

# EFFECTIVENESS OF ZONES 30KM/H IN THE NUMBER OF ROAD TRAFFIC INJURIES IN BARCELONA

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**Background and Aims:** In Barcelona, 5 areas with a speed limit of 30 km/h were implemented in 2007 and further more up to 300km in 2009. This paper aims to assess the effectiveness of 30 km/h zones in reducing the number of people injured in a road traffic collision in the city of Barcelona. Preliminary analysis of the first 5 areas is presented in this abstract.

**Methods:** A pre-post evaluation study was performed using an interrupted time-series design with comparison groups. The study population include people injured in a road traffic crash in Barcelona from January 2002 to March 2010 obtained from the Crash Register of the Local Police. The intervention were zones with a 30k/h speed limit implemented in 2007 and the comparison group the adjacent zones to the intervention areas. Quasi-Poisson regression models were fitted adjusting for time trend and seasonality. Relative risks (RR) and their 95% confidence intervals (95% CI) were derived from the adjusted models which indicate the change in the mean number of injured during the post-intervention period compared to the pre-intervention period.

**Results:** The speed zones implemented in 2007 showed a change in the time trend of injured, from a stable to a significant 12.2% annual decrease. After adjusting for time trend and seasonality, the overall monthly average number of injured in 2009 was significantly lower than that in the pre-intervention period (-28.6%, 95%CI: -43.9%, - 8.9%), as well as for two-wheel users injured (-40.5%, 95%CI: -56.9%, -19.0%) and for the number of injured at intersections (-4.8%, 95%CI: -56.1%, -3.2%). In the adjacent areas there was no significant change.

**Conclusions:** The implementation of 30 km/h speed zones in 2007 has had a significant impact in reducing the number of people injured in a traffic crash. Data of the overall zones evaluation will be presented.