

## Smoking Prohibition (Children in Motor Vehicles) (Scotland) Bill

### British Heart Foundation Scotland

#### About British Heart Foundation (BHF) Scotland

Coronary heart disease is Scotland's single biggest killer. For over 50 years BHF Scotland has pioneered research that's transformed the lives of people living with heart and circulatory conditions. Our work has been central to the discoveries of vital treatments that are changing the fight against heart disease.

Tobacco related ill health remains one of our biggest public health challenges, and, as such, we warmly welcome the opportunity to respond to this important call for evidence.

BHF Scotland is in a position to contribute to the following questions in relation to the committee's request and as such cannot provide evidence on all the questions posed by the committee.

#### Do you support the Bill?

Yes. BHF Scotland fully supports the aim of the Bill.

Secondhand smoking (SHS) presents a serious health risk. It has been estimated to cause the deaths of 11,000 people in the UK each year<sup>i</sup>. Exposure to passive smoking has been linked with a 25% increased risk of stroke<sup>ii</sup> and a 30% increased risk of coronary heart disease<sup>iii</sup>.

SHS is especially harmful to children – it increases the risk of a number of health problems in children, including lower respiratory infections, wheezing, asthma, middle ear disease, and bacterial meningitis, and more than doubles the risk of sudden infant death<sup>iv</sup> and there is a growing body of evidence that suggests that passive smoking is associated with medical risk factors for cardiovascular disease amongst children. For example, a systematic review carried out in 2011 found passive smoke was associated with altered cholesterol profiles, particularly low levels of protective HDL among children<sup>v</sup>. Another review noted that passive smoking was associated with endothelial (inner lining of the blood vessels) dysfunction in 11 year olds<sup>vi</sup>. Endothelial dysfunction is widely believed to be a precursor to the onset of atherosclerosis (a thickening of the arterial wall) which is associated with increased risk for coronary artery disease. This evidence suggested it was present in children even with a moderate level of exposure, leading its authors to conclude their evidence reiterated '*the importance of smoke free-environments for children and adolescents*'.

Additionally, and as noted in the consultation conducted by Jim Hume MSP, there is evidence to suggest that levels of SHS exposure in vehicles are sufficiently high to breach WHO guidance on safe levels of exposure to harmful particulates in indoor environments<sup>vii viii</sup>.

We therefore fully support the proposal to introduce legislation that would ban smoking in vehicles where children are present.

**Do you think the Bill (if enacted) would achieve its aim of protecting children from the effects of second-hand smoke and their health?**

Yes.

Firstly, we believe legislation is necessary because too many young people in Scotland are currently exposed in vehicles to SHS. In Scotland, a study carried out as part of the evaluation of the smoke-free public places legislation found that, from a sample of 2,389 of 11-12 year olds in 2007, 6.5% reported exposure to passive smoking in a car the previous day<sup>ix</sup>. Researchers from the University of Aberdeen have used this data to estimate that this equates to 60,000 car journeys each day in Scotland that will include a child being exposed to passive smoking<sup>x</sup>.

Secondly, evidence from the Australian states that have introduced bans suggests compliance is relatively high – self-reported figures from South Australia suggest that 88.3% of cars were smoke free in 2011, four years after the legislation was implemented<sup>xi</sup>.

In Canada nine out of ten provinces have legislation of this kind in place, and exposure to passive smoking in cars for children was reduced after its introduction<sup>xii</sup>. For example, in Nova Scotia and Ontario, self-reported exposure to passive smoking by children reduced by over a quarter after the legislation was introduced<sup>xiii</sup>.

Thirdly, we believe that there is likely to be a high level of public support for this legislation. Surveys suggest a ban on smoking in vehicles where children are present would actually be very popular- even amongst smokers:

- A Faculty of Public Health report put support for the measure at 74% in the UK in 2010<sup>xiv</sup>
- A survey carried out for the Royal College of Physicians suggested 76% of the UK public would support it, including 54% of daily smokers<sup>xv</sup>
- A study published in the European Journal of Public Health put support among UK smokers at 75%, leading the researchers to conclude 'The high level of support for banning smoking in cars with children in the UK (similar to the level of support in Canada at the time of surveying), suggests that bans could be successfully passed in the UK as they have in Canada'<sup>xvi</sup>
- As noted in the consultation, a poll conducted for ASH Scotland in 2013 found that 81.5% of the Scottish population supported legislation, with only 7.4% opposed to it<sup>xvii</sup>.

Additionally, evidence from New Zealand and Australia suggests that public support for this legislation tends to increase over time<sup>xviii</sup>, which largely mirrors the increase in support in Scotland for the smoke-free public places legislation after its implementation<sup>xix</sup>. Data from South Australia shows overwhelming support for the legislation from the whole population and that this support increased significantly post-legislation among non-smokers and slightly among smokers (however this difference was non-significant)<sup>xx</sup>.

There is clear evidence, therefore, that SHS exposure is damaging, and that young people in Scotland are being exposed to it in vehicles. International examples show that legislation of this type can be effective, and the public seem overwhelmingly supportive of its introduction.

We believe that this combination of factors makes a strong case for the effectiveness of the legislation to achieve its aims.

Reducing exposure of young people to SHS is the main advantage of the legislation: see above for our rationale on this point.

As a result, we expect that public awareness of the health risks associated with SHS exposure is likely to increase as a result of this legislation – with potentially positive effects on exposure in the home as a result.

**Is there anything in the Bill you would change? If yes, please provide more details.**

BHF Scotland is very impressed with the level of research and consideration that has gone into the drafting of this Bill and the need for it in the first place. We believe there is nothing in the Bill that requires to change to help it achieve its desired goal of protecting young people from the harmful effects of secondhand smoke.

### **British Heart Foundation Scotland**

<sup>i</sup> Royal College of Physicians. *Passive smoking and children*. A report by the Tobacco Advisory Group. London: RCP; 2010.

<sup>ii</sup> OONO, I., MACKAY, D. & PELL, J. 2011. Meta-analysis of the association between secondhand smoke exposure and stroke. *Journal of Public Health*, 33, 496-502.

<sup>iii</sup> BARNOYA, J. & GLANTZ, S. A. 2005. Cardiovascular effects of secondhand smoke: nearly as large as smoking. *Circulation*, 111, 2684-98.

<sup>iv</sup> Royal College of Physicians. *Passive smoking and children*. A report by the Tobacco Advisory Group. London: RCP; 2010.

<sup>v</sup> Metsios GS, Flouris AD, Angioi M, Koutedakis Y. Passive Smoking and the Development of Cardiovascular Disease in Children: A Systematic Review. *Cardiol Res Pract*. 2010 Aug 29;2011. pii: 587650. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20886056>

<sup>vi</sup> Kallio K, Jokinen E, Raitakari OT, Hämäläinen M, Siltala M, Volanen I, Kaitosaari T, Viikari J, Rönnemaa T, Simell O. Tobacco smoke exposure is associated with attenuated endothelial function in 11-year-old healthy children. *Circulation*. 2007 Jun 26;115(25):3205-12. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17548727>

<sup>vii</sup> Rees VR, Connolly GN. 'Measuring air quality to protect children from secondhand smoke in cars'. *Am J Prev Med*. 2006.

<sup>viii</sup> Edwards R, Wilson N, Pierse N. 'Highly hazardous air quality associated with smoking in cars: New

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Zealand pilot study'. N Z Med J. 2006

<sup>ix</sup> Akhtar PC, Currie DB, Currie CE, Haw SJ. 2007. Changes in child exposure to environmental tobacco smoke (CHETS) study after implementation of smoke-free legislation in Scotland: national cross sectional survey. *BMJ*. Sep 15;335(7619):545

<sup>x</sup> Estimate provided by Professor Sean Semple, Scottish Centre for Indoor Air, University of Aberdeen at presentation on launch of Jim Hume's Member's Bill.

<sup>xi</sup> Key Smoking Statistics for SA –Tobacco Control Research and Evaluation, 2011, Cancer Council SA, May 2012.

<sup>xii</sup> HV Nguyen 'Do smokefree car laws work? Evidence from a quasi-experiment. *Journal of Health Economics* 32 (2013) 138-148

Available online- [http://www.njgasp.org/do\\_smoke-free\\_car\\_laws\\_work\\_01-2013.pdf](http://www.njgasp.org/do_smoke-free_car_laws_work_01-2013.pdf)

<sup>xiii</sup> HV Nguyen 'Do smokefree car laws work? Evidence from a quasi-experiment. *Journal of Health Economics* 32 (2013) 138-148

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<sup>xiv</sup> *Healthy Nudges – When the Public Wants Change and Politicians Don't Know It: A policy action report from the Faculty of Public Health*. London: Faculty of Public Health; 2010.

<sup>xv</sup> Royal College of Physicians. *Passive smoking and children*. A report by the Tobacco Advisory Group. London: RCP; 2010

<sup>xvi</sup> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3098896/>

<sup>xvii</sup> Highlighted in: Ash Scotland. 'Smoking in vehicles: An evidence review'. 2013. p. 17

<sup>xviii</sup> Thomson G, Wilson N. Public attitudes to laws for smoke-free private vehicles: a brief review. *Tob Control* 2009 Aug;18(4):256–61. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19052041>

<sup>xix</sup> National evaluation of smoke-free legislation, ASH Scotland. <http://www.ashscotland.org.uk/what-we-do/supply-information-about-tobacco-and-health/resources/national-evaluation-of-scotland's-smoke-free-legislation.aspx>

<sup>xx</sup> Community Support for Smoke-free Cars Legislation New Research Briefing May 2008 Tobacco Control Research and Evaluation