

# INJURY INFORMATION, MONITORING AND **EVALUATION SYSTEMS STRAND**

#### **INTRODUCTION**

VIPRU hosts an Innovative Methodologies and Technologies Strand which is directed at the development of data collection systems, evaluation tools and analytic strategies to support injury prevention and safety promotion research and programme activities at community, city, provincial, and national, with applicability at continental levels. The following overall questions are addressed:

- What are the methodological and technological innovations required to support prevention?
- What is the epidemiology of fatal and non-fatal injuries?

### **JOHANNESBURG INJURY AND SAFETY PROMOTION OBSERVATORY AND PUBLIC SAFETY MEASURE**

The ISHS and VIPRU are collaborating with the Joburg City Safety Programme (JCSP) on a research and intervention project focused on public safety and particularly on the development of a public safety measure (PSM) for the City of Johannesburg. The tool, to be the first of its kind in the country, will allow for a range of safety actions for the City including: a. The development of a cross-referenced informational repository for the City; b. Monitoring and evaluating the implementation of safety-related projects in the City; c. Benchmarking of outcomes and successes across the country and other international settings; and d. Developing selected context-appropriate prevention actions and safety promotion initiatives focused on vulnerable groups and environments. This initiative is undertaken in collaboration with a range of stakeholders from within the City as well as the broader sector, and aligned with the City's broader Growth and Development Strategy 2040 and associated Integrated Development Plan, as well as international safer cities initiatives. The figure below provides a snapshot of the phases of development of the overall project.

• What are indicators of safety and peace?

#### NATIONAL INJURY MORTALITY SURVEILLANCE SYSTEM

The National Injury Mortality Surveillance System (or NIMSS) is currently the most detailed source of information on the "who, what, when and where" of fatal injuries in South Africa. The NIMSS contributes widely to the injury prevention and safety promotion agenda in SA. It comprises information on 350 000-injury fatalities, and is a useful source of information for monitoring injury trends, the effectiveness of prevention initiatives, and the accuracy of other data sources. The NIMSS enables capacity development, information dissemination and collaborative research among many stakeholders. For forensic pathology services, NIMSS is able to provide important information for the allocation of resources, auditing of costs and rationalisation of services. NIMSS is able to provide descriptive information needed for the design and implementation of preventive interventions at municipal, metropolitan, provincial and national levels. The automated capture and reporting system has been developed and piloted at selected Forensic Pathology Services in Gauteng and Mpumalanga (see Figure 1 below). This version of the system allows for the collection of fatal injury data to be centralised and standardised. Figure 1 below is an illustration of the online integrated system providing access to information on the nature and extent of injuries in South Africa.



#### Conceptual Framework



Figure 3: Conceptual Framework of Johannesburg Injury and Safety Promotion Observatory and Public Safety Measure

Figure 4 provides examples of possible indicators to be incorporated in the PSM which falls within phase two of the Johannesburg Injury and Safety Promotion Observatory and Public Safety Measure project.

**Figure 1:** Evolution of the eNIMSS

## **COMMUNITY SAFETY AND PEACE INDEX**

Present levels of, and future improvements in population health and well-being are contingent upon safety. Safety is defined as upholding of individual and community well-being by inhibiting threats to material, emotional or physical harm. Whitzman and Mayes (2005) emphasise that community safety indicators are relatively under-developed worldwide, including practical local community knowledge on indicators. There is thus a need for the development of contextually relevant indicators through researchercommunity collaboration, by including multiple stakeholder groups, empowering and engagement of local communities, and addressing important local challenges. Figure 2 indicates the overall goal of the project as well as its specific objectives.



#### Possible Indicators

Crime, Violence & Injury Outcomes	Proximal risk	Distal/structural risk	Neighbourhood processes	Service delivery
Violence Family	<ul><li>Violence</li><li>Substance abuse</li></ul>	Deprivation &     Inequality	<ul> <li>Social cohesion</li> <li>Collective Efficacy</li> </ul>	Emergency     response
<ul><li>Gender</li></ul>	<ul> <li>Weapons</li> </ul>	<ul> <li>Infrastructure</li> </ul>	<ul> <li>Social capital</li> </ul>	preparedness &
	Conflict		Physical disorder	management Police performance
Unintentional	Transport	• Gender relations:	• Perception of crime	Judicial resources
<ul> <li>Trattic</li> <li>Burns falls</li> </ul>	<ul><li>Speeding</li><li>DUI</li></ul>	roles, norms & masculinities	Fear of crime	<ul> <li>Court services</li> <li>Correction &amp;</li> </ul>
drowning		mascaminico		probation services
Crime	Unintentional			/
Perceptions & tear	<ul> <li>Inadequate</li> </ul>			/
	supervision of			
	<ul> <li>Unsafe products</li> </ul>			
Considerations:				
Injury Mortality and Morbidity: Exposure				
based rates				

**Figure 4:** Indicators highlighted for the development of the Public Safety Measure in Johannesburg

## **COMMUNITY DEMOGRAPHIC INJURY SURVEILLANCE** SYSTEM (CDISS)

The purpose of this project was to develop, implement and assess the usefulness of a CDISS focused on collecting information and registering incidents of injuries among high risk populations (e.g. children) and that could provide a platform for injury prevention in localised settings characterised by resource and infrastructural limitations. Figure 5 below indicates the process followed during data collection of CDISS.

A map of all the property stands (bounded structures) in the community was created



#### Survey Questionnaire Section 1- Form 1 (Property Stand) • Diagram of BS boundary

• BS type (household, ECD, shebeen, etc) and state (physical)

#### Data captured, cleaned and analysed • 1048 property stands

- 1963 households
- 5664 residents



is to develop an innovative and contextually appropriate and relevant instrument to assess monitor and promote safety, peace and well-being in communities in South Africa and the continent

the progress of safety, peace and quality of life within local communities.

- To develop valid and reliable safety and peace measures for broader national and African implementation.
- To assess the efficacy of specific safety and peace intervention in multiple settings.
- To serve as an advocacy tool.
- To develop a mobile app.

Figure 2: Community Safety and Peace Index (CSPI)

#### Figure 5: Data Collection Process of the CDISS

