## The Role of the World Health Organization in Road Safety

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- Magnitude and risk factors for road traffic injuries
- WHO road safety programme
- WHO contribution to global road safety efforts
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#### Magnitude of road traffic injuries

- 1.2 million deaths a year
- 20-50 million are injured

or disabled

- 11th leading cause of death
- account for 2.1% of all deaths globally



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#### Distribution of global injury mortality by cause



Source: WHO Global Burden of Disease project, 2002, Version 1



# Road traffic injury mortality rate (per 100 000 population) in WHO regions, 2002

WHO region	Low- and middle- income countries	High-income countries
African Region	28.3	_
Region of the Americas	16.2	14.8
South-East Asia Region	18.6	_
European Region	17.4	11.0
Eastern Mediterranean Region	26.4	19.0
Western Pacific Region	18.5	12.0

The African Region has the highest mortality rate.



### Road traffic injury mortality in Africa by age, 2004



54% of deaths from road traffic injuries occur among those younger than 30 years old.



#### Africa: Road Fatalities rate per 100,000 population in selected African countries (Jacobs et

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## Road traffic injury mortality rates (per 100 000 population) in WHO regions, 2002



The majority of road traffic deaths occur in low- and middle-income countries.



# WHO predicts that road traffic injuries will rise to eighth place by 2030 as a cause of death

#### 2002 Disease or injury

- 1. Ischaemic heart disease
- 2. Cerebrovascular disease
- 3. Lower respiratory infections
- 4. HIV/AIDS
- 5. Chronic obstructive pulmonary disease
- 6. Perinatal conditions
- 7. Diarrhoeal diseases
- 8. Tuberculosis
- 9. Trachea, bronchus, lung cancers
- 10. Road traffic injuries

#### 2030 Disease or injury

- 1. Ischaemic heart disease
- 2. Cerebrovascular disease
- 3. HIV/AIDS
- 4. Chronic obstructive pulmonary disease
- 5. Lower respiratory infections
- 6. Diabetes mellitus
- 7. Trachea, bronchus, lung cancers
- 8. Road traffic injuries
- 9. Tuberculosis
- 10. Perinatal conditions



## The World Bank predicts that road traffic deaths will increase by 67% worldwide between 2000 and 2020



Source: Kopits E, Cropper M., 2003.



#### Downward trends in road traffic fatalities in high-income countries



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#### Most of those killed are vulnerable road users



■ Pedestrians □ Bicyclists ■ Motorized 2-wheelers ■ Motorized 4-wheelers ■ Other

Source: Various WHO collaborators in countries



#### Young adults and males are at greatest risk

- Half of all global road traffic deaths occur among young adults between 15 and 44 years of age.
- 73% of all global road traffic fatalities are males.
- In Africa, a third of all road traffic deaths occur among those aged 5-14 years.
- Males takes more risks as drivers or pedestrians.
- In high-income countries young drivers are disproportionately represented.
- In low- and middle-income countries, most young victims are vulnerable road users.

## The costs of road traffic injuries are enormous

Region	GNP 1997 (US \$ billion)	Estimated annual crash	
		GNP (%)	Costs (US \$ billion)
Africa	370	1	3.7
Asia	2 454	1	24.5
Latin America and Caribbean	1 890	1	18.9
Middle East	495	1.5	7.4
Central and Eastern Europe	659	1.5	9.9
Subtotal	5 615		64.5
Highly motorized countries	22 665	2	453.3
Total			517.8

Source: Jacobs G, et al. 2000.



### Economic costs of road traffic injuries to households

- Loss of main breadwinner
- Loss of earnings
- Medical bills, funeral costs, legal bills
- Rehabilitation costs



#### Major risk factors

- A road traffic collision is the outcome of the interaction among a number of factors, some of which may not appear to be directly related to road traffic injuries.
- Main risk factors can be categorized into four groups:
  - factors influencing exposure to risk
  - factors influencing crash involvement
  - factors influencing crash and injury severity
  - factors influencing post-crash injury outcomes



## Factors influencing exposure to risk

- economic factors
- demographic factors
- land-use planning practices
- traffic mix
- road function versus design and layout







## **Risk factors influencing crash involvement**

- speed
- alcohol or drugs
- fatigue
- male
- vehicle defects
- youth driving together
- vulnerable road users







## **Risk factors influencing crash severity**

- speed
- seat-belts, child restraints
- helmets
- Non-crash protective roadside objects
- insufficient vehicle crash protection
- alcohol and other drugs







#### **Risk factors influencing post-crash outcome of injuries**

- delay in detecting crash
- delay in transport to a health facility
- fire resulting from collision
- leakage of hazardous materials
- alcohol and other drugs
- rescue, extraction, evacuation
- poor trauma care and rehabilitation





## WHO road safety programme

Creation of WHO

• Objective (mandate): attainment by all peoples of the highest possible level of health



## **Core functions of WHO**

- Providing leadership on matters critical to health and engaging in partnerships where joint action is needed
- Shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge
- Setting norms and standards and promoting and monitoring their implementation
- Articulating ethical and evidence-based policy options
- Providing technical support, catalysing change, and building sustainable institutional capacity
- Monitoring the health situation and assessing health trends

#### Director-General Deputy Director-General

#### Representatives of the Director-General

Partnerships and United Nations Reform •Partnerships and United Nations •Country Focus WHO Offices at the: •African Union and the Economic Commission for Africa, Addis Ababa •European Union, Brussels •United Nations, New York

Polio Eradication

Health Security and Environment

Protection of the Human Environment

·Epidemic and Pandemic Alert and Response

.Food Safety, Zoonoses and Foodborne Diseases

Executive Director Advisers •Governing Bodies •Internal Oversight Services •Legal Counsel •Communications •Ombudsmen

Link to Regional Offices

#### Information, Evidence and Research

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Measurement and Health Information Systems
Research Policy and Cooperation
Ethics, Equity, Trade and Human Rights
Special Programme for Research and Training in Tropical Diseases

#### HIV/AIDS, TB, Malaria and Neglected Tropical Diseases

•HIV/AIDS •Global Malaria Programme •Stop TB •Control of Neglected Tropical Diseases

#### Health Systems and Services

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Health System Financing
Human Resources for Health

Health Technology and Pharmaceuticals and the Representative of the Director-General on Intellectual Property, Innovation and Public Health

•Essential Health Technologies •Medicines Policy and Standards •Technical Cooperation for Essential Drugs and Traditional Medicine

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Emergency Response and Operations
Recovery and Transition Programmes
Special Assignments
Tunis Centre

#### Family and Community Health and the Representative of the Director-General for Gender Equality

-Child and Adolescent Health and Development -Gender, Women and Health -Immunization, Vaccines and Biologicals -Making Pregnancy Safer -Reproductive Health and Research

#### Noncommunicable Diseases and Mental Health

Chronic Diseases and Health Promotion
Injuries and Violence Prevention
Mental Health and Substance Abuse
Nutrition for Health and Development
Tobacco Free Initiative
Kobe Centre

#### General Management

Finance
Finance
Global Management System
Global Learning and Performance Management
Clobal Service Centre (Operational in 2008)
Human Resources Management
Information Technology and Telecommunications
Operational Support and Services
Planning, Resource Coordination and Performance Monitoring



### Department of Injuries and Violence Prevention





#### WHO road safety programme: key turning points

Year	Key event and decision
1961	World Health Day on injuries
1962	An expert report on road traffic injuries produced (Norman 1962)
1966	World Health Assembly Resolution on road safety
1969	World Health Organization, Executive Board Resolution on road safety
1974	World Health Assembly Resolution on road safety
1976	World Health Organization, Executive Board Resolution on road safety
1984	Road traffic accidents in developing countries, report from a WHO meeting (Technical report Series 703, 1984)
1989	New approaches to improve road safety - a WHO study group (Technical report Series 781, 1989)
1993	World Health Day on "Injuries"
1996	Global burden of disease published
2000	Injuries and Violence Prevention Department created
2001	5-year strategy developed and released
2002	Implementation of 5-year strategy starts; work starts on development of the World report on road traffic injury prevention
2003	WHO Director General announced road safety as World Health Day 2004 theme; report of the United Nations Secretary-General on the Global road safety crisis; draft UN resolution on road safety; meeting of road safety advocacy NGOs held at WHO Headquarters in Geneva
2004	World Health Day on "Road safety" with the slogan "Road safety is no accident" held; launch of World report on road traffic injury prevention; UN resolution 58/289 passed; WHA resolution 57/10; stakeholders Forum held on road safety in New York; first meeting of UN Road Safety Collaboration held.
2004	World health resolution on road safety
2005-2006	UN Road Safety Collaboration strengthened
2007	First United Nations Global Road Safety Week Further expansion of road safety programme



#### **Current WHO road safety programme**



## WHO contribution to global road safety efforts: Evidence generation

Synthesize existing knowledge into easily accessible form (WRRTIP)

Gather "new " evidence (global road safety status report, GBD)

Assemble literature and information

Support research of others (CCs, RTIRN, ACET, IPIFA)

Develop guidelines (training manual, manuals of good practice, TEACH-VIP)

Respond to evidence requests

Avail research and evaluation tools and expertise

Disseminate information: fact sheets, web content, WHO Helmet Initiative







(A) World Health







#### WHO contribution: country projects

Build capacity

Strengthen partnership and collaboration among actors in a country

Identify and develop opportunities for action

Support development of national plans

Design and implement interventions

Evaluate interventions

Disseminate results

Support replication of country models





#### Vietnam

± 100%





Malawi





#### WHO contribution: partnership and support

Coordinate United Nations Road Safety Collaboration

Collaborate with other agencies and initiatives (UNECE, GRSP, OECD)

Mobilize resources for work at national, regional and international levels

Support existing groups for heightened action (road safety NGO network)

Mobilize partners for normative documents (WRRTIP, global road safety status report)

Secure partners for advocacy (WHD, UN road safety week)

World Youth Assembly for Road Safety

World conferences (injury, transport, health, development)





### **Challenges faced**

- Staff
- Funding
- Data and research
- Politics of a growing global activity



## Conclusion

WHO is contributing to global road safety through:

- Generation and dissemination of knowledge
- Supporting projects in countries
- Developing and supporting partnerships

Webpage: <a href="http://www.who.int/violence\_injury\_prevention/road\_traffic/en/">http://www.who.int/violence\_injury\_prevention/road\_traffic/en/</a>

Thank you

