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World report on road traffic injury prevention

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World Health Organization
Geneva
2004

WHO Library Cataloguing-in-Publication Data

World report on road traffic injury prevention / edited by Margie Peden ... [et al.].

1.Accidents, Traffic – prevention and control 2.Accidents, Traffic – trends
3.Safety 4.Risk factors 5.Public policy 6.World health. I.Peden, Margie

ISBN 92 4 156260 9 (NLM classification: WA 275)

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Designed by minimum graphics.
Cover by Tushita Graphic Vision.
Typeset and printed in Switzerland.

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Foreword



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Every day thousands of people are killed and injured on our roads. Men, women or children walking, biking or riding to school or work, playing in the streets or setting out on long trips, will never return home, leaving behind shattered families and communities. Millions of people each year will spend long weeks in hospital after severe

crashes and many will never be able to live, work or play as they used to do. Current efforts to address road safety are minimal in comparison to this growing human suffering.

The World Health Organization and the World Bank have jointly produced this *World report on road traffic injury prevention*. Its purpose is to present a comprehensive overview of what is known about the magnitude, risk factors and impact of road traffic injuries, and about ways to prevent and lessen the impact of road crashes. The document is the outcome of a collaborative effort by institutions and individuals. Coordinated by the World Health Organization and the World Bank, over 100 experts, from all continents and different sectors – including transport, engineering, health, police, education and civil society – have worked to produce the report.

Road traffic injuries are a growing public health issue, disproportionately affecting vulnerable groups of road users, including the poor. More than half the people killed in traffic crashes are young adults aged between 15 and 44 years – often the breadwinners in a family. Furthermore, road traffic injuries cost low-income and middle-income countries between 1% and 2% of their gross national product – more than the total development aid received by these countries.

But road traffic crashes and injuries are preventable. In high-income countries, an established set of interventions have contributed to significant reductions in the incidence and impact of road traffic injuries. These include the enforcement of legislation to control speed and alcohol consumption, mandating the use of seatbelts and crash helmets, and the safer design and use of roads and vehicles. Reduction in road traffic injuries can contribute to the attainment of the Millennium Development Goals that aim to halve extreme poverty and significantly reduce child mortality.

Road traffic injury prevention must be incorporated into a broad range of activities, such as the development and management of road infrastructure, the provision of safer vehicles, law enforcement, mobility planning, the provision of health and hospital services, child welfare services, and urban and environmental planning. The health sector is an important partner in this process. Its roles are to strengthen the evidence base, provide appropriate pre-hospital and hospital care and rehabilitation, conduct advocacy, and contribute to the implementation and evaluation of interventions.

The time to act is now. Road safety is no accident. It requires strong political will and concerted, sustained efforts across a range of sectors. Acting now will save lives. We urge governments, as well as other sectors of society, to embrace and implement the key recommendations of this report.

LEE Jong-wook
Director-General
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President
World Bank Group

Preface

Over 3000 Kenyans are killed on our roads every year, most of them between the ages of 15 and 44 years. The cost to our economy from these accidents is in excess of US\$ 50 million exclusive of the actual loss of life. The Kenyan government appreciates that road traffic injuries are a major public health problem amenable to prevention.

In 2003, the newly formed Government of the National Alliance Rainbow Coalition, took up the road safety challenge. It is focusing on specific measures to curtail the prevalent disregard of traffic regulations and mandating speed limiters in public service vehicles.

Along with the above measures the Government has also launched a six-month Road Safety Campaign and declared war on corruption, which contributes directly and indirectly to the country's unacceptably high levels of road traffic accidents.

I urge all nations to implement the recommendations of the *World report on road traffic injury prevention* as a guide to promoting road safety in their countries. With this tool in hand, I look forward to working with my colleagues in health, transport, education and other sectors to more fully address this major public health problem.

Mwai Kibaki, President, Republic of Kenya

In 2004, World Health Day, organized by the World Health Organization, will for the first time be devoted to Road Safety. Every year, according to the statistics, 1.2 million people are known to die in road accidents worldwide. Millions of others sustain injuries, with some suffering permanent disabilities. No country is spared this toll in lives and suffering, which strikes the young particularly. Enormous human potential is being destroyed, with also grave social and economic consequences. Road safety is thus a major public health issue throughout the world.

World Health Day will be officially launched in Paris on 7 April 2004. France is honoured. It sees this as recognition of the major efforts made by the French population as a whole, which mobilized to reduce the death and destruction it faces on the roads. These efforts will only achieve results if they are supported by a genuine refusal to accept road accidents fatalistically and a determination to overcome all-too-frequent indifference and resignation. The mobilization of the French Government and the relevant institutions, particularly civic organizations, together with a strong accident prevention and monitoring policy, reduced traffic fatalities in France by 20%, from 7242 in 2002 to 5732 in 2003. Much remains to be done, but one thing is already clear: it is by changing mentalities that we will, together, manage to win this collective and individual struggle for life.

Jacques Chirac, President, France

Globally deaths and injuries resulting from road traffic crashes are a major and growing public health problem. Viet Nam has not been spared. In the year 2002, the global mortality rate due to traffic accidents was 19 per 100 000 population while in Viet Nam the figure was 27 per 100 000 population. Road traffic collisions on the nation's roads claim five times more lives now than they did ten years ago. In 2003 a total of 20 774 incidents were reported, leading to 12 864 deaths, 20 704 injuries and thousands of billions of Viet Nam Dong in costs.

A main contributor to road crashes in Viet Nam is the rapid increase in the number of vehicles, particularly motorcycles, which increase by 10% every year. Nearly half of the motorcycle riders are not licensed, and three quarters don't comply with traffic laws. Also, the development of roads and other transport infrastructure has not been able to keep pace with rapid economic growth.

To reduce deaths and injuries, protect property and contribute to sustainable development, the Government of Viet Nam established the National Committee on Traffic Safety in 1995. In 2001 the Government promulgated the National Policy on Accidents and Injury Prevention with the target of reducing traffic deaths to 9 per 10 000 vehicles. Government initiatives to reduce traffic accidents include issuing new traffic regulations and strengthening traffic law enforcement. In 2003, the number of traffic accidents was reduced by 27.2% over the previous year, while the deaths and injury rates declined by 8.1% and 34.8% respectively.

The Government of Viet Nam will implement more stringent measures to reduce road traffic injuries through health promotion campaigns, consolidation of the injury surveillance system, and mobilization of various sectors at all levels and the whole society. The Government of Viet Nam welcomes the World Health Organization/World Bank *World report on road traffic injury prevention*, and is committed to implementing its recommendations to the fullest extent possible.

H.E. Mr Phan Van Khai, Prime Minister, Socialist Republic of Viet Nam

In Thailand road accidents are considered one of the top three public health problems in the country. Despite the Government's best efforts, there are sadly over 13 000 deaths and more than one million injuries each year as the result of road accidents, with several hundred thousand people disabled. An overwhelming majority of the deaths and injuries involve motorcyclists, cyclists and pedestrians.

The Royal Thai Government regards this problem to be of great urgency and has accorded it high priority in the national agenda. We are also aware of the fact that effective and sustainable prevention of such injuries can only be achieved through concerted multisectoral collaboration.

To deal with this crucial problem, the Government has established a Road Safety Operations Centre encompassing the different sectors of the country and comprising the government agencies concerned, non-governmental organizations and civil society. The Centre has undertaken many injury prevention initiatives, including a "Don't Drink and Drive" campaign as well as a campaign to encourage motorcyclists to wear safety helmets and to engage in safe driving practices. In this regard, we are well aware that such a campaign must involve not only public relations and education but also stringent law enforcement measures.

The problem of road traffic injuries is indeed a highly serious one, but it is also a problem that can be dealt with and prevented through concerted action among all the parties concerned. Through the leadership and strong commitment of the Government, we are confident that we will be successful in our efforts and we hope that others will be as well.

Thaksin Shinawatra, Prime Minister, Thailand

We are pleased that the Sultanate of Oman, with other countries, has brought up the issue of road safety to the United Nations General Assembly and played a major role in raising global awareness to the growing impact of deadly road traffic injuries, especially in the developing world.

The magnitude of the problem, encouraged the United Nations General Assembly to adopt a special resolution (No 58/9), and the World Health Organization to declare the year 2004 as the year of road safety.

In taking these two important steps, both organizations started the world battle against trauma caused by road accidents, and we hope that all sectors of our societies will cooperate to achieve this noble humanitarian objective.

The world report on road traffic injury prevention is no doubt a compelling reading document. We congratulate the World Health Organization and the World Bank for producing such a magnificent presentation.

Qaboos bin Said, Sultan of Oman

Land transportation systems have become a crucial component of modernity. By speeding up communications and the transport of goods and people, they have generated a revolution in contemporary economic and social relations.

However, incorporating new technology has not come about without cost: environmental contamination, urban stress and deteriorating air quality are directly linked to modern land transport systems. Above all, transportation is increasingly associated with the rise in road accidents and premature deaths, as well as physical and psychological handicaps. Losses are not limited to reduced worker productivity and trauma affecting a victim's private life. Equally significant are the rising costs in health services and the added burden on public finances.

In developing countries the situation is made worse by rapid and unplanned urbanization. The absence of adequate infrastructure in our cities, together with the lack of a legal regulatory framework, make the exponential rise in the number of road accidents all the more worrying. The statistics show that in Brazil, 30 000 people die every year in road accidents. Of these, 44% are between 20 and 39 years of age, and 82% are men.

As in other Latin American countries, there is a growing awareness in Brazil as to the urgency of reversing this trend. The Brazilian Government, through the Ministry of Cities, has put considerable effort into developing and implementing road security, education campaigns and programmes that emphasize citizen involvement. As part of this endeavour Brazil recently adopted a new road traffic code that has brought down the annual number of road deaths by about 5000. This is a welcome development that should spur us to even further progress. The challenges are enormous and must not be side stepped. This is why road security will remain a priority for my Government.

The publication of this report is therefore extremely timely. The data and analysis that it brings to light will provide valuable material for a systematic and in-depth debate on an issue that affects the health of all. Of even greater significance is the fact that the report will help reinforce our conviction that adequate preventive measures can have a dramatic impact. The decision to dedicate the 2004 World Health Day to Road Safety points to the international community's determination to ensure that modern means of land transportation are increasingly a force for development and the well-being of our peoples.

Luis Inácio Lula da Silva, President, Federative Republic of Brazil

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Acknowledgements

The World Health Organization and the World Bank would like to acknowledge the members of the committees, regional consultation participants, peer reviewers, advisers and consultants, from over 40 countries, whose dedication, support and expertise made this report possible.

The World Health Organization, the World Bank and the Editorial Committee would like to pay a special tribute to Patricia Waller, who passed away on 15 August 2003. She was a member of the technical committee for chapter 1 but sadly became too ill to participate. Her many contributions to the promotion of road safety in the context of public health are acknowledged. She was a friend and mentor to many.

The report also benefited from the contributions of a number of other people. In particular, acknowledgement is made to Jeanne Breen and Angela Seay for writing the report under very tight time constraints, to Tony Kahane for editing the final text, to Stuart Adams for writing the summary and David Breuer for editing the summary. Thanks are also due to the following: Caroline Allsopp and Marie Fitzsimmons, for their invaluable editorial support; Anthony Bliss for technical support on transport-related matters; Meleckidzedeck Khayesi and Tamitza Toroyan, for assistance with the day-to-day management and coordination of the project; Kara McGee and Niels Tomijima, for statistical assistance; Susan Kaplan and Ann Morgan, for proofreading; Tushita Bosonet and Sue Hobbs, for graphic design and layout; Liza Furnival for indexing; Keith Wynn for production; Desiree Kogevinas, Laura Sminkey and Sabine van Tuyl van Serooskerken, for communications; Wouter Nachtergaele for assistance with references; Kevin Nantulya for research assistance; and Simone Colairo, Pascale Lanvers-Casasola, Angela Swetloff-Coff, for administrative support.

The World Health Organization also wishes to thank the following for their generous financial support for the development and publication of the report: the Arab Gulf Programme for United Nations Development Organizations (AGFUND); the FIA Foundation; the Flemish Government; the Global Forum for Health Research; the Swedish International Development Agency; the United Kingdom Department for Transport, Road Safety Division; the United States National Highway Traffic Safety Administration and the United States Centers for Disease Control and Prevention.

Introduction

Road traffic injuries constitute a major public health and development crisis, and are predicted to increase if road safety is not addressed adequately by Member States. The World Health Organization (WHO) has been concerned with this issue for over four decades. As early as 1962, a WHO report discussed the nature and dynamics of the problem (1). In 1974, the World Health Assembly adopted Resolution WHA27.59, declaring road traffic accidents a major public health issue and calling for Member States to address the problem (2). For the past two decades, the World Bank has encouraged its borrowers to include road safety components within most of their highway and urban transport projects.

Over the last three years, both organizations have intensified their work in road traffic injury prevention. This was reflected in the establishment in March 2000 of WHO's Department of Injuries and Violence Prevention, the development and implementation of a five-year WHO strategy for road traffic injury prevention, and greater financial and human support for road traffic injury prevention activities around the world (3). Recently, WHO dedicated World Health Day for 2004 to Road Safety. Within the World Bank, an interdisciplinary task force was established to ensure that this important issue was regarded as a major public health issue and tackled jointly by transport and public health specialists.

Among other international organizations, the United Nations Economic Commission for Europe, the United Nations Development Fund and the United Nations Children's Fund, have all stepped up their road safety activities over the past decade. In early 2003, the United Nations adopted Resolution (A/RES/57/309) on the global road safety crisis (4), followed by a report of the Secretary-General on the same topic to the 58th session of the United Nations General Assembly later that year (5). In November 2003, a further Resolution (A/RES/58/9) was passed by the United Nations, calling for a plenary meeting of the United Nations General Assembly on 14 April 2004. The purpose of the plenary meeting would be to increase awareness of the magnitude of the road injury problem, and to discuss the implementation of the *World report on road traffic injury prevention* at the United Nations General Assembly (6).

This joint WHO/World Bank report on road traffic injury prevention is an important part of the response to the world's road safety crisis. It is directed at international, regional and national policy-makers, international agencies and key professionals in public health, transport, engineering, education and other sectors, and aims to stimulate action for road safety. It sets out universal principles rather than a "blue print" for worldwide application, recognizing fully the need to identify local needs and the adaptation of "best practices" accordingly. A summary of the report is also available at http://www.who.int/violence_injury_prevention.

Aims of the report

The central theme of this report is the burden of road traffic injuries and the urgent need for governments and other key players to increase and sustain action to prevent road traffic injury.

The report's goals are:

- to raise awareness about the magnitude, risk factors and impacts of road traffic collisions globally;
- to draw attention to the preventability of the problem and present known intervention strategies;

— to call for a coordinated approach across a range of sectors to address the problem.

The specific objectives of the report are:

- to describe the burden, intensity, pattern and impacts of road traffic injuries at global, regional and national levels;
- to examine the key determinants and risk factors;
- to discuss interventions and strategies that can be employed to address the problem;
- to make recommendations for action at local, national and international levels.

The report elaborates on these objectives in five core chapters, described below.

The fundamentals

Chapter 1 gives an account of how the approach to road safety has developed over the years. It explains that the steep rise in road injury globally forecast over the next two decades is not inevitable if appropriate action is taken. The chapter argues the case for a multisectoral, systems-based approach to road injury prevention and mitigation.

The global impact

In Chapter 2, the defining characteristics and scale of the road traffic injury problem for different road users are laid out. The key issue of data collection is discussed and the impact of road traffic casualties on individuals, families and society in general is examined.

Risk factors

Chapter 3 describes the key risk factors and determinants for road crashes and road traffic injuries.

Interventions

Chapter 4 looks at possible interventions and discusses their effectiveness, cost and public acceptability, where such evidence is available.

Conclusions and recommendations

The final chapter draws conclusions and sets out the report's key recommendations for all those concerned with the safety of road traffic systems.

How the report was developed

Over 100 international professionals from the sectors of health, transport, engineering, law enforcement and education – among others – as well as the private sector and nongovernmental organizations, were involved in the development of this report. A small Editorial Committee coordinated this process. The outline for each chapter was developed by a Technical Committee with experts from all over the world. Two main writers wrote the various chapters of the report, after which the chapters were further refined by a stylistic editor. An Advisory Committee provided guidance to the Editorial Committee at the different stages of the report's production.

A series of consultations was held in the WHO regional offices with local experts and government officials to review the chapter outlines and make suggestions for the report's key recommendations. A meeting of the Technical Committee at WHO headquarters in Geneva further developed the work of the regional consultations on Chapter 5 – the chapter with the recommendations.

Prior to editing, each chapter was peer-reviewed by scientists and experts from around the world. These reviewers were asked to comment not only on the scientific content, but also on the relevance of each chapter within their local culture.

What happens after the report?

It is hoped that the launch of this report will mark the beginning of a long process of improving road safety. If it is to be effective, the report should stimulate discussion at local, national and international levels, and the recommendations should serve to bring about greatly increased actions on road traffic injury prevention around the world.

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The World Health Organization and the World Bank have jointly produced this World report on road traffic injury prevention. Its purpose is to present a comprehensive overview of what is known about the magnitude, risk factors and impact of road traffic injuries, and about ways to prevent and lessen the impact of road crashes. The document is the outcome of a collaborative effort by institutions and individuals. Over 100 experts, from all continents and different sectors - including transport, engineering, health, police, education, and civil society - have worked to produce the report. Road tr...