Global injury surveillance: opportunities and challenges

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Historically, before injury began to emerge as a recognised scientific field, injury surveillance was viewed as a process with the primary aim of collecting data—more complete data, more timely data—but still data collection. Injury surveillance is a broader concept that extends beyond data collection to include analysis, interpretation of findings, dissemination, evaluation and data limitations.[1–4] Surveillance is the foundation of injury prevention as it can: facilitate identification of emerging issues and high-risk populations; quantify issues related to injury disparities in vulnerable populations; track trends and inform programme design, redesign and evaluation for development of more targeted, effective interventions.

Organisational collaboration to advance global injury surveillance

Four associations of injury researchers and practitioners hosted a session entitled 'Global Injury Surveillance—Opportunities and Challenges' at the 10th World Conference on Injury Prevention and Safety Promotion. Issues addressed by panellists included: (1) methodology for population-based injury surveillance; (2) resources and political will to create a surveillance infrastructure; and (3) timely access to surveillance data for use in injury prevention. Panelists representing the perspectives of both resource-limited and resource-affluent countries shared issues, problems, solutions and examples of successful surveillance systems. We summarise here some of the concepts presented as part of this productive session.

Methodologies and approaches to developing sustainable surveillance systems

Panelists worked from World Health Organization surveillance guidelines that contain recommendations for developing surveillance systems.[1] Some key elements of an effective surveillance system include: (1) clear leadership/coordination between key players and institutions; (2) defined roles for all partners and reporting institutions; (3) adequate human, system and financial resources; and (4) collection of data that will be used for taking action. The need for 'local data for local action' was also stressed, as was the importance of developing sustainable surveillance systems. Many resources are available to those developing or improving existing surveillance systems.[1 2 4–6] When possible, data collected for, other purposes should be incorporated into surveillance systems to avoid gaps in surveillance that can occur with funding lapses.

Providing timely access to surveillance data for injury prevention

The internet has become a valuable tool for increasing the accessibility of surveillance data in both resource-affluent and resource-poor countries.

The US Centers for Disease Control and Prevention's WISQARS[6] and Cambodia's Road Traffic Accident and Victim Information System[7] are examples. The Cambodian system is an accessible surveillance programme developed in a resource-limited country with the aid of outside partners. It was noted that this system has been effective in addressing three of the cross-cutting challenges of injury surveillance: sustainability, data quality and utility of data for action. Another panelist noted that users of a surveillance system are very heterogeneous, with widely varying needs, and advised that, when possible, web-based systems be developed to allow maximum flexibility to obtain information in the needed format. The recommendation was that surveillance systems 'be developed in a modular form so that new data or capabilities can be added as new modules that do not require one to redo their whole system.' WISQARS[6] provides annual updates for both fatal and non-fatal injury as new data become available and also provides for the addition of new capabilities. With this approach, a module was added to WISQARS to provide access to the National Violent Death Reporting System (NVDRS) and, more recently, a very useful and widely popular mapping module. Later this autumn, another module will be added to provide injury-related costs by mechanism, type of injury, and other useful variables.

Garnering political will and resources

Using the example of WISQARS' expansion to include violence data,[6] it was noted that coalitions of stakeholders with a common goal could be very effective in garnering the political will needed to support such an endeavour. A panelist noted that the success of the Cambodian system is due to multi-organisational investment in basic infrastructure in with resources for planning, implementation, coordination, capacity development and evaluation.

Effective injury surveillance exhibits similarities across resource-limited and resource-affluent countries. It may thus be possible for countries to advance in the effectiveness of their injury surveillance and prevention programmes through global sharing of information and intellectual, political and financial resources, thereby avoiding many time- and resource-consuming missteps.

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