

Differences in child injury hospitalizations in Sweden – the use of time trend analysis to compare various community injury prevention approaches.

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Abstract

Aim: Sweden's child injury fatality rates are among the lowest in the world. The country has engaged in a number of community injury-prevention programmes. The purpose of this study was to compare child injury hospitalization rates from the Skaraborg District with the rest of Sweden. Our study hypothesis was that municipalities that offered comprehensive child injury-prevention programmes would see significant decreases in their child injury hospitalization rates, compared with other areas. *Methods:* The study areas comprised three groups, consisting of municipalities in Skaraborg that had adapted the Safe Communities approach to injury prevention programmes, other municipalities in the District, and the rest of Sweden. The aim of the analysis was twofold: (1) to fit time trends for children's injuries in various areas in an integrated manner; and (2) to compare time trends across locations between community safety-promotion programmes as well as with the control areas. Panel data models and parametric splines were used. *Results:* There were differences between incidence rates in the study areas and with regard to gender. There was a steep decrease in injury rates in one of the Safe Communities study areas for both genders. *Conclusions:* The methods applied in this analysis reveal more detailed and sophisticated time trends than the usual simple linear regression approach. The model provided a clearer view of the interactions of gender, area, and time as they impacted on children's injuries, and allowed for better insight into the impact of safety programmes.

Key Words: *Child injuries, Skaraborg, Sweden, time trend analysis*

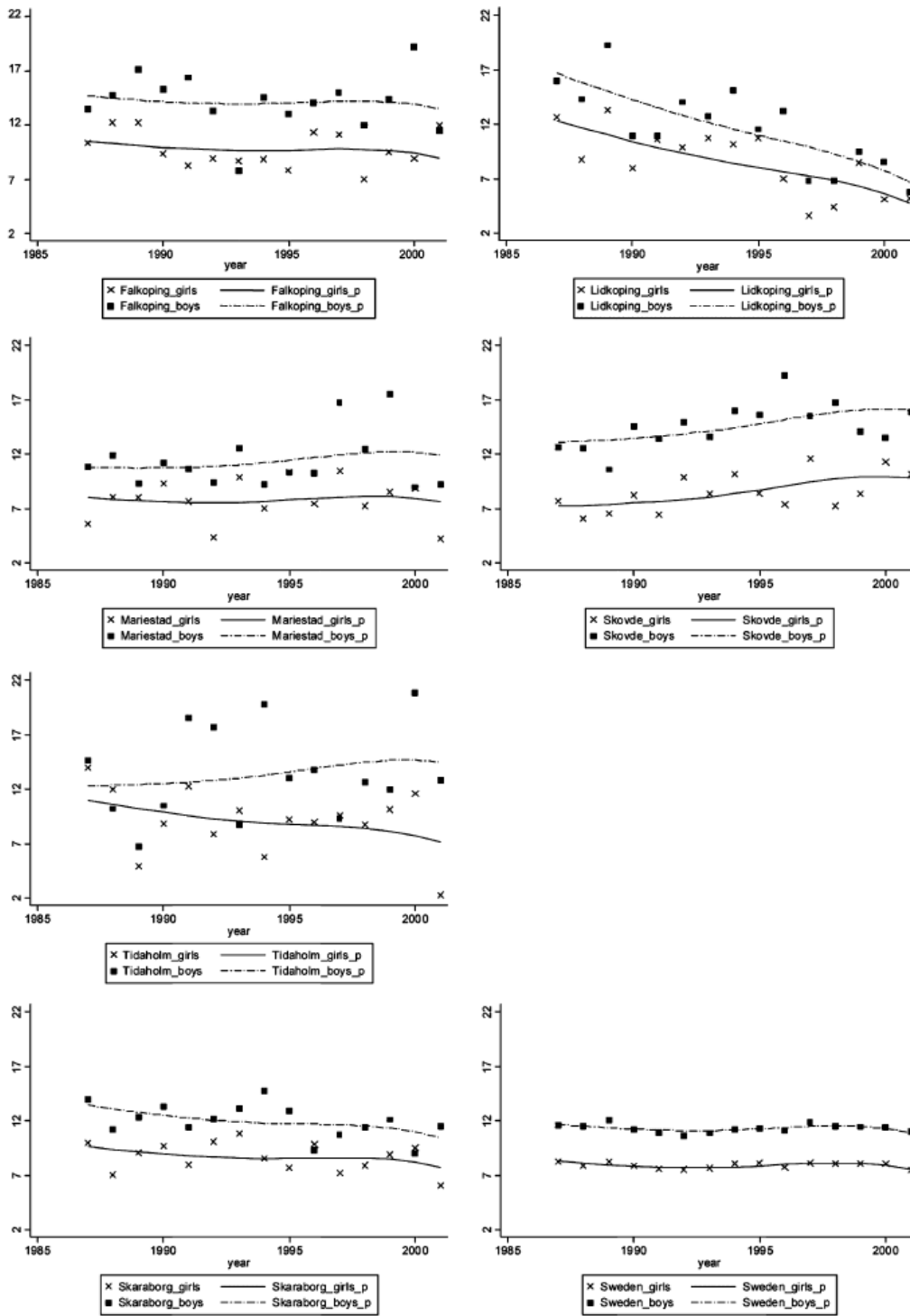


Figure 2. Observed incidence rates and model predictions for boys and girls (0–14) in five municipalities, Rest of Skaraborg District and Rest of Sweden.