

Official study:

No heart attack miracle after Danish smoking ban

- says report from "Sundhedstytelsen" (Danish Health Department) released 15. October 2009:

Evaluation of the Danish smoking ban (initiated 15. aug. 2007)

Report in Danish: <http://sst.dk/publ/Publ2009/CFF/Rygning/Evalueringrygelov.pdf>

English translation of page 41 - 42:

7.0 Health and economic effects of smoking law

7.1 Prevention of adverse health effects of passive smoking

It is now almost two years ago that Denmark introduced the law on smoke free environments in 2007. Therefore, Denmark has now, like other countries had the opportunity to examine whether the law has had an effect on hospitalization rates for myocardial infarction (AMI).

Several studies have shown that introduction of the smoking ban has reduced the risk of hospitalization for heart attack. Appendix 2 shows a number of these studies mentioned.

In the Danish study is a comparison between trends in incidence of hospitalization for heart attack in a period of five years before the smoking law entered into force and a period of 18 months after the smoking law entered into force (15).

The hypothesis is that there is a change in frequency after smoking law entered into force. Moreover, one would expect that any effect was greater among younger than among older.

The analysis is done on people between 35 and 84 years divided into tests for men 35-64, men 65-84, women 35-64 and women 65-84. Within the two age groups is further adjusted in the groups 35-49, 50-64, 65-74 and 75-84.

Calendar month is divided into intervals of two months. In the model adjusted for age, month and a factor to describe the temporal trend. Information on admissions from the National Hospital Register.

In none of the four studies, men and women in two age groups was an effect of the law. There could not detect any difference in hospitalization rates after the Act comes into force. The expected greater effect among younger than among older people could not be found.

Figure 6 shows the result of one of the four studies (men, 35-64

years). The figure shows that there is a trend of decreasing frequency with time, there are seasonal variations and that there is no visible effect of the Act enters into force. The pattern for the other three tests are the same.

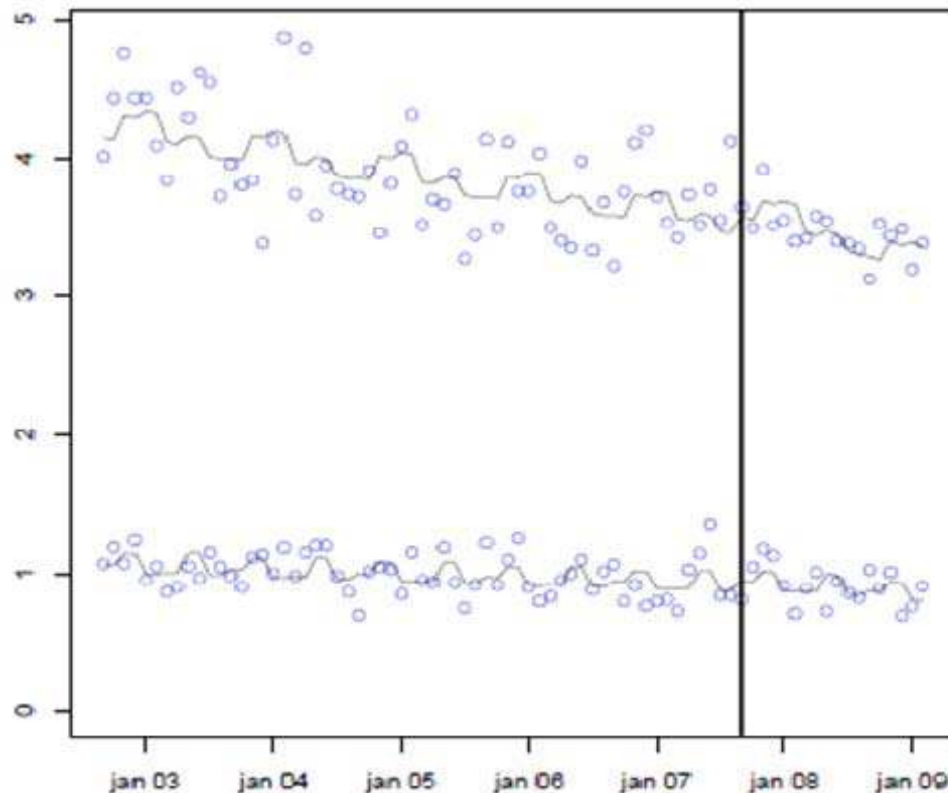


Figure 6: The observed and the expected monthly rate (logarithmic scale) of myocardial infarction in two age groups, 35-49 (bottom) and 50-64 (top). Men, 2003-2009.

That there was no visible effect of the law on hospitalization rates for heart attack is perhaps not surprising. Compared with many other countries, the law on smoke free environments introduced relatively late in Denmark and there have been exceptions to the law. Moreover, in Denmark in recent years has been a development in progress, which is smoked less, and exposure to passive smoking has decreased.

There are several strengths of the Danish study. Firstly, Denmark has a good nationwide register of all admissions for heart attack. Second, in the period under consideration has been no significant changes in diagnostic practices or changes in the preventive treatment, and this makes the results easier to interpret.

It is a weakness in the Danish study that there is no control group. But since the law was all over Denmark and were introduced simultaneously across the country, has not been possible. Instead, chose to compare the period before and after smoking law entered into force (15).

(reference no. 15 is still unpublished, 20. Oktober 2009)