



# FOCUS ON RESEARCH

## The impact of tobacco control policies on perinatal and child health: a systematic review

### Researchers

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### Aim

Unacceptably high numbers of children and unborn babies worldwide are exposed to tobacco smoke. This causes disease and early death which can be prevented. We explored the association between tobacco control policies and the rates of disease and early death in children and unborn babies.

### Project Outline/Methodology

We searched the medical literature up to October 2016 for studies which examined the effects of government policies which aimed to reduce tobacco consumption and exposure on the health of children and unborn babies. Findings from these studies were compiled and used to draw conclusions about the effectiveness of various interventions and determine what needs to be done to protect children and unborn babies from tobacco smoke exposure.

### Key Results

Twenty electronic databases of international medical literature were searched. We screened 11,802 potential studies and found 35 eligible studies. These were published between 2008 and 2016 and from North America (n=20), Europe (n=14) and Hong Kong, China (n=1). The interventions reported on in all the studies which be classified as: laws banning smoking (n=32), offering help to quit smoking (n=2) and raising taxes on tobacco (n=7). Smoking bans were associated with a 3.5% reduction in premature births (data from eight studies with 22.2 million births), 9.5% reduction in asthma which required hospitalisation (data from five studies with 356,091 asthma events) and 18% reduction in lower respiratory tract infections which required hospitalisation (data from three studies; 887,414 events). When restricted to the most comprehensive smoking bans, these were associated with a 5.9% reduction in premature births (six studies, 4 million births) and 12.8% reduction in hospital attendances for asthma (three studies, 221,962 events). Smoking bans were in addition to the immediate impact, also associated with a gradual reduction in hospital

admissions for asthma by 5.9% each year (four studies, 243,347 events). From the very few studies which examined the association of raising taxes on tobacco products, there was some evidence to suggest taxes were associated with a reduction in premature births and asthma.

### Conclusions

Whilst smoke-free laws reduce adverse health outcomes in unborn babies and children, there is a gap in the literature evaluating the implementation of other types of tobacco control interventions.

### What does this study add to the field?

We provide strong evidence that smoke-free laws not only protect adults from the harmful effects of tobacco smoke, but also protect children and unborn babies. We found some studies which suggest that tobacco taxes have a similar effect.

### Implications for Practice or Policy

Our findings highlight the need for countries worldwide to implement comprehensive smoke-free policies to protect child health. Effort is needed to ensure that Scotland retains its leadership position in implementing and evaluating novel policies to further protect children from tobacco.

### Where to next?

We will use our findings to develop a model that can help countries worldwide estimate the child health impact that can result from implementing various tobacco control policies. We will explore opportunities for evaluating the child health impact of novel tobacco control policies in high-income countries, as well as 'conventional' policies in low- and middle income countries.

### Further details from:

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