



## The impact of the Danish smoking ban on hospital admissions for acute myocardial infarction.

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Risk factors

Smoking - epidemiology - legislation & jurisprudence - prevention & control

Smoking Cessation - legislation & jurisprudence

Time Factors

Tobacco Smoke Pollution - legislation & jurisprudence - prevention & control

Abstract:

Exposure to secondhand smoke is associated with an increased risk of acute myocardial infarction (AMI). The positive impact of a smoking ban on AMI hospitalization rates has been demonstrated both inside and outside Europe. A national smoking ban (SB) was implemented in Denmark on 15 August 2007.

To evaluate the impact of the Danish SB on hospital admissions for AMI.

Poisson regression models were used to analyse changes over time in AMI-admissions in Denmark. We investigated a seven year period: five years before and two years after implementation of the SB. We accounted for the variation in the population size and for seasonal trends. Potential confounders included were: gender, age and the incidence of type 2 diabetes (T2D).

A significant reduction in the number of AMI-admissions was found in the last three years of the study period after adjusting for the potential confounders. The significant reductions were found one year before the SB (relative rate (RR)=0.86, 95% confidence interval (CI) 0.79-0.94), one year after the SB (RR=0.77, 95% CI 0.71-0.85) and two years after the SB (RR=0.77, 95% CI 0.70-0.84).

A significant reduction in the number of AMI-admissions was found already one year before the SB after adjustment for the incidence of T2D. The results differ from most results found in similar studies throughout the world and may be explained by the incremental enactment of SBs in Denmark and the implementation of a nation-wide ban on industrially produced trans-fatty acids in food in 2004.

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