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## **Evaluation of the German smoke-free legislation – Findings from the prospective International Tobacco Control Policy Evaluation Project**

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A significant number of deaths and diseases among non-smokers is attributable to secondhand smoke, which is known to be a risk factor for various diseases. Thus, in the last decade, more and more countries have implemented smoke-free policies to provide protection from second-hand smoke in workplaces and public places including gastronomy venues. In Germany, a national law banning smoking in federal institutions, train stations, and public transport was implemented in September 2007. Between August 2007 and July 2008, each of the 16 states implemented a state law, restricting smoking in educational, recreational, health and state institutions and in establishments of the gastronomy sector, such as drinking establishments and restaurants. The smoking bans in the gastronomy sector are however only partial, since smoking is allowed in designated enclosed smoking rooms in drinking establishments and in restaurants, and small one-room drinking establishments may also permit smoking in the whole venue.

The aim of this dissertation was to investigate the impact of the German smoke-free legislation on tobacco smoke exposure in gastronomy venues, attitudes towards smoke-free policies, smoking behaviour (cigarette consumption and smoking cessation), and potential displacement of smoking into the private home. It was examined whether changes in outcomes occurred after implementation of the smoke-free legislation, whether there were socio-economic differences, and whether patterns of change in Germany differed from other European countries with stricter smoke-free legislation and from a control country with no smoke-free legislation.

For this purpose, prospective survey data from the International Tobacco Control Policy Evaluation Project (ITC Project) Europe surveys were examined. ITC data from Germany, Ireland, France, and the Netherlands, where respondents were first interviewed before implementation of the national smoke-free legislation and re-interviewed after implementation, were used for evaluating the impact of smoke-free policies in these countries. UK was chosen as control country, and two pre-legislation ITC surveys were selected as comparison period. 4,634 respondents from the legislation countries and 1,080 from the control country completed both baseline and follow-up, and were included in the present analyses.

Regarding the prevalence of having noticed smoking and of having smoked in gastronomy venues it was found that although the German smoke-free legislation has substantially reduced smoking both in drinking establishments and in restaurants, and to a greater extent than in the no-legislation control country UK, the reduction was also substantially smaller than in Ireland and France, where the smoking bans were comprehensive. The German smoke-free legislation was even somewhat less effective than the partial smoking ban in the Netherlands, which was characterised with fewer exemptions.

Increases in levels of support for smoking bans in gastronomy venues were found in all countries examined. The comprehensive smoke-free policies in Ireland and in France were associated with a marked increase in policy support that was greater than the increase in the control country. In the Netherlands and in Germany support also increased, but only for support for a smoking ban in restaurants was the increase greater than in the control country.

The findings regarding an impact of smoke-free legislation on smoking and cessation behaviour in the countries examined were inconsistent. There were however some indications of German smokers who frequently visit gastronomy venues being more affected by smokefree legislation with regards to their cessation behaviour: Frequent bar visitors had increased rates of quit success compared to non-frequent bar visitors.

Regarding smoking at home, in all four countries the proportions of smokers having no or only partial home smoking restrictions either remained stable or even decreased, whereas the proportions of smokers with a total home smoking ban increased. Among continuing smokers, the proportion of home smoking bans increased to a greater extent in Germany than in the control country UK.

To conclude, smoke-free legislation has led to dramatic reductions of smoking in gastronomy venues, but due to the many exemptions to the smoking ban in Germany, smoking in gastronomy venues was still ubiquitous at post-legislation, posing a potential health threat to employees and patrons. The findings on policy support demonstrate that smoking bans have the potential to create and improve support once the policy is in place. This effect is stronger the more comprehensive the policy, but seems not to be valid for partial smoking bans with many exemptions such as in Germany. Whether smoke-free legislation is associated with the positive side-effect of reducing smoking and increasing cessation could not be clarified in this study. There seem to be some indications of positive effects on smoking in Germany, but it is

unclear whether these can be actually attributed to the smoke-free legislation. No evidence of displacement of smoking into the private home could be found in Germany. The findings suggest rather that smoke-free legislation has stimulated smokers to establish total home smoking bans.

The comparisons with European countries with comprehensive smoke-free policies suggest that a greater reduction of smoking in gastronomy venues and a steeper increase in policy support could have been achieved, had German policy-makers chosen to enact stricter regulations.