



Department
of Health

Equality analysis

Smoking in private vehicles carrying children
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Contents

Introduction	3
Policy intention and background	3
Age.....	6
Socio-economic groups.....	8
Gender	9
Race and ethnicity.....	9
Gypsies and travellers.....	10
Sexual orientation	10
Pregnant women	10
Disability.....	12
Mental health.....	12
Other	12
Engagement and involvement.....	12
Summary of analysis.....	12

Introduction

This equality analysis examines the potential impact of proposed regulations to prohibit smoking in private vehicles where children are present on equalities in England, in accordance with the Equality Act 2010. The equality analysis also considers the Secretary of State's duty to reduce health inequalities with respect to benefits from the health service (under section 1C of the NHS Act 2006).

In February 2014, Parliament voted in favour of legislation that gave the Secretary of State powers to bring forward regulations to make private vehicles carrying children smokefree. These regulation-making powers are at Section 95 of the Children and Families Act 2014. Given the view of Parliament, the Government will proceed with the introduction of regulations to end smoking in private vehicles carrying children in England.

The Department of Health is consulting on the draft regulations. The regulations would extend smokefree legislation to make it an offence to smoke in a private vehicle and an offence for a driver not to stop someone smoking when someone under the age of 18 is present. The aims of these regulations would be to:

- Protect children from the health harms associated with exposure to secondhand smoke in private vehicles
- Encourage action by smokers to protect children from secondhand smoke
- In time, lead to a reduction in health conditions in children caused by exposure to secondhand smoke

This analysis accompanies a consultation on draft regulations and will be kept under review and updated in the light of any additional information that is provided, including through the consultation. It aims to inform responses to the consultation on the draft regulations and post-consultation decision-making.

Policy intention and background

Tobacco use remains one of the most significant challenges to public health, killing almost 80,000 people in England every year.¹ Around 8 million people in England smoke² and exposure to secondhand smoke means that smoking is harmful to the people around them as well as to smokers themselves.

We have long understood the risks and harms of secondhand smoke and know that inhaling secondhand smoke is an unavoidable consequence of being in a smoke-filled environment. Smokefree laws covering public transport, public places and work vehicles came into force in 2007 and have proved to be effective, popular and

¹ Statistics on smoking: England, 2013 The NHS Information Centre for Health and Social Care, 2013

² Office for National Statistics (2012) Integrated Household Survey 2012

subject to virtually universal compliance. Current laws do not cover private vehicles, where both children and adults are likely to be exposed to secondhand smoke.

Secondhand smoke is a serious health hazard, and there is no safe level of exposure. Every time someone breathes in secondhand smoke, they breathe in over 4,000 chemicals. Many are highly toxic. More than 50 are known to cause cancer. Scientific evidence also shows that ventilation does not eliminate the risks to health of secondhand smoke in enclosed places. The only way to provide effective protection is to prevent people breathing in secondhand smoke in the first place.³

In 2010, the Royal College of Physicians (RCP) published a report titled *Passive Smoking and Children* that synthesised evidence and research on this issue. The RCP report found that children are particularly vulnerable to secondhand smoke exposure, and that relative to children whose parents are non-smokers, secondhand smoke exposure in children is typically around three times higher if the father smokes, over six times higher if the mother smokes and nearly nine times higher if both parents smoke. Children from socio-economically disadvantaged backgrounds are generally more heavily exposed to secondhand smoke than other children.⁴

A 1998 report of the Government's independent Scientific Committee on Tobacco and Health (SCOTH) concluded that smoking in the presence of children is a cause of serious respiratory illness and asthmatic attacks. In 1999, the World Health Organization (WHO) convened an international consultation on secondhand smoke and child health. Its conclusions were similar to those of the 1998 SCOTH report. The WHO found that secondhand smoke is a real and substantial threat to child health, causing a variety of adverse health effects, including increased susceptibility to lower respiratory tract infections such as pneumonia and bronchitis, worsening of asthma, middle ear disease, decreased lung function, and sudden infant death syndrome.⁵

According to a 2004 report of SCOTH, a considerable number of studies have been published since 1998 confirming adverse effects of exposure to secondhand smoke on children's health. These include impairment of lung function, respiratory symptoms in adolescents, wheezing, school absence due to respiratory illness, middle ear disease and recurrent ear infections.⁶ Secondhand smoke exposure can also increase the risks of meningitis in children. Evidence regarding the health consequences of exposure to secondhand smoke is described in detail by the US Surgeon General, who suggested that for children, exposure to secondhand smoke

3 HM Government (2007). *Everything you need to prepare for the new smokefree law on 1 July 2007*. Smokefree England and Department of Health, London.

4 Royal College of Physicians (2010). *Passive Smoking and Children*. RCP, London.

5 SCOTH (1998). *Report of the Scientific Committee on Tobacco and Health*. TSO, London.

6 SCOTH (2004). *Secondhand Smoke: Review of evidence since 1998*. Department of Health, London.

may lead to respiratory illnesses as a result of adverse effects on the immune system and on lung growth and development.

The 2010 RCP report suggested that exposure to secondhand smoke is a major cause of disease in children, and is responsible for over 300,000 UK general practice consultations and about 9,500 hospital admissions in the UK each year. The RCP emphasises in their report that this entire excess disease burden is avoidable.

A significant number of children say that they are exposed to secondhand smoke in private vehicles. In 2012, 26% of 11-15 year olds reported being exposed to secondhand smoke in their family's car and 30% in someone else's car.⁷ Research shows that smoking in vehicles can result in the accumulation of high levels of secondhand smoke, which can persist even when windows are open or the ventilation system is in use.⁸ Some public health groups have reported concern about the intensity of exposure to secondhand smoke in private vehicles, even if the duration of exposure may not be lengthy. Research has shown that smoking just a single cigarette in a car generates high average levels of microscopic air pollutants, and where cars are ventilated (for example, air conditioning switched on or having the smoking driver hold the cigarette next to a half-open window), the average levels of air pollutants, while reduced, were still at significantly high levels.⁹

The Department of Health continues to work to encourage positive behaviour change with respect to smoking in the home and family car among parents and other smokers, including through social marketing campaigns. Evaluation of our 2013 campaign identified success in changing both attitudes and behaviours with 86% of those surveyed agreeing that secondhand smoke can cause significant harm to children and 37% saying that they took action (either to protect others from their secondhand smoke or to quit smoking) in response to the campaign.¹⁰

The Department of Health and Public Health England are committed to continuing our action to protect children from the serious health harms from exposure to secondhand smoke. We will continue our work to increase awareness of these harms and encourage positive behaviour change among smokers.

Under the proposed regulations, existing smokefree legislation as set out in the Health Act 2006 will be extended, so that it would be an offence to:

7 Health and Social Care Information Centre. *Smoking, Drinking and Drug Use Among Young People in England*, 2012. Health and Social Care Information Centre, Leeds.

8 Semple, S. et al (2012). "Secondhand smoke in cars: assessing children's potential exposure during typical journey conditions" in *Tobacco Control*. 2012;21(6), pp.578-83.

9 Sendzik, T. et al (2009). "An experimental investigation of tobacco smoke pollution in cars" in *Nicotine Tob Res*. 2009;11(6), pp.627-34.

10 Further information available at: <http://resources.smokefree.nhs.uk/campaign>

- smoke in a private vehicle with someone under age 18 present, and
- fail to prevent smoking in a private vehicle with someone under age 18 present.

The definition of smoking is set out in Section 1(2) of the Health Act 2006:

(a) “smoking” refers to smoking tobacco or anything which contains tobacco, or smoking any other substance, and

(b) smoking includes being in possession of lit tobacco or of anything lit which contains tobacco, or being in possession of any other lit substance in a form in which it could be smoked.

The regulations have been drafted to cover all road vehicles that are not already covered by existing smokefree legislation. We propose that a private vehicle would become smokefree when:

- it is enclosed
- there is more than one person present, and
- a person under age 18 is present.

The regulations relate to ‘enclosed vehicles’ on the road. Enclosed means enclosed wholly or partly by a roof and by any door or window that may be opened. It does not include, for instance, a motorbike or a convertible car with the roof completely down.

Ships, hovercraft and aircraft are exempt from these regulations, as they are covered under different legislation.

Some people’s vehicles may also act as homes, for example a caravan or motor caravan. The proposed regulations would apply to such vehicles when they are used as a vehicle, but not when they act as a home or living accommodation. The proposed regulations include an exemption for a caravan or motor caravan that is stationary and not on the road. A road is defined to have the same meaning as in the Road Traffic Act¹¹ and covers any highway where there is public access including verges, lay-bys and car parks if there is a public right of access. A vehicle stopped in a car park or grass verge is considered to be on the road and so the proposed offences would apply in such situations.

Age

This policy is aimed at protecting the health of children by reducing children’s exposure to secondhand smoke. This is in keeping with the focus on exposure to

11 Section 192 of the Road Traffic Act 1988, available here <http://www.legislation.gov.uk/ukpga/1988/52/section/192>

secondhand smoke, a key element of the Government's tobacco control plan, *'Healthy Lives, Healthy People: A Tobacco Control Plan for England'*, published in March 2011.

The evidence of the harms from children's exposure to secondhand smoke is extensive.³ Children are more vulnerable to secondhand smoke as they breathe more rapidly, inhaling more pollutants per pound of body weight than adults.¹² Research suggests that secondhand smoke in a car can be 23 times more toxic than in a house due to the enclosed space.¹³

Children's exposure to secondhand smoke decreased both in the lead up to, and since, smokefree legislation came into force in England in 2007. However some are still exposed in homes and private cars. It is difficult to attribute how much exposure occurs in the home as opposed to the car.

As explained in the impact assessment, the factors that influence an individual child's exposure to secondhand smoke will depend on individual circumstances. For example, exposure in a car is likely to be of higher intensity but of shorter duration whereas exposure in the home is likely to be of a lower intensity but a longer duration. Some people may smoke in the family home but not in the family vehicle and vice versa and some children may only be exposed to secondhand smoke when they travel in a friend's car and not in the family car. For the purposes of the impact assessment we have made an assumption that between 5-10% of the health impacts associated with exposure to secondhand smoke are attributable to exposure in vehicles. More information on the potential reduction in health harms is given in the impact assessment.

We have estimated the number of children who are exposed to secondhand smoke in cars from the Smoking, Drinking and Drug Use Among Young People in England survey (SDDS). In 2012, the SDDS reported that 26% of 11-15 year olds are exposed to secondhand smoke in their family's car and 30% in someone else's car. Taking the same exposure rate for all children aged under-18 in 2014, up to 3 million children in England may be exposed to secondhand smoke in their family car .

Also, in a survey conducted by the British Lung Foundation, around half of the children aged 8-15 surveyed said that they had, "...at some point..." been exposed to cigarette smoke when travelling by car.¹⁴

¹² Canadian Institute of Child Health. Environmental hazards: Protecting children. Canada 1997.

¹³ Kabir Z, Manning PJ et al. Second-hand smoke exposure in cars and respiratory health effects in children: European Respiratory Journal 2009

¹⁴ BLF/ TNS survey of more than 1,000 children aged 8-15, conducted 20-27 January 2011

The 2010 report by the RCP titled *Passive Smoking and Children* included the following points that are relevant:

- The most important determinants of passive smoke exposure in children are whether their parents or carers smoke, and whether smoking is allowed in the home.
- Relative to children whose parents are non-smokers, passive smoke exposure in children is typically around three times higher if the father smokes, over six times higher if the mother smokes, and nearly nine times higher if both parents smoke. Smoking by other carers is also a significant source of passive smoke exposure.

A British Lung Foundation survey in 2011 found that 86% of children said that they want action to be taken to protect them from cigarette smoke when they are in the car. Only 31% of those children who had been exposed to secondhand smoke in the car reported having asked those smoking to stop, with 34% not asking because they were too frightened or embarrassed.¹⁵

We therefore expect the significant number of children who are currently exposed to secondhand smoke in cars to benefit from this policy. This only applies to vehicles where children are present. The regulations do not seek to protect adults from secondhand smoke in private vehicles. Public vehicles and work vehicles are already smokefree, but with a private vehicle where no children are present, adults are in a better position than children to decide whether or not to make a journey in that vehicle or to ask the person to stop smoking. Therefore the legitimate aims of the policy would justify any potential discrimination by way of differential treatment of other age groups.

Socio-economic groups

Smoking is most common among those who earn the least, and least common among those who earn the most. Smoking prevalence is much higher among people in routine and manual occupations than people in managerial or professional occupations.¹⁵ The link between deprivation and smoking has recently been confirmed by Office for National Statistics analysis using data from the Integrated Household Survey.¹⁶

The 2010 report by the RCP included the following points that are relevant:

¹⁵ Office for National Statistics. (2012) General lifestyle survey overview: A report on the 2010 general lifestyle survey.

¹⁶ Office for National Statistics. (2014) Do smoking rates vary between more and less advantaged areas? 2014. British Medical Journal 348, g2184

- Children from socio-economically disadvantaged backgrounds are generally more heavily exposed to smoke than other children, probably because of heavier smoking inside the family home and in other places visited by children.
- The reductions in passive smoke exposure have occurred in all sectors of society, but a significant proportion of children are still exposed, and exposure is still greatest among lower socio-economic status households.

The RCP's 2010 report also describes evidence relating to smoking in the home that might be relevant:

The proportion of households in which someone smokes inside on most days varies widely by parental smoking status and socio-economic status. In only 3.8% of households where neither parent smokes does someone smoke inside on most days. This compares with 88% of households where both parents smoke, 81% where only the mother smokes and 65% where only the father smokes.

The proposed legislation is intended to improve the health of all children who travel in private vehicles in England. There are higher levels of exposure to secondhand smoke by children from lower socio-economic status households. This suggests the regulations will have a positive effect on health inequalities between socio-economic groups.

Gender

Smoking prevalence is approximately equal for men and women. We are not aware of any evidence relating to the gender of children that are exposed to secondhand smoke in private vehicles.

Race and ethnicity

Smoking prevalence is higher in certain ethnic groups such as Bangladeshi and Pakistani men.¹⁷ We are not aware of any evidence relating specifically to the race and ethnicity of children that are exposed to secondhand smoke in private vehicles.

The RCP's 2010 report describes evidence that suggests:

Households where regular smoking does not occur in the home are more likely to be of higher socio-economic status, whether defined by the head of household's occupation, employment status or educational attainment, and to contain children of black or Asian ethnicity.

¹⁷ Health & Social Care Information Centre. Health Survey for England - 2004: Health of ethnic minorities, Headline results available here <http://www.hscic.gov.uk/pubs/hse04ethnic>

Gypsies and Travellers

The change in the law will be of particular relevance to Gypsies and Travellers whose homes can also be travelling vehicles. The intention is for children in these communities to have the same protections as for all children when they are travelling in private vehicles. The Department of Health has considered this aspect in detail to ensure these groups are adequately protected under the Equality Act 2010 and not unduly discriminated against through the imposition of this new law.

The regulations have been drafted so that the new offence will apply when a motor caravan is being used as a vehicle but not when it is acting as a home. We are specifically seeking views on whether the regulations achieve this intention during consultation.

Information from the 2012 Integrated Household Survey suggests that adult smoking rates are higher among Gypsies and Travellers at around 30%¹⁸ compared to the current national rate of just under 20%, although the sample size is small and may not be fully representative. We are not aware of any evidence relating specifically to Gypsies and Travellers and the likelihood of smoking in a vehicle when a child is present. We believe the regulations may have a positive effect on the health of children from Gypsy and Traveller families.

Sexual orientation

Smoking rates are higher among lesbian, gay and bisexual people. Smoking by gay men is believed to be twice that of general population levels¹⁹ and two thirds of lesbian and bisexual women have smoked compared to half of women in general.²⁰ The measure is intended to improve the health of all children who travel in private vehicles in England. We are not aware of any evidence relating specifically to sexual orientation and the likelihood of smoking in a vehicle when a child is present. We believe the regulations may have a positive effect on the health of children from LGBT families.

Pregnant women

There should also be a tangential health benefit to any adults, currently travelling in private vehicles that will become smokefree when children are present.

¹⁸ Integrated Household Survey 2012. The IHS sample is drawn from the postal address file and does not include communal establishments so the sample will not be representative of the whole Gypsy / Traveller community and the sample sizes are small and therefore subject to large variations (as indicated confidence intervals of 17.8% - 45.6%).

¹⁹ Covey L, Weissman J, Lo D, Duan N (2009). A comparison of abstinence outcomes among gay/bisexual and heterosexual male smokers in an intensive, non-tailored smoking cessation study. *Nicotine and Tobacco Research* 11:1374-1377.

²⁰ Hunt R and Fish J Prescription for Change Lesbian and bisexual women's health check 2008

This may be of particular benefit to pregnant women as research shows there are significant risks associated with secondhand smoke exposure in pregnant women.^{21,22}

The 2010 report by the RCP included the following points that are relevant:

- Active maternal smoking (and hence passive exposure of the fetus) causes up to about 5,000 miscarriages, 300 perinatal deaths, and 2,200 premature singleton births in the UK each year.
- Passive exposure of the fetus to active maternal smoking impairs fetal growth and development, increasing the risk of being small for gestational age and reducing birth weight by about 250g, and probably increases the risk of congenital abnormalities of the heart, limbs, and face.
- Passive exposure of the fetus to active maternal smoking also causes around 19,000 babies to be born with low birth weight in the UK each year.
- Maternal passive smoking is likely to have similar adverse effects on fetal and reproductive health, but of smaller magnitude.
- Maternal passive smoking reduces birth weight by around 30–40g, and may also have modest effects on the risk of prematurity and being small for gestational age.
- Maternal passive smoking may reduce fertility, increase fetal and perinatal mortality, and increase the risk of some congenital abnormalities (particularly of the face and genitourinary system), though the available evidence is not yet conclusive.
- Maternal passive smoking is a cause of potentially significant health impacts to the fetus.
- These adverse effects are entirely avoidable.

²¹ Salmasi G, Grady R, Jones J, McDonald SD, Knowledge Synth G. Environmental tobacco smoke exposure and perinatal outcomes: a systematic review and meta-analyses. *Acta Obstetrica Et Gynecologica Scandinavica*. 2010;89(4):423-41.

²² Leonardi-Bee J, Britton J, Venn A. Secondhand Smoke and Adverse Fetal Outcomes in Nonsmoking Pregnant Women: A Meta-analysis. *Pediatrics*. 2011;127(4):734-41.

Disability

The regulations are aimed only at private vehicles carrying children under 18 years of age. Other people travelling in the vehicle that is carrying children would also benefit from not being exposed to secondhand smoke including those with disabilities. The legislation may also help to encourage smokers to no longer smoke in private vehicles when other adults are present, which would also be of benefit to the health of the others in the vehicle.

Mental Health

Smoking prevalence is significantly higher in those reporting mental health conditions with rates of 37% among people with anxiety, depression or another mental health issues²³ compared to a national rate of just under 20%. Whilst we are not aware of any evidence relating specifically to mental health issues and the likelihood of smoking in a vehicle when a child is present, there may be a bigger positive health impact on children among groups with higher smoking rates.

Other

No effects of this policy have been identified for other groups, including for different religions and beliefs, for those who are undergoing gender reassignment or for carers.

We have also considered the need to foster good relations between those who share a protected characteristic and persons who do not share it, and are not aware of any evidence on the potential effects of prohibiting smoking in private vehicles where children are present on such relations.

Engagement and involvement

The draft regulations will be subject to a 6 week consultation period. We invite all interested groups, including parent groups, Gypsy and Traveller groups, patient groups, public health groups and the general public during the consultation period to give us their views. The consultation asks whether the draft regulations on smoking in private vehicles carrying children would contribute to reducing health inequalities and/or help the Government fulfil its duties under the Equality Act 2010.

Summary of Analysis

The Children and Families Act 2014 provides the Secretary of State with regulation-making powers to introduce a prohibition on smoking in private vehicles carrying

²³

National Centre for Social Dec 2010 Research Cigarette smoking and mental health in England Data from the Adult Psychiatric Morbidity Survey 2007 available here:
<http://www.natcen.ac.uk/media/21994/smoking-mental-health.pdf>

children in England. The Department of Health is consulting on draft regulations to introduce this measure.

The measure should benefit children under 18 years of age who are currently exposed to secondhand smoke in private vehicles in England. We believe that the regulations may have a bigger positive health impact on young people who are from communities where smoking prevalence is higher, and may help to reduce health inequalities caused by the use of tobacco.

Other people travelling in vehicles that are carrying children would also benefit from not being exposed to secondhand smoke. The legislation may also help to encourage smokers to no longer smoke in private vehicles when other adults are present, which would also be of benefit to the health of the others in the vehicle.

In its initial assessment of the impact on equality of this measure, the Department of Health has concluded that it does not create or increase any unlawful discrimination, harassment or victimisation of any particular group by gender, race, religion, ethnicity, sexuality, sexual orientation or disability. It is a wide-ranging public health measure aimed at protecting the health of all children in England.