

IMPACT OF A NATIONAL MULTIFACETED ROAD SAFETY INTERVENTION PROGRAMME IN MEXICO: RESULTS AND IMPLICATIONS FROM A TIME-SERIES ANALYSIS

doi:10.1136/injuryprev-2012-040590u.9

¹A Chandran, ²R Pérez-Núñez, ¹A Bachani, ³MM Hajar, ¹D Bishai, ¹AA Hyder. ¹*Johns Hopkins International Injury Research Unit, USA*; ²*Instituto Nacional de Salud Pública, México*; ³*Fundación Entornos A.C., México*

Background Mexico faces a substantial road traffic (RT) injury and mortality burden. In January 2008, a national multifaceted road safety intervention programme (IMESEVI) funded by the Bloomberg Philanthropies was launched in Mexico. Two years later, IMESEVI was refocused as part of a 10-country international consortium demonstration project.

Aims/Objectives/Purpose We evaluate the effect of each phase of the road safety intervention project on numbers of RT crashes and deaths in the two main target cities of Guadalajara-Zapopan and León.

Methods An interrupted time series analysis using autoregressive integrated moving average modelling was performed using monthly data of numbers and rates of RT crashes (police data) and deaths (mortality system data) from 1999–2011 with dummy variables representing each intervention phase.

Results/Outcome In the period following the first intervention phase in both cities, the rate and number of RT crashes decreased significantly ($p < 0.001$); there was no significant change in RT deaths in Leon ($p = 0.957$ for number, $p = 0.324$ for rate) or Guadalajara-Zapopan ($p = 0.993$ for number, $p = 0.985$ for rate). There were also no significant differences in RT crash or death rate or number following the second intervention phase.

Significance/Contribution to the Field This study suggests that a multi-faceted road safety intervention programme can be effective in reducing road crashes in a low-income country setting; it is hoped that with time, an impact will also be observed in road traffic mortality. Further analysis is needed to differentiate effects of various interventions, and to determine what other economic and political factors might have affected this change.