

Joint Action on Monitoring Injuries in Europe (JAMIE): Development of a Minimum Data Set (MDS)

Background

JAMIE is a European project which aims to have a common emergency departmental-based surveillance system for injury prevention in operation in all Member States in the EU. All 27 Member States, and several accession states, have agreed to the implementation of JAMIE in their countries. Such a system is needed to report on external causes of injuries due to accidents and violence as part of the Community Statistics on Public Health. Further information can be obtained at: [http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/wwwAssets/7A0E220588591323C1257857003DBDA9/\\$file/Flyer%20JAMIE_Nov%202011.pdf](http://www.eurosafe.eu.com/csi/eurosafe2006.nsf/wwwAssets/7A0E220588591323C1257857003DBDA9/$file/Flyer%20JAMIE_Nov%202011.pdf)

The JAMIE project will build on previous work on injury data exchange initiated by the European Commission (EC) and a number of EU-member states, which resulted to the so called Injury Data Base hosted by the EC.

Consideration of the varying needs for surveillance to support prevention at local, national and European levels, the difficulties of implementing standardised datasets across thirty plus countries each with their own requirements and funding arrangements, and subsequent deliberations of the JAMIE Steering Group, led to a decision to propose a two level system for Europe based on: 1. expanding implementation of the existing full level IDB dataset, otherwise known as the Full injury surveillance Data Set (FDS), and 2. Developing a new Minimum Data Set (MDS), which could be widely adopted in virtually all hospitals in member states at low or no cost.

Contents of the JAMIE Minimum Data Set (MDS)

The simple MDS proposed for adoption in JAMIE contains information on four of the five major components of aetiology: intent, location (setting), activity, and mechanism. It is not possible to collect information on the fifth component (product involvement) in an MDS and that aspect of aetiology can only be served by the implementation of the FDS. In the MDS location (setting) and activity may be combined within a single category to ease data collection, but of course are separated into their component parts when reporting data. Whilst the MDS is quite sparse with a maximum of 21 items, of which only 4 need to be ticked, the combination of variables can provide very informative high level data to support monitoring, prevention and research. Again, in order to meet data recording needs for single screen/small area of clinical notes and the need to use lay terminology only 7 categories are provided for major mechanisms of injury. The contents of the JAMIE MDS were discussed by expert groups and agreed after consultation with all National Database Administrators in several meetings.

There will be a number of countries or hospitals which would like to collect a greater number (effectively creating a medium level dataset) and this is fine as long as it is possible to collapse the larger group into the categories within the MDS. That is the situation in countries such as the UK where there are additional requirements to collect more detailed information on injuries due to violence and road traffic injuries.

The MDS is designed to maximise data collection on important categories of injury causation in Europe. By its very nature it will not meet the needs for detailed information on all permutations of intent/activity/mechanism and location but will provide high level data to allow enumeration of injuries in the home, home and leisure (combined), during work, and due to road traffic, falls, sports or burns/scalds, and resulting from accidents, self harm or assaults (reflecting the main focus of prevention strategies in Europe).

As noted above however it is accepted that the proposed MDS may not allow sufficient injury information to be collected within every country across Europe to meet local needs. Consequently the option exists for data items that are not originally part of the MDS to be added where necessary. In this way the MDS is designed to be flexible allowing countries to add additional categories from the FDS if they wish in order to reflect their own particular injury circumstances. Despite this it is strongly recommended that additional categories of aetiology are only added in cases where it is absolutely necessary, given the need for a single screen/single page MDS to be maintained.

The European Community Health Home and Leisure injury indicator relates to all unintentional injuries which are not due to paid work or road traffic injuries. Hence details on these two factors need to be collected in order to subtract them from all injuries to enable calculation of the ECHI.

The Single Screen JAMIE Minimum Data Set (MDS): fields

A. Aetiology, external cause categories

Intent:

Accidental injury

Deliberate/Self-harm

Assault

Unknown

Location (setting):

Road/Pavement

Educational establishment/Grounds

Home/Garden

Pub/Club

Other

Unknown

This variable effectively combines location with major categories of activity to reduce respondent burden as otherwise separate sections would be needed. The variable is described under the

location (setting) heading as most categories fit this descriptor best. Work and sports are exception which has been included as a separate activity variable (see further down).

Selected mechanisms:

Road traffic injury

Fall

Cut/pierce

Poisoning

Burn/Scald

Other

Unknown

Selected activities:

Paid work

Sports

Other

Unknown

This simple MDS has 14 useful response categories (excluding the other and the unknown responses which are useful for quality assurance but are otherwise uninformative). Combinations of variables can be used to derive important metrics, e.g. deliberate self harm by poisoning. Such a simple MDS cannot provide information in the same level of detail as the full data dataset (IDB) or medium level datasets. However, it represents a very useful high level dataset of up to 120 (3x4x5x2) combinations of injury determinants in addition to sports injury.

Screen Shot of JAMIE MDS

Please note, Questions 2 – 5 only appear if 'Yes' is selected in question 1.

1. INJURY OR POISONING: Yes
 No

2. HOW DID THE INJURY OCCUR: Road Traffic Injury
 Fall
 Cut/Pierce
 Poisoning
 Burn/Scald
 Other
 Unknown

Additional information:

3. INTENT: Accidental
 Deliberate/Self-harm
 Assault
 Unknown

4. WHERE DID THE INCIDENT TAKE PLACE: Road/Pavement
 Educational establishment/ Grounds
 Home/Garden
 Pub/Club
 Other

Incident location (only for assault/RTI e.g. pub/street):

5. WHAT WAS THE PATIENT DOING AT THE TIME OF THE INJURY: Paid Work
 Sports
 Other
 Unknown

Expanded Version of MDS

Different countries/areas may wish to expand the MDS to collect more information on some specific topics. In Wales, UK, an expanded version of the MDS dataset has been developed to support prevention relating to assaults, road traffic injuries and sports injuries. A single additional screen requiring further information will appear only if either 'Assault' (Q3), 'Road Traffic Injury' (Q5) or 'Sports' (Q6) are selected.

Example screen shots of the expanded Welsh version of MDS can be seen below:

Screen Shots of Expanded MDS: Main Screen

The main screen is the same as the standard JAMIE MDS.

| | |
|--|--|
| 1. INJURY OR POISONING: | <input type="radio"/> Yes <input type="radio"/> No |
| 2. HOW DID THE INJURY OCCUR: | <input type="radio"/> Road Traffic Injury* <input type="radio"/> Fall* <input type="radio"/> Cut/Pierce <input type="radio"/> Poisoning <input type="radio"/> Burn/Scald <input type="radio"/> Other <input type="radio"/> Unknown |
| <i>Additional information:</i> | <div style="border: 1px solid black; padding: 2px;"><i>E.g. hit off bike by motor vehicle</i></div> |
| 3. INTENT: | <input type="radio"/> Accidental <input type="radio"/> Deliberate/Self-harm <input type="radio"/> Assault* <input type="radio"/> Unknown |
| 4. WHERE DID THE INCIDENT TAKE PLACE: | <input type="radio"/> Road/Pavement <input type="radio"/> Educational establishment/ Grounds <input type="radio"/> Home/Garden <input type="radio"/> Pub/Club <input type="radio"/> Other |
| <i>Incident location (only for assault/RTI e.g. pub/street):</i> | <div style="border: 1px solid black; padding: 2px;"><i>E.g. Where Joe Bloggs Street crosses Smith Street</i></div> |
| 5. WHAT WAS THE PATIENT DOING AT THE TIME OF THE INJURY: | <input type="radio"/> Paid Work <input type="radio"/> Sports* <input type="radio"/> Other <input type="radio"/> Unknown |

Additional 'Road Traffic Injury' Screen

This question only appears if 'Road Traffic Injury' is selected in question 2 on the main screen.

- 2 a) TYPE OF ROAD USER:**
- Pedestrian
 - Cyclist
 - Motorbike Rider
 - Motorbike passenger
 - Motorised Vehicle Driver
 - Motorised Vehicle Passenger
 - Other

Additional 'Assault' Screen

These questions only appear if 'Assault' is selected in question 3 on the main screen. Additional assault questions can be viewed on the following page.

3 a) WHEN DID THE ASSAULT OCCUR:

- Today
- Yesterday
- Other

3 b) TIME OF ASSAULT:

HH:MM (24 hour)

3 c) NUMBER OF PERPETRATORS:

- 1
- 2
- 3 or more
- Unknown

3 d) PERPETRATOR/S GENDER:

- Male
- Female
- Male and Female
- Unknown

3 e) PREVIOUS ASSAULT BY PERPETRATOR/S:

- Yes
- No
- Unknown

3 f) RELATIONSHIP WITH PERPETRATOR/S:

- Spouse/Partner
- Parent
- Other Relative
- Unrelated Care Giver
- Acquaintance/Friend
- Official/Legal Authority
- Stranger
- Other

3 g) WEAPON/BODY PART USED:

- Body part used:
- Pushed
 - Fist
 - Feet
 - Head
- Weapon used:
- Glass
 - Bottle
 - Knife
 - Blunt Object
 - Gun
 - Other

3 h) POLICE NOTIFIED:

- Yes
- No
- Unknown

3 i) PERPETRATOR/S TAKEN ALCOHOL/DRUGS:

- Yes
- No
- Unknown

Additional 'Sports' Screen

This question only appear if 'Sports' is selected in question 5 on the main screen.

- 5 a) SPORTS ACTIVITY:**
- Aero sports
 - Badminton
 - Baseball
 - Basketball
 - Climbing
 - Combat sports
 - Cricket
 - Cycling
 - Golf
 - Gymnastics
 - Hockey
 - Horse Riding
 - Ice-skating
 - Motor sports
 - Netball
 - Rugby union
 - Rugby league
 - Running/jogging
 - Skateboard/Roller Blades/Skates
 - Skiing
 - Soccer
 - Squash
 - Swimming
 - Tennis
 - Water sports
 - Weightlifting
 - Other sports