

# The Silent Epidemic of Road Traffic Injury in the South-East Asia Region



2011

Fact Sheet

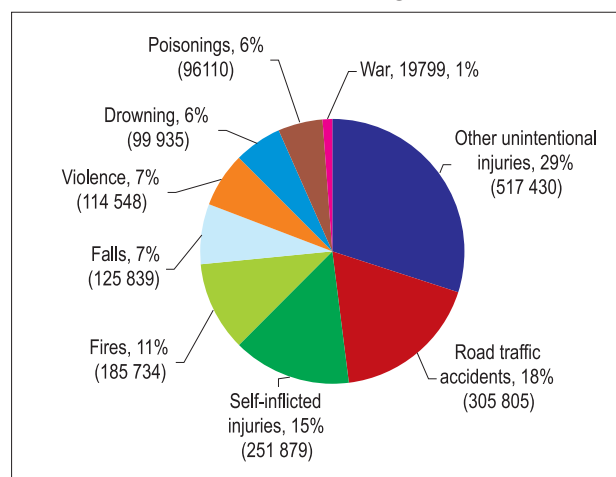
## Road traffic injuries - Why are they important?

Road traffic crashes claim nearly 1.3 million lives of men, women and children globally every year and account for many more cases of injury and disability. In the South-East Asia Region road traffic injury (RTI) is the leading causes of injury-related mortalities<sup>1</sup> (Figure 1).

### Magnitude of RTI in the Region

The South-East Asia Region ranks third among the six WHO regions with a rate of 16.6 road traffic injuries per 100 000 population. Approximately 300 000 people<sup>1</sup> were killed on the roads in 10 of the 11 countries<sup>#</sup> of the Region in 2007 (Table 1).

**Figure 1: Injury-related mortality in the South-East Asia Region, 2004**



Source: WHO, Geneva, Global Burden of Disease Study (2004 update)

**Table 1: Road traffic deaths (per 100 000 population) in 10 countries of the South-East Asia Region (using modelled data), 2007\***

Country	Population <sup>a</sup>	Reported number of deaths <sup>b</sup>	Modelled number of deaths <sup>c</sup>		Estimated road traffic death rate per 100 000 population <sup>c</sup>
			Point estimate	90% confidence interval	
Bangladesh	158 664 959	4 108	20 038	14 882–29 155	12.6
Bhutan	658 479	111	95	72–115	14.4
India <sup>c</sup>	1 169 015 509	105 725	196 445	155 727–266 999	16.8
Indonesia	231 626 978	16 548	37 438	29 785–65 158	16.2
Maldives	305 556	10	56	37–105	18.3
Myanmar	48 798 212	1 638	11 422	6 905–16 883	23.4
Nepal	28 195 994	962	4 245	3 453–5 288	15.1
Sri Lanka	19 299 190	2 334	2 603	2 185–3 097	13.5
Thailand	63 883 662	16 240	16 240	–	25.4
Timor-Leste	1 154 775	49	186	143–255	16.1
SEA Region		147 725	291 342		

(Source: Government approved data from the participating countries)

\* Except Bangladesh (2006), Bhutan (mid 2006-mid 2007) and India (2006). Indian data for 2007 is available.

a Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2007). World population Prospects: The 2006 Revision, Highlights. New York: United Nations.

b Adjusted for 30-day definition of a road traffic death.

c Modelled using negative binomial regression (see [http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/methodology/en/index.html](http://www.who.int/violence_injury_prevention/road_safety_status/methodology/en/index.html) for detailed methodology).

India is ranked second and Indonesia eighth among the top ten countries in order of magnitude on road traffic injury deaths in the world<sup>2</sup>. However, the highest mortality rate per 100 000 population was observed in Thailand (25.4), followed by Myanmar (23.4), and Maldives (18.3) in 2008<sup>3</sup>.

<sup>1</sup> World Health Organization. The global burden of disease: 2004 update. Geneva, WHO, 2008.

<sup>#</sup> DPR Korea did not participate in the Survey

<sup>2</sup> World Health Organization. Global status report on road safety-Time for action. Geneva, WHO, 2009.

<sup>3</sup> World Health Organization, Regional Office South-East Asia. Regional report on status of road safety: the South-East Asia Region. New Delhi, WHO-SEARO, 2009.

## Vulnerable road users

Vulnerable road users (pedestrians, motorcyclists and cyclists) make up almost three quarters of road traffic deaths in the Region and accounted for the highest reported proportion of total deaths in the South-East Asia and Western Pacific Regions<sup>2</sup> (Figure 2). However, in the South-East Asia Region, there is considerable variability among the participating countries. Over 89% of those killed on the roads in Indonesia are vulnerable road users while the corresponding figures for Thailand and Myanmar are 80% and 51% respectively. In India, Indonesia, Maldives and Thailand, drivers and passengers of motorized two-wheelers account for the bulk of the most vulnerable road users, while pedestrians make up this group in Bangladesh and Myanmar<sup>3</sup>.

## Main mode of transportation

Almost all countries in the Region except Bhutan have motorcycles as the main mode of transportation for families; the percentages of registered motorcycles among all vehicles are 55.7 % (ranging from 18.8% to 81.8%)<sup>4</sup>. Thailand, Myanmar, Indonesia and Maldives used to be leading in the proportion of motorcycle among all registered vehicles but recently the proportion in Nepal and India increased very rapidly to 81.8% and 71.2% respectively.

This is the prevailing phenomenon in most Member States in the Region which is much different from high-income countries where motorcycles account for 1% - 3% of registered vehicles.

## RTI and children

Road traffic injuries and drowning were the leading causes of injury death for children under 15 years of age, each cause contributing to 12%<sup>5</sup>. Among the injury data available during 2003 to 2009, road traffic injury was an important cause of all injury in children under 15 years of age (ranging from 10.6% to 37.5% in countries of the Region). Among children under 15 years of age, vehicle users (drivers and passengers) were the largest group of people suffering RTI in Thailand (87.6%), Sri Lanka (71.3%), and Nepal (33.3%) except India, where pedestrians were the biggest portion of RTI, 50.1%<sup>3</sup>. Motorcycles were the most common vehicles used by children injured on the road while being on any vehicle<sup>4</sup> (ranging from 40.3% to 69.8% in four countries, namely India, Nepal, Sri Lanka and Thailand).

## Socioeconomic burden of RTI in the SEA Region

The most recent report on economic loss during 1996-2007 revealed that the loss ranged from US\$ 10.1 million in Nepal to US\$ 11 550 million in India, and that the highest economic loss per person was observed in Thailand (US\$ 123.9) and Myanmar (US\$ 30.3)<sup>3</sup>.

## Important measures for road safety in the SEA Region

Ten countries in the SEA Region reported at least one law related to the five major risk factors (speed, drink-driving, absence of helmets, seat-belts and child restraints) at the national or sub-national level, although these are not all comprehensive in scope. Existing laws appear to be inadequately enforced in most countries. Only four participating countries have a formal publicity mechanism at national level on the pre-hospital care system and few participating countries have enforced different measures to reduce exposure and prevent road traffic injuries<sup>3</sup> (Table 2).

<sup>4</sup> World Health Organization, Regional Office for South-East Asia. *Epidemiology of motorcycle related transport injuries in children*. Presented at the "Expert group meeting for preventing child motorcycle injury", Bangkok Thailand 21-23 December 2010, now under publishing process.

<sup>5</sup> World Health Organization, Regional Office for South-East Asia. *Factsheet on child injuries*. New Delhi, WHO-SEARO, 2008.

Table 2: Important measures for Road Safety in 10 Member States of the South-East Asia Region, 2008

Country			Speed Limits (km/H) for vehicles		Blood alcohol concentration (g/dl)	Mechanisms for enforcing drink-driving laws and levels of enforcement	Helmet-wearing laws	Seat-belt and child restraint laws	Post-crash management	Road Safety Management		Different road safety measures to reduce exposure and prevent injuries		
			Urban	Rural						General population	Random breath-testing	Requires helmet standards	Seat-belt law exists	Formal pre-hospital care system in existence
Bangladesh	25	40	- <sup>a</sup>	No	No	No	No	No	Yes (Inter-ministerial)	Yes (No funding)	No	No	Yes	
Bhutan	30	50	0.08	No	Yes	Yes	No <sup>c</sup>	Yes (within a government ministry)	No (N/a)	No	No	No	Yes	
DPR Korea *	-	-	-	-	-	-	-	-	-	-	-	-	-	
India	- <sup>^</sup>	-	0.03	Yes	Yes	Yes	Yes	Yes (within a government ministry)	Yes <sup>f</sup> (N/a)	Yes	Yes	No	Yes	
Indonesia	70	100	- <sup>b</sup>	No law	Yes	Yes	Yes	Yes (National Cabinet)	Multiple strategies (N/a)	Yes	Yes	No	Yes	
Maldives	30	30	- <sup>b</sup>	No law	n/a	No	No	Yes (within a government ministry)	Yes (Yes)	No	No	No	No	
Myanmar	40	40	0.07	Yes	Yes	No	Yes	Yes (Inter-ministerial)	Yes (Yes)	Yes	Yes	Yes	Yes	
Nepal	40	-	- <sup>a</sup>	Yes	No	Yes	No <sup>d</sup>	Yes (within a government ministry)	Yes <sup>f</sup> (N/a)	No	No	No	Yes	
Sri Lanka	50	70	0.08	Yes	Yes	No	No <sup>e</sup>	Yes (within a government ministry)	Yes <sup>f</sup> (N/a)	Yes	Yes	No	Yes	
Thailand	80	90	0.05	Yes	Yes	Yes	Yes	Yes (Inter-Ministerial)	Yes (Yes)	Yes	Yes	No	Yes	
Timor-Leste	50	90	0.05	Yes	No	Yes	Yes	Yes (within a government ministry)	Multiple strategies (N/a)	No	Yes	Yes	Yes	

Source: Regional report on the status of road safety: the South-East Asia Region, 2009

- No data available

<sup>\*</sup> - DPR Korea did not participate in the survey

n/a - not applicable

<sup>^</sup> India does not have a national speed limit. However, there are state-level speed limits.

<sup>a</sup> Drink-driving law exists but no standard definition or no national blood alcohol concentration limit.

<sup>b</sup> No drink-driving law.

<sup>c</sup> There is no formal pre-hospital care system in Bhutan but a free ambulance service is available.

<sup>d</sup> In Nepal, almost all ambulances are free with some exceptions.

<sup>e</sup> Only in some major cities in Sri Lanka but not nationwide.

<sup>f</sup> Not formally endorsed by government.

## Key recommendations for RTI prevention and road safety promotion:

- (1) Strengthen lead agencies with authority, status and resources to guide, develop, coordinate, implement and evaluate road safety issues, policies and programmes.
- (2) Develop strategic guidelines for road traffic injury prevention with specific measurable targets.
- (3) Develop and implement specific actions to prevent road traffic injuries, such as:
  - (a) speed control on all arterial roads, urban and intercity areas and national highways; traffic calming in all urban roads and on highways outside the urban areas; and enforcing a speed limit of <50 km/h on urban roads;
  - (b) strict enforcement of mandatory helmet laws for two-wheeler riders (both drivers and pillion-riders);
  - (c) enforcement of drink-driving law {maximum blood alcohol content (BAC) should be 0.05 g/dl for adult drivers and less than 0.02 g/dl for young/novice drivers};
  - (d) enforcement of seat-belt use and use of child restraints;
  - (e) enforcement of all road safety laws needs to be improved. Enforcement efforts must be well-publicized, sustained and implemented through the use of appropriate measures and penalties for infringement;
  - (f) mandatory formal road safety audits for all proposed road construction projects and for existing road infrastructure;
  - (g) segregation of traffic into slow- and fast-moving vehicles on all possible roads with provisions for safe travel of pedestrians, bicycles, motorcycles and buses;
  - (h) setting safety standards for vehicles, especially for motorcycles;
  - (i) establishing pre-hospital trauma care systems with nationwide universal access phone number;
  - (j) modification of products, especially the standardizing of helmets for adults and children; and,
  - (k) promotion of life skills development and road user behaviour change.
- (4) Reinforce injury information system.
- (5) Develop human resources and enhance resource allocation<sup>3</sup>.
- (6) Strengthen research and intervention capacity specifically to the risk factors relevant to the regional and country's context.

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