

► Country update on Injury Surveillance:

Italy



SINIACA: a systemic approach to the national surveillance of home injures



Every year about 3 million 2 hundred thousands Italians suffer home injuries. Among the injured, around 1.7 million of them ask for assistance of Emergency Departments (ED) and about 125,000 are hospitalized and 5,500 die for this reason. Important results have been achieved in the last decade in terms of reduction of mortality and morbidity incidence for every type of unintentional or intentional injury. Nevertheless home, leisure and sport injuries still remain the least affected domains of injures by the aforesaid incidence reductions. Therefore the prevention of this typology of events represents an objective priority of public health and the availability of a suitable surveillance system is of fundamental importance for evidence based prevention.

In consideration of these aspects and in enforcement of the Law 493/99 a national information system on the home injuries (SINIACA) has been activated at the Italian National Institute of Health (ISS). The system is structured onto three levels of information:

- Mortality database;
- Hospital Discharge Register (HDR);
- ED sample surveillance.

The first two levels are accomplished by using current mortality and HDR data. At the third level ED surveillance of home accidents have been implemented in a sample of more than 20 hospitals all over the nation. Their catchment area covers 3.5% of the Italian population. These hospitals use a common coding system which registers the external causes of accident (mechanism of injury, activity at the time of injury, place of occurrence) with extremely simplified code lists: not more than 15 items for each voice (i.e. "mechanism of injury"). Data conversion procedures have been developed from Italian national simplified codes to IDB "all injuries" ones. These procedures are based on heuristic algorithms and require data revision for the completion of an entire database.

In the SINIACA ED registration procedures data linkage have been established between ED and HDR records in order to follow the

patient from the moment of his initial attendance at the hospital to the discharge from it.

Parallel with the national system a smaller sample of hospitals participated directly into EU-IDB. They were 9 hospitals in year 2005 registering home and leisure accidents with the EHLASS V2000 coding format. In 2010 three hospitals participated in the EU-IDB within the European INTEGRIS project registering home and road traffic accidents and intentional injuries (auto-inflicted or by aggression). The EU-IDB "all injuries" coding format was adopted in year 2010.

Finally at national level a smaller sample of 8 hospitals registered road traffic accidents in a national simplified coding format for the external cause of injury.

The participation in the SINIACA ED network is voluntary and participating hospitals have rotated throughout the years, but a core of around 20 hospitals all over the nation has been assured.

The ED data are integrated with HDR ones at central level by data linkage. Current HDR and mortality data are transmitted to the SINIACA system by central agencies (Italian National Institute of Statistics and Ministry of Health) and regional epidemiologic observatories. The characterization of the external cause of accidents at sample ED level and its integration to general current statistics consent to extrapolate the results at national level. Having a complete "picture" of the burden of home accidents in Italy using the available current information and integrating it with in-depth sample surveillance on the external causes of accidents is a key element for the provision of evidence based prevention strategies. Within this framework the Italian National Institute of Health has also participated in the EU-IDB network developing procedures for making the nationally coded information comparable to the European one. A dedicated website has been developed for the dissemination of the SINIACA results at <http://www.iss.it/casa/>.

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