

**Background** Pedestrian injuries (PI) are a public health problem in Mexico; they are the leading cause of death by road traffic injury (RTI).

**Purpose** To analyse the occurrence of PI in Cuernavaca, Mexico using information according to Basic Geo-statistics Areas (BGA).

**Methods** A transversal study with records of pre-hospital PI between 2008/2009; demographic information was obtained, with place and time of occurrence; we estimated averages and percentages, with gender differences ( $\alpha=0.05$ ). We retrieved information by BGA: presence or absence of schools, shops, markets, medical facilities, sports/recreation areas, and indices of marginalisation (IM). We made a regression analysis models for count data, the dependent variable was the number of PI by BGA, and the independent variables were the social characteristics mentioned.

**Results** There were 620 PI derivative of RTI, 59.4% men. The average age was 36.3 years, higher in women (38.3 years) ( $p>0.05$ ); 50.3% occurred in 2008. 70% occurred during daytime hours ( $p>0.05$ ). The risk was concentrated mainly in areas with low and very low IM. The probability of PI was two times higher (IRR: 2.05 Confidential Interval 95%: 1.19–2.91) in BGA with presence of schools respect which hadn't schools ( $p<0.05$ ).

**Conclusions** Most events occurred during daylight hours, contrary to reported in other studies. PI occurred mainly in areas with high and very high incomes within the city, suggesting that these places have not infrastructure designed to prevent them or drivers don't estimate vulnerability of pedestrians. Interventions should be targeted at places where these injuries are concentrated.