Improving Road Traffic Injury Surveillance Using Data Linkage—A Pilot Project in Mures County, Romania

Background Injury surveillance efforts are being made in order to facilitate the access to accurate information for prevention strategies. Often, sources of information lack injury details, such as the mechanism of injury, therefore linking different datasets can lead to a better road traffic injury assessment.

Purpose To identify and describe traffic injuries and their risk factors taking into consideration available databases.

Methods We linked cases across two databases in Mures County: the Injury Database (IDB) was matched with the police crash database. Two variables were used (time and date of injury), to integrate information about the road traffic injury environment and causes, specific to police crash database and injury characteristics specific to IDB.

Results One third of the injuries treated in the Emergency Department were due to road traffic crashes. Preliminary results show that there is a statistically significant relation between the gender of the injured person and the activity when injured (p<0.001), 12.5% of these were due to travelling to/from or in the course of paid work. One of the contributions in the field is the capacity to correlate activity when injured (available in the IDB) with the causes of crash (available in the traffic police records). For example, the risk factors and causes of crash (available in the police database): level of alcohol, wearing a seatbelt, speeding, imprudent driving, linked to work related travelling can lead to targeted interventions on road traffic injury safety at workplace.