peaceful societies and the rule of law and target 16.2 sets the goal of ending abuse, exploitation, trafficking and all forms of violence against and torture of children. The SDG agenda is an extraordinary window of opportunity to make significant progress towards reducing all forms of interpersonal violence. However, it also poses vast challenges. Achieving significant population-level reductions across the world within less than two decades presents a task for policy and research at a scale for which no precedent exists in the field of violence prevention.

In my talk I will outline the knowledge and strategies needed to meet this challenge. I will argue, first, that scientific evidencebased on randomised trials is important, but not sufficient. We also need to understand the mechanisms that drive major population-wide declines such as the violence drop in many high-income countries over the past 20 years. Second, research on major violence declines across the world suggests that specific violence prevention programming played a subordinate role in the reduction of violence at the population level. A more comprehensive approach should integrate emerging knowledge about the effects of broader public health policies, for example in the field of the prevention and treatment of mental health more generally. Finally, I will argue that the widespread view of an opposition between repression and prevention needs to be overcome. A multi-sectorial approach should include effective policing and legitimate justice institutions much as early prevention, promotion of social and cognitive skills, situational strategies and victim protection.

## 7

# FROM MANAGING DISASTERS TO MANAGING RISKS, REDUCING EXISTING RISKS

Mette Lindahl Olsson. Swedish Civil Contingencies Agency, MSB and Former Swedish Secondment as Program Officer to the UNISDR, the United Nations Office for Disaster Risk Reduction, Europe Office in Brussels

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We live in an urbanising, complex world with a rapidly changing climate. To reduce vulnerability and to protect inhabitants from current and future risks we all face the challenge of building resilience. If vulnerable elements as population, property, infrastructure or environment come in the way of events caused by nature or human activity it can cause serious negative consequences and disasters. The vulnerability of society in the face of disasters, especially caused by natural events, is expected to increase. Collaboration on all levels, nationally and internationally, between sectors and actors working with land use planning, risk management, infrastructure planning, health, disaster management and climate adaptation is a pre-requisite to reduce underlying risk factors and enhance society's ability to cope with hazards and risk.

It's clear that disaster risk reduction is an investment, not a cost. Studies show that every dollar invested into disaster preparedness saves seven dollars in disaster aftermath.

In March 2015 at the third World conference on Disaster Risk Reduction in Japan a clear shift in focus from disaster management to disaster risk management was agreed with the Sendai Framework for Disaster Risk Reduction 2015–2030. UNISDR is the UN Focal Point for Disaster Risk Reduction and the implementation of the Sendai Framework and its extension to include both natural and man-made hazards as well as associated environmental, technological and biological hazards is strongly supported by the EU and its member states. At the heart of the framework is the aim to prevent the creation of new risks and to reduce existing levels of disaster risks.

In Sweden the Swedish Civil Contingency Agency (MSB) is the national Sendai Focal Point with the task to further strengthen the multi-sectoral coordination and the implementation of the Sendai Framework.

### Plenary Session Tuesday 20.9.2016 9:30–10:30

#### Safety and Sustainable Development



MAKING THE ROAD SAFETY SDG TARGETS COUNT: DELIVERING QUICK WINS FOR ROAD TRAFFIC INJURY PREVENTION

Saul Billingsley. Director, FIA Foundation, UK

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Since January 2016 the new Sustainable Development Goals (SDGs), or 'Global Goals' have been in force. The decision by negotiators from 190 countries, endorsed by world leaders, to include in these Goals an ambitious and accelerated road safety target to halve road deaths by 2020 demonstrates a recognition of the scale of this appalling human epidemic and the need for urgent action to reduce the preventable toll of death and injury caused by road traffic crashes.

With less than five years remaining to achieve the target, quick and early results are essential. Governments established the deadline, and governments must lead in reaching the objective. The top ten countries by population (China, India, Brazil, Indonesia, Japan, USA, Nigeria, Bangladesh, Pakistan and Russia) together account for an estimated 725,794 road fatalities. Achieving the SDG target of a 50% reduction in road traffic deaths in these countries would contribute more than half (362,897) the necessary 600,000 reduction in annual deaths. So, as an essential step, governments in these ten countries need to commit, at the highest level, to tackling an epidemic which is killing their citizens on an industrial scale.

Some governments must also urgently recognise the true scale of their road traffic fatality problem which current injury data collection methods are not capturing. This is important for building public and political support for action, and for effectively identifying and targeting risk factors. For example, China estimates deaths of 58,539, which equates to a rate per 100,000 of just over 4. The WHO estimate is 261,367, or 18.8 per 100,000; India estimates 137,572, 70,000 fewer than the WHO estimate; Nigeria officially estimates road traffic deaths of 6,450. The WHO point estimate is 35,641. Understanding and accepting the scale of the problem is a vital first step to dealing with it.

The means of implementation and financing will also be key to effective delivery, and moving from words on a communique to measurable action on the ground. For the road safety sector there are three key challenges.

The first is to secure sufficient international catalytic financing to assist governments of middle- and low-income countries to take the initial steps – building the institutional capacity, political will and evidence base – necessary to unlock sustainable sources of domestic funding to deliver long-term road safety strategies. To encourage donors to invest strategically, the global road safety community should be offering a united front, and an obvious place to convene. There is currently discussion, led by the UN-ECE, and given support by the UN General Assembly,<sup>4</sup> on

developing a new UN global fund that can provide a secure destination for new funds with high standards of governance and accountability; a strong strategic direction for catalytic capacity building efforts; and the credibility to succeed as a broad-based multi-donor platform.

But building new architecture takes time, and time is short. Donors, whether governments, philanthropies or the private sector don't need to wait for a new UN Fund to start funding. The significant funding and efforts of Bloomberg Philanthropies;<sup>5</sup> the work of the Global Road Safety Facility, which has achieved a significant leverage effect with core resources of less than \$3 million per year; and the innovating effect of funding from the FIA Foundation for initiatives like the Global New Car Assessment Programme (Global NCAP)<sup>6</sup> and the International Road Assessment Programme (iRAP):<sup>7</sup> these show what can be achieved.

The second key challenge is to persuade finance ministers and private investors of the strong case for investment in safe and sustainable transport modes; that this isn't an optional extra, but should be mainstreamed into every transportation and land-planning decision. We need to show national transport, health and finance ministries that it is worth investing a bit more today in order to reap rewards in health cost savings tomorrow. This requires a change in the way cost-benefit for transport schemes is calculated; it requires a breaking down of the silos that separate transport investment from health outcomes; it requires an injection of the human dimension into the debate.

Working towards this objective of realising the true value of road safety investment was the purpose of the FIA Foundation's 2015 report 'Breaking the Deadlock: A social impact investment lens on reducing costs of road trauma and unlocking capital for road safety', commissioned from Social Finance and Impact Strategist. Social Impact Bonds and other 'innovative financing' mechanisms may play a role in releasing new sources of primarily private sector funding (and development bonds could also be an effective way to deliver health objectives in low-income countries in the area of road safety).

But the Social Finance/Impact Strategist report also suggests that the discipline of designing a project that meets the exacting expectations of a private investor, structured in a way that makes transparent the different types of social beneficiary so that metrics – on which repayment schedules would be predicated – are clearly defined, would identify the health and social benefits of a road safety scheme in a way to transparently demonstrate value for money. A new stage of the work, with research and data analysis being undertaken in Australia and Cambodia, suggests the argument will be compelling.

The third challenge is to connect road traffic injury prevention with wider health and environmental agendas and financing mechanisms intended to support delivery of the Sustainable Development Goals and the climate change agenda, for example through the new 'Sustainable Mobility for All' initiative proposed by World Bank President Jim Kim at the 2016 Climate Action Summit. The 2015 Paris Agreement on Climate Change is, as much as the Global Goals, a driver for international priority setting and transport has a big role to play. Demonstrating that poor road safety is a symptom of the wider transport system dysfunction that results in high levels of carbon emissions, and that there are common solutions that can fix both, and other, issues is critically important.

For the FIA Foundation, a key priority is to develop a holistic approach in the area of child health. In June 2016 we launched a new Global Initiative for Child Health & Mobility, together with UNICEF, UNEP, the World Resources Institute, Save the

Children and the Overseas Development Institute. Our partnership is concerned with road safety, air pollution and low carbon mobility, and focusing on particular areas which impact on the way children use transportation and streets. This includes speed legislation and traffic enforcement; provision of safe infrastructure such as sidewalks and crossings; attention to the quality and affordable availability of school transport; and promoting safe and healthy journeys to school – whether travelling on foot, by bicycle, by bus or on a motorbike or in a car. There are strong arguments and synergies to be made with other constituencies – on air pollution, non-communicable diseases, liveable cities and promoting active mobility for health and a low carbon future. We should be seeking allies, breaking down barriers and working in concert wherever possible.

But while many of these structural changes and new alliances will take time, longer in some cases than the immediate four year time horizon we face, there are quick wins that can achieve results now. The World Health Organisation is leading efforts to promote a focused road safety package of interventions that countries can adopt, with an emphasis on tackling speed; improving road design; ensuring all cars at the very least meet UN safety standards; providing sidewalks for pedestrians and bike lanes for cyclists; raising motorcycle helmet and seat belt wearing; and enforcing drink driving laws.

If it is too difficult to persuade some governments to act without the more far-reaching philosophical, cultural or management changes described above, we should seek paths of least resistance, and get done what we can. Cities can be incubators of change, moving faster than the national ministries. Megacities like Sao Paolo and New York have reduced road traffic deaths by more than 20% in just a couple of years, by focusing on speed reduction and providing better access for pedestrians and cyclists. <sup>10</sup> If many more cities can be encouraged to take this path, and see these results, we'll be closer to achieving the target. This year's Habitat III policy process provides a great platform for making this case.

NGOs can also take a lead, through rigorous diagnosis and effective action. For example, Global NCAP is using independent consumer crash tests of cars to raise safety standards in Latin America, India and SE Asia with the objective that by 2020 all cars in production at least meet the minimum standards recommended by the UN. This could save thousands of lives. iRAP is working to persuade more countries to implement basic road design and management changes to maximise travel for all road users on four star roads or better. Through our Child Health Initiative the FIA Foundation is supporting partners in raising child motorcycle helmet wearing rates in Asia; making the case for providing sidewalks to school in Africa; and reducing vehicle speeds where pedestrians are walking, everywhere.

The SDG target to halve road deaths by 2020 will be very difficult to achieve. But smallpox and polio once seemed insurmountable, and are now all but vanquished. Child mortality for the under-fives has halved since 1990. 11 Road traffic injuries are now part of the global health and development agenda – the Global Goals. By using this opportunity to better connect with other issues and sectors that have a common stake in improving mobility and health; by providing a clearer (and ideally forensic) analysis of the health and environmental consequences of inaction; by laying down a vocal challenge to governments to follow their words with action – and praising those that respond; and by showing the path to casualty reduction through evidence and examples of success: we can make the change and prevent many, many human tragedies.

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## 9

# EQUITY IN ACCESS TO INJURY PREVENTION AND TRAUMA CARE

Olive C Kobusingye. Research Fellow, PI, Trauma, Injury, and Disability, Makerere University School of Public Health

10.1136/injuryprev-2016-042156.9

There is a price tag to everything. We are all too aware of the hidden costs of almost anything we undertake for personal development. The more enterprising in society are often those who have figured out how to pass the cost on to other people. Likewise, when it comes to the weightier matters of developing entire countries, it appears that the more enterprising countries, called High Income Countries, also found ways of passing the cost to the less enterprising, often called the Low Income Countries. Within the LICs, the wealthier in society pass the cost to the poorer, and so on and so forth, until the poorest and weakest in any society bear the ultimate cost, ensuring the status quo. So the list of the countries with the highest rates of any type of injury, with the exception, perhaps, of teen suicide, mirrors almost exactly the list of countries with the lowest incomes. But is this pattern set to continue, or are there ways in which the cycle can be broken, so that even when national and community incomes do not rise substantially, injury prevention can thrive, and trauma care can improve? The presentation will explore examples, both positive and negative, of injury prevention and trauma care which defy the set income-safety trap, and propose ways in which countries and communities can promote safety and provide equitable trauma care irrespective of income levels. Other causes of inequity, such as race, gender, and age, will be explored as well.

## Plenary Session Wednesday 21.9.2016 13:00–14:30 Solutions for the Future



# FUTURE CHALLENGES AND SOLUTIONS FOR SAFETY IN CHINA

Leilei Duan. Director of the Division of Injury Prevention at the National Centre for Chronic Disease Control and Prevention, Chinese Centre for Disease Control and Prevention (China CDC)

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Injury ranks the fifth death cause and accounts for 8% of the total death of the population in China. Injury gives rise to more disabilities. For every death, it is estimated that there are dozens of hospitalizations, hundreds of emergency department visits and thousands of doctors' appointments. A large proportion of people surviving their injuries incur temporary or permanent disabilities. Analysis of the Global Burden of Disease (GBD) suggests that China's burden of injury has decreased since the data series began in 1990, especially suicide and drowning. Meanwhile, it can be seen that death caused by road traffic injury and fall has been still increasing. Emerging types of injuries bring major challenges, such as electric bicycles related road traffic crashes and injuries, floating-people and floating children-specific injuries, interpersonal violence and etc. The real pictures of these topics should be described by the further studies to develop the proper intervention strategy and measures.

The multi-disciplinary integration and multi-sectoral cooperation principle of injury prevention should be followed to face the injury situation and enhance the injury prevention in China in the process of the rapid economic and social development at now stage and in the future. Combinations of different domains, such as scientific research and policy development, empirical theory and innovation, traditional medicine and modern medicine are also critical. It is the time for us to shape the injury problem and develop injury-prevention strategy and measures with foresight cutting-edge technology to face the challenges to reduce the burden of injuries.

### 11

#### **SOLUTIONS FOR ACTIVE PEOPLE**

Caroline F Finch. Australian Collaboration for Research Into Injury in Sport and Its Prevention, Federation University Australia, Ballarat, Australia

10.1136/injuryprev-2016-042156.11

Preventing sport and active recreation related injury is a global priority given its large contribution to both injury-related morbidity and longer-term chronic ill-health. Many interventions have the primary goal of reducing the risk of injury in those who play formal sport. For example, evidence-based exercise-training programs have been developed to improve neuromuscular control in the lower limb with the aim of preventing a range of lower limb musculoskeletal injuries. The talk will begin with an overview of the global evidence supporting the implementation of exercise training programs for injury prevention in sport.

Importantly, the success of such programs depends upon their adoption, implementation and maintenance by the people who deliver sports and sport training sessions, such as coaches, sports conditioning personnel, sports administrators and allied health professionals associated with teams and active people. The majority of these people work outside of the healthcare delivery system and there can be significant challenges in engaging them as the key delivery agents for safety interventions. This talk will present the latest knowledge about adopting a broad systems approach towards engaging key sport injury prevention delivery agents and end-users (coaches, conditioning staff, players/athletes, league and club administrators, peak sport bodies, etc.) in prevention efforts from the outset.

Understanding why evidence-based interventions for active people are/are not implemented is now well recognised as an international challenge for sports injury prevention research and practice. The talk will conclude with a discussion of the most pressing prevention practice and research needs relating to understanding implementation contexts and processes, including