DATA TO ACTION: AN OVERVIEW OF CRIME, VIOLENCE AND INJURY PREVENTION IN SOUTH AFRICA

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Injury is a major public health issue. An estimated five million people died from injuries in 2000, accounting for 9% of all deaths worldwide (Peden, McGee & Sharma 2002). Additionally, for every person killed by injury, around 30 times as many are hospitalised and 300 times as many are treated for less serious injuries and discharged (Holder *et al.* 2001). Depending on the cause, severity and circumstances of the injury, many of these result in varying degrees of physical, psychological, educational, social and economic disadvantage for the affected individuals and their families (Barss, Smith, Baker & Mohan 1998).

In South Africa, the injury burden is massive and accounted for 12% of deaths from all causes in 2000 (Bradshaw *et al.* 2003). The injury mortality burden in South Africa was estimated at between 60 000 and 70 000 fatalities per annum, with a further 3.5 million seeking health care as a result of trauma (Peden & Butchart 1999). The South African National Injury Mortality Surveillance System (NIMSS) showed that for 2005 unintentional injury deaths accounted for 44% of all injury-related deaths when the manner of death was known (MRC-UNISA CVILP 2005). Of all unintentional injury deaths, the NIMSS showed that three-quarters were attributable to transport-related injuries and the remaining were the result of 'other unintentional injuries'. The South African annual road traffic fatality burden was estimated to be in the region of 18 000 with a road traffic death

rate of 43.0 per 100 000 (Bradshaw *et al.* 2003). In comparison, this rate is about twice the world average of 21.6 per 100 000 population (Murray, Lopez, Mathers & Stein 2001). The 'other unintentional injury' fatality burden was estimated at 27 per 100 000 population in 2000 (Matzopoulos, Norman & Bradshaw 2004). Among transport-related deaths, the leading external cause was pedestrian injury (42%) while burn injury was the leading cause among 'other unintentional injury' death (43%) (MRC-UNISA CVILP 2005). Further, unintentional injuries in South Africa have been found to pose a disproportionately high fatality burden among children aged 14 years and younger. For example, analysis of the NIMSS 2004 data showed that while the proportional representation of children among all injury-related death is only 7%, twice as many of all burn and pedestrian injuries are located among children (15% each). The above is consistent with worldwide trends (Peden, McGee & Sharma 2002).

The high rates of violence cannot only be attributed to wars, as across the continent there is a general lack of safety characterised by widespread interpersonal violence, crime and injuries often associated with socio-economic inequities, poverty and social fragmentation. Although recent studies point to a decrease in intentional injury mortality (Stats SA 2005; Bah 2004), South Africa, which has witnessed a dramatic reduction in political violence following its democratic elections in 1994, has reported a rate of fatal violence more than 5 times the global average (Matzopoulos Norman, Bradshaw 2004).

However, the social and scientific responses to the containment and prevention of injuries remain inadequate, despite extensive literature on the interpretation of injury data (Laflamme, Svanström & Schelp 1999; Mohan & Tiwari 2000; Welander, Svanström & Ekman 2000; WHO 1999). The injury and violence prevention sector remains unevenly developed and poorly co-ordinated across Africa, and the absence of widespread, well-informed, co-ordinated and considered planning, implementation and evaluation frameworks may result in inappropriate utilisation of scarce resources (Seedat 1999). The inadequacy is attributed, among other factors, to the absence of quality data indicative of the precise extent of the problem, inadequate resources, and the unbalanced attention to criminal justice responses.

Health sector research is critical for the effective design, coordination and implementation of health interventions, policy formulation, and service delivery. In this second edition of *Crime, Violence and Injury Prevention in South Africa*, we build on the formative work of the last decade and, drawing

inspiration from the *8th World Conference on Injury Prevention and Safety Promotion*, which was hosted for the first time on the African continent in Durban in April 2006, we have embraced the theme of *Data to Action.* The aim is to build on existing knowledge to assist the sector in further developing strategies in three major areas: childhood injury; crime and violence; and traffic injuries. We expect that a coordinated effort could substantially reduce morbidity and mortality over a three to five year period.

The first four chapters of the edition focus on unintentional injury and its prevention, traffic injury specifically, and the latter four chapters on intentional injury and the prevention thereof.

In the first chapter, *Assessing the prevention response to child road traffic injuries*, Matzopoulos, Du Toit, Dawad and Van As assess the South African response to the challenge of childhood traffic injuries. This chapter emphasises the persisting vulnerability of children as road users, with 17% of all pedestrian and passenger fatalities occurring among children and young adults aged younger than 20 years. Child pedestrians are particularly at risk and account for 77% of child road fatalities, compared to motor vehicle passenger and cycling deaths, accounting for 20% and 3%, respectively. Matzopolous and colleagues indicate that the need to address child road safety will become even more urgent, since road traffic injuries are predicted to increase by as much as 80% between 2000 and 2020 in sub-Saharan Africa (Kopits & Cropper 2003). The chapter includes a preliminary review of the injury prevention measures currently managed by the child pedestrian safety sector, including interventions by the Department of Transport, Soul City, the Centre for Education in Traffic Safety and the Child Accident Prevention Foundation of South Africa. The chapter calls for the prioritisation of statutory road safety campaigns, engineering measures for calming traffic flow, and safe traffic environments, such as the designation of safe play areas for children and demarcated safe routes to and from schools.

In South Africa, a significant proportion of the population walks or cycles on a daily basis to places of work and to other destinations. Accordingly, the two chapters that follow focus on pedestrian injury and implied safety interventions. The first of these, titled *Pedestrian injury in South Africa: Focusing intervention efforts on priority pedestrian groups and hazardous places*, reviews pedestrian safety programmes in Africa against the backdrop of local and global data identifying pedestrians as particularly vulnerable road users. The surveyed programmes are considered within the context of international benchmarks linked to pedestrian safety interventions, as emerging from systematic reviews conducted within the field. MacKenzie,

Seedat, Swart and Mabunda offer an insightful discussion that illuminates the pedestrian safety strategies implied for South Africa and other African countries, and underlines the requisite to locate these within the context of crime, poverty and urbanisation.

The second pedestrian safety related chapter, *The impact of an inadequate road environment on the safety of non-motorised road users*, is dedicated to passive environmental measures to address the needs of these vulnerable road users. In this chapter, Ribbens, Everitt and Noah identify several challenges within the South African road environment that contribute to casualties, including the lack of a holistic approach to network planning, the inadequate and inconsistent provision of non-motorised transport infrastructure, poor integration of transportation and land-use planning, as well as the inadequacy of public transport planning to reduce risk and exposure. The sectoral response, including the strategies, policies, work plans and practices of government departments such as the Departments of Transport and Provincial and local government, are reviewed and found to be largely inadequate. Recommendations are made to address these shortcomings with a larger focus on the previously disadvantaged areas and other areas that need urgent attention.

In the South African context, between 80% and 90% of all collisions are related to driver behaviour. In the final chapter of this section, *Adverse driving behaviours: The case of aggression, excessive speed and alcohol impairment*, Sukhai and Seedat examine the behavioural issues among motorists that have been shown to be the leading contributors to road traffic crashes and injury, that is, aggression, excessive speed and substance impairment. Epidemiological data for these adverse driving behaviours are presented for the South African setting and are discussed in the context of the country's sectoral responses and international good practices. With psychosocial perspectives being relatively neglected in research, policy and practice, this chapter affords greater attention to the active psychosocial approaches that are deemed imperative in modifying behavioural risks. In this regard, the chapter also contributes to stimulating the development of traffic psychology in South Africa.

The section on intentional injury commences with the fifth chapter, *Current trends and responses to crime in South Africa*. Holtman and Domingo-Swarts examine the various sources of South African crime data and analyse what these crime statistics convey about patterns of crime within South African society. The authors reiterate the need for a critical stance in the interpretation of crime statistics in order to capture an accurate a

representation as possible of crime trends. It is argued that an engagement with the complexity of the phenomenon is crucial to the processes of data analysis, as well as the development of a responsive approach to crime prevention and safety. In considering existing responses to crime and violence in South Africa, the chapter calls for a more robust social justice approach to the promotion of safety. The chapter further proposes a crime prevention model that is sensitive to the convergence of offender, victim and environment factors, thereby obliging the transformation of these interacting spheres through an integrated and multi-disciplinary crime prevention strategy.

Murder and robbery in South Africa: A tale of two trends unravels the relationship between murder and robbery rates. Altbeker approaches this analysis through the scrutiny of South African data on murder and robbery, which is accompanied by an enquiry into the risk differentials that exist in the murder rates of members of different communities. The chapter corroborates previous research findings exposing the high rates of male interpersonal violence in South Africa, and further reveals the somewhat tenuous conclusions sometimes drawn from existing research data about such factors as 'race' and murder, and geography and murder. The author's in-depth examination of the specific link between murder and robbery highlights that this relationship is complex, thus requiring meticulous analyses and ultimately a comprehensive strategy to reduce lethal violence in South Africa.

The chapter that follows, *Caught between policy and practice: Health and justice responses to gender-based violence*, presents an analytical overview of the developments and challenges in gender-based violence research, policy and practice since 2004. Smythe and her colleagues tease out the intersecting links between criminal justice and health sector responses in relation to such issues as sexual offences, domestic violence and femicide. The arguments tendered illuminate the distinct disjuncture between law, public policy and service provision to victims/survivors of gender-based violence, and the realities of violence against women in the South African context. The chapter also explores the challenges related to access to information and the impact thereof on public health and legal research and its desired outcomes. In arguing for an integrated medical and legal response to gender-based violence in South Africa, the authors echo the need for inter-disciplinary measures to address violence against women.

The final chapter of this edition, *Priorities and prevention possibilities for reducing suicidal behaviour*, submits a preliminary framework for a South

African suicide prevention programme. The suggested framework draws from national research data, as well as knowledge and experience acquired from other national programmes. Burrows and Schlebusch examine available data on suicidal behaviour in the South African context as a prelude to the review of existing strategies for the prevention of suicidal behaviour, and the identification of gaps in current knowledge and prevention priorities. The chapter links this discussion to the overarching vision, goals, guiding principles and strategies of the proposed programme. This section of the chapter emphasises the focus on high-risk groups and the inclusion of multi-level strategies as an essential characteristic of the programme.

CONCLUSION

All of the contributions to this *Review* point to a growing recognition of injury as a public, health concern and the groundswell of public perception appears to have played an important role in raising awareness. For instance, in South Africa, annual reports and summary findings from the NIMSS are well-covered by the popular media. Similarly, the *8th World Conference on Injury Prevention and Safety Promotion* and the *15th International Safe Communities Conference*, hosted in 2006 in the South African cities of Durban and Cape Town respectively, were well attended by researchers and policy-makers from throughout Africa and considered to have contributed meaningfully to the facilitation of formal collaborative partnerships and appreciation for evidence-driven injury prevention programmes. Events such as these are observed to assist prevention practitioners to build on the existing formalised channels that facilitate science-society dialogue and communication within and between countries of the continent.

Preventionists are therefore well-placed to capitalise on the emergent responsive political climate and growing appreciation for the nascent research driven efforts to develop good practices with limited financial and skilled human resources. So, in conclusion we wish to reiterate three key messages.

Firstly, intentional and unintentional injury are critical social issues that necessitate a multi-sectoral response involving collaboration and partnership linkages with all levels of government, parastatals, NGOs, community groupings, researchers and the public. Importantly, the challenge is to develop coordinated strategies that focus on effective public health injury prevention practices, and address the underlying macroeconomic and social structures of our societies. Structural adjustment programmes, liberalisation and decreased social spending, which are among the standard International Monetary Fund remedies for marginal economies (Muyoya 2000), limit the

ability of governments to regulate industries that might impact negatively on health, including injuries (e.g. alcohol, firearms, guns), and encourage reprioritisation programmes that result in wide-ranging budget cuts in the public sector. This can undermine the public sector's capacity to deliver social, safety and health services (May *et al.* 1998).

Secondly, the implementation of injury prevention is contingent on the creation of country and continental level focal points for injury and violence prevention. The World Health Organisation (WHO) Collaborating Centres at the University of South Africa's (UNISA) Institute for Social and Health Sciences and its associated Crime, Violence and Injury Lead Programme and the Injury Control Centre - Uganda currently serve as stewards of injury and violence prevention, but funding and capacity is limited (UNISA Institute for Social and Health Sciences 2005; Injury Control Centre – Uganda 2005). The centres assist the WHO in implementing mandated programme priorities and activities for violence and injury prevention, including the development of institutional capacity in the region and marshalling of resources for information, research, training, service provision and advice. These centres may provide the base for the development of other focal points on the continent.

Thirdly, and perhaps most significantly, this *Review* presents an opportunity for local governments, non-governmental organisations (NGOs), community-based organisations (CBOs), researchers, practitioners and other stakeholders to consider innovative ways to strategically translate empirically produced data into the creation of concrete injury prevention policies and practices, in addition to strengthening existing safety promotion responses. *Data to Action* requires a significant appreciation of the complexities involved in facilitating the utilisation and public communication of empirical data on injury. So this *Review*, which represents the Presidential Crime, Violence and Injury Lead Programme's attempt to inform social responses to safety promotion, must be read as part of a larger endeavour to communicate about the who, what, when and how of injury and violence prevention.

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