738 EPIDEMIOLOGICAL PROFILE OF PEDESTRIANS STRUCK BY MOTOR VEHICLE IN JALISCO, MEXICO. 2012–2014

Cabrera-Pivaral Carlos Enrique, Báez-Báez Guadalupe Laura, Dávalos-Guzmán Julio César, Celis-De la Rosa Alfredo. *University of Guadalajara*

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Background At present traffic accidents are a major public health with increased mortality and morbidity in many countries. According to the WHO, in 2008 one million 300 thousand people died as a result of a traffic accident. In Mexico, in 1999–2010, 185 thousand people died in traffic accidents, 38% of those were pedestrians. The combination of human, vehicle and media environment factors are involved in those accidents. Thus, the epidemiological profile of pedestrians hit by motor vehicles with four wheels in Guadalajara Metropolitan Area (GMA) was conducted.

Methodology Descriptive cross-sectional study, conducted at pedestrians struck in the GMA. The features of pedestrian, vehicle type, location, shift and day of the event, municipality of occurrence, type of road and traffic flow were studied. Analysis was measured by averages, percentages, chi2 and Fisher test, statistically significant at P=<0.05.

Results 397 pedestrians were injured by motor vehicle wheel. Municipalities with the highest percentage: Guadalajara (41.3%) and Zapopan (29.7%). Age frecuency: 18–39 years (57.4%) and predominantly male (80.4%). Marital status: 44.1% is single and 32.7% married. Educational level: 67.8% of individuals studied middle school or lower. Occupation: 52.6% of the victims are wheter employee, trader or construction worker. Most present fractures and injuries of extremities (87.6%) and skull (67%). Index severity of serious injuries: 27%. Event occurrence between 18:00 to 23:59 hours (39.5%), weekend (65.6%) and road (72.3%). Sedan type vehicle is involved in 37.8%.

Conclusions The run over pedestrians is an everyday event in the GMA, with similar to what was found in other countries and contexts, where each day is greater the number of vehicles and the number of subjects behaviour. In that sense, the need to implement intervention programs preventive measures in the pedestrian and driver are conclusive.

739 INCIDENCE AND TRAITS OF ADOLESCENT INJURY IN CHINA: A META-ANALYSIS

Yitian Zhang, Xing Wan, Xiaoming Yu. *Peking University, China*

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Background Injury is one of the leading causes for deaths of adolescent at present, and injury in adolescent has become a major concern for international researchers. China Health Statistical Yearbook 2011 reported that injury has become the most prevalence cause of death for both urban and rural adolescents. In order to have a thorough understanding of current situation of adolescent injury, and to give scientific evidence in the future, this article tries to systematically estimate the incidence and to examine factors that contribute to the variations in incidence of adolescent injury among studies.

Methods The term "adolescent" in this study is strict to population aged between 10 and 19 years old. Wanfang, CNKI, EBSCO and PubMed Databases were searched for adolescent injury data, based on quantitative studies between 2005 and 2015. Meta-analysis was used to calculate the pooled size of effect and to identify the sources of variation using STATA Version 12.0.

Results A total of 71 articles using data from regional surveys were identified in the review. Results showed that the estimated injury number of people and person- time were 26.4% (95% CI: 21.8%–31.1%) and 24.0% (95% CI: 22.4 % −25.7%), respectively. Differences by gender and grade could be found. When summarising data of the past decade, it is found that the incidence of adolescent injury fluctuated, while recent years have witnessed a significant increase. The type occurred in adolescents with the highest frequency is falling.

Conclusions Male and middle school students are more vulnerable to get injured, which indicates close attention should be paid to those groups. Moreover, due to increasing incidence of injury during the past years, efficient monitoring and intervention should be taken into consideration for administrators and policy-makers.

740 FACTORS ASSOCIATED WITH CHILD RESTRAINT SYSTEM USE IN THREE CITIES OF MEXICO

[1]Lourdes Gómez-García, [1]Elisa Hidalgo-Solórzano, [2]Ricardo Pérez-Núñez, [3]Adnan Hyder. *[1]Center for Health Systems Research. National Institute of Public Health, Mexico; [2]National Council for Accident Prevention Secretariat, Ministry of Health in Mexico; [3]Johns Hopkins International Injury Research Unit, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA*

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Background The use of child restraint systems (CRS) is a passive safety intervention that has proved to be effective in reducing road traffic injuries (RTI) in children. As part of the Bloomberg's Global Road Safety Program in Mexico, an intervention addressing non-use of seatbelt and CRS was implemented in the cities of León, Guanajuato and Guadalajara, Jalisco. Cuernavaca, Morelos was selected as comparison city. The purpose of this analysis was to estimate the prevalence of CRS use in children ≤5 years of age and to identify factors associated with its use.

Methods We performed direct observation in a randomly selected sample of preschools. We collected information as children were arriving school about demographics, use of CRS, characteristics of the vehicle, the driver and other car occupants. Public transportation vehicles or school buses were excluded. CRS prevalence was calculated for each city. A logistic regression analysis was fitted in order to evaluate factors associated with CRS use in children.

Results Across the two rounds of observations, the prevalence of CRS use was 12.1% (CI: 10.2, 14.3) in León, 17.2% (CI: 15.4, 19.2) in Guadalajara and 19.4% (CI: 16.8, 22.1) in Cuernavaca. Regression analysis showed that factors associated with a higher prevalence of CRS were driver's seatbelt use (OR: 1.3; CI: 1, 1.6) and driving a van (OR: 1.8; CI: 1.4, 2.2). The probability of using a CRS decreased if the driver was man (OR: 0.6; CI: 0.5, 0.7), if the children travelled in the front seat (OR: 0.1; CI: 0.08, 0.2), in taxi (OR: 0.1, CI: 0.03, 0.3), and if the number of passengers increased (OR: 0.7; CI: 0.6, 0.9) (p<0.05).

Conclusions CRS use is lower than reported in high-income countries. We were able to document the presence of factors that adversely affect the use of CRS. Some of them had been widely documented, as the number of passengers in the vehicle. This information will support the development of targeted interventions to increase CRS use awareness.