

Data Needs for Injury Prevention

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The purpose of the workshop on data needs for injury prevention was to discuss how to improve the quality, reliability, and comparability of international statistics on injuries relevant to monitoring and evaluating injury prevention programs. The principal questions contemplated and discussion points were:

- 1) How can public health data systems (e.g., health interview, behavioral risk factor, prehospital, emergency department, hospital, rehabilitation, social services, medical examiner/coroner and vital statistics data systems) be used to provide useful information for monitoring and evaluating injury prevention efforts?
 - a) What are the problems?
 - lack of standards and guidelines
 - timeliness of the availability of data
 - lack of population-based data
 - inability to integrate data from different systems
 - inflexibility of data systems for change or modification, e.g., to add new data elements
 - limitation of resources
 - lack of follow-up epidemiologic research, e.g., examining the effects of implementation of new laws, such as those requiring children to wear bicycle helmets
 - lack of data collection by providers
 - b) What are the potential solutions?
 - develop internationally accepted guidelines and standards for case definitions and data element definitions
 - automate data collection, data processing and reporting systems
 - develop population-based systems through sampling techniques
 - integrate data systems through data linkage and aggregation of data relevant to injury prevention efforts
 - develop systems that are easily adaptable to change
 - develop mechanisms and allocate resources for timely follow-up of epidemiologic investigations
 - increased emphasis of medical care provider training in the value of injury prevention data collection
- 2) How can data collection, analysis and reporting methods be standardized to improve data quality and promote comparability of process and outcome data (e.g., changes in knowledge, attitudes, and behaviors, morbidity, disability, and mortality) in relation to injury prevention programs among different countries?
 - a) What are the problems?
 - assurance of confidentiality
 - fragmentation/disparity of data systems
 - quality of data sources
 - no uniform quality assurance programs
 - lack of automation data collection and processing procedures
 - long lag time between data collection and the availability of final data for reporting
 - lack of routine data reporting mechanisms
 - lack of public access data tapes
 - poor documentation/no data users manuals

- b) What are the potential solutions?
- develop guidelines and standards to assure confidentiality
 - conduct an international inventory of injury-related data systems to determine sources, quality, contents, uses, limitations, and accessibility of data
 - develop international standards for guidelines for data collection, analysis and reporting of injury data
 - consider use of an abbreviated ICD coding system that could be mapped back to standard coding
- 3) What injury data (e.g., circumstances about the injury event, incidence, demographic and socioeconomic factors, interventions (e.g., bicycle helmet laws, DUI laws), behavioral risk factors, morbidity, disability and mortality) are needed for international comparisons of prevention effectiveness?
- a) What data are needed?
- incidence of injury
 - characteristics of the population
 - characteristics of injury persons
 - characteristics of high risk subgroups
 - environmental conditions
 - political conditions
 - social conditions
 - risk factors
 - risk behaviors
 - health outcomes
 - cost to society
 - interventions
- b) What are the problems in making comparisons of what interventions work, assuming high quality data are available?
- intervention strategies are not clearly defined
 - different priority injury problems among countries and communities within countries
 - different target populations
 - different political, social or environmental influences
- c) What are the potential solutions?
- develop a uniform minimum data set for assessment of the effectiveness of injury prevention and control programs
 - conduct a comprehensive, international literature review of all prevention effectiveness studies
 - conduct comparative analysis or meta analysis on selected studies of interventions and their effectiveness among countries
 - publish recommendations for methods to conduct future prevention effectiveness studies that will improve the capacity for international comparisons
 - develop and conduct training courses in surveillance and statistical methods applicable to assessing prevention effectiveness
- 4) How can those who plan and implement injury prevention programs best communicate their data needs with those responsible for the design, data content and operations of public health systems?
- a) What are the problems in communicating data needs?
- data persons are often not involved in the design and implementation of injury prevention program

- program persons are often not involved in the design and implementation of surveillance/data systems

b) What are the potential solutions?

- data and program people need to work together to ensure appropriate high quality data are being obtained for the design and evaluation of injury prevention programs
- statisticians, computer programmers and public health professionals need to use a team approach to establishing public health data systems that are useful for program planning and evaluation

Recommendations

1. Identify a minimum, standardized international injury database with the flexibility to add detailed modules needed to evaluate interventions
 - begin with mortality data
 - standardize groupings of codes
 - standardize how data are reported
 - recommend the use of a narrative variable
2. Develop general guidelines and standards for integrated injury data systems relevant to their use in monitoring and evaluating injury prevention programs.
 - conduct demonstration projects to evaluate the usefulness of these guidelines and standards in several countries with well-developed data systems and injury prevention programs
 - modify the guidelines and standards based on the results of the demonstration projects
 - hold an international consensus conference
 - disseminate guidelines and standards to all countries
3. Increase international collaborative research
 - Produce an international inventory and clearinghouse of available injury-related data and prevention effectiveness research
4. Circulate enhanced ICE mailing list with listing of participant's individual research interests
5. Reconvene ICE participants at the 3rd International Injury Conference in Australia
6. Most of these activities should be coordinated by a subgroup of the WHO International Injury Surveillance Workgroup