

Injury: a neglected global health challenge in low-income and middle-income countries



An injury is any harm or damage to the body that disrupts its normal structure or function, whether accidental or intentional. Injuries can arise from various causes, including road traffic collisions, falls, drowning, burns, poisoning, and acts of violence—whether self-inflicted or directed at others. The Global Injury Group was established in August, 2024, with funding from the global health programme of the UK's National Institute for Health and Care Research and the Medical Research Council. This equitable partnership is a collaboration of researchers across high-income countries (HICs) and low-income and middle-income countries (LMICs) with the shared vision of improving care of the injured via research. Members of the group include clinicians, surgeons, anaesthetists, nurses, physiotherapists, epidemiologists, statisticians, educationists, social scientists, health economists, information specialists, and patients, thus reflecting a multidisciplinary approach needed to effectively deliver injury care research.

Injuries account for 8% of all worldwide deaths (4.4 million people annually). Among individuals aged 5–29 years, the top three causes of death are injury-related, including road traffic collisions, murder, and suicide.¹ For every injury-related death, up to 50 people sustain temporary or permanent disabilities, resulting in more than 220 million disability-adjusted life-years (DALYs) lost each year.¹ This loss of DALYs is estimated to be 10% of all years lived with disability worldwide, which is more than tuberculosis, HIV, and malaria combined.^{2,3}

Individuals in LMICs sustain injuries at disproportionately higher rates than those in HICs, with 1 billion people hospitalised in LMICs each year for the treatment of an injury. Injuries in LMICs account for 90% of injuries globally and 83% of injury-related deaths.^{3,4}

Young men are most at risk: around half of worldwide deaths from injury occur among men aged 15–29 years.¹ Injuries to adult males can place a considerable burden on national economies via lost productivity. Between 2015 and 2030, an estimated US\$7.86 trillion is expected to be lost globally due to injuries, with LMICs projected to experience losses that are almost 50% greater than HICs.

Road traffic collisions are the most common cause of injury-related death and disability in LMICs, costing countries 5% of their gross domestic product on average.⁵ Despite lower rates of vehicle ownership than in HICs, LMICs account for 90% of global road traffic fatalities. This disproportionate burden stems from several factors, including poorly maintained roads, minimal separation between vehicles and pedestrians, weak traffic legislation, and inadequate law enforcement. As economic development accelerates and vehicle use rises, the gap between motorisation and road safety infrastructure is expected to widen, further increasing the mortality and morbidity from road traffic injuries.

Injuries have traditionally been viewed as consequences of random events or accidents. This unmodified assessment of injuries has led to its historical neglect in public health research and policy. However, injury-related death and disability are largely preventable with injury prevention schemes and accessible, high-quality trauma care systems.^{3,6} If injury-related death rates in LMICs were to be reduced to the levels seen in HICs, 2.1 million lives would be saved and 49–52 million DALYs could be averted each year.³

Trauma care systems should reflect the patient journey, including prehospital, hospital, outpatient care, and rehabilitation care. In HICs, improvements in trauma care systems have been shown to save lives and reduce disability that result from injuries.¹ However, up to 80% of severely injured people die before reaching hospital in many LMICs.⁷ These deaths could be prevented with simple, on-the-scene emergency procedures, better medical transport infrastructure, and shorter transport times to hospital.

Surgery is an essential part of life-saving intervention following an injury. However, at least 4.8 billion people worldwide are estimated not to have timely access to safe, affordable surgery, and more than 2 billion people do not have any access to surgery and anaesthesia—ie, 94% of individuals in LMICs compared with 15% in HICs.⁸ Rehabilitation is a core component of the trauma care pathway and is rarely accessible in LMICs. Few injured patients have access to rehabilitation

Panel: The Global Injury Group research priorities for sub-Saharan Africa

Burden

- Current and future estimates of the incidence of musculoskeletal injuries, including geographical variation
- Outcomes after fracture, including mortality, function and disability, and quality of life
- Economic effects of sustaining a fracture on an individual and on a local and national scale

Resources

- Musculoskeletal injury care pathways, including pre-hospital, in-hospital, and outpatient care
- Availability and readiness of current musculoskeletal injury health-care resources
- Patients' and health-care workers views and experiences of health-care services
- Current and future costs of fracture care

Interventions

- Cost-effective and appropriate interventions for the management of musculoskeletal injuries
- Effectiveness of established treatments in the African population

services, which are critical to minimising disability by improving function and independence and reducing secondary complications.

Musculoskeletal injuries (ie, fractures and broken bones) are the most common type of injury requiring medical treatment and account for 78% of injury related disabilities.⁹ Africa has the highest incidence of musculoskeletal injuries in the world, with a considerable increase in injury burden possibly because its population is expected to double by 2050. However, little research has been conducted on the burden of musculoskeletal injuries in Africa or any LMIC, let alone on the longer-term consequences and wider societal impact. The Global Burden of Disease study offers the most robust estimates of burden of cause-specific injuries, with data on incidence, deaths and DALYs; however, estimates for LMICs are based on scarce data and there is no detail provided on the nature of the injury sustained or outcomes.

Reducing the number of injuries and advancing injury care in low-income settings is crucial to improve outcomes for individuals, communities, and wider societies. These efforts are a crucial step toward achieving the UN Sustainable Development Goal (SDG) 3, which aims to promote good health and

wellbeing for all. Additionally, they contribute to SDG 16, which aims to reduce interpersonal violence, a major contributor to injury-related morbidity and mortality.¹⁰ In particular, there is an urgent need for focused research to guide the prevention and effective management strategies for musculoskeletal injuries, particularly across sub-Saharan Africa. Addressing this gap is key to reducing injury-related morbidity and mortality and fostering equitable health outcomes globally.

The Global Injury Group hosted its inaugural research summit in Cape Town, South Africa, in January 2025, bringing together injury care experts from across sub-Saharan Africa. The summit featured representation from low-income (Malawi), lower-middle-income (Tanzania), and upper-middle-income (South Africa) countries, fostering a diverse and inclusive dialogue. During the summit, we identified key priority areas to guide our future research (panel). We welcome collaborations from researchers, institutions and organisations worldwide who share our vision of improving the care of the injured—a neglected global health challenge in LMICs.

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See Online for appendix

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