EU-Injury Database:
Joint Action on
Monitoring Injuries in Europe

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Topics

- Why we need injury data?
- What sources?
- Why EU interest?
- What done at EU-level?
- What is the JAMIE approach?
- Results so far?
- What hospitals benefit?
Injury Epidemic within EU

- Quarter of a million injury fatalities p.a.
- Fourth common cause of death
- Over 50 million hospital bed days
- Over 80 billion EUR direct medical cost
- Accidents major cause (95% of non fatal cases)
- Three-quarter due to Home and Leisure accidents (HLA)
The injury pyramid for the EU

- 256,000 Fatalities
- 7,200,000 Hospital admissions
- 34,800,000 Hospital outpatients
- 18,600,000 Other medical treatment

Source: EuroSafe / KfV, 2012
Why we need injury data

- Informed decisions on priorities
- Risk assessment
- Targeted prevention
- Risk communication
- Monitor trends & effects
Who needs injury data?

<table>
<thead>
<tr>
<th>Public health and prevention</th>
<th>General monitoring of health indicators (ECHI 20b)</th>
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<tbody>
<tr>
<td>Consumer safety and standardisation (incl. industry)</td>
<td>Injury risks related to products and services</td>
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<td>Transport, labour, justice, police, welfare</td>
<td>Additional information (road, work place, violence)</td>
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<td>Practitioners in the area of injury prevention (incl. media)</td>
<td>Risk related to activities, settings, products, protective equipment, groups, tc.</td>
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Three stages of the Injury Event Process

- Risk 1
- Risk 2
- Trigger

Injury Event

- Diagnosis
- Treatment
- Billing
Prevention domains: injury cause information available

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<thead>
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<th>Road</th>
<th>Work</th>
<th>School</th>
<th>Sport</th>
<th>Home / Leisure</th>
<th>Violence</th>
<th>Suicide</th>
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<tbody>
<tr>
<td><strong>Deaths</strong></td>
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<td><strong>Hospital Admissions</strong></td>
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<td><strong>Emergency Visits</strong></td>
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Fatal injuries: only the top of the iceberg

- Hospital treatments and disabilities are dominant cost drivers
- If we want to control cost of health and social care we need information about relevant cost drivers, i.e. medical treated injuries
This has been realized long time ago for...

- Workplace accidents (about 120ys ago)
- Electrical accidents & injuries (about 100ys ago)
- Road Crashes (about 80ys ago)
But what about…

- Injuries of children & adolescents
- Injuries of senior citizens
- Persons with disabilities
- Sport injuries
- Injuries related to consumer products

=> i.e. three quarters of all injuries requiring hospital treatment
How do you prevent – e.g. scalds – if you do not know…

- Why, how, and where it happened (bathroom, kitchen, work place...), and
- what agent or product has been involved (hot water tap, microwave oven, steam cleaner...)?
- How you may better inform persons at risk, modify product design, change industry standards or building regulations?
- And how do you monitor the impact of your action?
EU-policy questions

- How common are injuries in Europe?
- What are the major causes and risk groups?
- Where can we intervene most successfully by what policy means?
- Which countries are more successful?
EU-Policy frameworks calling for injury data

- EU Council Recommendation on Injury Prevention
- EU Regulation on Community Health Statistics
- EU-Regulation on Market Surveillance
- ECHI-29b indicator: home, leisure and school accidents
EC support to country level initiatives: Injury Data Base

- Few countries started ED-based injury surveillance in early 80’s
- EC-support to demonstration projects in 90s
- Creation of EU-Injury Data Base (IDB) in 1999
- Series of EC co-funded three years projects 1999-2014 (Health Programme)
Where were we in 2010?

- All countries report on their deaths, but little info on external cause.
- Most European countries have national HDR, few include external cause info.
- A few countries have national ED registers including external cause of injury (ICD).
- Only 12 countries had dedicated injury surveillance systems (2010).
The injury pyramid for the EU

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Source: EuroSafe / KfV, 2012
Why we should collect injury data in Emergency Departments

- EDs see the more severe injuries.
- Injury patients or accompanying persons can explain the circumstances.
- Information can be collected on a large number of cases, at relatively low cost.
- Information on type and nature of injury readily available.
Joint Action on Injury Monitoring in Europe

- Harmonised methodology and classification for ED-based data collection
- Proper mechanisms for quality control within EU meeting EuroStat requirements
- Co-ordinate EU-level injury data access and use.
- Promote data use for research and actions
The JAMIE-IDB Approach

1. **MDS**: All hospital treatments with the IDB minimum data set as matter of routine

2. **FDS**: Smaller sample with the IDB full data set

2. EU-sample for the analysis of product related risks (great depth of information needed)

1. Reliable national health indicators (good & big samples needed)
The Minimum Data Set (MDS) - only four items -

- **Intent**
  - Accidental injury
  - Deliberate self harm
  - Assault related injury
  - Other

- **Selected activities**
  - Paid work
  - Sports
  - Other

- **Location (setting)**
  - Road
  - Educational establishment
  - Home
  - Other

- **Selected mechanisms**
  - Road traffic injuries
  - Fall
  - Cut/pierce
  - Poisoning
  - Burn/scalds
  - Other
IDB Full Data Set

- Age & gender
- Place of residence
- Date of injury
- Date of treatment
- Diagnoses
- Location of injury
- Assignment to further treatment

- Injury mechanism
- Place of occurrence
- Activity when injured
- Type of sports when sport
- Triggering product
- Injury causing product
- Details to road accident
- Details to acts of violence
- Details to acts of self-harm
- Verbal description of incidence
- National add-ons: e.g. use of personal protective equipments
Data flow from hospital to national IDB data administrator

- **IDB data** (e.g. external circumstances) → **Complete IDB Data Set** → **Anonymized IDB Data Set**
  - **Purpose:** injury prevention

- **Medical data** (e.g. diagnoses) → **Complete IDB Data Set** → **Anonymized IDB Data Set**
  - **Purpose:** medical documentation

- **Administrative data** (e.g. length of stay) → **Complete IDB Data Set** → **Anonymized IDB Data Set**
  - **Purpose:** accounting for services

- **Anonymized IDB Data Set**
  - **Purpose:** health information, guiding preventive services
Challenges

- Representativity
- Accuracy of data
- Relevance of information
- Coherence
- Timeliness
- Cost and burden
Countries participating in JAMIE-IDB since 2010
Ambition JAMIE

To have by 2015:

- Dedicated IDB-data administration centres in all EU-Member States
- ED-based data collection in at least 22 countries for upload in IDB
- IDB-data routinely being used by EC and MSs for health and consumer protection policies and actions
JAMIE implementations – current status

- FDS data collection at all hospitals (inpatients only): Czech Republic, Latvia

- FDS data collection in a (nearly) representative sample of hospitals: Austria, Netherlands, Sweden and Italy

- FDS data collection at one or a few hospitals + MDS data collection at all hospitals: Denmark, Norway

- MDS data collection in all hospitals: Iceland, Slovenia
Network of NDA’s Injury Data Base

- Members: the national data owners
- Aim: develop robust data exchange in EU
- Responsible for correct applications of IDB-data access policy
What we learn from MDS

Figure 2.10: Hospital treated injuries per 1000 by injury prevention domain and age group, EU-27
What we learn from FDS: Product related risks

- Bunk beds
- Fitness center equipment
- Electric bicycles
- Bath seats
- Wooden toys
- Electric bulbs
- Sweets
- Sun-tanning beds
- Highchairs
- Lawn mower
- BBQ ignition fluids
What we also learn: correct incidences (example bicycle accidents in AT)

1. Road Accident Statistics 2010: Based on police reports
2. IDB Survey 2010: Based on treatments in hospitals
3. Estimates according to household survey: Correction for treatment by family doctor’s

- 37,000
- 28,200
- 5,495

Working together to make Europe a safer place
The IDB web-gate

DATA COLLECTION

Public access

The IDB Public Access is a selection and aggregation of the IDB data elements, collected in accordance with the IDB classification and coding manual.

The Public Access application allows interested parties to query the European Injury database about the frequency and external causes of non-fatal injuries across Europe.

In case of questions as to the use of the public access tool please do not hesitate to contact the IDB Helpdesk in DG SANCO and for other questions the IDB Network coordinator. If you want to make use of the clearinghouse services please use the request form.

Click on the image below to access the database:
Current status of the IDB in the European region

- 21 countries delivered data for 2012:
  AT, CY, CZ, DK, DE, EE, EL, FI, IS, IT, LV, LT, LU, MT, NL, PT, RO, SI, SE, TR, UK

- 5 more countries have started in 2013
  HU, IE, NO, PL, SP

- Still some challenges as to geo-coverage and scope of data collections in these 26 MSs
Benefits for participating hospitals

- Enhanced information on patient flows in EDs and use of local health care resources due to injuries
- PR by using the data for local publicity
- Access to IDB data for research purposes and publications
- Opportunity to profile as center of excellence e.g. in child injury prevention, home safety, sport injury treatment, geriatric rehabilitation
- Opportunity for further expansion of safe community developments
WHO Europe support to enhanced injury surveillance

Workshop on building capacity for injury prevention through improved injury surveillance

Antalya, Turkey
16 October 2012
Resolution on the prevention of injuries in the WHO European Region (EUR/RC55/R9) of 16 September 2005

• Develop injury surveillance
• For better understanding of causes and consequences
• For better targeting of investments for prevention, care and rehabilitation

If there is only one thing the health sector can do for injury prevention, it is the provision of data!
Conclusions

- JAMIE unifies injury data collection and surveillance in Europe
- 26 Member States will have in 2014 a common system in place collecting at least MDS data
- By 2015, 24 MSs should be able to provide ECHI-29b data
- EC supports sustainability IDB 2014+
Coordinating secretariat: EuroSafe

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