Update of the IDB System in Germany
Brandenburg Health Department, Germany

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1. Introduction

Our target is to provide injury data for injury prevention both, on a local and on a regional level. On a regional level the IDB has been an important lever for Brandenburg to become certified and re-certified by the WHO as a safe region in 2009 and 2015 (www.sicheres.brandenburg.de).
For the past 10 years the Brandenburg Department of Health (former Public Health Institute) has participated in the development of the European Injury Data Base. It has been a cooperating partner in several EU projects (INTEGRIS, JAIMIE and BRIDGE) and built up an IDB network with three hospitals in different regions of Germany. The IDB network is based on a win-win set-up. The hospitals get technological and scientific support. This includes the provision of data analysis as well as data feedback to the hospital. In return they collect the relevant IDB data.

2. Regional IDB-system

Since 2008 the Full Injury Database (FDS) has been implemented in four main German hospitals with pediatric wards situated in Lower Saxony (City Hospital of Delmenhorst), in Saxony (University Hospital Leipzig) and in Brandenburg (Klinikum Westbrandenburg and Carl-Thiem Klinikum). The Brandenburg hospital CTK monitors all injured patients admitted to hospital, whether to A and Es or specialised wards. This data is proved to be representative for the federal state of Brandenburg and annually delivered to the European Injury Data Base. The other three hospitals focus on injuries in children and adolescents (< 18 years) and this data is not reported to the IDB. All four hospitals collect data based by doctors or study nurses on FDS level. FDS contains both, unintentional injuries (so called accidents) and intentional injuries (by violence and self-harm). Detailed information is documented about the injury event (location, mechanism, activity of injured person), injury diagnoses (ICD-10 code) and follow up treatment. Furthermore, the product that caused or triggered an injury is collected. In Germany, FDS also includes the doctor‘s narrative regarding the injury event, thus providing valuable insights on how the accident occurred (see publications). The Brandenburg Health Department within the State Office for Occupational Safety, Consumer Protection and Health is responsible for quality checks on coding, data analysis and reporting on regional and European level.

3. Insights gained

Vulnerable groups

- **Infants are most at risk to suffer from product related head injuries.** Monitoring a total of 5,969 head injuries in under 5-year-olds in the period 2008-2014 we observed that product related head injuries peak in infants 87% (561). Using a text analysis program (SPSS) for an in depth analysis of the medical narrative we identified the following five most frequent products (all of which falls related): baby changing table, furniture (e.g. couches), beds (mostly parental), buggies/strollers and carry cots. They made up 62 % of all product related injuries in infants.

- **Refugee children have insufficient ability to ride a bicycle:** The most prevalent injury event in older refugee children treated in the Potsdam hospital April-November 2016 (n=14) was falling from bicycle (3 out of 14 cases).
- **Injuries by violence among school children**
  Injuries due to violence among school children from 6 to 17 years show a continuous increase with the age and peak among the 15- to 17-year-olds with a dominance among boys (around 10% of all injuries). Predominant cause is interpersonal violence.
- **Accident or violence?**
  In 2016 the IDB-Data was used as a reference in a court case. An infant (<1 year old) died, according to the mothers report, falling out of the parental bed and not because of a violent act (e.g. shaken baby syndrome). The proved injury diagnosis by autopsy was intracerebral bleeding. The IDB analysis of falls in infants out of parental beds ascertained (n=89) another injury picture without a single case of serious or fatal head injuries.

4. Use of the data

Safe Region Brandenburg

The data is annually published via the internet: www.gesundheitsplattform.brandenburg.de.
In Brandenburg the data is regularly used to identify population and environments most at risk thus providing key information to the Steering Committee (compiled of five ministries).
The Steering Committee decides on the main areas of injury prevention. In another step the results are presented to the six thematic working groups (e.g. on child injuries and violence) to decide on targeted injury prevention measures and how they can be best implemented at both regional and community levels (http://sicheres.brandenburg.de).

Hospitals

Hospitals utilize the data for research and to inform patients about risks and safety precautions and thus gaining a reputation as a centre of health promotion in the community (see publications).

National and European level

- The data is used for improving product standards by the German DIN Consumer Council and the Child Safety Working Group of ANEC (European Association for the Co-ordination of Consumer Representation in Standardisation).
- The data is a component of a bi-annual publication “Accidents, Violence and Self-harm in Children and Adolescents” edited by the German Federal Statistic Office (www.destatatis.de).
- Safe Kids Germany (Bundesarbeitsgemeinschaft Mehr Sicherheit für Kinder e.V.) uses the IDB data to recommend age specific injury prevention measures nationwide (e.g. campaign how to avoid injuries due to animals)
- Information on fact based injury prevention for pediatricians published in various German pediatric journals (see publications)
- The National Center for Early Family Support (NZFH) uses the data to inform young parents and caregivers how to avoid injuries in early childhood

5. Future outlook

Most important is to keep the process of IDB data collection, analysis and reporting ongoing and to provide stakeholders with information to fine-tune their injury prevention measures, to set up new targets or to improve product standards.

Additionally, we want to deepen the new cooperation network of German speaking countries (Austria, Swiss and Germany) (first meeting in Potsdam 2016).

6. IDB related publications

1 Ellsäßer G (2017) Unfälle, Gewalt, Selbstverletzung bei Kindern und Jugendlichen. Ergebnisse der amtlichen Statistik zum Verletzungsgeschehen 2014. Statistisches Bundesamt (Hrsg.), Wiesbaden, in press

2 DIN Verbraucherrat (Hrsg.) (2017) Study of head injuries at home in children. http://www.din.de/de/ueber-normen-und-standards/nutzen-fuer-den-verbraucher/verbraucherrat/aktuelles/studie-zu-kopfverletzungen-bei-kindern-im-haeuslichen-bereich-230030

3 Albrecht M, Ellsäßer G (2016) Unfälle im Kleinkindalter- Wie können evidenzbasierte Maßnahmen erfolgreich in der Beratung von Eltern umgesetzt werden? pädiatrische praxis 86/2

4 Ellsäßer G, Albrecht M, Böhmann J (2016) Kinderunfälle vermeiden – eine wichtige Beratungsleistung von Kinder- und Jugendärzten, bvkj, Kinder- und Jugendarzt 47/9: 572-576

5 Ellsäßer G, Gries F (2016) Product related Head Injuries in Infants and Toddlers -Starting Point for a Campaign. Injury Prevention 22 (Suppl 2): A128; 10.1136/injuryprev-2016-042156.350

6 Ellsäßer G, Gries F, Vanderberghe T (2016) Bunk Beds Place of Danger. Injury Prevention 22 (Suppl 2): A82; 10.1136/injuryprev-2016-042156.225

Ellsäßer G, Gries F, Turner S, Lyons R A, Larsen B, Rogmans W, Kisser R, Valkenberg H, Bejko D, Steiner M, Bauer R (2016) Product related Head Injuries among Infants and Toddlers in Europe– a Public Health Topic.Injury Prevention 22 (Suppl 2): A129; 10.1136/injuryprev-2016-042156.353

7 Woller T, Ellsäßer G, Bühligen U, Till H (2014) Sportverletzungen im Kindes- und Jugendalter Daten der europäischen Injury Database (IDB) für die Unfallprävention, Dtsch Z Sportmed.2014;65:242-247

8 Ellsäßer G, Albrecht M, Trost-Brinkhues G (2013) Unfallprävention bei kleinen Kindern – ein Thema für Frühe Hilfen? Daten zu Unfällen in Deutschland, Einflussfaktoren und wirksame Aufklärung von Eltern. Nationales Zentrum Frühe Hilfen (NZFH) in der Bundeszentrale für gesundheitliche Aufklärung (BZgA) (Hersg) Datenreport Frühe Hilfen, Ausgabe 2013, Köln, ISBN:978-3-942816-43-4 *http://www.fruehehilfen.de/no_cache/serviceangebote-des-nzfh/ materialien/ publikationen/einzelansicht-publikationen/titel/datenreport-fruehe-hilfen-ausgabe-2013/*

9 Ellsäßer G, Erler T (2010) Die Gesichter der Opfer – Auswirkungen von Gewalt bei Kindern und Jugendlichen erkennen. pädiat. prax. 75: 287-395

10 Geerdts L, Ellsäßer G, Führer S, Erler T (2010) Misshandlungen und Gewalt als Verletzungsursachen im Kindesalter – Ergebnisse eines Unfallmonitorings bei Kindern und Jugendlichen in Südbrandenburg (Deutschland). Der Unfallchirurg, Volume 113, Number 7, 568-572

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