

Base (IDB). The IDB comprises two datasets: the Full Data Set (FDS) and Minimum Data Set (MDS). Although the MDS collects less detail than the FDS; it is simpler for countries to adopt, and still sufficient to allow enumeration of injuries in key areas such as the home, leisure, work, road, falls, sports, and self-harm. Training, guides and rigorous quality checks, ensure consistency across participating countries.

Results To date, 26 countries have submitted 7,170,069 ED records (years 2009–2014) to the IDB in MDS format, and 20 countries have provided reference population data, enabling the calculation of incidence rates. As an exemplar, in 2013, incidence rates for all injuries varied between 11.43% in Luxembourg to 3.98% in Finland; the reasons behind these variations will be discussed at the conference. The MDS has provided a valuable source of data for several organisations across Europe, and can be accessed via several channels, including an online tool. The MDS strives to contribute data to the “European Core Health Indicators” (ECHI), “home, leisure and school accidents” (ECHI29) indicator.

Conclusions The MDS provides Europe with a valuable source of comparable injury data. Work is currently underway to ensure the MDS data is as valid and representative as possible.

221 A EUROPEAN CORE HEALTH INDICATOR FOR HOME AND LEISURE INJURIES (ECHI-29)

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Background Within the framework of the EU health information system, a European Core Health Indicator (ECHI) is foreseen on home and leisure, sport and school injuries (ECHI-29). However in 2010, there were no reasonably comparable injury data available for these areas, but emergency department (ED) records offered a most valuable source of information.

Methods Based on previous experiences, the Joint Action on Monitoring Injuries in Europe (JAMIE) project (2010–2013) has developed a comprehensive Minimum Data Set (MDS), which can be recorded in EDs without adding noteworthy burden to staff and patients. MDS contains diagnoses and allows the enumeration of injuries in key areas as road, workplace, home and leisure, sport, school, work place, self-harm and assault. MDS data can be recorded directly or extracted from other datasets as ICD-10 or IDB-FDS (Full Data Set), which is used for recording injuries related to consumer products.

Results During 2011–2013, 26 countries have submitted national MDS data sets to the European Injury Data Base (IDB) in MDS format, and 20 countries have provided reference population data, enabling the calculation of ECHI29. There are about 31 million home, leisure, sport and school injuries each year in the EU-28, which is 76% of all injuries treated in EDs. 700,000 injuries occur at school, 5.9 million during sporting, and 24.7 million at home or during other leisure time activities. The average incidence rate was 6.1%, with a variation between 4.9% in Portugal and 8.9% in Luxembourg.

Conclusions MDS records from emergency departments can be the source for meaningful injury statistics and allow a differentiation by settings, age-groups and type of injuries. However,

considerable variations between countries indicate that improvement of national methods is needed in order to increase cross-country comparability.

222 COMBINING SURVEY AND REGISTER BASED DATA TO ESTIMATE BURDEN OF INJURIES AMONG ADOLESCENTS

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Background Children and adolescents have the highest risk of injury. Emergency department (ED) data provide the best opportunity for estimating the burden of hospital treated injuries. Survey based data remains the only source of information for out of hospital medically treated injuries in many countries. The purpose of this study was to describe the incidence of selected injuries among adolescents in 16 European countries using survey-based and registry based methods.

Methods Survey based data were collected during the 2013/2014 wave of the Health Behaviour in School Aged Children (HBSC) study in 42 countries. Children reported the number of medically treated injuries for the last 12 months, the severity of the most serious injury as well as the place of occurrence and the activity when injured. The Registry based data supplied to the European Injury Data Base (IDB) for the period 2013–2014 provided detailed information about causes and circumstances of ED treated injuries for the same period and age group.

Results Detailed analyses were possible using IDB data from 16 countries and HBSC data from 42 countries. Both sources confirm an inter-country variability for burden of injuries among adolescents. Due to different methodologies in defining an injury case, comparison is not always possible between registry based and survey based data collection.

Conclusions Survey based and register based data can be used as complementary sources of information to have a full picture of injury burden among adolescents in many European countries.

223 ARE REGISTER-BASED DATA BETTER THAN SURVEYS IN ESTIMATING BURDEN OF INJURIES AMONG ADULTS? RESULTS FROM LUXEMBOURG

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Background Injury is a major cause of mortality and morbidity. The emergency department (ED) registry based data, provides a cost-effective way to estimate the burden of injuries. Previous studies in general population have suggested that survey based data collection is not efficient and suffers from recall or selection bias. The aim of this study was to compare the yearly incidence

of home, leisure, traffic and work injuries estimated by survey-based and registry based methods among adults in Luxembourg.

Methods Survey based data on 1529 residents aged 25–64, were collected during 2013/2014 in the frame of the European Health Examination Survey (EHES). Luxembourgish ED registry based data supplied to the European Injury Data Base (IDB) for the period 2013–2014 were used for the comparison. Both IDB and EHES are now part of the BRIDGE-Health (BRIdging Information and Data Generation for Evidence-based Health Policy and Research) development.

Results The estimated incidence rate of all the selected injuries from registry-based data was 8.4% in 2013 and 8.3% in 2014. From survey based data the incidence of; injuries treated in hospital (CI: 95%) was 8.8% (7.7%; 10.4%), treated outside the hospital was 3.6% (2.8%; 4.7%) and not medically treated was 2.7% (2.0%; 3.7%).

Conclusions Both survey and registry based data are concordant in estimating ED treated injury incidence among 25–64 years old in Luxembourg.

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HOSPITAL REGISTRATIONS AND HEALTH SURVEY DATA – DO THEY AGREE?

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Background In many countries health interview survey data are used for indicators for injury incidence. However, the validity of self-reported injury incidence may be questioned due to e.g. recall bias and low response rate in groups at high injury risk. In the first European Health Interview Survey the incidence of home and leisure injuries varied as much as from 1.3% to 8.2%. The purpose of the present study is to compare survey response and hospital registration at the individual level with focus on reporting bias.

Methods This study was carried out using the Danish health interview survey data with information on injury the past year and the treatment. These data were linked at the individual level to the hospital registration of both in- and outpatient data for the period up to two year before the interview, for all hospitals in Denmark.

Results In total 368 reported injuries being hospital treated as outpatient, of these 234 were actually hospital treated within the last 12 months (64%). Ninety-six reported being admitted to hospital, of these 51 were actually admitted the past year (53%) and 59 the past two years (61%). Conversely, only about half of the hospital treated injuries were reported in the survey.

Conclusions There is considerable disagreement at the individual level between self-reported hospital treated injuries and actual hospital treatment. Hospital admissions in particular seem to be over reported.

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BUNK BEDS PLACE OF DANGER?

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Background The European standard for bunk beds, EN 747–1, was amended in 2015 to introduce the need for manufacturers to mark bunk beds with either a warning text or a pictogram indicating the beds are not suitable for children <6 ys. Whilst applauding the amendment to this standard, we do however need to continue analysing the injury event in order to identify high risk groups, critical circumstances. Since 2008 the full Injury Database (FDS) has been implemented in three main German hospitals with paediatric wards reporting to the Brandenburg Department of Health. The FDS contains product related injuries, the doctor's narrative and injuries with bunk beds were specifically identified.

Methods Monitoring of injured patients <18 ys admitted to hospital (either at emergency department or paediatric ward) based on the European IDB standard during 2008–2014. Analysis of 10,332 injury cases in under 10-year-olds. Bunk bed injuries were counted when a bunk bed was mentioned as a "trigger" or "causing" factor (n = 170).

Results Products were involved in 7,730 (75%) injuries in under 10-year-olds. Specifically bunk beds were the 7th most frequent product related cause of injuries in the < six-year-olds and the 4th in the 2-to3-year-olds. 133 (78%) of all bunk bed injuries occurred in the < 6-year-olds. The most frequent accident events were #1 falling out of the upper bunk bed, #2 falls from bunk bed steps and #3 falls from bunk bed related furniture (e.g. slides). 100 (58%) of these injuries demanded hospital admission, of which 75 serious head injuries (ICD-10 S01 – S06) and 18 suffered a second injury.

Conclusions When buying bunk beds, parents seem to be unaware of the danger for very young children. The amended European standard is an important step forward, but parental care is equally important. A parental education campaign would be valuable. Last but not least, enforcement of the new standard is crucial as well.

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USING LONG BONE FRACTURES AS AN INJURY INCIDENCE INDICATOR IN EUROPE

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Background It is important to select robust injury indicators for international comparisons and evaluation of preventive interventions. Emergency department data provide the best opportunity for robust indicators with the greatest utility. Previous analyses have suggested that long bone fracture (LBF) incidence should be a robust population indicator for use by emergency department surveillance systems (Lyons *et al.* 2006 & Polinder *et al.* 2008). The purpose of this study was to compare between country