

IPPNW's PILOT MULTINATIONAL INJURY SURVEILLANCE STUDY

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(excerpted and updated by MariaValenti, IPPNW)

EXECUTIVE SUMMARY

The purpose of this pilot study is to systematically collect, review and evaluate the context in which specific external injuries occur in a diversity of socio-cultural populations. The second purpose of this study proposal is to test the implementation of an injury surveillance system in countries where no such system is in place (i.e. Zambia, Democratic Republic of Congo, Nigeria, and Kenya). Thirdly, the study aims to collaborate with local efforts in countries where an injury surveillance system is already in place (i.e. Uganda). The fourth and last objective is 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 community advocates and public policy makers at the local, state, regional and international levels in order to inform and encourage the development of armed violence prevention strategies.

In 1996, the 49th World Health Organization (WHO) Assembly identified violence as a leading public health problem worldwide. Subsequently a Programme of Action was developed that led to the production of a landmark WHO document on the use of small arms and health, as well as the first WHO world report on violence and health. The public health impact of small arms and light weapons (SALW) in violent deaths worldwide described in the first WHO's report indicates that in the year of 2000, the largest proportion of firearm related deaths in upper-middle and low income countries were attributed to homicides, while a large proportion of firearm related deaths in high income countries, including the United States, mostly occurred as self-inflicted wounds (suicide).

Small arms and light weapons have been recognized as a humanitarian crisis but the dimensions of the problem are poorly understood. Attempts at the United Nations (most notably the *United Nations Conference on the Illicit Trade in Small Arms and Light Weapons in All Its Aspects*) and within some regions of the world to control the problem have been slowed down by politics and restricted to more traditional national security and law enforcement approaches.

Sustained high mortality rates from armed violence requires a commitment to develop and support action-oriented research in order to address these types of injury from a public health perspective. Progress in developing a public health response to violence in particular, and injury in

general in countries with limited resources has been impeded by the lack of a systematic approach to utilize comparable data sources of injury.

This multinational injury surveillance proposal responds to the WHO's call for multi-sectoral and collaborative efforts for the prevention of violent injury. In particular, we wish to respond to some of the WHO's recommendations issued in its World Report on Violence and Health. Specifically, recommendation No. 2 that calls for an increase in the capacity for collection of data on violence, and recommendation No. 3, that calls for carrying out research on violence, its causes, consequences and prevention in different population groups and different cultural settings. We agree with the WHO's ecological model approach for understanding the causes, consequences and prevention of violence. The ecological model suggests that it is the interaction of several factors at play that makes a particular segment of the population at risk of violent injury. These factors are found at four levels: the individual, the relationship, the community and the societal.

This multinational research effort utilizes a common instrument to collect injury data and thus facilitate the comparison of the context in which violent injury occurs in these countries. This project is a concerted effort in 5 countries with different resources, and different social, cultural and economic backgrounds to provide a scientific base to compare and describe the magnitude of the problem, and where and who is affected in each country. Establishing a surveillance system for external causes of injury will contribute to the development of prevention intervention strategies in each country in a relatively short period of time.

The five countries in Africa included in this project will provide a unique opportunity to define and compare a range of variability in their experiences with violent injury.

The study is divided in two phases. Phase I includes the retrospective review of a limited number of injury cases treated at the Emergency Department (ED) in each participating hospital, and the preliminary or formative evaluation in each country led by each co-principal investigator (Co-PI). This preparatory work helps us organize ourselves in terms of logistics and human resources before the prospective collection of injury data in Phase II. Phase II is the actual collection of external injury data at the designated ED in each country for a six month period. Both phases are described below.

We have launched Phase I of the project with International Physicians for the Prevention of Nuclear War (IPPNW) affiliates in 5 African countries – Kenya, DR Congo, Nigeria, Uganda and Zambia, and El Salvador. Phase I in these countries has been being implemented with limited funding support and is indicative of the co-participants commitment to this project. We have field tested the questionnaire designed by the joint Pan American Health Organization (PAHO)/United

States Centers for Disease Control (CDC) injury project in Central America, currently being used in Colombia, Nicaragua and El Salvador., by retrospectively collecting data on 30 cases selected at random in each participating hospital within the last six months. We have been working under the guidance of PAHO/CDC injury experts and given support to expand the use of this data gathering instrument in this project. (See attached copy of the questionnaire).

Phase I activities also include the development and implementation of a trainer of trainers workshop for all study co-investigators who in turn will train the personnel involved in data collection at each participating hospital and to systematically collect injury data for a six to twelve month period (depending on funding secured) on new violent injury related cases reported to the emergency department in each participating hospital. A 3 ½ day training for the five African sites was held in Nairobi, Kenya in March of 2006, with Kenyatta Hospital participating as a field site. It was attended by a total of 12 physician researchers from the 5 sites.

DISSEMINATION OF RESULTS

We propose to analyze and summarize findings of data collected in the six-month period and compare the context in which violent injury occurs in different socio-cultural settings. The analysis is at two levels: a) individual hospital findings and b) multinational comparisons.

Because this is a pilot project that seeks to foment and provide the initial effort to implement an ongoing or sustainable injury surveillance system in each hospital, recommendations to implement such a system at the hospital level will be included with the presentation of final results obtained for each hospital. It is hoped that with the success of this pilot project we can demonstrate the usefulness of having data on injury collected in a systematic process at the emergency department of hospitals in the participating countries. Therefore, as part of the recommendations from this study to maintain an injury surveillance mechanism at the hospital level, the study questionnaire could be integrated in the documentation of injury patients treated at the hospital's emergency department.

The objectives above provide an opportunity to analyze and therefore better define and understand the context in which violent incidents occur in several countries in Africa. Results will be presented at several levels: local, national and international level. At the local level, a final report will be presented to the source institutions, i.e. hospital personnel directly involved with the treatment of injury patients. The participating hospitals will be the immediate beneficiary of the proposed analysis providing critical information for the allocation of resources and planning. In addition, participating hospitals will have a copy of their own database created in the project. At the national level in each country, the final report will include recommendations to government institutions responsible for injury prevention and control, including the Ministry of Health, the Police and other agencies of

relevance. It is also the intent of this proposal to share the findings of this study with non-governmental or community organizations that are interested or actively involved in the prevention of violent injury. At the international level, we intend to disseminate the analysis and results of this project through scientific-peer reviewed publications and relevant international meetings or conferences.

EVALUATION

Three types of evaluation are incorporated in this project: a) formative evaluation in the planning or Phase I; b) process evaluation during the implementation of Phase II; and c) Impact/Outcome evaluation, after the completion of all objectives in Phase II. The control of data quality will be carried out mainly in the process evaluation, as described in the Methods section of the study protocol.

In addition, we hope that with a surveillance system in place in each of the participating hospitals, health authorities will have reliable data on injury for the region or area that each hospital provides emergency health care services for. Over time, health authorities may use this information to develop injury prevention strategies. This information will also be shared with community organizations interested in the prevention and control of injuries in their communities. The intent is to have an empowered community, aware of the risk factors that precipitate injury incidents in their community and thus seek the resolution of those risk factors that are both within their own decision making abilities and government authorities.

Co-principal Investigators at the five African sites include the following:

Zambia - Robert Mtonga MD
Uganda - Peter Olupot-Olupot MD MPH
Nigeria - Ime John MD MPH
DR Congo- Simon Bokongo MD
Kenya - Walter Odhiambo MD

For additional information, please contact Principal Investigator:

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(Survey Form)

ENTRY:

NP^{OP} :

IDENTIFICATION

Last Name				First Name				REGISTER		
AGE	YEAR	MONTH	DAY	BIRTHDAY minors of 12 years	DAY	MONTH	Y R	SEX	Occupation	
								M	F	Education
RESIDENCE		DEPT	MUNICIPALITY				ADDRESS			
Place where the injury occurred		DEPT	MUNICIPALITY				ADDRESS			

II- GENERAL DATA OF EVENT (CLOSE IN CIRCLES) (For every variable check only one)

Day and Hour : HISTORY <table border="1"> <tr> <td>Mon</td><td>Tue</td><td>Wed</td><td>Thur</td><td>Fri</td><td>Sat</td><td>Sun</td> </tr> <tr> <td>DAY</td><td>MONTH</td><td>YEAR</td><td colspan="4">HOUR</td> </tr> </table>							Mon	Tue	Wed	Thur	Fri	Sat	Sun	DAY	MONTH	YEAR	HOUR				INTENTIONALITY 1-Non intentional ("accidents") 2-Self-inflicted (intentional :suicides o attempts) 3-Intentional (interpersonal violence, assaults) 8-Other _____ 9-Unknown	PLACE <i>Where were you when you were injured?</i> 1-Home 2-School 3-Street 4-Work 5- Bar, or similar 8-Other _____ 9-UNKNOWN	ACTIVITY <i>What were you doing when you were injured?</i> 1-Working 2-Studying 3-Sports 4-Travelling 5-Recreation/leisure 6-Drinking alcohol 8-Other _____ 9-UNKNOWN
Mon	Tue	Wed	Thur	Fri	Sat	Sun																	
DAY	MONTH	YEAR	HOUR																				
DAY AND HOUR: EVENT <table border="1"> <tr> <td>Mon</td><td>Tue</td><td>Wed</td><td>Thur</td><td>Fri</td><td>Sat</td><td>Sun</td> </tr> <tr> <td>DAY</td><td>MONTH</td><td>YEAR</td><td colspan="4">HOUR</td> </tr> </table>							Mon	Tue	Wed	Thur	Fri	Sat	Sun	DAY	MONTH	YEAR	HOUR						
Mon	Tue	Wed	Thur	Fri	Sat	Sun																	
DAY	MONTH	YEAR	HOUR																				
PREVIOUS ATTENTION YE N S O							MECHANISM OF INJURY (IES) (How was the injury sustained?) 1-Transport Injury 2-Sexual assault 3-Falls : a)same level b)other level (.....mts) 4-Blunt force 5-Stab/Cut 6-Gunshot 7-Fire/Smoke/heat a)fire/smoke/flame b) warm liquids c)fireworks 8-Choking/Strangulation 9-Drowning/ near drowning 10-Poisoning a)drugs..... b)pesticides..... c)cooking fuel (e.g kerosene..... d) cleaning agents																
WHERE ATTENTION IN PUBLIC YE N HOSPITAL S O							11-Explosion a) landmines b) other explosives 12- Bite a)Person b)Animal _____ 13-Electricity 14- Natural Disaster _____ 15- Contact with Foreign Body 88-Other _____ 99-Unknown																

III-INJURY MODULES

MOTOR VEHICLE RELATED			INTERPERSONAL VIOLENCE or ASSAULTS Previous episode no yes N°		SELF-INFLICTED Previous episode no yes N°	
MODE OF TRANSPORT (How was the injured person traveling?) 1. Pedestrian 2-Bicycle 3-Motorcycle 4-Car 5-Pick-Up 6-Truck 7a-Bus 7b-Microbús 8-Cart/animal 9-Taxi 88-Other _____ 99-Unknown	ROAD USER (what was the role of the injured person) 1-Pedestrian 2-Driver 3-Passanger 8-Other _____ 9.Unknown Safety elements 1-seat belt (Y) (N) (U/K) 2-helmet (Y) (N) (U/K) 3-Kids car seat (Y) (N) (U/K)	COUNTERPART What the Injured hits ? 1. Pedestrian 2-Bicycle 3-Motorcycle 4-Car 5-Pick- up 6-Truck 7a-Bus 7b-Microbús 8-Cart/Animal 9-Taxi 10-Fixed Object 88-Other _____ 99-Unknown	RELATIONSHIP PERPETRATOR TO THE VICTIM 1-Partner or ex-partner 2a-Parents 2b-Step-parents 3-Other relatives 4-Friends /Known person 5-Unknown person 8-Other _____ 9-Unknown	CONTEXT 1-Quarrel/Fight 2-Burglary or robbery 3-Sexual Assault 4-Gang activity 5-Family Violence/ Domestic violence 6-Lost bullet 8-Other _____ 9-Unknown	PRECIPITATING FACTORS 1-Conflict with family 2-Physical illness 3-Psychological condition 4-Financial problems 5-Legal system encounters 6-Death of family member 7-Victim of sexual or physical abuse 8-Conflict with partner/boyfriend 9- Difficulties with school 10- Unexpected pregnancy 88-Other _____ 99-Unknown	

IV- OTHER DATA ABOUT THE INJURIES

VICTIM / INJURED PERSON (IF THE DRIVER IS THE VICTIM PUT HERE THE INFORMATION)		SEX OF PERPETRATOR 1-Male 2-Female 9-Unknown
ALCOHOL USE	OTHER PSYCHOACTIVE SUBSTANCE	
1- NO SUSPICION OR EVIDENCE 2- YES, THERE IS SUSPICION OR EVIDENCE 9- UNKNOWN	1- NO SUSPICION OR EVIDENCE 2- YES, THERE IS SUSPICION, WHICH _____ 9- UNKNOWN	

V- CLINICAL DATA

ANATOMIC PLACE OF THE INJURY (IES) <i>(You can check more than one)</i>		NATURE OF THE INJURY	SEVERITY	DISCHARGE CONDITION		
1-Head 2-Face 2-Neck 3-Eyes 4-Ears 5-Nose 6-Thorax 7-Back 8-Abdomen	9- Pelvis /genitals 10-Shoulder/Arm 11-Elbow/Forearm 12-Wrist/Hand/Fingers 13-Hip/Thigh 14-Knee/legs 15-Ankle/Feet/Toes 16-Multiples 88-Other_____		1-Laceration, abrasion, 2-Cut/Wound/Bite 3- Systemic Organ Injury 4-Strain/Sprain or Dislocation 5-Fracture 6-Burn 7-Bruise , contusion 8-Trauma Brain 88-Others_____ 99- Unknown	1-Minor or superficial (e.g. bruises, minor cuts) 2-Moderate , requiring some skilled treatment (e.g. fractures, sutures) 3-Severe , requiring intensive medical/surgical management (e.g. internal hemorrhage, punctured organs, severed blood vessels)	1) alive 2) died DISPOSITION 1-Treated and discharged 2-Admitted in the hospital 3-Referred to other hospital:_____ 4-Escape 5-Voluntary abandonment 6. Unknown	
		ICD X-DIAGNOSIS				
		Physician				

REASON FOR CONSULTATION :
EXISTING DISEASES OR HEALTH PROBLEM

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LAST TIME OF MEAL

HOUR OF ATTENDANCE

BACKGROUND

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PHYSICAL EXAM HR:	RR:	T°:	BP:
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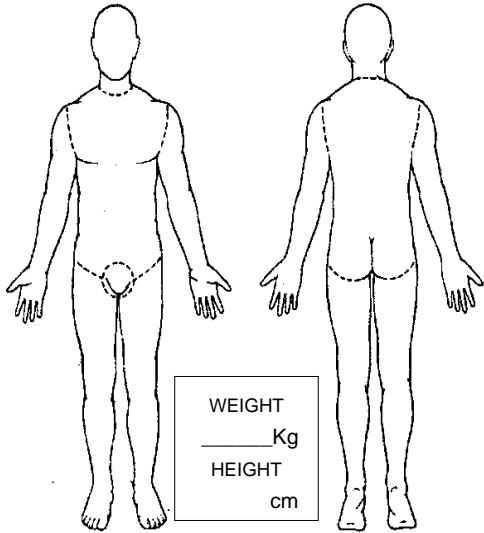
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INJURIES SCHEME	
	
GLASGOW:	Points

INITIAL DIAGNOSIS

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INITIAL TREATMENT

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COMPLETED by (Signature and stamp)

SUPERVISOR (Signature and stamp)

AUTORIZATION (Signature and stamp)

PROCEDURES IMPLEMENTED

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Signature (person who conducted the procedure) _____
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