Background Mexico occupies the 7th place worldwide and the 2nd in Latin America on deaths for road traffic accidents. Among the population aged 15–29, traffic accidents represent the first cause of death. Guadalajara, Jalisco is on the first 10 municipalities on deaths for traffic accidents, and it is estimated that 30% of these deaths are related to drinking and driving. This scenario sets up a severe and complex public health problem.

Objective To reduce injuries and fatalities from road traffic accidents in Guadalajara’s population aged 15–29.

Methods A drinking and driving prevention strategy has been implemented in Guadalajara’s metropolitan area since 2008. The strategy consisted of the following activities: Conduct a baseline survey; involvement of the civil society and NGOs; amending the law; strengthening the enforcement capacity; implementing a social marketing campaign; conducting BAC testing.

Results Before August 6th, 2010 the minimum legal BAC limit was 1.5 grams of alcohol per litre of blood, with the new law, known was ‘Lifeguard Law’, the minimum legal BAC limit was reduced to 0.5 g/l. Before this law amendment the penalty for driving above the legal limit was 30 days of minimum wage, and now it is from 150 to 200 days of minimum wage ($7000–$9000 MXN). Other outcomes of the drinking and driving strategy were the following: the creation of a road traffic victims NGO, VIVIAC, a youth NGO, Salvaguarda, and a citizen observatory; a technical expert alcoholometry certification programme; National manual for the alcoholometry programme. These resulted in a decrement in mortality with alcohol involved in population aged 15–29 of 21.6% (from 74 in September 2009–August 2010 to 58 in September 2010–August 2011).

Conclusions This shows that the enforcement of interventions through an integral and multisectoral model, based on scientific evidence, results in the reduction of deaths on the roads.