

# IMPACT OF SMOKE-FREE LEGISLATION ON CHILDREN'S SECONDHAND SMOKE EXPOSURE

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**Background:** Exposure to secondhand smoke (SHS) is a serious health hazard for children. Thus, protecting children from SHS is an important public health target. However, smoking bans in public places may lead to changes in parental smoking behaviour and subsequently to even increased SHS exposure of children at home.

**Aim:** To determine whether smoke-free legislation in Bavaria, Germany, is associated with changes in parental smoking behaviour at home and children's SHS exposure.

**Methods:** Cross-sectional surveys were performed before and after implementation of smoke-free legislation at 01.01.2008. The study population comprised parents with children aged 5-6 years in three urban and three rural districts. Data were collected with self-administered questionnaires. The response rates were 78% (N=6350, first survey 2004-2005), 73% (N=6206, second survey 2005-2006), and 60% (N=5336, third survey 2008-2009). Exposure to SHS at home was defined as smoking of any person within the home excluding smoking exclusively on the balcony or terrace.

**Results:** Before smoke-free legislation, 14% (first and second survey) of children were exposed to SHS at home. After implementation of smoke-free legislation, 13% of children were exposed (third survey). SHS exposure in cars slightly decreased from 11% (first survey) and 9% (second survey), respectively, to 6% (third survey). As expected, there was a considerable decrease in children's SHS exposure at hospitality venues from 72% and 68%, respectively, to 24%. Among families with at least one smoking parent, the majority (74%) had smoke-free homes independent of smoking bans in public places. Further 17% reported no change in their smoking behaviour at home since smoke-free legislation and 8% a decrease in the amount or even a stop of smoking at home. Only 1% reported increased smoking.

**Conclusions:** Restriction of smoking in public places in Germany did not increase children's SHS exposure in their homes or in cars.