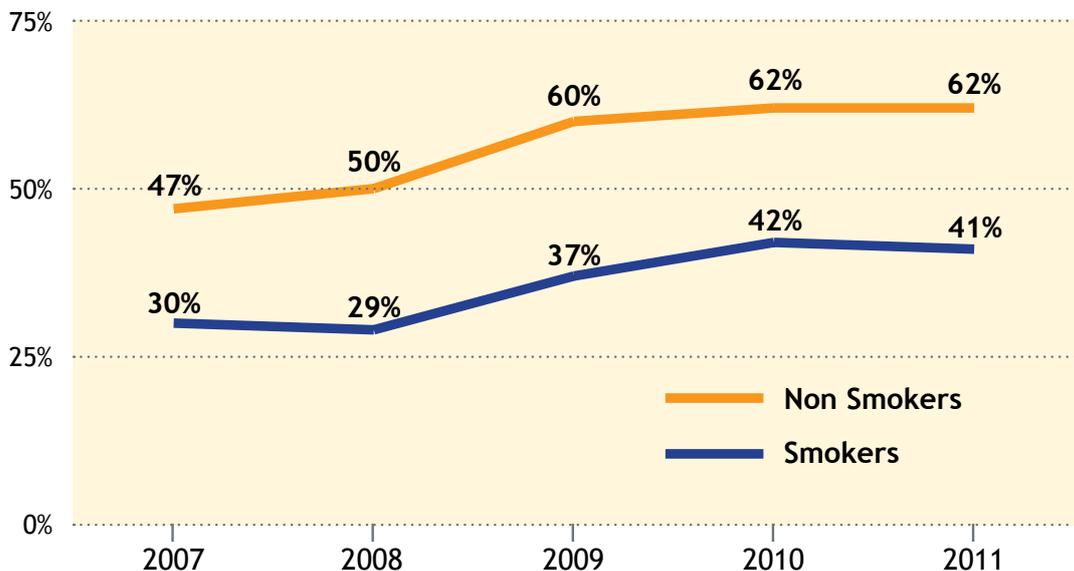


Changes in understanding amongst smokers and non-smokers

3.14 Over the past five years public understanding of the harmful effects of secondhand smoke has increased. For example the evidence that secondhand smoke is linked specifically and strongly to sudden infant death² is now more widely understood.

3.15 However, the importance of this fact is still widely underestimated, most of all among daily smokers. Only one in seven (14%) of them believe that secondhand smoke has a big impact on the risk of increasing sudden infant death syndrome (cot death). This difference cannot be ascribed to social class as the perception of risk is remarkably evenly shared across social groups. (Fig 7)

Fig 7 Adults who agree that secondhand smoke has a big/some impact on risk of Sudden Infant Death Syndrome (cot death)

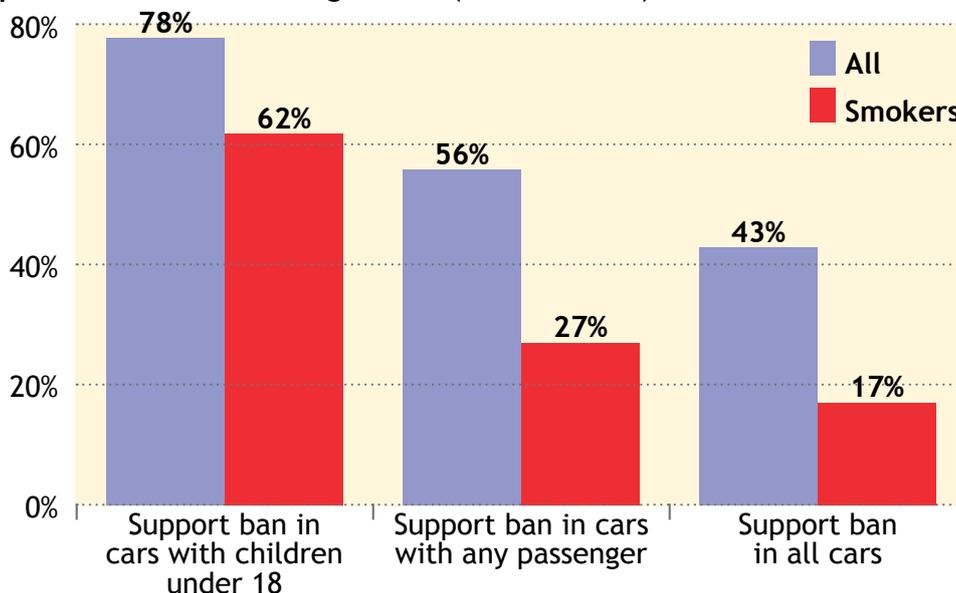


- 3.16 A similar effect can be observed with respect to the general risk from secondhand smoke to child health. Overall, 57% of adults believe secondhand smoke has a big impact on increasing the risks to a child’s health. Women have a higher perception of the risk (63%) but only 35% of female daily smokers perceive a big impact. Among male daily smokers this falls to 23%.
- 3.17 By contrast, the perception of risk to adults has changed little over recent years. The proportion of smokers who recognise the risk of secondhand smoke in increasing heart attacks in adults is only 56% compared to 80% of non-smokers (YouGov 2011).
- 3.18 It is clear that smokers are resistant to accepting the harm caused by their behaviour and that this is relevant not just to children but to adults too.

Support for legislation

- 3.19 The Royal College of Physicians report on passive smoking and children in March 2010 included a recommendation that smoking in all cars be prohibited. There was a very high degree of public and media interest in this. Subsequently the British Lung Foundation launched its Children’s Charter campaign for legislation to prohibit smoking in cars carrying children which has been very positively received both by parliamentarians and the public. This is an issue of great public interest with a growing evidence base.
- 3.20 There is a strong public and expert consensus on the need for action, although views on what action is most appropriate continue to evolve. Organisations such as the British Lung Foundation and the Royal College of Paediatrics and Child Health favour legislation that will specifically protect children. The Royal College of Physicians, The British Medical Association and the Faculty of Public Health support legislation to cover all private cars. ^{2, 9, 10, 11}
- 3.21 Support for specific legislation to protect children from exposure to smoke in cars is now very high. Research conducted for the British Lung Foundation found that 86% of children support government action and 86% of adults support legislation. ^{12, 13} Research by the ITC Project found over 80% of smokers support legislation to prohibit smoking in cars with children in the UK, very similar to levels in Canada. (see Annex 2 by Fong and Hitchman in this report)
- 3.22 The ASH/YouGov survey finds a somewhat lower level of support among smokers than is found in the ITC study, and the BLF sample of parents who smoke. However studies consistently find a substantial majority of adults (including a majority of smokers) supporting a ban on smoking in cars with children. There is also majority support for a ban on smoking in cars with any passenger and more people support a ban on smoking in all cars (43%) than oppose it (38%).

Fig 8 Support for bans on smoking in cars (YouGov 2011)



Conclusions

3.23 In conclusion, the example of the smokefree legislation shows that paid-for marketing campaigns when supported by earned or unpaid media can have some effect in changing attitudes and behaviour, especially amongst non-smokers compared to smokers but that these favourable changes pale in comparison to the impact of a law on changing behaviour. While marketing campaigns are important for raising awareness and for stimulating debate and support for such a law, it is clear from past studies on smoke-free that the passage and proper enforcement of a law is by far the most effective method of changing behaviour.

References

1. Unless otherwise stated data is from research conducted by YouGov with adults in England commissioned by Action on Smoking and Health. Total sample sizes and fieldwork dates for each year are as follows:
 - 2007: total sample = 1532, 22nd to 28th August 07
 - 2008: total sample = 1056, 20th to 22nd February 08
 - 2009: total sample = 10895, 25th to 30th March 09
 - 2010: total sample = 10276, 17th to 22nd March 10
 - 2011: total sample = 10238, 3rd to 15th March 11

All surveys were carried out online and figures have been weighted and are representative of all England adults (aged 18+).

In surveys in 2007 and 2008 the question on support for smokefree legislation was “How strongly, if at all, do you support or oppose the law to make PUBS AND BARS smoke free?”

After the legislation had been in force for a year, the question was modified.

In 2009 it was phrased “It is now against the law to smoke in enclosed public places and workplaces. How strongly if at all do you support or oppose this law to make all enclosed public places and workplaces smoke free?”

In 2010 and 2011 the question was phrased “It is against the law to smoke in enclosed public places and workplaces. How strongly, if at all, do you support or oppose this law to make all enclosed public places and workplaces smoke free?”
2. Passive Smoking and Children: A report by the Tobacco Advisory Group of the Royal College of Physicians. Royal College of Physicians, London 2010
3. Smoking, Drinking and Drug Use among Young people in England Survey in 2010. NHS Information Centre for Health and Social Care 2011
4. Annual Report of the Chief Medical Officer 2002, Department of Health, 2003
5. Going smokefree. The medical case for clean air in the home, at work and in public places. A report on passive smoking by the Tobacco Advisory Group of the Royal College of Physicians. RCP, London, 2005
6. Arnott A, Dockrell M, Sandford A, Willmore I, Comprehensive smokefree legislation in England: how advocacy won the day *Tob. Control* 2007;16:423-428
7. “Smoking - working class pleasure”, BBC News, 9 June 2004. Accessed 1st November 2011
8. Smoking ban in public places also cuts smoking at home *BMJ* 331 : 129 doi: 10.1136/bmj.331.7509.129-b
9. British Lung Foundation’s call to ‘Stub out smoking in cars’, RCPCH press release - 16 June 2010. Accessed 1st November 2011
10. Children and Secondhand Smoke, Faculty Public Health, 2008
11. BMA meeting: BMA votes in favour of banning smoking in cars *BMJ* 2011; 342:d4165
12. TNS survey of 1001 children in Great Britain aged 8-15 years Fieldwork conducted 20th-27th January 2011
13. Mumsnet.com survey of 1000 people 29th April - 6th May 2010

Regulation and enforcement issues with respect to smoking in cars

Ian Gray MBE

Principal Policy Officer, Chartered Institute of Environmental Health

Research by Matthew Willetts, Student Member, Chartered Institute of Environmental Health

Synopsis

4.0 The evidence of damage to children's health from exposure to secondhand smoke is clear and irrefutable.¹ The smokefree laws already in force in England ensure that children are fully protected when conveyed in public transport and public service vehicles. However, there are no restrictions on smoking in private cars except when they are used primarily in connection with work activities which then requires them to be smokefree at all times. There are significant difficulties in enforcing a prohibition only for smoking in vehicles containing children. These need to be taken into account in determining the appropriate policy response as do issues such as the harm caused by secondhand smoke to adults and safety issues due to driver distraction.

Introduction

4.1 This Inquiry into smoking in private vehicles is considering the need and basis for additional restrictions on smoking in private cars in order to further prevent children's exposure to the effects of other people's smoking. The issue for the Chartered Institute of Environmental Health, as the representative professional body for environmental health officers, who constitute the bulk of the authorised enforcement officers for the smokefree legislation, is to assist in the determination of the most effective regulation and enforcement measures which are or could be made available.

Current legislation with respect to smoking in vehicles

4.2 The smokefree requirements in England, including the requirements in respect of smokefree vehicles, are amongst the most comprehensive anywhere in the world.

4.3 Since 1st of July 2007 it has been illegal to smoke in virtually all enclosed public places and workplaces. It is also illegal for anyone to smoke in vehicles that are used to transport members of the public including buses, coaches, taxis and other private-hire vehicles. Vehicles that are used by more than one person for the purposes of work, paid or unpaid, whether they are travelling in the vehicle at the same time or not, are also required to be smokefree. This means that drivers are not able to smoke in their vehicles even when they are not carrying passengers and even where they have a separate cab or compartment.

4.4 Private vehicles are not required to be smokefree, even when they are also used for work purposes, provided that they are mainly used for private purposes.² Where there is a legal requirement for a vehicle to be smokefree, it is an offence for both the driver and their passenger(s) to smoke. A smokefree vehicle must be smokefree at all times.

4.5 Local authority regulatory officers have developed extensive experience on supporting compliance and carrying out enforcement measures in cases of non-compliance. Detailed guidance has been published in respect of the smokefree legislation to support consistency in compliance and fairness in enforcement.³

4.6 The legislation provides regulatory officers with the following enforcement options:

- they can give a verbal warning;
- they can issue a written warning;

- they can serve a fixed penalty notice or institute legal proceedings against any person in charge of a smokefree vehicle for failing to display no-smoking signage (Health Act 2006 section 6(5) offence);
 - they can issue a fixed penalty notice or institute legal proceedings against an individual smoking in a smokefree vehicle (Health Act 2006 section 7(2) offence); and
 - they can institute legal proceedings against any person in charge of a vehicle for failing to prevent smoking in a smokefree vehicle (Health Act 2006 section 8(4) offence) - no fixed penalty is available for this offence.
- 4.7 Similar penalties would be required in relation to any extension of the prohibition on smoking in a vehicle.
- 4.8 It is the legal responsibility of any person with management responsibility for the smokefree vehicle to ensure that the required no-smoking signs are displayed. This would include the owner as well as the driver at any particular time.⁴

Enforcement issues with respect to current legislation

- 4.9 There are practical problems that regulatory officers currently encounter in securing compliance with smokefree legislation in relation to vehicles. These include:
- Observing and securing evidence of smoking taking place, especially in moving vehicles;
 - Determining whether the smokefree requirements apply to a particular vehicle;
 - Lack of legal powers for local authority officers to stop and detain vehicles; and
 - Difficulties for local authority officers in determining the identity of the driver and any passengers.
- 4.10 It can be difficult to observe and secure evidence that smoking is taking place inside a motor vehicle, especially when it is moving. When accused, people may reply for their defence that their smoking materials, cigarette or pipe, were not lit.
- 4.11 There must be confirmation that the smokefree requirements apply to the particular vehicle. For example: in the case of a commercial vehicle, it must be shown that it is driven or used to transport different people at any time; and in the case of a private vehicle it must be shown that it is primarily used for business purposes.
- 4.12 The presence of a no-smoking sign, although a legal requirement for vehicles required to be smokefree, is not an indicator in itself that the vehicle is so required. In any case the sign may be absent or not displayed so as to be visible from outside the vehicle. For the reasons stated in paragraph 4.24 there may not be a requirement for signage in respect of private vehicles occasionally used to convey children.
- 4.13 Under current arrangements, local authority regulatory officers cannot be authorised to stop vehicles. Even if they had such powers, they could not be exercised safely without police assistance.
- 4.14 The Road Vehicles (Power to Stop) Regulations 2011⁵ provide the Secretary of State with the power to appoint “stopping officers” who in turn have powers to stop certain commercial vehicles on roads for the purpose of specific checks. These powers are primarily intended for officers of the Vehicle and Operator Services Agency (VOSA) which provides a range of licensing, testing and enforcement services to maintain and improve the roadworthiness standards of vehicles and ensure the compliance of operators and drivers. Prior to the introduction of these regulations, VOSA officers relied on police powers and assistance to stop vehicles.
- 4.15 The Road Vehicles (Power to Stop) Regulations 2011 are made under the provisions of the Transport Acts and, as the smokefree legislation is a public health measure, it is most unlikely that “stopping officers” could be appointed for the purpose of checking compliance with smokefree requirements or carrying out the associated enforcement measures unless smoking in motor vehicles were to be identified and accepted as a

driver safety issue. In any case, such powers might be limited to action in relation to commercial vehicles.

- 4.16 In order for local authority regulatory officers to be included for appointment as a “stopping officer” the Secretary of State would need to be satisfied that the officers to be appointed would be suitable, capable and adequately trained to exercise their powers. Authorised officers are only permitted to exercise their powers whilst wearing approved uniforms.
- 4.17 In the absence of having their own powers and authority, local authority officers rely upon the police for assistance to stop vehicles. This is the current arrangement for environmental health officers and trading standards officers, for example when goods vehicles need to be stopped to check for overloading or for their consignments to be examined.
- 4.18 The principal police powers are contained in the Road Traffic Act 1988 amended by Road Traffic Act 1991.⁶ Section 163 provides the powers for constables to stop vehicles. A person driving a mechanically propelled vehicle on a road must stop the vehicle on request to do so from a constable in uniform or a traffic officer. If the person fails to comply he/she is guilty of an offence.
- 4.19 Even when a vehicle has been stopped there is the difficulty of positively identifying the driver and the passenger, where smoking by a passenger also constitutes an offence. Under the available legislation a person does commit an offence if they intentionally obstruct an authorised officer, fail to give assistance when requested to do so, or gives false or misleading information. However, there is no requirement for people to prove their identity and no power of detention or arrest. Therefore local authority regulatory officers are again reliant on the police for assistance.
- 4.20 The availability of local police to assist with stopping of vehicles and the identification of possible offenders is a serious limitation on enforcement measures and dictates that activities need to be planned in advance. This prevents spontaneous or reactive enforcement action.
- 4.21 An alternative would be for the police to enforce smokefree legislation with respect to cars, as they do seatbelt laws.

Application of smokefree laws to children

- 4.22 A requirement to prohibit smoking in a vehicle in which a child is being conveyed would need to include all vehicles regardless of their use for business or private purposes. We can expect that the same practical problems faced by enforcement officers under current law will present themselves in relation to any future use of legal provisions to prohibit smoking in private motor vehicles when children are being carried. In addition we can anticipate that there will be the following additional challenges:
- Observing children in cars, especially small children, and determining their ages.
 - Lack of cooperation by some owners and passengers who will maintain that what they do in their private motor vehicles is their own business.
- 4.23 The effects of these enforcement challenges, if they are substantial and widespread, could undermine enforcement measures. Failure to effectively and consistently enforce any legislation risks bringing the law into disrepute and may impact adversely on voluntary compliance.
- 4.24 There is a need for a requirement to display no-smoking signs which will identify private vehicles used to convey children. Without such signage, enforcement officers and concerned members of the public will not be able to identify them. However, there may be strong objections to any requirement to display no-smoking signs when a child is being conveyed in private vehicles, perhaps only occasionally, which would otherwise not be required to comply with the smokefree provisions.

- 4.25 The evidence of damage to children’s health from exposure to other people’s smoking in cars is not confined to when the children are present in a vehicle when smoking is taking place. There is some evidence that exposure to the residues of recent and past smoking, including the deposits to be found in the upholstery and other materials of the vehicle, may also be harmful.⁷
- 4.26 In addition there is evidence covered elsewhere in this report about harm to adults as well as to children, as well as concerns about safety as set out below.

Driver distraction

- 4.27 Smoking is already identified in the Highway Code as a distraction to be avoided.⁸

It states that:

Safe driving and riding needs concentration. Avoid distractions when driving or riding such as:

- loud music (this may mask other sounds)
- trying to read maps
- inserting a cassette or CD or tuning a radio
- arguing with your passengers or other road users
- eating and drinking
- smoking

- 4.28 The Automobile Association (AA) puts the case more strongly. In their online guidance to motorists on smoking and driving they state:

The Highway Code does not make it a specific offence to smoke while driving, any more than it is currently an offence to change a cassette, read a map or eat.

*However, if a driver’s smoking behaviour is coupled with bad driving, or leads to an accident, a charge of careless driving, or not being in a position to control the vehicle becomes a distinct possibility. It could also potentially be used to show dangerous driving, an offence which could lead to imprisonment, particularly if the dangerous driving causes a death.*⁹

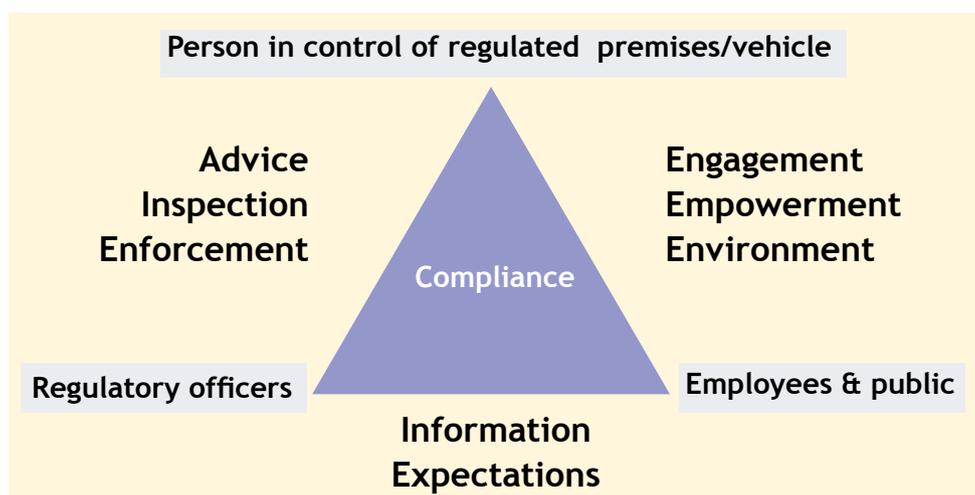
- 4.29 The obvious comparison to make would be with the use by drivers of hand-held mobile phones. Here the Highway Code links the use of a hand-held mobile phone directly to maintaining proper control of the vehicle. Failure to have proper control of the vehicle or a full view of the road and traffic ahead, or using a hand-held mobile phone while driving can result in a fine of up to £1000 and three penalty points on the driver’s licence.¹⁰
- 4.30 The Department for Transport encourages drivers to undertake an online simulator to experience the distraction occurring when driving and engaging in a mobile phone conversation. The ‘Online Driving Challenge’ demonstrates a driver’s “inattentive blindness” which results from carrying out tasks in addition to driving.¹¹ It would be reasonable to assume that similar “inattentive blindness” will result from lighting up and using smoking materials. Reports of research demonstrate that smoking can be such a distraction and a significant cause of, or contributor to, road accidents.
- 4.31 The US Department of Transportation Federal Motor Carrier Safety Administration states that driver distraction can be defined as any time a driver diverts their attention from the driving task.¹² It specifically identifies smoking as a driver distraction to be avoided and it gives the following advice: “Smoking while driving can be very distracting, as it requires you to remove one or both hands from the steering wheel to light a cigarette and to hold it for an extended period of time”. It cites several studies that have found that smoking while driving increases the risk of being involved in a crash.^{13 14 15}
- 4.32 Australian reviews such as that compiled by Cancer Council Victoria¹⁶ have also concluded that driver distraction is an important cause of motor vehicle crashes¹⁷ and that smoking while driving increases the risk of having a motor vehicle crash¹⁸.

- 4.33 Smoking whilst driving is common. In research from New South Wales and Western Australia examining driver distraction and road safety, 10% of drivers reported that they had smoked during their most recent driving trip of five minutes or more duration, compared to 9% who had used mobile telephones and 6% who had eaten while driving. ¹⁹
- 4.34 A study reported by the US National Library of Medicine focused on the risk assessment of distraction from smoking habits while driving vehicles²⁰ and the researchers compared the results with the data about driving distraction from using a mobile phone without voice device. The results suggested that cigarette smoking produces a remarkable risk for road safety, more than the mobile phone use.
- 4.35 An analysis of the US motor vehicle crash data concluded that distraction caused by smoking was thought to be responsible for almost 1% of car crashes over a five year period between 1995 and 1999, or about 12,780 crashes. ²¹

Co-production of compliance model

- 4.36 The application of the smokefree legislation to enclosed workplaces and public places has been highly successful with extremely high levels of compliance since its introduction and very limited need for enforcement action.
- 4.37 It is important that we try to understand what the components of success might be and the extent to which they can be relied upon in any extensions to the smokefree requirements.
- 4.38 Undoubtedly, the comprehensive nature and application of the smokefree legislation helped to ensure that it could be simply explained and readily understood, by both businesses and members of the public, and that it was seen as being fair.
- 4.39 A further key component is the co-production of compliance as illustrated in the Model in figure 1.

Figure 1. Co-production of Compliance: Regulators, Regulated, Citizen



- 4.40 People are obviously responsible for not smoking in premises and vehicles where it is prohibited, but the responsibility for ensuring that they do not do so is with the person in control of those premises, or the owner or operator of the vehicle.
- 4.41 The person in control is advised and inspected by the Regulator, who also has enforcement powers if necessary, but both employees and members of the public can also be encouraged and supported to complain and to report any failure to comply. So the relationship between the regulator and the public is also very important and this creates a virtuous circle that has proved to be a very effective.
- 4.42 However, in relation to the proposals being considered by this Inquiry it is necessary to consider whether this co-compliance model would operate, if voluntary compliance was not widely forthcoming. There would be some key differences: Children cannot

be expected to ensure compliance by adults or even their parents or to report non-compliance. Also people will be reluctant to report friends and neighbours who are providing lifts and possibly essential transport on a voluntary basis.

Conclusion

- 4.43 The case for a prohibition on smoking in private cars when children are being conveyed can be supported on the basis of the need for further protection for children against the health effects of other people's smoking. However, difficulties are being experienced with the enforcement of the existing laws on smoking in motor vehicles: in identifying and stopping vehicles to which the laws apply; obtaining evidence that smoking has taken place; identifying the driver and any passengers who have committed offences. To these would be added the difficulties of determining the age of some children and the possible reluctance of owners and drivers of private vehicles to display no-smoking signs and cooperate with enforcement officers.
- 4.44 A law prohibiting anyone from smoking in a motor vehicle at any time would be more straightforward to enforce, than one limited to when children are being conveyed, but it might be difficult to justify and to gain public acceptance.
- 4.45 An alternative option for Government to consider would be a total prohibition on drivers smoking in any motor vehicle on the grounds that smoking constitutes a hazard to safe driving. Such a measure could be justified on the grounds that smoking constitutes a distraction to the driver and a significant cause of, or is a contributor to, accidents. It would also support the existing public information campaigns warning against smoking in cars when children are present and which are already being shown to be having an impact.

References

- 1 Royal College of Physicians (2010). *Passive smoking and children*. A report of the Tobacco Advisory Group of the Royal College of Physicians. London: Royal College of Physicians.
- 2 The Smoke-free (Exemptions and Vehicles) Regulations 2007 (No. 765).
- 3 LACORS (2008). *Implementation of smokefree legislation in England, guidance for council regulatory officers*. Second edition, London: LACORS.
- 4 The Smoke-free (Signs) Regulations 2007 (No. 923).
- 5 The Road Vehicles (Powers to Stop) Regulations 2011 (No. 996).
- 6 The Road Traffic Act 1991 (c.40).
- 7 Protano C, Vitali M (2011). The New Danger of Thirdhand Smoke: Why Passive Smoking Does Not Stop at Secondhand Smoke. *Environ Health Perspect* 119:a422-a422.
- 8 Department for Transport (DfT), Driving Standards Agency (DSA) (2007). *The Official Highway Code Book*. London: The Stationery Office.
- 9 The Automobile Association (2011). *Smoking and Driving*. Retrieved 26 October, 2011.
- 10 *Mobile phones and driving*. DirectGov. Retrieved 26 October, 2011.
- 11 The Automobile Association (2011). *Smoking and Driving*. Retrieved 26 October, 2011.
- 12 US Department of Transportation Federal Motor Carrier Safety Administration. *Driver Distraction*. Retrieved 26 October, 2011.
- 13 Brison R J (1990). Risk of automobile accidents in smokers. *Canadian Journal of Public Health* 81: 102-106.
- 14 Christie R (1991). *Smoking and traffic accident involvement: A review of the Literature*. GR/91-3. VicRoads, Victoria, Australia
- 15 Violanti JM & Marshall JR (1996). Cellular phones and traffic accidents: An epidemiological approach. *Accident Analysis and Prevention* 28: 265-270
- 16 Scollo MM & Winstanley MH [editors] (2008). *Tobacco in Australia: Facts and Issues*. Third Edition. Melbourne: Cancer Council Victoria
- 17 Young K, Regan M, Hammer M (2003). *Driver distraction: a review of the literature*. Report 206. Clayton: Monash University Accident Research Centre.
- 18 Collins D, Lapsley H (1995). *Economic aspects of drug taking and road safety*. In: *Enquiry into the effects of drugs other than alcohol on road safety in Victoria*. First report. Melbourne: Road Safety Committee, Parliament of Victoria.
- 19 McEvoy S, Stevenson M, Woodward M (2006). The impact of driver distraction on road safety: results from a representative survey in two Australian states. *Inj Prev* 12(4): 242-247. 10.1136/ip.2006.012336
- 20 Mangiaracina G & Palumbo L (2007). Smoking while driving and its consequences on road safety. *Ann Ig* 19(3):253-67. [Article in Italian].
- 21 Stutts J, Reinfurt D, Rodgman E (2001). The role of driver distraction in crashes: an analysis of 1995-1999 Crashworthiness Data System Data. *Annu Proc Assoc Adv Automot Med* 45:287-301.

Legislation on smoking in private vehicles - ethical and civil liberties issues

Richard Ashcroft

Professor of Bioethics, School of Law, Queen Mary, University of London

Synopsis

5.0 The essence of the arguments presented here is that prohibiting smoking in all vehicles, rather than just work vehicles as at present, or amending the legislation just to include vehicles carrying children, rests on well established principles of:

- Protecting the vulnerable (other road users, children and vulnerable others being transported inside the vehicle)
- Limited interference with private activities balanced with legitimate public interest in safe use of public spaces
- Fair and transparent enforcement

Introduction

5.1 *The Smoking, Health and Social Care (Scotland) Act 2005* and the *Health Act 2006* prohibited smoking in almost all public places. The Acts, and the Regulations adopted under these Acts, prohibit smoking in enclosed (parts of) vehicles which are either (a) used by members of the public or (b) used in the course of paid or voluntary work by more than one person. Enclosed vehicles which are used primarily for private purposes by their owner or someone else who has a right to use the vehicle not restricted to a particular journey are not subject to this prohibition. Is there a case for simply prohibiting smoking in all vehicles?

5.2 There is a significant *medical* case for banning smoking in vehicles transporting children. From the point of view of child health and health promotion, it makes no difference whether the vehicle is a private car or a public vehicle. However, some people will argue that the private vehicle is a special case from the point of view of private life and civil liberties. Is the *ethical* case for banning smoking in vehicles carrying children strong enough to support legislation?

5.3 From a practical point of view, banning smoking in cars carrying children is relatively simple to operate. But the harm of secondhand smoke to children is significant even when the smoking takes place when the child is not present. And banning smoking in cars and other vehicles which might carry children is impractical.

Case for protecting children

5.4 There is a very strong case for protecting children from exposure to tobacco smoke. While there is understandable reluctance to prohibit smoking in private homes, some commentators have argued that prohibiting smoking in private cars which are used to any significant extent by children is defensible.

5.5 The argument here is in two parts: first, that cars are more enclosed than most rooms in private or public buildings, so that smoke persists for longer and in a more harmful form than in such rooms, and therefore a child being transported in a car used by a smoker will be subject to a greater exposure to secondhand smoke than in a private or public room.

5.6 This will be the case even if the smoker is not smoking in the presence of the child, and only smokes while in the vehicle unaccompanied by children. And second, that prohibiting smoking in a private car used by children involves a much less significant

interference with the privacy of the vehicle user than would be involved in prohibiting smoking behind the closed doors of a private house.

- 5.7 An obvious difficulty with this line of argument is that unless the child is present in person, distinguishing between cars where smoking is permitted because they are rarely if ever used by children and cars where smoking is not permitted because they are used by children will be rather impractical.
- 5.8 It would be clearer and simpler for road users and enforcement officers if there were a simple prohibition on smoking in all vehicles. An alternative might be to prohibit smoking in an enclosed vehicle or other non-smokefree public place in the presence of a child. But this misses the point about the exposure of children to persistent secondhand smoke.

Case for protecting adults

- 5.9 There is public support for banning smoking in cars carrying children because children are obviously physically vulnerable to secondhand smoke, and have little choice or say in whether or not they are exposed to adults' smoking. There is also a concern about the example children are set by adults who smoke in their presence.
- 5.10 However, the health effects of smoking in cars to adults are just as important: exposure to smoke is a significant risk to the health of people with asthma, other respiratory diseases, and heart health problems in the short term, as well as the well known long-term health effects of secondhand smoke.
- 5.11 Smoking is also a hazard in vehicles as a fire risk, and as a distraction to the driver who may be smoking while driving. But it could be argued that the adult passenger in a car, and the driver are both taking part in a private activity, consensually, and that regulating this is an illegitimate interference with their privacy.

Public/private distinction

- 5.12 The public/private distinction here seems difficult to sustain. First of all, vehicles are (normally) used in public places, and the risks that vehicles and their users pose to third parties may be considerable.
- 5.13 There is a clear public interest in regulating the behaviour of drivers, and "private" hazardous behaviours, such as using mobile telephones while in control of a motor vehicle, are already prohibited while others (eating or smoking for example) are advised against in the Highway Code.
- 5.14 Given that getting a cigarette, lighting up, smoking, and disposing of a cigarette may each pose a hazard to other road users while the smoker is distracted or driving one-handed, there is reason to think that smoking could be dangerous enough for us to prohibit it on the ground of road safety.
- 5.15 Secondly, where some vehicles are obviously workplaces or means of public transport, and other vehicles are obviously purely private in use, there are many vehicles which are not easily assigned to one class or another. And even if we can do it as a theoretical exercise, asking road users or enforcement officers to do so introduces uncertainty and arbitrariness into enforcement in a regrettable way.

Civil libertarian arguments against prohibition

- 5.16 The main arguments against prohibiting smoking in cars are civil libertarian. First, one can argue, as many do, that the car is (or is felt to be) as private a place as the home.
- 5.17 This is culturally understandable, given how many people invest a lot of their sense of self in their vehicles and the freedom their owning a car represents to them. A car feels like a safe haven from the outside world and a place where one can carry on otherwise private activities (for instance, swearing at other road users).
- 5.18 But as noted above, while we may vest many properties of private places to a vehicle, the presumption that it is purely private is much weaker than for the home because of the primary purpose of a vehicle - to move people around in public at speed - and the hazards vehicles and their use pose to third parties.
- 5.19 Secondly, and more pragmatically, we could object to the potential arbitrariness and unfairness of enforcement. As with many other road traffic infringements, it may be a matter of ill-luck or on occasion rank discrimination which leads some people to be subject to enforcement activities on some occasions, and not on others. But this is no doubt already true for enforcement of the regulations relating to public-use or working vehicles. And the case can be made that a simple ban on smoking in vehicles is fairer than one which applies only to somewhat vaguely defined special classes of vehicles or uses of vehicles.

Laws banning smoking in vehicles carrying children - International overview

Canadian Cancer Society

www.cancer.ca

August 30, 2011

Summary

6.0 Laws prohibiting smoking in vehicles carrying children have been adopted in:

- nine Canadian provinces/territories (British Columbia, Saskatchewan, Manitoba, Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland and Labrador, and the Yukon Territory)
- eight Canadian municipalities - Wolfville (Nova Scotia), Surrey (British Columbia), White Rock (B.C.), Richmond (B.C.), Okotoks (Alberta), Athabasca (Alberta), Leduc (Alberta), Medicine Hat (Alberta)
- six Australian states - South Australia, Tasmania, New South Wales, Victoria, Queensland, and Western Australia
- four U.S. states - California, Maine, Arkansas, and Louisiana
- ten U.S. municipalities - Bangor (Maine), Keyport (New Jersey), West Long Branch Borough (New Jersey), Rockland County (New York), Monroe County (Indiana), Rohnert Park (California), Martinez (California), Hawaii county (Hawaii), as well as South Africa, Mauritius, Bahrain, and Puerto Rico.

It may be that other jurisdictions have also adopted laws.

6.1 Listed below are the jurisdictions, the applicable age, the date of coming into force. Applicable age refers to under the age, thus “19” (for example) means that smoking is prohibited in a vehicle carrying someone under age 19.

Countries

- 1 Mauritius (All passengers, ¹, Mar. 1, 2009)
- 2 South Africa (12, Aug. 21, 2009)
- 3 Bahrain²

Canadian provinces/territories (9 of 13)

- 1 Nova Scotia (19, Apr. 1, 2008)
- 2 Yukon Territory (18, May 15, 2008)
- 3 Ontario (16, Jan. 21, 2009)
- 4 British Columbia (16, Apr. 7, 2009)
- 5 New Brunswick (16, Jan. 1, 2010)
- 6 Prince Edward Island (19, Sept. 15, 2009)
- 7 Manitoba (16, July 15, 2010)
- 8 Saskatchewan (16, Oct. 1, 2010)
- 9 Newfoundland and Labrador (16, July 1, 2011)

Canadian municipalities (8)

- 1 Wolfville, Nova Scotia (19, June 1, 2008)
- 2 Surrey, British Columbia (19, July 31, 2008)
- 3 Okotoks, Alberta (16, Sept. 1, 2008)

- 4 White Rock, British Columbia (16, Nov. 1, 2008)
- 5 Richmond, British Columbia (19, Nov. 30, 2008)
- 6 Athabasca, Alberta (18, Mar. 22, 2011)
- 7 Leduc, Alberta (18, July 2, 2011)
- 8 Medicine Hat, Alberta (16, Sept. 1, 2011)

Australian states and territories (6 of 8)

- 1 South Australia (16, May 31, 2007)
- 2 Tasmania (18, Jan. 1, 2008)
- 3 New South Wales (16, July 1, 2009)
- 4 Victoria (18, Jan. 1, 2010)
- 5 Queensland (16, Jan. 1, 2010)
- 6 Western Australia (17, Sept. 23, 2010)

U.S. states (4 of 50)

- 1 Arkansas (if car seat required, ³ July 21, 2006)
- 2 Louisiana (13, ⁴ Aug. 15, 2006)
- 3 California (18, Jan. 1, 2008)
- 4 Maine (16, Sept. 1, 2008)

U.S. municipalities (9)

- 1 Bangor, Maine (18, Jan. 18, 2007)
- 2 Keyport, New Jersey (18, Apr. 26, 2007)
- 3 Rockland County, N.Y. (18, June 21, 2007)
- 4 West Long Branch Borough, NJ (18, June 9, 2007)
- 5 Loma Linda, CA (18, July 24, 2008)
- 6 Monroe County, Indiana (13, April 8, 2009)
- 7 Rohnert Park, CA (18, May 28, 2009)
- 8 Martinez, CA (18, June 5, 2009)
- 9 Hawaii County, Hawaii (18, Aug. 8, 2010)
- 10 Carpenteria, CA (18, May 16, 2011)

Other

- 1 Puerto Rico (13, Mar. 2, 2007)
(US Commonwealth in Caribbean)

References

1. In Mauritius, the *Regulations made by the Minister under sections 193 and 194 of the Public Health Act*, Government Notice No.263 of 2008, provides in s.3(1) that “No person shall smoke a tobacco product . . . (c) while driving or travelling in a private vehicle carrying passengers.”
2. In Bahrain, Law Number (8), Year 2009, *On the Matter of Controlling Smoking and All Forms of Tobacco*, dated April 13, 2009, Article IV(16) bans smoking in “Private cars in case of those accompanying children” but does not define, at least not in this law, “children”. Article XXI states “The Minister shall issue the necessary announcements to implement this law within six months of the date of its issuance.”
3. In Arkansas, a car seat is required when a child is less than six years of age and weighs less than sixty pounds (per s. 27-34-104(b) of the Arkansas State Code).
4. Louisiana Revised Statute 32:295 sets out various rules for car seat and seat belt use that apply to all child passengers up to and including age 12. See: <http://www.legis.state.la.us/lss/lss.asp?doc=88231>

All Party Parliamentary Group on Smoking and Health



Inquiry into smoking in private vehicles
