Implementing a Hospital Based Injury Surveillance System in Zambia - A Preliminary Report

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Introduction

A public health approach to injury requires for an understanding and definition of both, the types of injuries that affect most frequently a defined population, and the context in which these injuries occur.

A hospital based injury surveillance system at Lusaka University Teaching Hospital (the main teaching hospital in Zambia, was implemented as part of a multi-national injury surveillance pilot project in five African countries in 2007. Uganda, Nigeria, Kenya and the Democratic Republic of the Congo were the other countries involved. This multinational injury surveillance project is an attempt to respond to the World Health Organization’s call for multi-sectoral collaborative efforts for the prevention of violent injury and an increase in the capacity

Methods

• Between January 1 and June 30, 2007, detailed information on all new patients arriving with specific injuries at the Emergency Department of the Lusaka University Teaching Hospital (LUTH) were included in the surveillance system.

• A surveillance questionnaire developed by a joint project of PAHO and CDC was used to collect the recommended injury data.

• An electronic version of the questionnaire was created using Epi-Info for data-entry purposes.

• Data was submitted for quality control and analysis to the project’s coordinating center at Ponce Medical School in Puerto Rico.

Objectives

• To systematically collect, review and evaluate the context in which specific injuries occur in a great diversity of socio-cultural populations. The three types of injuries of interest are: interpersonal violence (IPV), road traffic injuries (RTI) and self-inflicted injuries.

• To test the implementation of an injury surveillance system in countries where no such system is in place (i.e. Zambia, Democratic Republic of the Congo, Nigeria, and Kenya).

• To provide evidence-based recommendations to local government health authorities to address the incidence of injury in their communities from a public health perspective, as well as other public policy makers and community advocates, in order to encourage the development of injury prevention strategies.

Results

• Of a total of 2,714 new incident cases recorded by the surveillance system, of which 1,332 cases were IPV injuries and 1,352 were RTI (approx. 49% each).

• The remaining cases were reported as self-inflicted injuries (26 cases) and other type of injuries (4 cases).

• This presentation is limited to an analysis of IPV and RTI cases only.

• The most frequent road user injured were pedestrians of either gender, representing approx. half of all RTI.

• The second most frequent road user injured, male riders of motorcycles, represented 11.1%.

• Gender distribution are similar for both types of injuries whereby most of the cases are males (>70%).

• A greater proportion of young age patients are reported with RTI (<15 years of age) than in IPV cases.

• In both types of injuries young adults are most often affected (20-39 years old).

• Significant differences are noted in the age group distribution between the two types of injuries (Chi sq., <0.01).

• Ages distribution are similar for both types of injuries.

• In both types of injuries children under 15 years of age and infants have a greater proportion of injuries.

Conclusions

• This is the first time that systematic collection of injury data was successfully implemented at LUTH.

• This pilot project demonstrates that it is possible to collect detailed information on the context in which IPV and RTI that are treated at a hospital with high volume of injury patients.

• Information on the context in which IPV and RTI occur as provided by a surveillance system should become an integral part of the regular information gathering process from patients treated with specific injuries at ED.

• The surveillance system should not be seen as a special, temporary project, but rather as a fundamental element of a long term strategy for the control and prevention of injuries in our communities.

• Young adult males between the ages of 20-39 are most frequently affected by IPV and RTI.

• The use of firearms in IPV in Zambia is minimal, but the use of blunt force results in head injuries in approx. 2/3 of all cases.

• Most of RTI occur among pedestrians and motorcycle riders. Pedestrians are mostly injured by automobiles while most motorcycle riders are injured in collisions with other motorcycles.

• IPV results mostly in head lacerations/abrasions while head bruises/contusions are the most frequent injury as a result of RTI.