

# Global strengthening of care for the injured

Charles Mock,<sup>1</sup> Manjul Joshipura,<sup>2</sup> & Jacques Goosen<sup>3</sup>

Road traffic injuries and injuries from other causes have become significant public health problems throughout the world, particularly in low- and middle-income countries (1). Each year, about 20 million people are killed or injured on the roads (2). This increasing burden of death, disability and pain can be averted through appropriate preventive measures, if taken together with accessible and affordable care of the injured.

Reviews of trauma care capacity in several low- and middle-income countries have shown that, even in hospitals handling large volumes of trauma cases, many doctors and nurses providing care have had little training in this field. Many hospitals do not have essential low-cost supplies for trauma care, such as chest tubes and airway equipment; the lack of such supplies is often not attributable to their cost and could be overcome by better planning. Few facilities caring for injured patients have protocols for trauma care, and in many hospitals there are prolonged delays before emergency surgery. Low utilization of several fundamental resources has been documented, even when the resources are physically present (3–6).

These difficulties lead to worsened outcomes. Evidence indicates that people with life-threatening but potentially treatable injuries are six times more likely to die in a low-income country than in a high-income country (7). On the treatment side, therefore, much can be done to lower this overwhelming toll, and inexpensive improvements in trauma care are a promising and sustainable solution. Efforts are needed to develop and standardize injury surveillance systems and to promote improvements in trauma care so as to ensure a minimum level of care for those in need.

Many of the injury-related disabilities and deaths in low- and middle-income countries would be readily amenable to low-cost measures such as simple changes in training, better organization and planning of services, and

the availability of the right skills and the right equipment at the right places. As local needs differ, situation assessments are necessary. Defining what is needed to ensure care is the first step: requirements include human resources, physical resources and logistic capacity.

It is with these goals in view that WHO and the International Association for the Surgery of Trauma and Surgical Intensive Care established a joint Essential Trauma Care Project. A collaborative Working Group for Essential Trauma Care, composed of members of both these organizations and stakeholders from several countries, includes trauma care clinicians from Africa, Asia and Latin America. Various national bodies are involved, such as the Academy of Traumatology (India), the Mexican Association for the Medicine and Surgery of Trauma, and the Ghana Medical Association.

Over the past three years, the Working Group has defined 14 core trauma care service guidelines, such as “obstructed airways are opened and maintained before hypoxia leads to death or permanent disability”. To deliver trauma care services worldwide, 260 items of human and physical resources have been designated as either “essential” or “desirable” at different levels, ranging from rural clinics to tertiary care facilities. Desirable items are useful resources but are not as cost-effective as those designated as essential. *Guidelines for essential trauma care* (8) have been compiled, which detail these resources and contain recommendations on training, quality assurance, hospital inspections and interactions among stakeholders, together with practical suggestions for implementation.

It is hoped that these guidelines and the Essential Trauma Care Project will become integral components of efforts to strengthen the activities of health systems. The guidelines may be used to define the human and physical resources

needed at various levels of the health-care system and to identify low-cost ways to promote and ensure the availability of such resources. Progress in improving capabilities for trauma care will be likely to assist in and benefit from related efforts being made to strengthen health systems in general.

Some progress has already been made in using the guidelines for trauma care needs assessments in Ghana, Mexico and Viet Nam. In India, the WHO office in Gujarat, local government and other stakeholders have adapted the guidelines to local needs and have developed preliminary implementation plans. Through their use in the provision, administration and planning of trauma care services, the guidelines can be instrumental in lowering the unacceptably high burden of death and disability resulting from injury. ■

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<sup>1</sup> Associate Professor of Surgery, University of Washington, Seattle, USA. Correspondence should be addressed to this author at Box 359960, Harborview Medical Center, 325 Ninth Avenue, Seattle, WA 98104, USA (email: cmock@u.washington.edu). All three authors are members of the Working Group for Essential Trauma Care.

<sup>2</sup> Director, Academy of Traumatology (India), Ahmedabad, India.

<sup>3</sup> Head, Trauma Unit, Johannesburg Hospital, Johannesburg, South Africa.

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