

Is it true that children are not affected when motorcycle use increase?

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**World Health
Organization**

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**World Health
Organization**

Regional Office for South-East Asia

**Low and middle
income**

DPR Korea

Nepal

Bhutan

India

Bangladesh

Myanmar

Thailand

Sri Lanka

Maldives

Indonesia

Timor Leste

Motorcycle use is increasing rapidly in the Region



New Delhi, India



**Used as family vehicle with
children as passengers**

Introduction

- Due to scarcity of epid. information, pattern of child transport injuries was taken as true by some, for all SEA countries: “*majority is pedestrian*”
- Moreover, some believe children are not affected when motorcycle use increases

Objectives

- **Provide evidence from the South-East Asian (SEA) countries that children are affected when motorcycle use increases**
- **Call for appropriate actions**

Definition of terms used

- *Child* – person less than 15 years old
- *Motorcycle (MC)* - all types/classes of motorized two-wheelers, including mopeds
- *MC rider, user* – driver & passenger

Methods

- **Template for secondary data collection was sent to all 11 MOH in SEA Region**
- **Document review and web search also conducted**

Findings

- 9 / 11 countries responded
- Data were from different sources and information systems

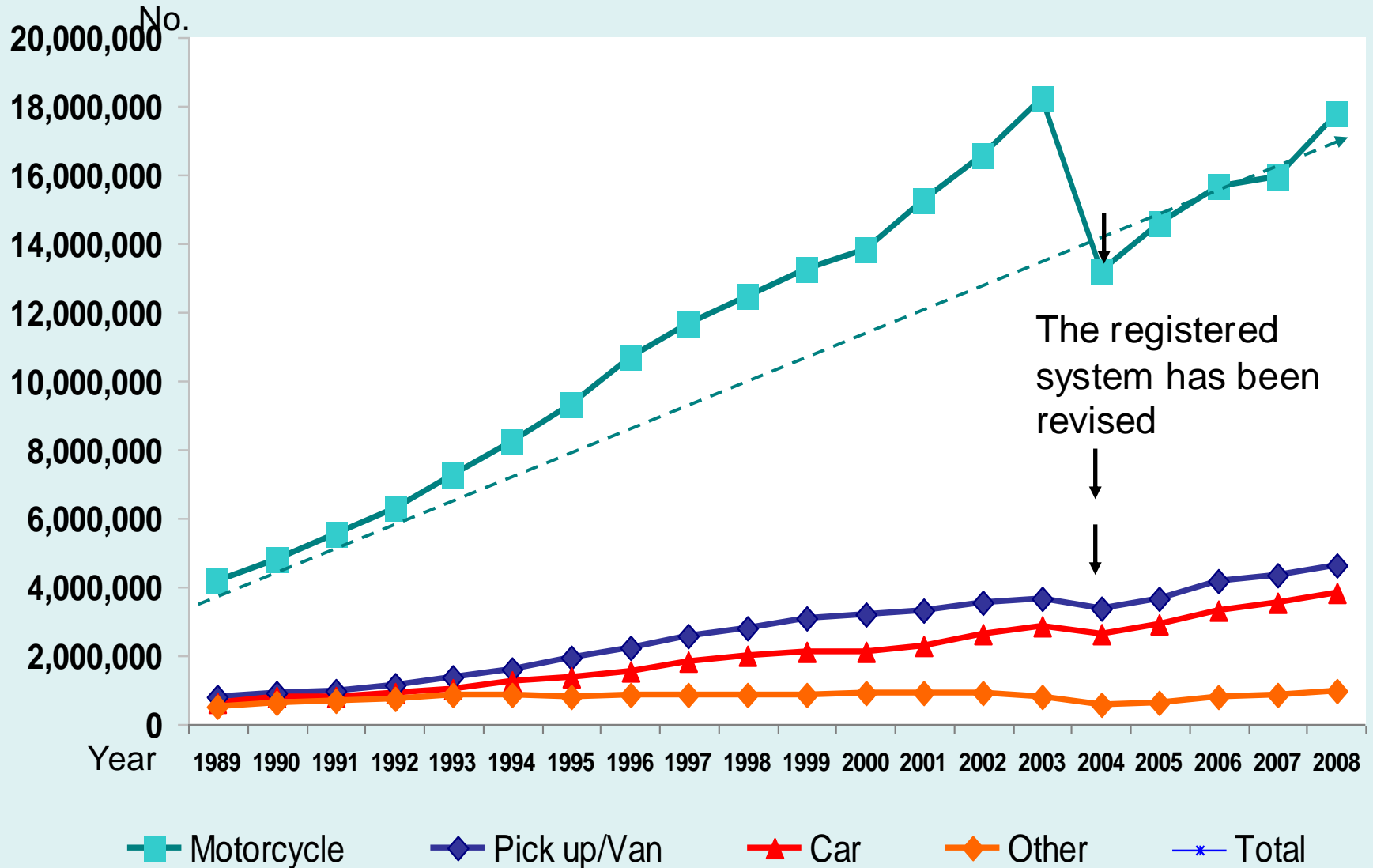
Findings

- **2009, about 73 millions motorcycles (MCs) registered in SEA Region**
- **MCs accounted for 56 % of all types of registered vehicles in SEA countries**
(HIC, registered MCs < 4 %)

% Registered MCs, by SEA Countries, reported during 2004-9

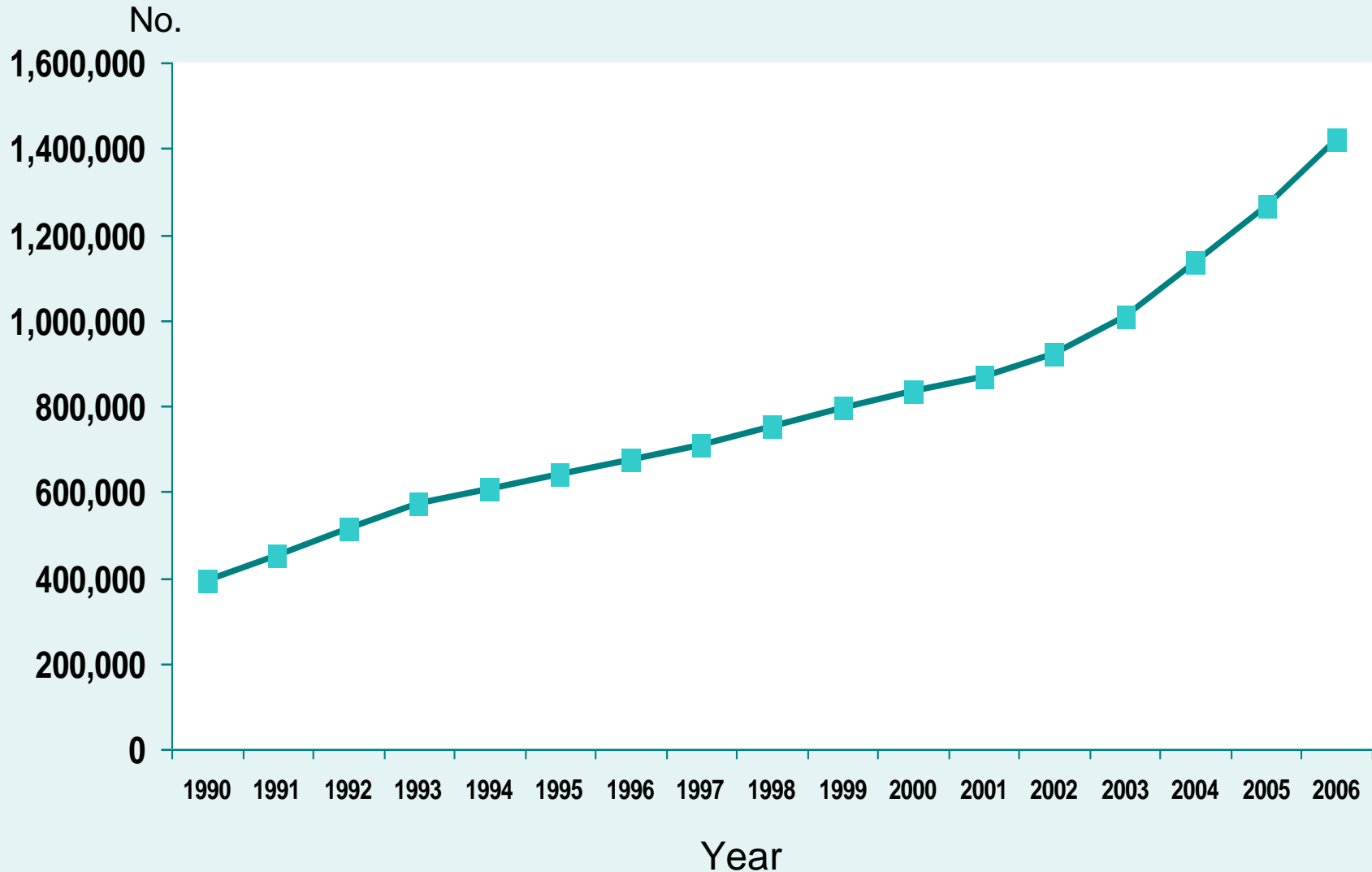
SEA Countries 'yr		Registered Vehicle (No.)	Registered Motorcycle (No.)	% MC among all vehicles
Bangladesh	'07	1.1 mil	525,751	49.9
Bhutan	'09	41,262	7,740	18.8
India	'04	***72.7 mil	***51.9 mil	71.4
Indonesia	'03	*25.0 mil	**18.8 mil	*75.2
Maldives	'07	39,338	31,414	**79.9
Myanmar	'08	1.0 mil	658,997	63.8
Nepal	'07	88,735	72,568	***81.8
Sri Lanka	'06	2.8 mil	1.4	50.3
Thailand	'08	**27.2 mil	*17.8 mil	*65.3
DPR K & TLS	NA	NA	NA	NA
All countries		129.7 mil	72.5 mil	55.7

Fig.1 cumulative number of registered vehicles, Thailand 1989-2008



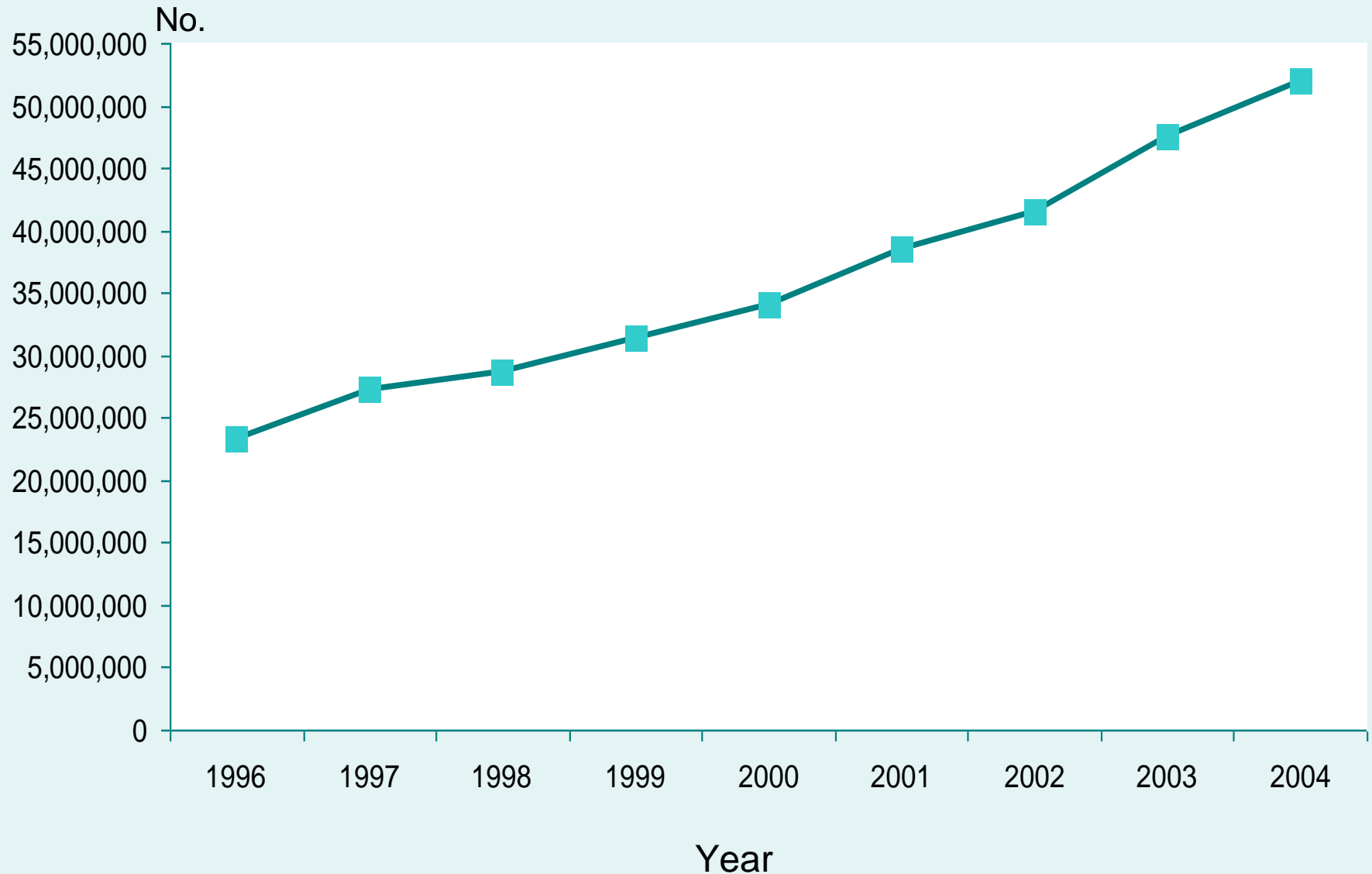
Source: Department of Land Transportation, Ministry of Transport, Thailand 2008

Fig.2 cumulative number of registered motorcycles, Sri Lanka 1990-2006



Source: Department of Motor Traffic, Sri Lanka

Fig.3 cumulative number of registered motorcycles, India 1996-2004



Findings

Child MC injury

4 / 7 countries provided data

Reported to National Road Safety Directing Center, Thailand, 2003

**National estimate from inj.
surveillance, 2002**

**1.5 child deaths/day
from using MC**

~ 4 times of DHF deaths !!!

Findings

Thailand National Sentinel Inj. Surveillance

- **National estimate (2003-2007) > 12,000 children severely injured (admitted as inpatient) from transport crashes, riding on MCs**

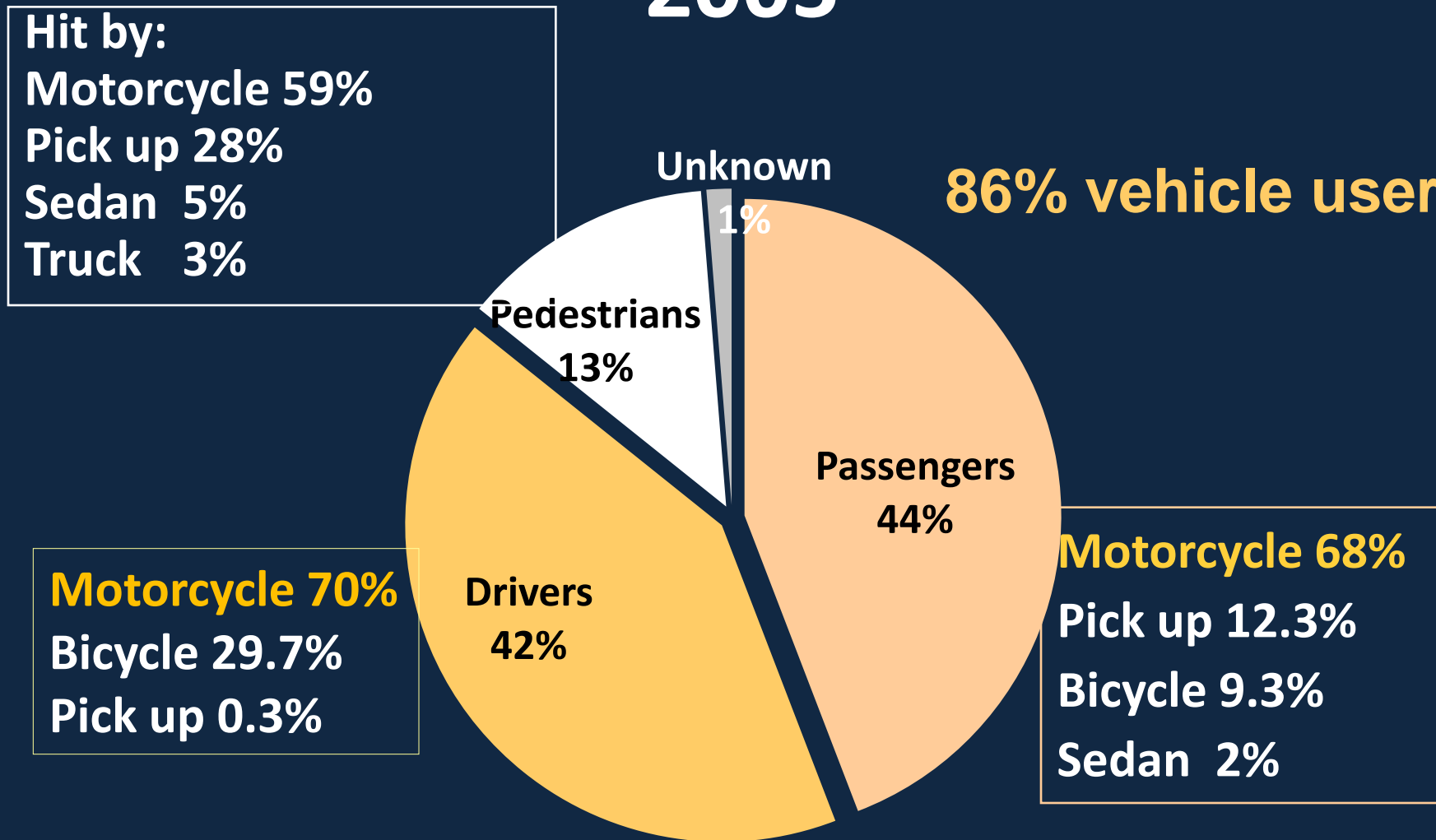
Findings

Thailand National Sentinel Inj. Surveillance

(contd.)

- **2007, 62% of severely injured children from transport crash were MC users (5,718)**
 - **Among children severely injured in transport crash while using any vehicles, 70% were riding MC**

Transport injuries <15 years, Thailand 2005



Motorcycle helmet for **kids**, with **love** and **care**

2005 Thailand



Sri Lanka



Findings

Sri Lanka

**Pilot injury surveillance data, 6 m,
6 hospital, 2009**

- 34% of children severely injured from transport accident while using vehicles (98 person), were children riding on MCs**

India



Findings

India

1 yr data, 2 cities study on development of RTI surveillance 2006-7

- *13% of 1,071 child transport crash cases injured while riding on MCs, 55% with head injuries**

Nepal



Findings

Nepal

pilot surveillance, 1 m data, 2 cities, 2008

- 37% of 72 children injured from transport crashes, got injured while riding on MCs; 3 were driving MCs**

**Indonesia
started
producing
standard
child MC
helmet
2007**



**Child MC injuries happened
unplanned, but the increase of
MC use was not unplanned.....**

Honda's MC production record

'49 Honda's first production on MCs

'67 MC produced in Thailand* (exported afterwards to ASEAN countries)

'69 MC produced in Malaysia,
Honda “Dream” exported to North America

'71 MC produced in Indonesia*

Honda's MC production record

'73 MC produced in the Philippines

'85 MC produced in India*

**'87 Japanese MC production reaches
50 mil. unit**

'92 produced in China

'97 produced in Vietnam

Discussion

- **Limitations**

- **Most data were small in number,
not representing country,
not able to show trends of child
motorcycle injuries**

Discussion

- However, may be used as sentinel events, to detect potential public health problem
- Health problem previously detected in one country, may after time, become health problem in others, in this globalization period

Discussion

- MC riders reported as largest proportion of transport crash victims, all age, as early as 1995 by Thailand
- Now, other SEA countries are reporting similarly

Discussion

- **Pattern of child MC injuries/deaths in Thailand, may again be seen in other SEA countries, if nothing is done specifically to response to this problem**

Children driving or riding as passenger on MC has been normalized by people in many countries in Region



Source: Dr. Witaya, Thailand

**Child MC helmet may be able to
protect some children....**









Source : Dr. Piyush Gupta, Univ.College of Med. Sciences, New Delhi , India



- **It is NOT true that children are not affected when motorcycle use increase**



**“The silent epidemic
of motorcycle injuries”
has already spread to
children in SEA Region**

Source: EMS team Maharaj Nakonrajsima, Thailand

**It might have spread
to children in other
countries in the
world...**

**The spread of the
epidemic to children
will not be
controlled.....**

Recommendation

- National data systems report severe child injury and deaths by causes, investigation done and result disseminated to public
- Appropriate standards, laws and stringent enforcement on child MC helmet, age for children to ride as passenger/ driver in MC popular country

Recommendation

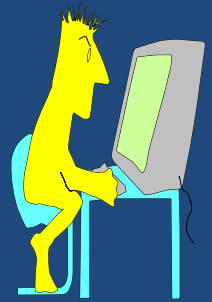
- Increase of eligible age for moped/ MC driving license
- More discourse regarding “ unsafe transportation of children on MC, appropriate response, and alternatives” made, in community and policy level

**With alertness and
appropriate
responses...**

**Together, we
can save the
kids !!**

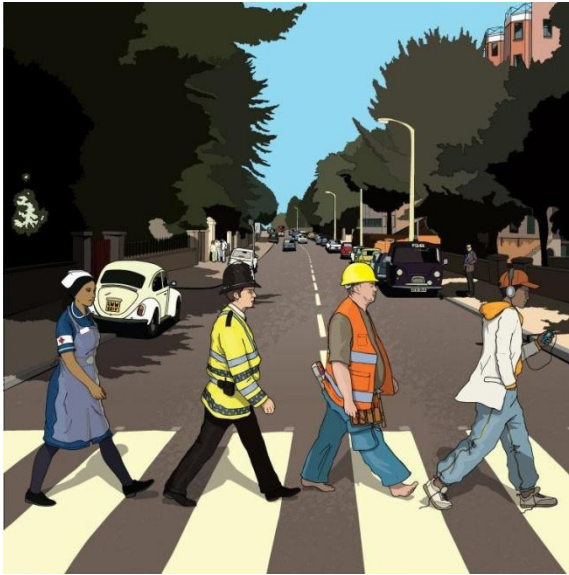


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