



Appendix I:

Section 4: Methodology for case studies

The case study examples that are included in this document are considered a 'first round'. We set out to provide case studies to illustrate implementation examples of good practice and a more detailed analysis of lessons learned to assist those considering implementing the strategy in their own setting. However the reality is that many programmes have not been examined with respect to their effectiveness and it is even less likely that they will have been evaluated using a rigorous research design that includes a comparison group and a look at behavioural and injury outcomes. As a result many programmes could not be included as case studies in this version, but it is anticipated that as more programmes receive adequate evaluation additional examples can be added.

Case studies were sought and selected based on the following criteria:

- Example programme addresses issues of priority within Europe (based on injury burden).
- Example programme met our definition of good practice.
- Example programme corresponds with one of the good practices identified.

- Example programme has been implemented and evaluated (both process and outcome evaluations completed) in a European setting and found to be effective.

In addition to the selection criteria, where possible we also attempted to select case study examples that reflected a range of resource intensities (e.g., a range of costs to implement) and implementation levels (e.g., national, regional or local). Case studies were also selected to try and reflect the efforts from as many areas of Europe as possible. Case study examples were sought in a snowball approach through various sources including members of the European Child Safety Alliance and other child injury prevention and safety promotion experts. In addition, internet searches and selective reviews of the recent literature were used to identify additional potential case studies.

For each potential case study selected, a contact person was identified and a research associate contacted him or her to ascertain that the potential case study met the inclusion criteria. Once this was established, available documentation was examined and a standardised interview was conducted that sought and summarised the following information:

- Implementation level (at what level was the strategy focussed – national, regional or local?)

- Strategy approach (which of the 3 E's was used – education, engineering, enforcement or a combination?)
- Setting of intervention (where did the intervention take place?)
- Target audience for the intervention (at who was the intervention aimed?)
- Resource intensity – an indication of the resource intensity required [€ = up to €20.000/year, €€ = €20-90.000/year, €€€ = €100-299.000/year, €€€€ = €300-999.000/year, €€€€€ = €1.000.000 plus/year]*
- Background for the initiative (including rationale, driving force, timeframe and major partners)
- Aim & objectives of intervention
- Key steps / actions in intervention
- Evaluation of intervention
- Lessons learned (including barriers and facilitators, advice to countries and issues around transferability)

*The resource implications provided should be interpreted carefully. First they do not include in-kind support which in many cases far outweighs the actual budget spent on the implementation of a strategy. Second although the resource intensity estimates provided come from the project personnel themselves, it is important to remember that costs vary by country for many things such as people's time, printing of resources, etc. As a result the resources required when looking at transferring a strategy from one setting to another may vary from what is reported here.





- References
- Contact information for intervention

Following each interview, the case study was written up in a consistent format, which included the addition of the evidence statement supporting the strategy. Case studies were then returned to the contact for confirmation and clarification before being added to the guide. Of note, three of the cases studies - Safe Road to School in Faro, Portugal; Bicycle Helmet Campaign, Denmark and Child Resistant Packaging for Chemicals, Netherlands - are enhanced expansions of case studies originally collected for the WHO for the Children's health and environment case studies summary book⁹³

Finally it is important to note that the cases studies included in the following section are an initial attempt to illustrate examples of existing good practice. The European Child Safety Alliance invites submission of additional case study ideas that meet the criteria described above for inclusion in future editions. Please forward case study ideas to secretariat@childsafetyeurope.org



All Wales Injury Surveillance System (AWISS) Wales

IMPLEMENTATION LEVEL	National
APPROACH	Surveillance
SETTING	Hospitals
TARGET AUDIENCE	Public health policy makers, practitioners, researchers
RESOURCE IMPLICATIONS	€€€
EVIDENCE BASE:	The collection and dissemination of data is vitally important in the monitoring and evaluation of injury prevention programmes, the development of policy and practice. ^{1,2}

Background

The All Wales Injury Surveillance System (AWISS) is designed to collect data on all injuries from all accident and emergency (A&E) departments in Wales, and to calculate population based event rates.³

AWISS data fields include:

- Name.
- Address.
- Postcode.
- Sex.
- Date of Birth.
- A&E number (unique number for each individual attendance at hospital).
- NHS number (unique number for each person).
- Referral source (self, general practitioner, other).
- General Practitioner code (codes for individual general practitioner or practice).
- School attended.
- Occupation.
- Ethnic group.
- Time of incident.
- Date of incident.
- Initial complaint (text field, which often contains information on symptoms, activity, location, and mechanism of injury).
- First/repeat attendance.
- Mode of arrival (private transport, ambulance, helicopter).

- Road Traffic Crash (RTC) place.
- RTC location.
- RTC road user.
- RTC safety device.
- Triage category (five point national priority score).
- Patient group (accident, assault, self-inflicted).
- Incident type (home, public place, etc.).
- Incident location (text field which can contain information on address, name of premises etc, but often also contains information on activity and mechanism of injury).
- Diagnoses 1 to 6.
- Diagnostic anatomical site 1 to 6.
- Side of body 1 to 6.
- Treatments (varies by unit).
- Investigations (varies by unit).
- Disposal (discharged, admitted).
- Follow up (A&E, outpatient, GP, none).

Policy Background/Driving Force

Established by recommendation of the Welsh Health Planning Forum, a pilot system was implemented in a county in Wales. Following the success of the pilot study, it was decided to extend the system to all of Wales. AWISS started in 1996, funded by the National Assembly for Wales.

In 1999, upon assessing the value of AWISS, the National Assembly for Wales recommended permanent funding. Additional recommendations included using the data as a

means of setting and monitoring injury reduction targets, facilitating national and local initiatives, and sharing and discussing data with other agencies on a regular basis in order to highlight the injury problem and develop interagency action plans.

Partners

- University of Wales
- National Assembly for Wales
- Hospitals

Aims & Objectives

- To collect population-level data on injury morbidity.
- To use the data to:
 - Measure the magnitude of the injury problem to identify areas or group with particularly high rates of injury.
 - Develop and implement injury prevention initiatives.

Evaluation

In 2003, AWISS was estimated to cover 80% of the 2.9 million people in Wales through data collection at 13 of 17 A&E departments.⁴



The narrative field of the surveillance system was investigated to see if it provided useful information that was routinely and automatically analysable.⁴ Almost 100,000 records dating from January 1999 to June 2000 were used to develop automated algorithms.

The algorithms were tested on a new set of 50,000 records with narrative statements. This dataset was subsequently compared with a 50,000 record dataset of records with no algorithms. In the no narrative data set, 67.5% of injuries were coded as “other” or “not known,” compared with 49.5% in the narrative dataset.

The narrative increased injury identification particularly in cases where sensitivity was highest. For example, for school-related injuries, an additional 51.8% of injuries were identified; for rugby and soccer, 137.2% and 86.8% more injuries were identified, respectively.

AWISS has initiated injury prevention activities in a number of different areas.³ For example, the development of the Child Safe Penarth initiative, identification of pubs and clubs with high assault incidents and development of interventions, the use of body padding to reduce rugby-related injuries, and development of the Wales Collaboration in Accident Prevention and Injury Control.

Key Steps

- Sign-up key partners to the importance of surveillance. This includes policy makers who may want the data for policy reasons, data holders (i.e., hospitals), and informatics (i.e., bodies that hold national data, which may enable data linkage).
- Develop an agreement on what can be provided (e.g., the data themselves, reports based on data analyse, etc.) and timelines. Develop guidance on the use and interpretation of the data.

- Surveillance is more likely to continue if data have multiple uses (e.g., identifying scale of problems, hot spots, targeting and evaluating interventions). A research link is valuable, as is a policy link. Data can be invaluable in influencing politicians – demonstrating need, and using data to suggest and test potential solutions.
- Continue to demonstrate value and usefulness of data, as this is key to ensuring continued support and funding.

Lessons Learned

Barriers

- There is considerable variability in the computer systems and amount of data collected by different hospitals.
- Because some residents of Wales choose to attend A&E departments in England, some areas are not entirely captured.
- Variability in data and coverage of the system means the ability to compare areas can be limited. Analyses at the national level are relatively crude, but in some areas allow much more detailed levels of analysis.
- New interpretations of the UK 1998 Data Protection Act hold that patient consent is required for the use of data beyond that required for treatment purposes. This has resulted in some hospitals pulling out of AWISS. A solution is being implemented in which data would be sent to another organization within the Welsh Health System, which would link the data with other data sets, remove duplicates and make them anonymous before sending on for analysis.
- Data collection is not mandatory, making it possible for hospitals to pull out of the process. However, it is to be made mandatory shortly.

- Resources cover only data analysis expenses. No resources are provided to hospitals for data collection.

Facilitators

- Capitalising on data already collected by A&E departments for treatment purposes.
- Sufficient common data collected across hospitals to allow aggregation and comparability.
- A champion for AWISS also sat on the body examining corporate information, which makes decisions on national database.
- Collecting data for all age groups, because policy makers may be interested in different age groups at different times. This ensures that data are always seen as relevant.

Advice to Countries/Transferability

- Members of the AWISS team participated in two European Commission funded projects for the development and testing of minimum data sets for injury surveillance, and EUROCOST – a system to assess the medical cost of injury in Europe.



References, Additional Information

1. Measuring and Monitoring Injury Working Group, Accidental Injury Task Force. (2002). Measuring and monitoring injury. London: Department of Health. <http://www.dh.gov.uk/assetRoot/04/07/22/26/04072226.pdf>
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3. Lyons, R. A., Jones, S., Kemp, A., et al. (2002). Development and use of a population based injury surveillance system: The All Wales Injury Surveillance System (AWISS). Injury Prevention, 8, 83-86.
4. Jones, S. J., & Lyons, R. A. (2003). Routine narrative analysis as a screening tool to improve data quality. Injury Prevention, 9, 184-186.

See also:

<http://www.lshtm.ac.uk/docdat/records.php?t=records&id=AWISS>

Holder Y, Peden M, Krug E, Lund J, Gururaj G, Kobusingye O. Injury Surveillance Guidelines. Geneva: World Health Organization, 2001. Available from: http://www.who.int/violence_injury_prevention/publications/surveillance/surveillance_guidelines/en/

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