EU-IDB 2008-2018

Brief report on available data and their quality

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Note: All tables in this report are available also as Excel-workbooks “IDB data formats” and “IDB data quality tables”.

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1. A brief history of the system

Injuries represent an important health problem that accounts for more than 8% of all days of hospital care recorded in Europe [1].The European injury surveillance system dates back to the early eighties and contains data on patients who seek help in emergency departments of hospitals for an acute injury. Several national institutes in Europe tried to harmonize the methodology of collecting injury data in emergency departments in order to share and compare their data at multi-country level.

Originally, the system was focussed on product related injuries at home and during leisure activities in order to improve the safety of consumers in the European Single Market (European Home and Leisure Accident Surveillance System). Since the start of the system, the data were collected and hosted centrally by competent Commission services, the directorate for consumers first, and for public health at later stage. In 2002, an electronic data base was created, including a web-gate, which allowed everybody to analyse the data with basic tools – the EU IDB database [2].

By 2005 the scope was expanded to all injuries, including workplace and road traffic accidents, interpersonal violence and deliberate self-harm (European Injury Surveillance System). Subsequently the focus shifted from the analysis of external circumstances and involved products to the production of internationally comparable national indicators for the injury burden of health. In addition to the traditional comprehensive Full Data Set (IDB-FDS) a slim Minimum Data Set (IDB-MDS) was introduced.

The Council Recommendation for injury prevention 2007 strongly recommended the implementation in all member states [3], and the Regulation on public health statistics 2008 listed the IDB based injury statistics as one desired public health statistic [4].

The EU-project JAMIE (2012-2014) [5] further standardized the IDB methodology, created a comprehensive manual and promoted its implementation in European countries. Eligible for participation are 36 European countries, i.e. 28 EU member states, 3 EEA-countries (Iceland, Liechtenstein, Norway) and 5 candidate countries (Albania, Macedonia, Montenegro, Serbia, Turkey). 26 countries participated in the JAMIE project, where of 21 countries produced estimated rates as ECHI-29b (see the report on “Injuries in the EU” [6]).

The current methodology is comprehensively laid down in the IDB Operating Manual [7], which addresses particularly aspects which are important for deriving valid and comparable statistics. A compact description of relevant data quality aspects provides the IDB-MDS metadata in the Euro SDMX Metadata Structure as used for Eurostat statistics [8].

In 2013, the ECHIM-project [9] recommended to use IDB data for producing some European Core Health Indicators on injuries, particularly ECHI-29b (Home, Leisure and School Accidents: Register based injuries) and eventually also ECHI-30b (Road Traffic Accidents: Register based injuries) and ECHI-31 (Work-place injuries) as listed in the shortlist of 88 ECHI indicators, which are considered as most relevant and feasible to be reported by all EU member states. Factually only the IDB based indicator ECHI-29b gets published on the ECHI-web-gate [10], for as many countries and years as possible, beginning with 2009.

The BRIDGE-Health project (2015-2017) helped further to stabilize the system, in order to prepare for the integration of injury data into a future EU Health information system [11]. Intention of the project was to combine all EC health information activities into a new European Research Infrastructure. However, since 2017 the IDB system is operated solely by the resources of the national data providers, which assistance of the European Association for Injury Prevention (EuroSafe) as data controller on behalf of the consortium of data providers.

For many years, the European Commission, Directorate General for Health and Food Safety (DG SANTE) served as IDB hub and provided a public access to data back to 2002 [12]. Recently, DG Health decided to discontinue by end of 2019 its hosting due to internal prioritisation and rationalisation of resources. After the Commission’s web-portal closed, Swansea University Medical

School, Health Data Research UK Wales and Northern Ireland (HDRUK) remained as (parallel-) data host (data operator in terms of the GDPR) with data back to 2008. By mid of 2020 the databank will be transferred from Swansea to the Italian National Institute of Health (Institute Superiore die Sanita – ISS) in Rome as new host and data operator.

2. The files of the EU-IDB

The European IDB contains two types of data-sets: The IDB-FDS (full data set) contains detailed information about external circumstances (e.g. involved products) [13], while the IDB-MDS (minimum data set) depicts only a few key aspects [14]. IDB-MDS is a simplification of IDB-FDS and can be created through transcoding. The required formats of the data files are annexed (annexes A-E).

The EU-IDB contain up to five different files per year and country, but at least two:

- IDB-FDS data file (optional)
- IDB-MDS data file (mandatory)
- IDB-RPD data file (when national rates are provided)
- IDB-AGG (mandatory when no IDB-MDS micro data are provided)
- IDB Metadata document for the IDB-MDS file (mandatory)

Depending on national priorities there are three different strategies for collecting IDB data:

- Only IDB-FDS data: As gathering the information for IDB-FDS needs some efforts (trained interviewers and/or coders, additional time for the interview with patients, dedicated organisation), the samples of reference hospitals are tendentially limited, sometimes with questionable representativity. If only an IDB-FDS file is delivered, the transcoding into MDS-file is done centrally by the IDB operator, and IDB-FDS and IDB-MDS samples are the same.
- Only IDB-MDS data: The samples are usually bigger, and some countries cover even all (or almost all) hospitals; sample biases are rare.
- Separate samples of IDB-FDS and IDB-MDS data: With a view to the different main purposes of IDB-FDS and IDB-MDS, different samples of reference hospitals are used and two separate (eventually overlapping) files are created by the national data provider.

If the IDB-MDS samples are sufficiently representative and large enough, national incidence rates (technically speaking emergency department presentation rates) can be calculated – in principle for every subgroup, however defined. Maximum flexibility is achieved through the combination of IDB-MDS single case data and corresponding reference population data (IDB-RPD). If IDB-MDS data comprise all injury cases (treated in emergency departments), the sample ratio = 1.0 and the entire national population is the frame of reference. If the data-file is a sample (as usual), the reference population is the population share as defined by the sample ratio. Dividing the IDB-count for a sub-group by the according reference population figure delivers the (estimated) IDB rate. The IDB-RPD files, i.e. the estimated national IDB-rates, adjusted for gender and age, are provided by the national IDB partners, together with the IDB-MDS data file and the according metadata. For details see the IDB Operating Manual [7].

Due to increasing data protection concerns, some national IDB partners prefer to refrain from sharing single case data but remain willing to submit aggregated data. The IDB advisory board has defined a set of desired rates, based on IDB-MDS data, to be delivered. This set consists of 28 indicators for “domains of injury prevention” (certain combinations of intent, location and activity), mechanism (cause) and type of injury. For every of these indicators, nine breakdowns by gender, age-group and admission/ambulatory treatment shall be reported (all together 28 x 9 = 252 indicators). The set includes injury related European Core Health Indicators (ECHI), e.g. ECHI-29b

("Home, leisure and school injuries, register based incidence) [10]. Delivery shall be done either by an Excel-workbook or TXT-file. The required formats are also annexed.

Every IDB-MDS file needs to be accompanied by metadata. The template of the IDB Metadata changed during the years, according to changing priority requirements on data quality. The current template focuses on aspects which are important for the validity and comparability of national rates and consists mainly of yes-no questions (see annex). Since 2015, only one metadata document is obligatory per country and year, i.e. for the file, which is used for the projection of rates. This is either the delivered IDB-MDS file or the IDB-MDS file which will be distilled from the IDB-FDS file. If only aggregated IDB-MDS data (set of national indicators) are delivered, the metadata file is also required in order to inform about the underlying sample.

3. Call for data 2018 and current status of delivery

At the beginning of October 2019, the IDB network coordinator (data controller) invited all IDB network members to submit for the previous year (i.e. 2018):

- IDB-FDS data file and/or
- IDB-MDS data file and
- IDB-RPD data file or
- IDB-AGG
- IDB Metadata

An IDB data validation and upload tool [15] was developed by HDRUK (Swansea University) in order to assure the conformity of submitted data regarding format and codes. Here, data suppliers could test and upload their data files. Data suppliers had to register for this tool. Incoming data files were automatically checked for consistency with the common standards according to table 1 below (table 8.3. of the IDB Operating Manual [7]).

If there are no inconsistencies, the files get uploaded. In case of any inconsistencies (e.g. invalid format or invalid codes) the file gets rejected and a list of errors is reported back for correction. Otherwise the records get uploaded to the intermediate databank at HDRUK. As a matter of principle, the national data administrator bears the main responsibility for his/her data. Only a few formal corrections were made at central level – see table 4, paragraph F.

Incoming IDB-RPD files were checked by HDRUK regarding their format and plausibility of the resulting general incidence rate. Metadata were checked by the network coordinator for completeness and plausibility. Issues were clarified bilaterally. In previous years, metadata forms were published as annex to the annual data quality report. In order facilitate the access, metadata are now stored in a separate repository, which can be searched, e.g. by country or year.

Table 1: Control checks for IDB data files (FDS and MDS): Numbers in the right columns refer to the position in the prescribed record-structure.	FDS	MDS
A. Essential checks at file level – if not fulfilled, the whole file will be rejected:		
1. Valid file structure (e.g. no delimiters between cases)	✓	✓
2. All records with the valid record length	1-312	1-35
3. Only digits or blanks in fields x-y (e.g. no tabs or letters)	3-86	3-35
4. Reporting country must exist and be identical for all records	1-2	1-2
5. Every record has a unique record number (no duplication)	3-9	6-12
B. Checks at record level – if not fulfilled, the record needs to be corrected or rejected:		
1. All variables have valid values or blank (see data dictionary for each variable)	✓	✓
2. Every record has the same valid year of attendance (no missing or unspecified)	26-29	19-22
3. Every record has a valid hospital code (no missing or unspecified) IF NOT USED: blanks	310-312	3-5
4. Every record has a valid code for type of injury 1 or for body part 1	75-76 vs. 79-82	24-25 vs. 28-29
C. Consistency checks at record level – if not fulfilled, the record needs to be corrected or rejected:		
1. Date of injury <= date of attendance	16-23 <= 26-33	n. a.
2. If Type of injury1=01, body part1 left blank	75-76 vs. 79-82	n. a.
D. Checks for completeness of variables – percentage of incomplete records (missing and/or unknown) shall checked in order to guide interviewers		
1. Age	10-12	13-14
2. Sex	13	15
3. Country of residence	14-15	16
4. Date of injury	16-23	n. a.
5. Time of injury	24-25	n. a.
6. Date of attendance	26-33	17-18
7. Time of attendance	34-35	n. a.
8. Treatment and follow-up	36-37	23
9. Intent	38	31
10. Transport injury event	39	n. a.
11. Place (location) of occurrence	40-44	33
12. Mechanism of injury	45-49	34
13. Activity when injured	50-53	35
14. Underlying object	54-60	n. a.
15. Object producing injury	61-67	n. a.
16. Type of injury 1	75-76	24-25
17. Type of injury 2	77-78	25-27
18. Part of body injured 1	79-82	28-29
19. Part of body injured 2	83-86	30-31
20. Narrative	87-286	n. a.
E. Checks for completeness of modules - percentage of incomplete records (missing modules) shall checked in order to guide interviewers:		
1. Treatment=05 or 08, but no admission module	36-37 vs. 287-289	n. a.
2. Intent=3 or 4, but no violence module	38 vs. 290-293	n. a.
3. Intent=2, but no self-harm module	38 vs. 294-295	n. a.
4. Transport injury event = 1, but no transport module	39 vs. 296-304	n. a.
5. Activity=03.1,04.1, 04.8, or 04.9, but no sport module	50-53 vs. 305-309	n. a.
F. Corrections to be made automatically:		
1. All blank values are set to missing (9, 99, 999) – except for type of injury 2 and part of body2, object/substance, narrative	✓	✓
2. Variables with 2+ digits are padded with left-hand leading zeros if needed, e.g. record number " 123" -> "000123" or month "7_" or "_7" -> "07"	✓	✓
3. If type of injury 1 is missing, but part of body 1 exists, type of injury 1 is set to missing (99)	75-76 vs. 79-82	23-24 vs.27-28
4. If part of body1 is missing, but type of injury1 exists, part of body1 is set to missing (9.99)	75-76 vs.79-82	23-24 vs.27-28
5. If type of injury 2 is missing, but part of body2 exists, type of injury1 is set to missing (99)	77-78 vs.83-86	25-26 vs. 29-30
6. If part of body2 is missing, but type of injury2 exists, part of body2 is set to missing (9.99)	77-78 vs.83-86	25-26 vs. 29-30

Data shall be submitted before end of November. However, some IDB partners are not able to get their data for the previous year ready by this time, when they are bound to other administrative agencies and their procedures, e.g. for getting the data extracted from other data sources like national hospital statistics or health insurance data banks. Another hurdle for a prompt delivery is the requirement to estimate national rates, which usually requires the availability of the national hospital statistics (health care services by group of diagnoses). There are only few European countries, where these figures are available within one year.

By end of April 2020, just 12 (out if 18 partners) submitted data for 2018, among 11 with credible rates; two data suppliers refrained from sharing micro data and delivered just aggregated data (rates). Table 2 presents the current status country by country.

Table 2: Status of data upload 2018 by country			
Country	**Contact**	**Delivered**	**Recommended action**
Austria	Robert Bauer, Robert.Bauer@kfv.at	FDS & rates	-
Cyprus	Maria Athanasiadou, MAthanasiadou@moh.gov.cy	MDS & rates	-
Denmark	Bjarne Laursen, bla@si-folkesundhed.dk	No microdata due to DP legal restrictions, just rates	-
Estonia	Katre Vaarsi, katre.vaarsi@tai.ee	MDS & rates	-

Finland	Kari Haikonen, kari.haikonen@thl.fi	MDS & rates are ready, but not uploaded yet (issues with the access to HDRUK data validator)	Follow up in due time
Germany	Personal change in resp. department in government of federal state of Brandenburg	Most recent delivery is of 2016. Unclear, if data are still collected & processed & if there is a willing to share	Mr. Prof. Kropp new leader of department since 1 April. Contact his secretary Ms Weißflog: ina.weissflog@lavg.brandenburg.de
Italy	Marco Giustini and Alessio Pitidis, marco.giustini@iss.it, alessiop.dati@gmail.com	Most recent delivery is of 2015 (just FDS).	Follow up in due time
Latvia	Annika Smilga, annika.smilga@spkc.gov.lv	Delay due to technical issues, promised to deliver as soon as possible	Follow up in due time
Lithuania	Milda Garbuviene, Milda.Garbuviene@hi.lt	MDS & indicators	-
Luxembourg	Dritan Bejko, Dritan.Bejko@lih.lu	MDS & FDS & rates	-
Malta	Audrey Galea, audrey.galea@gov.mt	Delay due to capacity problem, promised to deliver as soon as possible	Follow up in due time
Netherlands	Huib Valkenberg, h.valkenberg@veiligheid.nl	FDS & MDS	-
Norway	Johan Lund, johan.lund@nopha.no	Delay to due data protection concerns. Probably delivery of microdata not be possible anymore (like DK and UK), but rates shall be possible.	Follow up in due time
Portugal	Tatiana Alves, tatiana.alves@insa.min-saude.pt	FDS & rates	-
Slovenia	Tina Zupanic, Tina.zupanic@nijz.si	FDS & rates	-
Sweden	Pernilla Fagerström, pernilla.fagerstrom@socialstyrelsen.se	MDS & rates	-
Turkey	Secil Sis, secil.sis@saglik.gov.tr	FDS & rates, but rates are by far too high (obviously strongly biased sample). Rates shall not to be published	Offer advice on how to improve representativity of sample.
United Kingdom	Samantha Turner, S.Turner@swansea.ac.uk	No microdata due to DP legal restrictions, just rates	-
No. of data suppliers		18, whereof 12 have delivered 2018 data, whereof 1 country without credible rates.	Up to 6 more possible, but DE seems to be unlikely.

4. Quality of data 2008-2018

Main purpose of this report is to inform data users briefly about the quality of the data available in the IDB database, which currently covers the years 2008-2018. For 2008, just IDB-FDS data are available.

Table 3 shows for which years IDB-MDS data are available (by May 2020). 2009 was the first year, for which MDS-data were created.

Table 3: IDB-MDS data by country and year

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Cyprus	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Czech Republic	✓	✓	✓	✓	✓	Data, but not shared			No partner		
Denmark	✓	✓	✓	✓	✓	✓	✓	✓	Aggregated	Aggregated	call pending
Estonia	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Finland	No data	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Germany	✓	✓	✓	✓	✓	✓	✓	✓	unclear	unclear	call pending
Greece	No data			✓	No data		No partner				
Hungary	Partner, no data				✓	Partner, but no data			No partner		
Iceland	No data	✓	✓	✓	✓	Data, but not shared			No partner		
Ireland	Partner, no data				✓	✓	Partner, but no data		No partner		
Italy	✓	✓	✓	✓	✓	✓	✓	expected	expected	expected	call pending
Latvia	✓	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Lithuania	No data		✓	✓	✓	✓	✓	✓	✓	✓	call pending
Luxembourg	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Malta	✓	✓	✓	✓	✓	✓	✓	✓	expected	expected	call pending
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Norway	No data			✓	✓	✓	✓	✓	✓	expected	call pending
Poland	Partner, no data				✓	No partner					
Portugal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Romania	Partner, no data				✓	Partner, but no data			No partner		
Slovenia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Spain	Partner, no data				✓	Partner, but no data			No partner		
Sweden	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Turkey	Partner, no data			✓	✓	✓	✓	✓	✓	✓	call pending
United Kingdom	Just aggregated										call pending
Data suppliers	13	15	16	21	24	19	18	18	18	18	18
MDS data supplied	12	14	15	20	23	18	17	16	13	10	0
Just indicators	1	1	1	1	1	1	1	1	2	2	0
Data expected /	0	0	0	0	0	0	0	1	3	6	0

Till 2013, the number of data suppliers increased, i.e. during the JAMIE project [5], but dropped after its end, when EU co-funding for national data collection efforts was terminated. Between 2014 – 2016, only basic central services of the network-coordinator were subsidized through the BRIDGE-Health project [11]. Since 2017, the system depends entirely on own resources of participating countries. Although the number of collaborating countries stayed the same, delays of delivery seem to increase. By May 2020, just 12 countries delivered data for 2018 – out of 18 collaborating partners.

Not for all data delivering countries rates are available due to varying reasons, such as biased IDB-MDS sample, issues with the reference statistics, or simply delayed data accessibility. For an overview see table 4. A green tick in table 4 means also, that ECHI-29b is available.

Table 4: Rates (IDB-MDS indicators) by country and year

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Cyprus	✓	✓	small sample		biased		✓	✓	✓	✓	call pending
Czech Republic	Just children 0-18 / just admissions: No rates					No data					
Denmark	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Estonia	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Finland	No data	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Germany	✓	✓	✓	✓	✓	✓	✓	✓	unclear	unclear	call pending
Greece	No data			small	No data						
Hungary	No data				No rates	No data					
Iceland	No data	✓	✓	✓	✓	No data					
Ireland	No data				✓	✓	No data				
Italy	✓	✓	✓	✓	✓	✓	✓	expected	expected	expected	call pending
Latvia	✓	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Lithuania	No data		✓	✓	✓	✓	✓	✓	✓	✓	call pending
Luxembourg	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Malta	✓	✓	✓	✓	✓	✓	✓	✓	expected	expected	call pending
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Norway	No data			✓	✓	✓	✓	✓	✓	expected	call pending
Poland	No data				biased	No data					
Portugal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Romania	No data				✓	No data					
Slovenia	Just admissions: No rates		✓	✓	✓	✓	✓	✓	✓	✓	call pending
Spain	No data				✓	No data					
Sweden	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Turkey	No data			✓	✓	✓	✓	✓	biased	biased	call pending
United Kingdom	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Data suppliers	13	15	16	21	24	19	18	18	18	18	18
Indicators supplied	11	12	14	18	20	19	18	18	14	11	0
Just indicators	1	1	1	1	1	1	1	1	2	2	0
Expected / unclear	0	0	0	0	0	0	0	1	3	6	0

Some countries have not fully implemented all IDB standards. This leads to several restrictions of the use and comparability of national estimates. There are e.g. restrictions of the scope of data to certain age groups (e.g. just children), types of injuries (e.g. just home and leisure accidents) or type of treatment (e.g. just admissions). In other cases, small sample sizes affect the accuracy of estimates. In some countries, data are available only for a certain province (region or federal state). In order to prevent users from misinterpretations, such systematic shortcomings of samples are highlighted by "warning flags". Table 5 provides an overview of such restrictions of the scope.

Table 5: Restrictions of the scope of IDB-MDS indicators by country and year

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Austria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Cyprus	✓	No rates			Biased sample		✓	✓	✓	✓	call pending
Czech Republic	No rates					No data					
Denmark	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Estonia	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Finland	No data	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Germany	Just federal state of Brandenburg / small sample								unclear	unclear	call pending
Greece	No data			No rates	No data						
Hungary	No data				No rates	No data					
Iceland	No data	✓	✓	✓	✓	No data					
Ireland	No data				Just age-group 15+		No data				
Italy	Just HLAs and RTAs		✓	✓	✓	✓	✓	expected	expected	expected	call pending
Latvia	✓	✓	✓	✓	✓	✓	✓	✓	✓	expected	call pending
Lithuania	No data		Admission bias		✓	✓	✓	✓	✓	✓	call pending
Luxembourg	No data			✓	✓	✓	✓	✓	✓	✓	call pending
Malta	Small sample				✓	✓	✓	✓	expected	expected	call pending
Netherlands	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Norway	No data			✓	✓	✓	✓	✓	✓	expected	call pending
Poland	No data				No rates	No data					
Portugal	Just home & leisure accidents (HLAs)										call pending
Romania	No data				✓	No data					
Slovenia	Just admissions		✓	✓	✓	✓	✓	✓	✓	✓	call pending
Spain	No data				Just Navarra	No data					
Sweden	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	call pending
Turkey	No data			✓	✓	✓	✓	✓	No rates	No rates	call pending
United Kingdom	Just Wales										call pending
Data suppliers	13	15	16	20	24	19	18	18	18	18	18
Indicators supplied	12	14	15	20	23	18	17	16	13	9	0
Complete scope		6	8	11	15	12	13	12	12		
Shortcomings		9	8	9	9	7	5	6	6		

Annex G shows the complete list of available data files (IDB-FDS, IDB-MDS, IDB-RPD) and the respective number of cases, the underlying national data collection/provision strategy (FDS to MDS, MDS only, FDS and MDS separately, or the delivery of just aggregated MDS data) and "warning flags" indicating substantial restrictions of the comparability of estimated IDB-rates.

To summarize: In principle, the standards for the IDB surveillance system are clear, however their national implementations show many deviations. The situation in every country is different, and the quality of IDB-data varies substantially from country to country, but also over the time.

There are many national differences regarding the various quality criteria.

- Governmental funding and endorsement: Legal obliged and governmentally funded in some countries, entirely voluntary and privately funded in others.
- Type of the national data provider: Ministerial departments/ governmental institutes, e.g. public health institutes, or university departments, or private associations.
- Method of gathering the data: Per specialized interviewers or extraction from health statistics or insurance registers.
- Role of interviewers in emergency departments: Medical doctors, nurses, administrative persons or externally employed IDB-interviewers.
- Quality of sampling of patients in hospitals: No sampling (24 hours/7 days all cases) or just on occasion during working days and during daytime. Some countries have biases samples toward admitted cases.

- Definition of cases to be recorded: Definition of injury by ICD-10 chapter 19 (types of injury) or 20 (external causes of injury); and slight differences regarding inclusion/exclusion of consequences of medical treatments, non-residents, follow-up treatments.
- Quality of hospital sample: Varying from no sampling (all hospitals included), just public hospitals, validated sample of hospitals to non-validated sample of voluntarily participating hospitals.
- Scope of the IDB register: All injuries or e.g. only home and leisure accidents or other restrictions.
- Coverage of injuries due to violence (interpersonal violence and deliberate self-harm): Due to legal or cultural differences the rates of intentional injuries show extreme variations between countries, indicating incomplete coverage in some countries.
- Coding system: IDB-FDS or IDB-MDS or transcoding from other coding systems like ICD-10, NOMESCO, DISS.
- Representativity of the national sample of cases: Ranging from almost complete coverage to small, probably biased samples.
- National geographical scope: Varying from entire country to just one region (mainly in bigger states).
- European geographical scope: Currently only a biased sample of – mainly smaller – countries. No participation of bigger EU countries, except Italy. By May 2020, from 32 eligible European countries just 12 have delivered 2018 data so far, of them just 10 EU-member states, but a few more promised to deliver at later stage. The representativity of the current sample of countries and hospitals for the EU-27 can be questioned. There are also huge differences of the number of cases, so that countries with a large sample dominate countries with a
- International comparability of rates is limited due to a high influence of the national health care system. IDB-rates are ED-presentation or admission rates, but no incidence rates in a strict sense.
- Added value of the IDB-system: A high added value is given, when IDB-FDS are collected, because IDB-FDS provides unique additional information on external circumstances like involved products. The added value is rather low, when IDB-MDS data can be extracted from existing registers.
- Single-case (micro) data: Some countries deliver only aggregated data due to data protection concerns or deviant national implementations/interpretations of the European GDPR.
- Manner of transmission: mostly online through IDB data validation tool, however one country is forced to send data just by mail
- Timeliness of delivery: ranging from less the 12 months up to four years later.
- Stability of the national implementation: some countries collect IDB data with own resources since the 80ies, others participated just for one or a few years, e.g. in the framework of an EU-project and stopped, when the central co-funding stopped.

Consequently, the international comparability of IDB-rates remains rather limited. Average IDB-estimates vary considerably over the years and the up and down of EU-rates cannot be interpreted for single years. Averages over three years provide more stability, however variations between countries will remain primarily due to differences in health systems and data gathering processes. While the rates for large groups (all injuries, males/females or all home & leisure accidents seem to reasonable, the rates for smaller sub-groups (e.g. violence, workplace accidents, certain types of injurie) vary considerably, indicating sampling biases. A summary of the IDB-MDS quality is also available in ESMS metadata form [8]

Nevertheless, the IDB-system has the potential for becoming a valuable European health statistic (as demanded by the Regulation on public health statistics 2008 [4], but this will require substantial investments in national implementations of the IDB-standards and requirements. Probably only a legal obligation will make a difference in the future.

5. Standard MDS-analyses

A standard reporting scheme for IDB-MDS has been developed by the IDB advisory board: 28 indicators shall be calculated for each data file, i.e. for 9 “domains of injury prevention” (certain combinations of intent, location and activity), 6 mechanisms (causes) and 13 types of injury. For every of these indicators, nine breakdowns (by gender, 4 age-groups and admission/ambulatory treatment) shall be reported (all together 28 x 9 = 252 indicators). One of these indicators equals ECHI-29b, which has to be delivered to DG SANTE (DG Health and Food Safety, Unit C2 'Country knowledge and scientific committees') for being uploaded to the ECHI-website [10].

Based on these results, the following tables shall be created & reported annually:

Average rate for all injuries (all countries) by year (development over time
Average rate for all injuries (just EU-member states) by year (EU development)
Average rate for all injuries (all years) by country (country league table)

Average rates for all injuries (most recent three years) by domain and gender
Average rates for all injuries (most recent three years) by domain and age-group
Average rates for all injuries (most recent three years) by domain and country

Country league table (most recent three years) for all injuries
Country league table (most recent three years) for home & leisure accidents
Country league table (most recent three years) for road traffic accidents
Country league table (most recent three years) for workplace accidents
Country league table (most recent three years) for self-harm
Country league table (most recent three years) for injuries due to interpersonal violence

These analyses are not available at the time of concluding this report. For examples see older reports [1, 6].

6. References

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[4] European Parliament and the Council of the EU (2008): Regulation No 1338/2008 on Community statistics on public health and health and safety at work of 16 December 2008. OJ L354/70. At: http://www.euro.who.int/__data/assets/pdf_file/0017/88100/RC55_eres09.pdf

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[9] ECHIM – European Community Health Indicators Monitoring (2011): ECHI shortlist and documentation sheets for injury indicators 29–32. http://www.healthindicators.eu/object_document/o5956n29063.html

[10] ECHI – European Core Health Indicators (2016). http://ec.europa.eu/health/indicators/echi/list/index_en.htm

[11] The BRIDGE-Health project (2016). http://www.bridge-health.eu/ and http://www.bridge-health.eu/sites/default/files/Booklet_HealthBridge_final.pdf

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[13] Eurosafe (2017): The IDB Full Data Set (IDB-FDS) Data Dictionary. Version 1.4. http://www.eurosafe.eu.com/uploads/inline-files/IDB%20FDS%20Data%20Dictionary%20May%202017_0.pdf

[14] EuroSafe (2013): The IDB Minimum Data Set (IDB-MDS) Data Dictionary. http://www.eurosafe.eu.com/uploads/inline-files/IDB_MDS_Data_Dictionary_JAN%202017.pdf

[15] Swansea University Medical School (2013): IDB data validation and upload tool: At: https://www.injuryobservatory.net/jamiedatavalidator/login

Annexes: Data formats and list of IDB files

Tables A-F present the requested format of the data files, and table G the template for the metadata.

Table A: Format for the IDB-FDS data file					
Core module					
Data element	No. Characters	Position start	Position end	Format	Type
Recording country	2	1	2	nn	Numeric
Unique national record number	7	3	9	nnnnnnn	Numeric
Age of patient	3	10	12	nnn	Numeric
Sex of patient	1	13	13	n	Numeric
Country of permanent residence	2	14	15	nn	Numeric
Date of injury	8	16	23	yyyymmdd	Date
Time of Injury	2	24	25	nn	Numeric
Date of attendance	8	26	33	yyyymmdd	Date
Time of attendance	2	34	35	nn	Numeric
Treatment and follow-up	2	36	37	nn	Numeric
Intent	1	38	38	n	Numeric
Transport injury event	1	39	39	n	Numeric
Place of occurrence	5	40	44	nn.nn	Numeric
Mechanism of injury	5	45	49	nn.nn	Numeric
Activity when injured	4	50	53	nn.n	Numeric
Underlying object/substance/product triggering the injury	7	54	60	nn.nnnn	Numeric
Direct object/substance/product producing the injury	7	61	67	nn.nnnn	Numeric
Intermediate object/substance/product involved in another	7	68	74	nn.nnnn	Numeric
Type 1 of injury	2	75	76	nn	Numeric
Type 2 of injury (if applicable)	2	77	78	nn	Numeric
Part 1 of the body injured	4	79	82	n.nn	Numeric
Part 2 of the body Injured (if applicable)	4	83	86	n.nn	Numeric
Narrative (optional)	200	87	286	200n	Alphanumeric
Admission module (if applicable)					
Number of days in hospital	3	287	289	nnn	Numeric
Violence module (if applicable)					
Relation victim/perpetrator	1	290	290	n	Numeric
Sex of perpetrator	1	291	291	n	Numeric
Age of perpetrator	1	292	292	n	Numeric
Context of assault	1	293	293	n	Numeric
Intentional self-harm module (if applicable)					
Proximal risk factor	1	294	294	n	Numeric
Previous intentional self-harm	1	295	295	n	Numeric
Transport module (if applicable)					
Mode of transport	4	296	299	nn.n	Numeric
Role of injured person	1	300	300	n	Numeric
Counterpart	4	301	304	nn.n	Numeric
Sport module (if applicable)					
Type of sport/exercise activity	5	305	309	nn.nn	Numeric
Provider (hospital) code (optional)	3	310	312	nnn	Numeric
Total record length	312	1	312		

Table B: Format for the IDB-MDS data file					
Data Element	**No. characters**	**Position Start**	**Position End**	**Format**	**Type**
Recording country	2	1	2	nn	Numeric
Provider (hospital) code (optional)	3	3	5	nn	Numeric
Unique national record number	7	6	12	nnnnnnn	Numeric
Age category of patient	2	13	14	nn	Numeric
Sex of patient	1	15	15	n	Numeric
Permanent country of residence (optional)	1	16	16	n	Numeric
Month of attendance	2	17	18	nn	Numeric
Year of attendance	4	19	22	nnnn	Numeric
Treatment and follow-up	1	23	23	n	Numeric
Nature of injury 1 (primary injury)	2	24	25	nn	Numeric
Nature of injury 2 (secondary injury)	2	26	27	nn	Numeric
Part of the body injured 1 (primary injury)	2	28	29	nn	Numeric
Part of the body injured 2 (secondary injury)	2	30	31	nn	Numeric
Intent	1	32	32	n	Numeric
Location (setting) of occurrence	1	33	33	n	Numeric
Mechanism of injury	1	34	34	n	Numeric
Activity when injured	1	35	35	n	Numeric
Narrative (optional)	120	36	155	120n	Alphanumeric
Total record length	**155**	1	155		

Table C: Format of the IDB reference population data file (IDB-RPD)			
(For the codes for country and sex see the MDS Data Dictionary, in the Annex of the Manual)			
Field	No of characters	Position	Type
Year	4	1-4	Numeric
Country	2	5-6	Numeric
Sex	1	7	Numeric
Age (in 1-year age groups)	3	8-10	Numeric
Number of persons of reference	10	11-20	Numeric
Total record length	**20**	**1-20**	

Table D: Standard set of national (or regional) IDB rates (per 100.000 inhabitants, two decimals)												
COUNTRY	YEAR	INDICATOR	ALL CASES	MALES	FEMALES	0-14a	15-24a	25-64a	65+	ADMITTED	ED CASES	COMMENTS
		All injuries										
		ECHI-29b: Home, leisure and school accidents										
		ECHI-30b: Road traffic accidents										
		ECHI-31: Accidents at work										
		Injuries due to assaults										
		Injuries due to deliberate self-harm										
		Accidents at home										
		Accidents at school										
		Sport accidents										
		Road traffic injury										
		Fall										
		Cut/pierce										
		Poisoning										
		Burn/scald										
		Other/unknown										
		Contusion/bruise										
		Open wound, abrasion										
		Fracture										
		Dislocation/subluxation										
		Sprain/strain										
		Concussion/brain injury										
		Foreign body										
		Burn/scald										
		Muscle, tendon, blood vessel, nerves										
		Internal organs										
		Poisoning										
		Multiple injury										
		Other/unknown										

Table E: Format for reporting IDB-MDS rates in CSV (one line per each indicator)									
Country	Year	No	Indicator	Subgroup	No. of cases	Reference population	National population	Inc rate per 100000	National estimate
		1	**All injuries**	All cases					
		2		Males					
		3		Femals					
		4		0-14					
		5		15-24					
		6		25-64					
		7		65+					
		8		Admissions					
		9		ED-cases					
		10	**ECHI-29b: Home, leisure and school accidents**	All cases					
		11		Males					
		12		Femals					
		13		0-14					
		14		15-24					
		15		25-64					
		16		65+					
		17		Admissions					
		18		ED-cases					
		19	**ECHI-30b: Road traffic accidents**	All cases					
		20-27		...					
		28	**ECHI-31: Accidents at work**						
		29-36		...					
		37	**Injuries due to assaults**						
		38-45		...					
		46	**Injuries due to deliberate self-harm**						
		47-54		...					
		55	**Accidents at home**						
		56-63		...					
		64	**Accidents at school**						
		65-72		...					
		73	**Sport accidents**						
		74-81		...					
		82	**Road traffic injury**						
		83-90		...					
		91	**Fall**						
		92-99		...					
		100	**Cut/pierce**						
		101-108		...					
		109	**Poisoning**						
		110-117		...					
		118	**Burn/scald**						
		119-126		...					
		127	**Other/unknown**						
		128-135		...					
		136	**Contusion/bruise**						
		137-144		...					
		145	**Open wound, abrasion**						
		146-153		...					
		154	**Fracture**						
		155-162		...					
		163	**Dislocation/subluxation**						
		164-171		...					
		172	**Sprain/strain**						
		173-180		...					
		181	**Concussion/brain injury**						
		182-189		...					
		190	**Foreign body**						
		191-198		...					
		199	**Burn/scald**						
		200-207		...					
		208	**Muscle, tendon, blood vessel, nerves**						
		209-216		...					
		217	**Internal organs**						
		218-225		...					
		226	**Poisoning**						
		227-234		...					
		235	**Multiple injury**						
		236-243		...					
		244	**Other/unknown**						
		245-252		...					

Table F: IDB-Metadata Form (National IDB data file information, Version 2015+): Obligatory for MDS (directly collected or extracted from FDS)				
	Country		**nnnn**	
	Year		**nnnn**	
Item-No.	Question	Specification	Please tick	Please comment, if you have answered NO
Scope				
1	All age groups?	All age-groups covered	Y/N	
2	All injury categories (home, leisure, sport, school, road, paid work,	All MDS options for intent, setting and activity covered	Y/N	
3	All injury mechanisms?	All MDS options for injury mechanism covered and coded	Y/N	
4	All injury types and all body parts?	All MDS options for injury types and body parts covered and coded	Y/N	
5	Admissions and ambulatory treatments?	All MDS options for treatment and follow-up covered	Y/N	
Inclusion / exclusion of cases				
6	Only patients diagnosed as suffering from injury?	Equivalent to ICD-10 S00-T98 (chapter XIX)	Y/N	
7	Consequences of medical interventions excluded?	Equivalent to ICD-10 codesT80-T88 and T98.3 excluded	Y/N	
8	Follow-up treatments excluded?	No double counting of cases	Y/N	
9	Non-residents included?		Y/N	
Representativeness of the sample				
10	Recommended number of cases?	More than 10.000 cases	Y/N	
11	Number of hospitals in the sample?		nnn	
12	Recommended number of hospitals?	All hospitals (nat. pop <1m); minimum 3 hospitals (nat. pop. 1-3m),	Y/N	
13	Sample of hospitals balanced by hospital size?	Small, middle-size, large hospitals included	Y/N	
14	Sample of hospitals balanced by geo-coverage?	Hospitals with urban & rural catchment areas included	Y/N	
15	Sample of hospitals balanced by hospital type?	General hospitals, trauma centre or university hospital, child clinic	Y/N	
16	Validation checks?	Representativeness of current sample of hospitals has been	Y/N	
Quality of recording				
17	Rate of admissions?	Percentage of treatment code 1	nn.n%	
18	Average rate of "unknown"?)?	Average percentage of codes 9 or 99 of the following 10 MDS data	nn.n%	
19	Rate of children?	Percentage of children 0-14a	nn.n%	
Quality of estimated rate				
20	Incidence (ED presentation) rate available?	Crude rate, standardised for age and sex, using Eurostat	Y/N	
21	Valid at national level?	Tick no, if rate is valid at regional level and add name of the region	Y/N	
22	Recommended method of projection used (or no projection	HDR-method or EDR-method is used for projection (or IDB-MDS	Y/N	
23	Medical interventions consistently excluded for projection?	If HDR or EDR method is applied: medical interventions excluded	Y/N	
24	Follow-up treatments consistently excluded for projection?	If HDR or EDR method is applied: follow-up treatments excluded in	Y/N	
25	Day-care patients consistently excluded for projection?	If HDR or EDR method is applied: day care patients excluded in	Y/N	
26	Non-residents consistently included for projection?	If HDR or EDR method is applied: non-residents included in both,	Y/N	
27	Random sampling in hospitals?	If sampling within one or several hospitals occurs: Sampling	Y/N	
28	Known bias (e.g. regarding admissions) corrected?	No bias is known or bias has been corrected by means of external	Y/N	
Data delivery				
29	MDS data successfully uploaded?		Y/N	
30	FDS data successfully uploaded?		Y/N	
31	Reference population data file provided?	Automatic calculation of IR at IDB web-gate will be enabled	Y/N	
32	List of FDS reference hospitals provided?		Y/N	
National data provider			Please fill in	
33	National register name (and eventual abbreviation)			
34	Name of organization	In national language and English		
35	Name of respondent (contact person)			
36	E-mail address of contact person			
37	Date of completion of this form			

Table G: Files to be transferred from Swansea to Rome							
Status: 30 May 2020							
Country	**Year**	**MDS cases**	**FDS cases**	**RPD figure**	**Data strategy**	**Restrictions of validity of rates**	**Action**
Austria	2008	**?**	?	?	FDS>MDS		check with Sam
Austria	2009	12263	12276	118855	FDS>MDS		
Austria	2010	11875	11886	124590	FDS>MDS		
Austria	2011	13946	13971	151490	FDS>MDS		
Austria	2012	13536	13555	134685	FDS>MDS		
Austria	2013	10567	10579	108285	FDS>MDS		
Austria	2014	9561	9583	98551	FDS>MDS		
Austria	2015	11132	11141	127836	FDS>MDS		
Austria	2016	15499	15509	183740	FDS>MDS		
Austria	2017	15832	15848	190465	FDS>MDS		
Austria	2018	15990	15997	186965	FDS>MDS		
Cyprus	2008	?	?	?	FDS>MDS		check with Sam
Cyprus	2009	3309	3319	35535	FDS>MDS		
Cyprus	2010	1693	1694	18990	FDS>MDS	Inaccurate (small sample)	
Cyprus	2011	1186	1189		FDS>MDS		
Cyprus	2012	756	756		FDS>MDS		
Cyprus	2013	19762	381		MDS		
Cyprus	2014	6492			MDS		
Cyprus	2015	12301		25740	MDS		
Cyprus	2016	13283		43260	MDS		
Cyprus	2017	10157		50655	MDS		
Cyprus	2018	7965 (not uploaded yet)			MDS		upload
Czech Republic	2008	?	?	?	FDS	Only children (0-18)	check with Sam
Czech Republic	2009	4338	4353		FDS	Only children (0-18)	
Czech Republic	2010	4204	4222		FDS	Only children (0-18)	
Czech Republic	2011	6246	6306		FDS	Only children (0-18)	
Czech Republic	2012	7614	7647		FDS	Only children (0-18)	
Czech Republic	2013	9548	9645		FDS	Only children (0-18)	
Czech Republic	2014	712	718		FDS	Only children (0-18)	
Denmark	2008	?	?	?	FDS>MDS		check with Sam
Denmark	2009	65749	66629	596439	FDS>MDS		
Denmark	2010	49018	49820	455800	FDS>MDS		
Denmark	2011	601096	62028	5566851	FDS>MDS		
Denmark	2012	563349	34992	5587082	FDS>MDS		
Denmark	2013	542781	32425	5608783	FDS & MDS		
Denmark	2014	558275	31387	5639712	FDS & MDS		
Denmark	2015	550285		5678348	FDS & MDS		
Denmark	2016	537122		5724456	FDS & MDS		

Denmark	2017				MDS Rates		
Denmark	2018				MDS Rates		
Estonia	2012	60392		1325085	MDS		
Estonia	2013	82698		1320031	MDS		
Estonia	2014	88645		1315679	MDS		
Estonia	2015	101115		1314608	MDS		
Estonia	2016	151542		1315790	MDS		
Estonia	2017	149216		?	MDS		check with Sam
Estonia	2018	Data submitted but error in file		?	MDS		check with Sam
Finland	2010	16800		536336	MDS		
Finland	2011	19231		538830	MDS		
Finland	2012	20645		541406	MDS		
Finland	2013	21633		543881	MDS		
Finland	2014	20676		545775	MDS		
Finland	2015	23021		pending	MDS		reminder
Finland	2016	24557		549535	MDS		
Finland	2017	24706		550825	MDS		
Finland	2018	pending			MDS		reminder
Germany	2008	?	?	?	FDS>MDS	Just Brandenburg	check with Sam
Germany	2009	2225	2300	48131	FDS>MDS	Just Brandenburg	
Germany	2010	3632	3721	72737	FDS>MDS	Just Brandenburg	
Germany	2011	4004	4084	85392	FDS>MDS	Just Brandenburg	
Germany	2012	3815	3870	72525	FDS>MDS	Just Brandenburg	
Germany	2013	3730	3760		FDS & MDS rates	Just Brandenburg	
Germany	2014	3806	3815		FDS & MDS rates	Just Brandenburg	
Germany	2015	9199	9297		FDS & MDS rates	Just Brandenburg	
Germany	2016	8591	8668		FDS & MDS rates	Just Brandenburg	
Germany	2017	unclear			FDS & MDS rates	Just Brandenburg	clarify with Kropp
Germany	2018	unclear			FDS & MDS rates	Just Brandenburg	clarify with Kropp
Greece	2012	772	772		FDS		
Hungary	2013	3132	3132		FDS>MDS		
Hungary	2014	549	549		FDS>MDS		
Iceland	2010	29643		318006	MDS		
Iceland	2011	29654		318963	MDS		
Iceland	2012	30059		320663	MDS		
Iceland	2013	28579		323708	MDS		
Ireland	2013	13132		204088	MDS	Only adults (15+)	
Ireland	2014	11805			MDS	Only adults (15+)	
Italy	2009	16020	16020		FDS>MDS	Only home, road, violence	
Italy	2010	17812	17813		FDS>MDS	Only home, road, violence	
Italy	2011	135955	21663	1199135	FDS & MDS		

Italy	2013	12329 (need to check these figures)	18629		FDS & MDS		upload
Italy	2014	192842 (not uploaded yet)			FDS	Only home, road, violence	upload
Italy	2015		20,261 (not uploaded yet)		MDS		upload (FDS), reminder (MDS)
Italy	2016	pending			FDS & MDS		reminder
Italy	2017	pending			FDS & MDS		reminder
Italy	2018	pending			FDS & MDS		reminder
Latvia	2008	?	?		FDS>MDS	Only admissions	check with Sam
Latvia	2009	24270	24270	321634	FDS>MDS	Only admissions	
Latvia	2010	20751	20751	282948	FDS>MDS	Only admissions	
Latvia	2011	19076	19076	248109	FDS>MDS	Only admissions	
Latvia	2012	18061	18061	225483	FDS>MDS	Only admissions	
Latvia	2013	11746	11746	139725	FDS>MDS	Only admissions	
Latvia	2014	13763	13764	165331	FDS>MDS	Only admissions	
Latvia	2015	14312	14312	169786	FDS>MDS	Only admissions	
Latvia	2016	14858	14858	169166	FDS>MDS	Only admissions	
Latvia	2017	18253	18253	1950116	FDS>MDS		
Latvia	2018	pending	pending		FDS & MDS		reminder
Lithuania	2011	24738			MDS		
Lithuania	2012	45786			MDS		
Lithuania	2013	246582		2971905	MDS		
Lithuania	2014	314814		2943472	MDS		
Lithuania	2015	323445		2921262	MDS		
Lithuania	2016	325639		2888558	MDS		
Lithuania	2017	316743		2847904	MDS		
Lithuania	2018	318090 (not uploaded yet)			MDS		upload
Luxembourg	2012	20540			MDS		
Luxembourg	2013	61401	11320	537037	FDS & MDS		
Luxembourg	2014	48933	14857	409371	FDS & MDS		
Luxembourg	2015	50805	13896	418942	FDS & MDS		
Luxembourg	2016	54610	17031	484016	FDS & MDS		
Luxembourg	2017	55184	17834	491398	FDS & MDS		
Luxembourg	2018	72,681 (not uploaded yet)	18,504 (not uploaded yet)		FDS & MDS		upload
Malta	2008		?		FDS>MDS		check with Sam
Malta	2009	2995	3007	31405	FDS>MDS		
Malta	2010	3242	3244	31362	FDS>MDS		
Malta	2011	3127	3159	32424	FDS>MDS		
Malta	2012	3501	3525	28872	FDS>MDS		
Malta	2013	27930	28066	420440	FDS>MDS		
Malta	2014	12405	12474	427421	FDS>MDS		
Malta	2015	14468	14582	431936	FDS>MDS		
Malta	2016	26231	26427	437479	FDS>MDS		

Malta	2017	pending			FDS>MDS		reminder
Malta	2018	pending			FDS>MDS		reminder
Netherlands	2008		?		FDS>MDS		
Netherlands	2009	96391	97504	1883044	FDS>MDS		
Netherlands	2010	92534	94164	1911496	FDS>MDS		
Netherlands	2011	87213	88779	1754487	FDS>MDS		
Netherlands	2012	78965	80159	1911495	FDS & MDS		
Netherlands	2013	72435	73472	1651908	FDS & MDS		
Netherlands	2014	79584	79583	1742239	FDS & MDS		
Netherlands	2015	76857	76857	1288033	FDS & MDS		
Netherlands	2016	78747	78747	1348225	FDS & MDS		
Netherlands	2017	81,239 (not uploaded yet)	81,239 (not uploaded yet)		FDS & MDS		upload
Netherlands	2018	81,729 (not uploaded yet)	81,729 (not uploaded yet)		FDS & MDS		upload
Norway	2012	26690		443986	MDS		
Norway	2013	40245		676755	MDS		
Norway	2014	48649		828152	MDS		
Norway	2015	58740		997993	MDS		
Norway	2016	73333		1257607	MDS		
Norway	2017	124535		pending	MDS		reminder (ref pop)
Norway	2018	pending			MDS		reminder
Poland	2013	8826	258		FDS & MDS	Only children (0-18)	
Poland	2014	5833	418		FDS & MDS	Only children (0-18)	
Portugal	2008	?	?		FDS>MDS	Only home, leisure, school	check with Sam
Portugal	2009	1502	1504		FDS>MDS	Only home, leisure, school	
Portugal	2010	2466	2466		FDS>MDS	Only home, leisure, school	
Portugal	2011	6561	6565	104600	FDS>MDS	Only home, leisure, school	
Portugal	2012	4968	4978	96580	FDS>MDS	Only home, leisure, school	
Portugal	2013	7375	7370	208835	FDS>MDS	Only home, leisure, school	
Portugal	2014	4135	4136	55000	FDS>MDS	Only home, leisure, school	
Portugal	2015	15139	15175	223952	FDS>MDS	Only home, leisure, school	
Portugal	2016	25804	25887	468988	FDS>MDS	Only home, leisure, school	
Portugal	2017	50880	51109	746714	FDS>MDS	Only home, leisure, school	
Portugal	2018	100,683 (not uploaded yet)	100,683 (not uploaded yet		FDS>MDS	Only home, leisure, school	upload
Romania	2013	12744	2889	199214	FDS & MDS		
Slovenia	2008	379	27361		FDS>MDS	Only admissions	
Slovenia	2009	31350	31692		FDS>MDS	Only admissions	

Slovenia	2010	29330	29330		FDS>MDS	Only admissions	
Slovenia	2011	107097	83911	2052496	FDS & MDS		
Slovenia	2012	104851	80738	2056262	FDS & MDS		
Slovenia	2013	102731	78834	2059114	FDS & MDS		
Slovenia	2014	100895	75790	2061085	FDS & MDS		
Slovenia	2015	105101	78986	2062874	FDS & MDS		
Slovenia	2016	103518	72960	2064188	FDS & MDS		
Slovenia	2017	112830	81131	2066161	FDS & MDS		
Slovenia	2018	110,782 (not uploade yet)	78, 657 (not uploaded yet)		FDS & MDS		upload
Spain	2013	23534	23440	384073	FDS & MDS	Just Navarra region	
Sweden	2008	?	?	?	FDS>MDS		check with Sam
Sweden	2009	46400	47711	645380	FDS>MDS		
Sweden	2010	44188	45260	646772	FDS>MDS		
Sweden	2011	41014	42394	645553	FDS>MDS		
Sweden	2012	40270	41792	736170	FDS>MDS		
Sweden	2013	51790	53807	939017	FDS>MDS		
Sweden	2014	41010	42164	733932	FDS>MDS		
Sweden	2015	45997	47172	816748	FDS>MDS		
Sweden	2016	?			MDS		check with Sam
Sweden	2017	?			MDS		check with Sam
Sweden	2018	pending			MDS		reminder
Turkey	2012	4627	5024		FDS>MDS		
Turkey	2013	20954	21656	403200	FDS>MDS		
Turkey	2014	20668	21619	278840	FDS>MDS		
Turkey	2015	16404	16859	112030	FDS>MDS		
Turkey	2016	51195	51733	450465	FDS>MDS		
Turkey	2017	34283	34573		FDS>MDS		
Turkey	2018	42,223 (not uploaded yet)	42,223 (not uploaded yet)		FDS>MDS		upload
UK	2010				MDS rates	Just Wales	
UK	2011				MDS rates	Just Wales	
UK	2012				MDS rates	Just Wales	
UK	2013				MDS rates	Just Wales	
UK	2014				MDS rates	Just Wales	
UK	2015				MDS rates	Just Wales	
UK	2016				MDS rates	Just Wales	
UK	2017				MDS rates	Just Wales	
UK	2018				MDS rates	Just Wales	