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DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY  
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### Working Party on Consumer Product Safety

#### GLOBAL INJURY DATA PORTAL: PROJECT ROADMAP

3-4 April 2014

*Attached is an updated roadmap for the development of the global injury data portal. The project will be discussed by the working party at its meeting on 3-4 April 2014.*

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## GLOBAL INJURY DATA PORTAL: PROJECT ROADMAP

### Project goals

1. The goals of the project are to:
  - Create and deploy an injury data collection and reporting system for domestic use by jurisdictions throughout the world.
  - Ensure that participating jurisdictions have the capacity to implement and sustain domestic systems.
  - Build and operate a web-based global injury data portal that pools domestic data from multiple jurisdictions.

### Background

2. Government agencies charged with ensuring the safety of consumer products understand that gathering and analysing injury data is vital to following injury trends and flagging product hazards that may require intervention. Data sources typically include hospital emergency departments, fire and rescue services, health departments, law enforcement agencies, legal filings, consumer complaints, and news reports. Some of the government systems in use around the world provide injury data that is both reliable and statistically valid for an entire jurisdiction. Some jurisdictions collect anecdotal information that is of limited use in identifying trends. Most jurisdictions have little or no central government capacity for collecting and analysing injury data and thus, the ability of many product safety agencies to spot emerging product safety hazards at an early stage and intervene to protect consumers is severely limited.

3. The OECD Working Party on Consumer Product Safety recognised the importance of improving injury data availability as a tool for protecting consumers when it included the establishment of a platform for global pooling of injury data among the ten recommendations in a 2010 report on work to be undertaken by the newly chartered group.

4. The proposed work would be carried out in two phases. The foundation and first major phase of the Global Injury Data Portal would be a multi-year capacity building programme under which participating jurisdictions would obtain, deploy, and operate injury data collection systems with specific uniform characteristics. This phase is an absolute prerequisite and would rely on the development of an international standard for injury data collection, development and deployment of software, training for participants, and the creation of an accreditation and audit program. Funding sources would need to be secured to support this work.

5. The second phase would focus on the construction of the global data platform utilising the data contributions of the participating jurisdictions. It should be noted that the data contributed to the OECD platform would not contain personally identifiable information and would, in any case, be limited to that data that could legally be uploaded under the laws of the contributing jurisdiction. The Global Injury Data Portal would be engineered to receive and display injury data from around the world that is reliable and

statistically valid. A reliable global pool of injury data from multiple jurisdictions would provide governments with a powerful tool for product risk analysis, with the potential for richer data and the added benefit of “early warning” for those jurisdictions not yet facing a hazard that is already emerging elsewhere.

6. The working party must recruit funding partners for this project to succeed. For funding of the initial business plan and for implementation of phases I and II, the working party would approach international governmental organizations that have health and safety mandates, aid and development agencies, and commercial entities with an interest in helping to reduce consumer injuries. Sustainable funding for operation of the global data platform would be supported from subscription fees paid by non-contributing parties who wish to use the global data.

7. The working party is uniquely positioned to undertake this project. Its members include the product safety agencies for which sufficient and accurate injury data is vital for effective administration of product safety policies. These agencies have the expertise to ensure the project meets real world needs. With the development of the Global Consumer Product Recalls Portal (launch date October 2012), the working party has gained the technical experience needed to undertake this project. Finally, as a constituent organisation of the OECD, the working party can rely on a permanent administrative platform for the project during development and ongoing operation.

## **Benefits of the portal**

### *Value of injury data*

8. A robust injury data collection system would provide many benefits to government and stakeholders. In simplest form, an estimate of injury trends could be used by product safety agencies to raise consumer awareness. At the other end of the spectrum are extremely detailed studies of specific products that provide data on the number and types of injuries associated with specific hazards. When a system is properly constructed, data can allow analysts to construct estimates of hazards valid for an entire jurisdiction. These studies can contribute to the development of standards or technical regulations needed to address product safety issues.

9. Hospital emergency data are unique among the various injury information sources. The large number of incidents seen in hospital emergency departments provides the volume needed to measure the number of injuries associated with the thousands of different consumer products in the marketplace. While this data is useful, a system specially designed to capture relevant injury data from different sources for analysis and appropriate action would enhance the effectiveness of product safety regimes.

10. One of the more important considerations in selecting an appropriate data source is timeliness. The faster the data arrive for analysis by the product safety agency, the faster appropriate action may be taken to eliminate or reduce a hazard. Timeliness also is vital when investigations are conducted for selected incidents. It is essential to follow up with an immediate investigation of a case before the victim's memory of the incident fades and before the product associated with the injury is lost or altered.

11. Many injury victims seek treatment in hospital emergency departments, especially when the victim or the family perceives the need for immediate care. The apparent desire for immediate care also implies a certain severity. Therefore, it is likely that more severe injuries are treated in hospital emergency departments than in other places. Experience with data from emergency departments has demonstrated that a large number of injury cases can be collected in an efficient, cost-effective manner.

12. In some jurisdictions, injury data collected by the government are available to the public and are often used by multiple agencies of the government, manufacturers, researchers, and lawyers. Because injuries treated in emergency departments are not limited to those caused by consumer products, an injury data collection system could also be used to capture valuable data on other hazards, such as vehicle and work place accidents, as well as violence related injuries. An injury reporting system could also be expanded to capture other public health data such as incidence of disease, a combination that might be especially useful in jurisdictions lacking any public health reporting systems.

### ***Benefits of pooling the data***

13. The value of pooling injury data is already well understood among governments. Assembled regional injury data in a country often forms the basis for national data. Global injury data is not available, although the value of assembling national data to construct a global picture is accepted and widely practiced in the financial and economic sectors, among others. The benefits that would accrue to product safety and health agencies from pooling qualified national data together in a global injury data platform are clear. As discussed below, these benefits would be gained by agencies whether large or small, highly experienced or newly created.

14. A properly constructed domestic injury reporting system could serve both as a record of events and to construct a probability sample of emergency departments in a given jurisdiction. If injury data contributed to a multi-jurisdictional pool is accurate and reasonably complete, the global IT platform could be used to provide information organized by frequency, location, and circumstances of known injuries from a given hazard around the world. This has great potential value for product safety and health agencies wishing to benefit from the shared experiences of colleagues in another jurisdiction. Moreover, it could provide an early alert of an emerging hazard not yet widely understood. This view into the experience of other jurisdictions may be especially helpful where new products are introduced in only one or a few markets to test consumer reaction or in cases where the seasonal nature of a product results in it being introduced first in either the northern or southern hemisphere.

15. Where domestic data reporting systems are valid as probability samples, pooling opens additional opportunities. One is the potential for applying expanded statistical analysis to the data from collections of jurisdictions whose domestic data are each statistically valid on their own. Also, where probability data align among multiple jurisdictions, other jurisdictions without statistically valid data might find it useful to consider whether useful conclusions can be drawn from others' experiences.

### **Phase I - Capacity building**

#### ***Uniform System for Injury Surveillance (USIS)***

16. A global injury data portal requires that incoming data be organized in a standardized format in order to be of maximum value to users. Standardisation may be achieved through uniformity of the reporting systems that are being used by contributing jurisdictions or by "mapping" of data from disparate reporting formats into a common format. This project foresees a need for both approaches. Phase I would focus on the creation and deployment of a Uniform System for Injury Surveillance (USIS) for jurisdictions that have little or no capacity. Some jurisdictions with well-developed systems would likely elect to use data mapping rather than migrate to a new system.

17. Of the major injury reporting systems in use throughout the world, the system used in the United States, the National Electronic Injury Surveillance System (NEISS) operated by the U.S. Consumer Product Safety Commission (CPSC), is widely regarded as a solid standard for injury data collection and analysis (see Annex I). Since the introduction of NEISS in 1973, the CPSC has received many requests

from other jurisdictions for a “do-it-yourself” version of NEISS that they could deploy for their own domestic use. The CPSC has been unable to comply with these requests for several reasons: the software is in many ways specific to use within the United States, the system relies on trained operators (paid by the CPSC) who enter data at hospitals and the set of hospitals selected to participate have been determined so as to make up a statistically representative national sample valid for the United States.

18. The USIS software product to be developed and deployed for this OECD project would be modelled after NEISS for functionality but would be designed for use in any jurisdiction. Flexibility and scalability in the USIS architecture would ensure jurisdictions can use it to the extent of their current capacity and grow into additional capabilities as experience and resources allow.

### ***Reliability and statistical validity***

19. Capacity building efforts and USIS deployment to a jurisdiction must be undertaken with a view toward quality assurance. Injury data reported to the global portal by participating jurisdictions must be, at minimum, accurate. Accuracy would be vital to fellow regulators and other stakeholders who rely on reported data in order to inform short term decisions and long term policies. Not all jurisdictions have the capacity to employ statistical sampling at an early stage, but the accuracy of all data contributed must be assured. For this reason, a jurisdiction would participate as a contributor to the portal at one of two levels with its data identified to portal users accordingly: *i)* certified accurate; or *ii)* certified accurate and statistically representative.

### ***Need for a standard and accrediting capacity***

20. Certification implies the existence of a standard which can be used to gauge the capacity and performance of an agency’s data collection activities. Because there is no internationally recognised standard for the collection of injury data, a standard must be developed. Ideally, this should be undertaken within an existing standards development organisation (SDO), although it may be possible for the working party to organize an expert committee for this purpose. A product safety regulator’s or other agency’s accreditation to the standard would be accomplished through review of the organisation’s procedures, training, and technical competence by an accrediting body. A suitable accrediting body, or bodies, would need to be identified (possibly among health care bodies) or established. An additional benefit of working through an SDO to develop the standard for injury data collection would be the existing relationships that major SDOs have with existing accrediting organisations. The ISO Consumer Policy Committee (COPOLCO) has specifically contemplated coordinating with the working party on standards development for this global injury data project.

### ***Sustainability at the jurisdiction level***

21. It is likely that most of the jurisdictions already operating sophisticated injury data collection systems have a reasonable degree of assurance that funding for those systems will be maintained for the foreseeable future. For jurisdictions that have little or no injury data collection, outside funding that may be available for capacity building cannot be relied upon for the long-term. A requirement for receiving such assistance would be that the jurisdiction show evidence that sustainable funding likely will become available to operate an accredited injury data collection program for a minimum number of years.

### ***Sustainability at the portal level***

22. The cost of maintaining the Global Injuries Data Portal once it is up and running should be comparable to that of the Global Recalls Portal, now estimated at up to EUR 50 000 per year at full functionality. Although the injuries IT platform will be more complex than the recalls platform, hardware, administration, and maintenance are likely to incur only marginal additional costs over those for the recalls

portal. Nonetheless, the business model for the injuries portal should include a revenue stream to ensure the portal's ongoing operation. The most obvious source would be access fees paid by non-participating parties wishing to utilize data from the portal. While contributing government entities and major financial partners could be granted broad access, a sliding scale of fees for corporations, NGOs, and academics could be created to defray the costs of operation.

### ***Funding considerations***

23. The scope of this project far exceeds the financial resources available to the working party at this time. As stated above, operation of the injury portal can be expected to be financed in large part by user fees. However, much more significant costs will be associated with the phase I development of USIS, development of a standard for injury data collection, and capacity building in jurisdictions that have no experience with sophisticated public health data collection systems.<sup>1</sup>

24. The most obvious mechanisms for funding phase I work are grants and partnerships. Organisations such as the World Bank, the World Health Organization (WHO), as well as the aid and development agencies of developed countries would be likely candidates. The WHO and its regional agencies which have a mandate to monitor and promote health and safety, appear to have interests that align with those of the working party. In addition, consumer product safety as an element of a developed consumer economy and public health as a critical input of economic development would likely attract interest in the injury portal project by agencies with development mandates. Early consultations with the most likely funding partners would be important for identifying their needs and interests that would factor into a decision to participate in this initiative.

### ***Business plan***

25. Seed money from a funding partner in the order of EUR 110 000 will be needed to develop a business plan, the first major activity for this project. A business plan would not only guide the working party through the project, but would provide cost estimates and serve as essential documentation for obtaining the majority of phase I funding. Given the scope and potential costs associated with this project, development of a business plan would be the essential first step.

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<sup>1</sup> It would need to be determined whether the working party would have an administrative role with regard to the funding for capacity building or would simply facilitate jurisdictions' access to funding partners.

**Phase II**

26. Phase II of the project would involve making the portal operational and expanding the participation of jurisdictions.

**Milestones**

27. Following are proposed milestone activities and time frames. When completed, the project business plan will provide more detailed information.

<b>Timeframe</b>	<b>Objective</b>	
September 2012	Working Party adopted project roadmap	
September 2012 – October 2013	Roadmap and collateral information provided to global consumer product safety agencies	
Q1 and Q2 2014	Initiate discussions with potential business plan funding partners	
Q4 2014	Business plan funded	
Q2 2015	Business plan delivered	
Q2 2015 – Q4 2015	Seek funding for development of USIS	
Launch Date (LD) (Date funding is on hand) USIS is on hand)	Launch project	
	<b>Phase I</b>	<b>Phase II</b>
LD + 12 months	Development of USIS	
LD + 6 months	Seek funding for development of general capacity building program  Seek funding for development of standard for injury data collection  Seek funding for development of Global Injury Data Portal	
LD + 6 months to LD + 30 months	Development of general capacity building programme  Development of standard  Development of portal	
LD + 12 months to LD + 24 months		Testing of portal with uncertified data from jurisdictions already collecting injury data
LD + 30 months	Delivery of standard  Capacity building begins  Accreditations and certifications begin for jurisdictions that already have capacity	Transition to certified data in portal and fully functional portal capability
Beyond LD + 30 months	Capacity building, accreditations/certifications continue	Additional jurisdictions contribute to portal



## ANNEX I ABOUT NEISS

28. NEISS provides for five levels of data collection:

- Ongoing routine surveillance of emergency department injuries.
- Special emergency department surveillance activities.
- Follow-back telephone interviews with the injured person.
- More comprehensive on-site investigations with the injured person.
- Other witnesses.

29. The current NEISS is a sophisticated probability sample of emergency departments with injury data keyed directly into computers by staff of the participating hospitals. The first NEISS was designed in 1970. Based on a 1968 inventory of U.S. hospitals and 1960 population census data, the first NEISS comprised 119 hospitals, a statistically valid sample, representative of all general hospitals with emergency departments in the 48 contiguous States.

30. To improve validity and accuracy, NEISS has been redesigned or updated significantly several times since its inception. In the most recent major update (1997) the NEISS sample was adjusted to reflect a more current distribution of U.S. hospitals with emergency departments.

31. NEISS now includes approximately 100 hospitals grouped into five strata, four strata representing hospital emergency departments of differing sizes and a fifth representing emergency departments from children's hospitals.

32. Since initiating the most current sample update, the CPSC has begun maintaining the currency of the sample by purchasing a new list of hospitals each year. The lists show all hospitals in the United States and its territories having emergency departments and include the annual number of emergency department visits. After appropriate adjustments to assure that hospitals in the list conform to the required specifications, the new list frame is used to ratio-adjust the statistical weights for the current NEISS hospital sample to the current total number of emergency department visits. The result is that the NEISS sample weights more accurately reflect the total number of emergency department visits in the United States for the given year. These techniques help to avoid the need to adjust system estimates to account for the effects of changes in the sample.

33. In the year 2000 CPSC managers initiated an important expansion to NEISS by deciding to collect *all injuries* rather than just consumer product-related injuries. CPSC and the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention (CDC) jointly funded the expansion.

34. In addition to the consumer product-related incidents that have always been collected, the expanded system includes the following types of injury and poisoning incidents:

- Incidents where no product is mentioned (e.g. "fell to ground").

- Incidents related to products that are outside CPSC's jurisdiction (e.g. motor vehicles, boats, aircraft, pesticides, food, drugs, medical devices, cosmetics, firearms, tobacco).
- Incidents that occur during work for compensation.
- Incidents that are intentionally inflicted (e.g. assaults and attempted suicides).

35. Because the NEISS is a probability sample of all hospitals with emergency departments in the United States and its territories, it has statistical properties that provide for measuring the magnitude of a problem through national estimates. Each case collected has an associated statistical weight based on the sample design. Also, the sample design provides a method for adjusting the statistical weights of cases from participating hospitals to account for the non-participation from other hospitals. The basic (or historical) national estimate is the sum of the statistical weights (adjusted, as needed) for all cases of interest.