

This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike License](https://creativecommons.org/licenses/by-nc-sa/4.0/). Your use of this material constitutes acceptance of that license and the conditions of use of materials on this site.



Copyright 2006 Adnan Hyder, Maria Segui-Gomez, and The Johns Hopkins University. All rights reserved. Use of these materials permitted only in accordance with license rights granted. Materials provided "AS IS"; no representations or warranties provided. User assumes all responsibility for use, and all liability related thereto, and must independently review all materials for accuracy and efficacy. May contain materials owned by others. User is responsible for obtaining permissions for use from third parties as needed.



JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

The Burden of Injuries in South Asia: Case Study

Adnan Hyder, MD, PhD

Maria Segui-Gomez, MD, ScD

Bloomberg School of Public Health



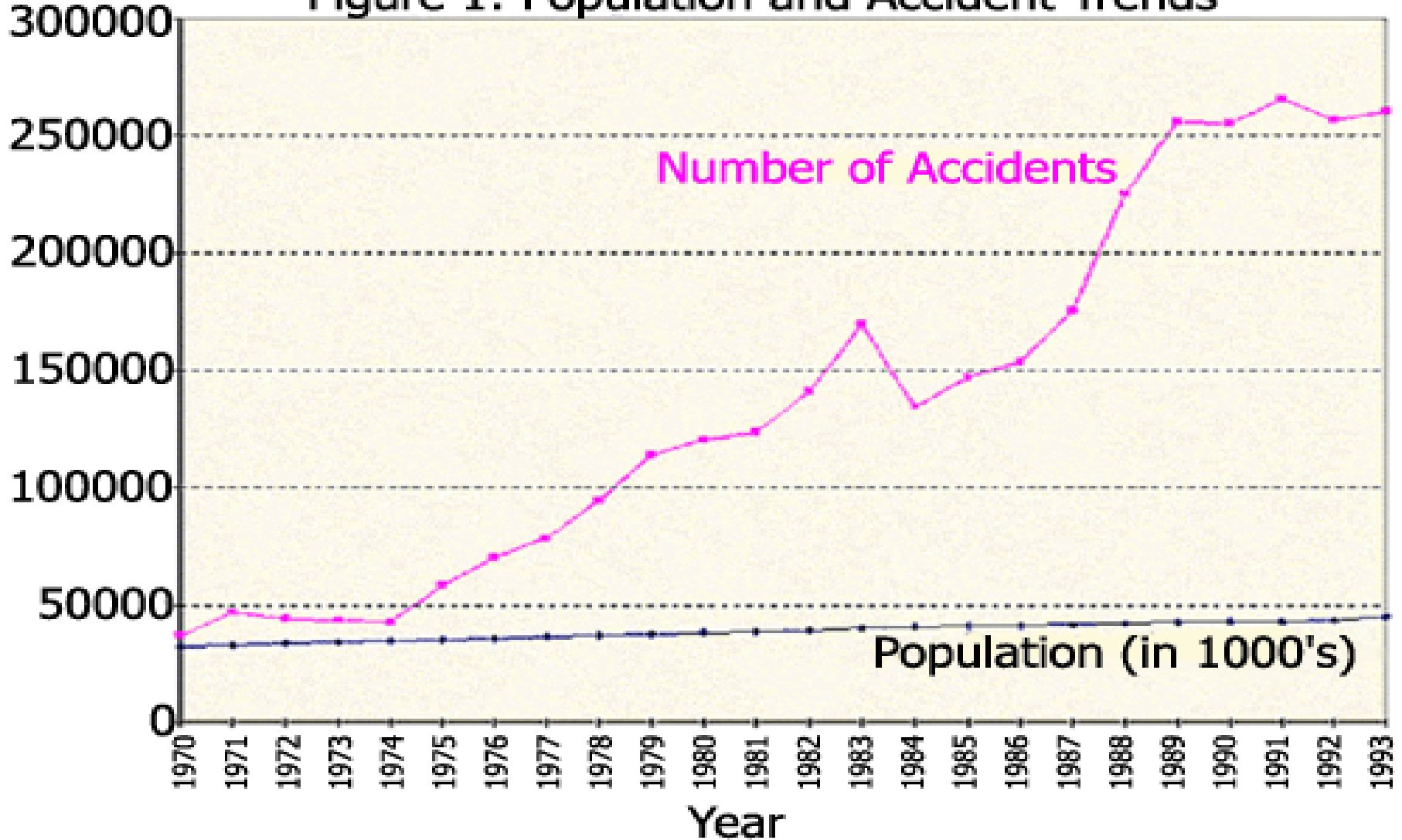
JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

Section A

Motor Vehicle Crashes in South Asia

Road Traffic Accidents in South Korea

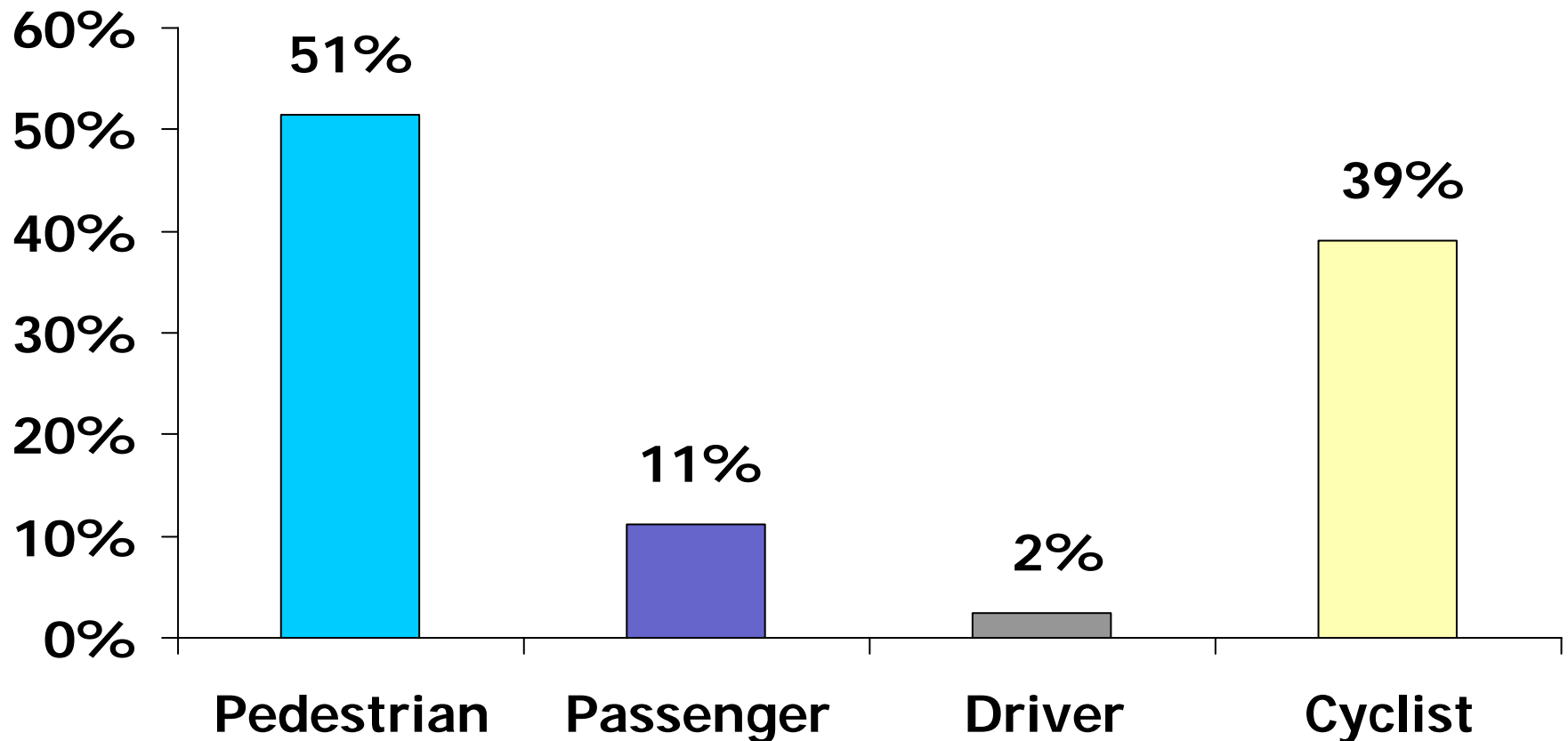
Figure 1: Population and Accident Trends



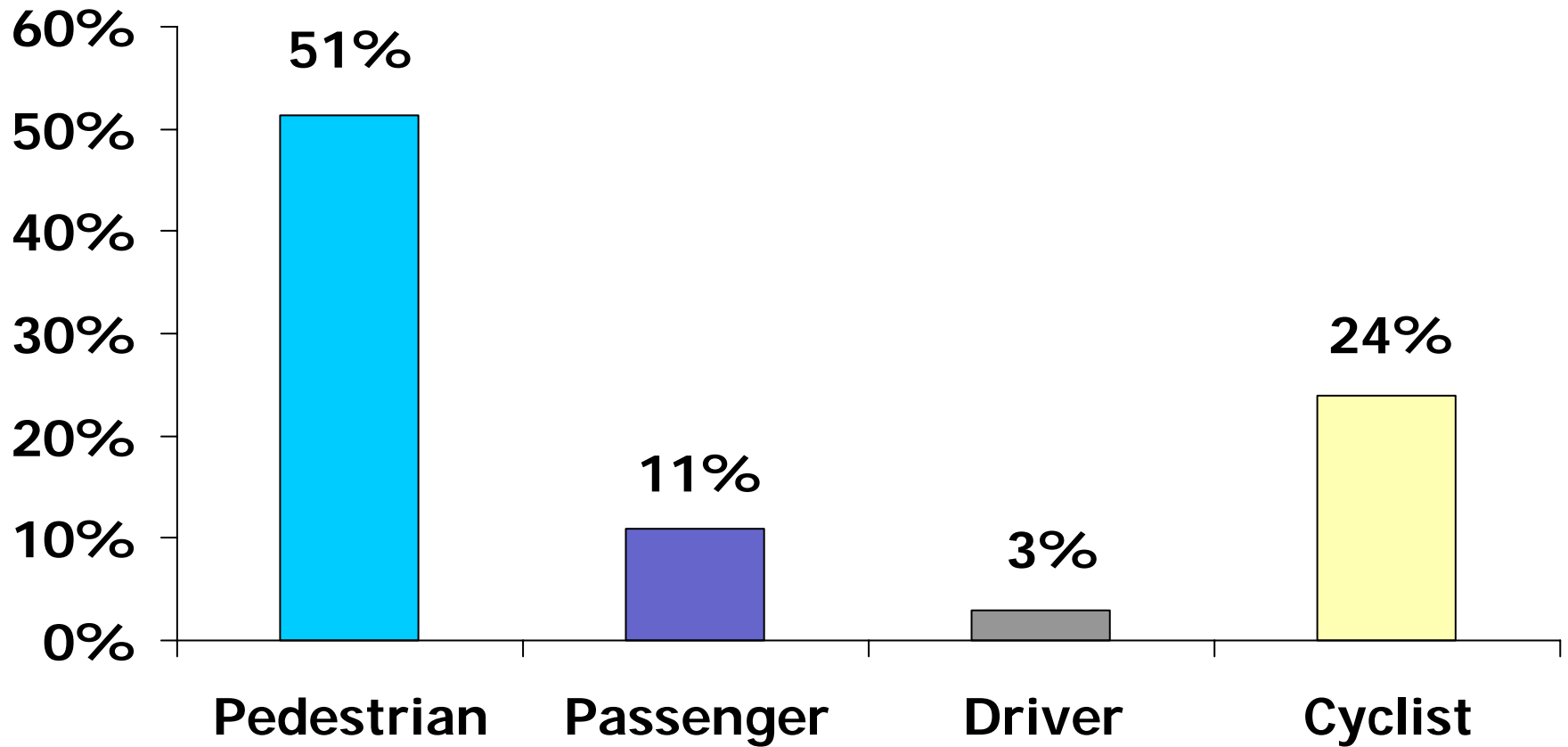
Fatality Rates by Motor Vehicle Crashes in South Asia

Country	Author, year	Rates / 10,000 Vehicles	Rates / 100,000 Population	Motor Index (Veh. / 1,000 per)
India	Bhandari 1969	37.0	12.6	—
	Mohan 1985	12.4	11.6	93.9
	Guruaj 1993	67.4	9.9	14.7
Sri Lanka	Sayer 1985	39.0	—	—
	Selgado 1988	23.3	—	—
Pakistan	Hyder 2000 (for year 1956)	38.9	—	13.25
	Hyder 2000 (for year 1996)	13.75	3.9	25.08

% of Traffic Fatalities by Type of Road User, India



% of Traffic Fatalities by Type of Road User, Sri Lanka





JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

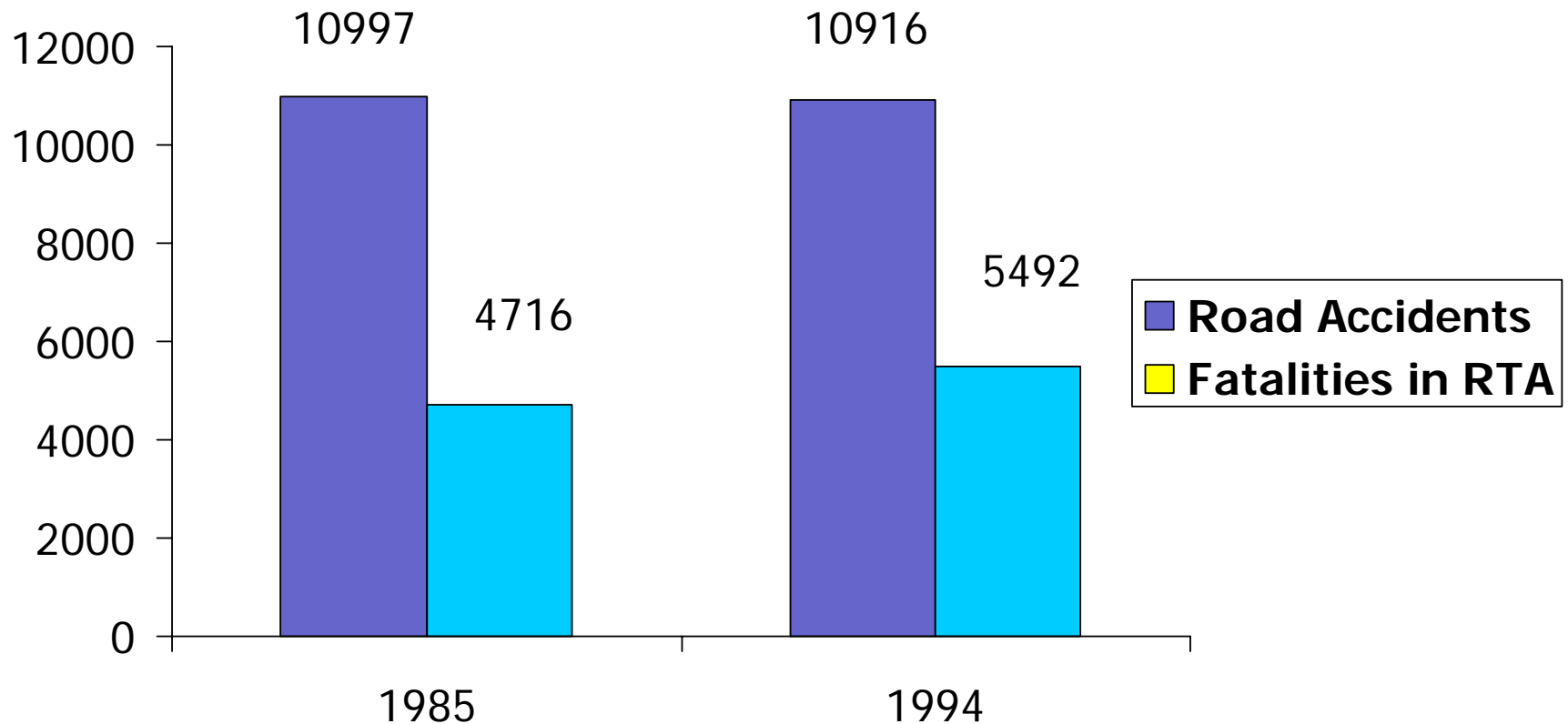
Section B

Injuries in Pakistan

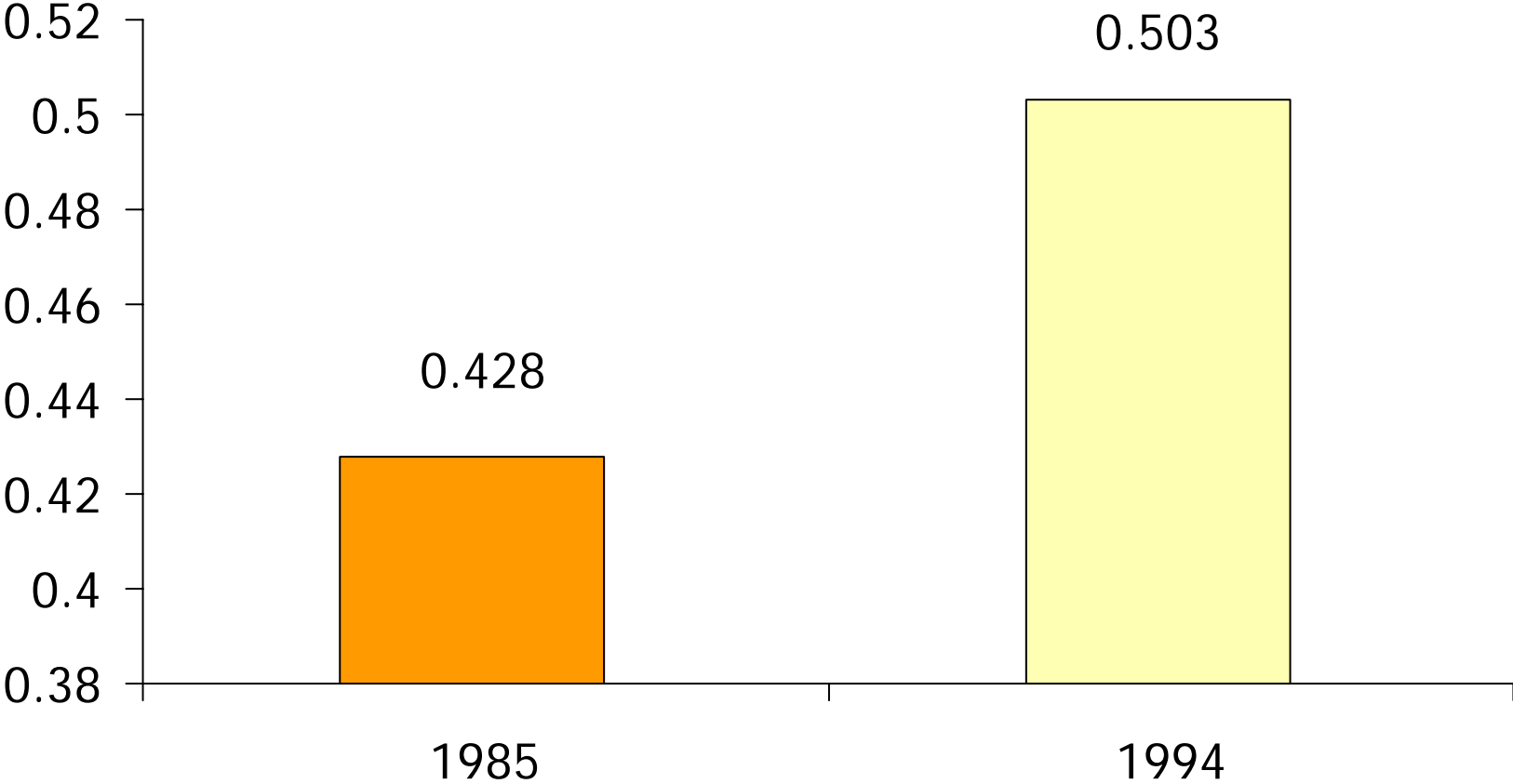
Questions

1. *Identify the data source for mortality*
2. Comment on figure one and critique the presentation of the data
3. Which intentional and unintentional injuries are covered in this article?
4. Do you agree with the policy recommendations? Why or why not?
5. If given the opportunity of doing one study after viewing this paper, what would be the area of study?

Road Traffic Crashes and Fatalities in Pakistan



Ratio of Deaths to Road Accidents in Pakistan, 1985-1994

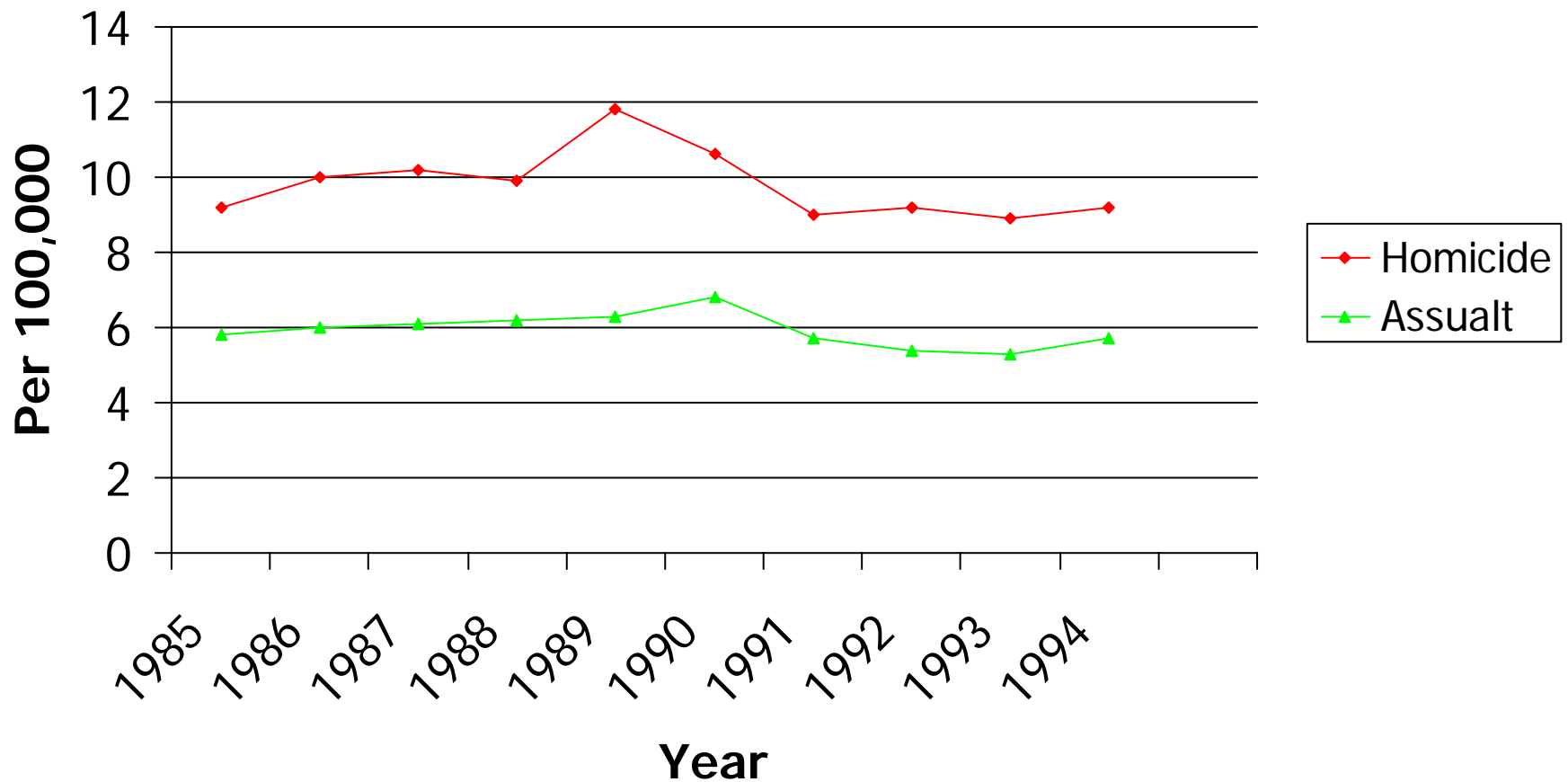


Source: Ghaffar A. Health Pol Plan 1999; 14: 11-17

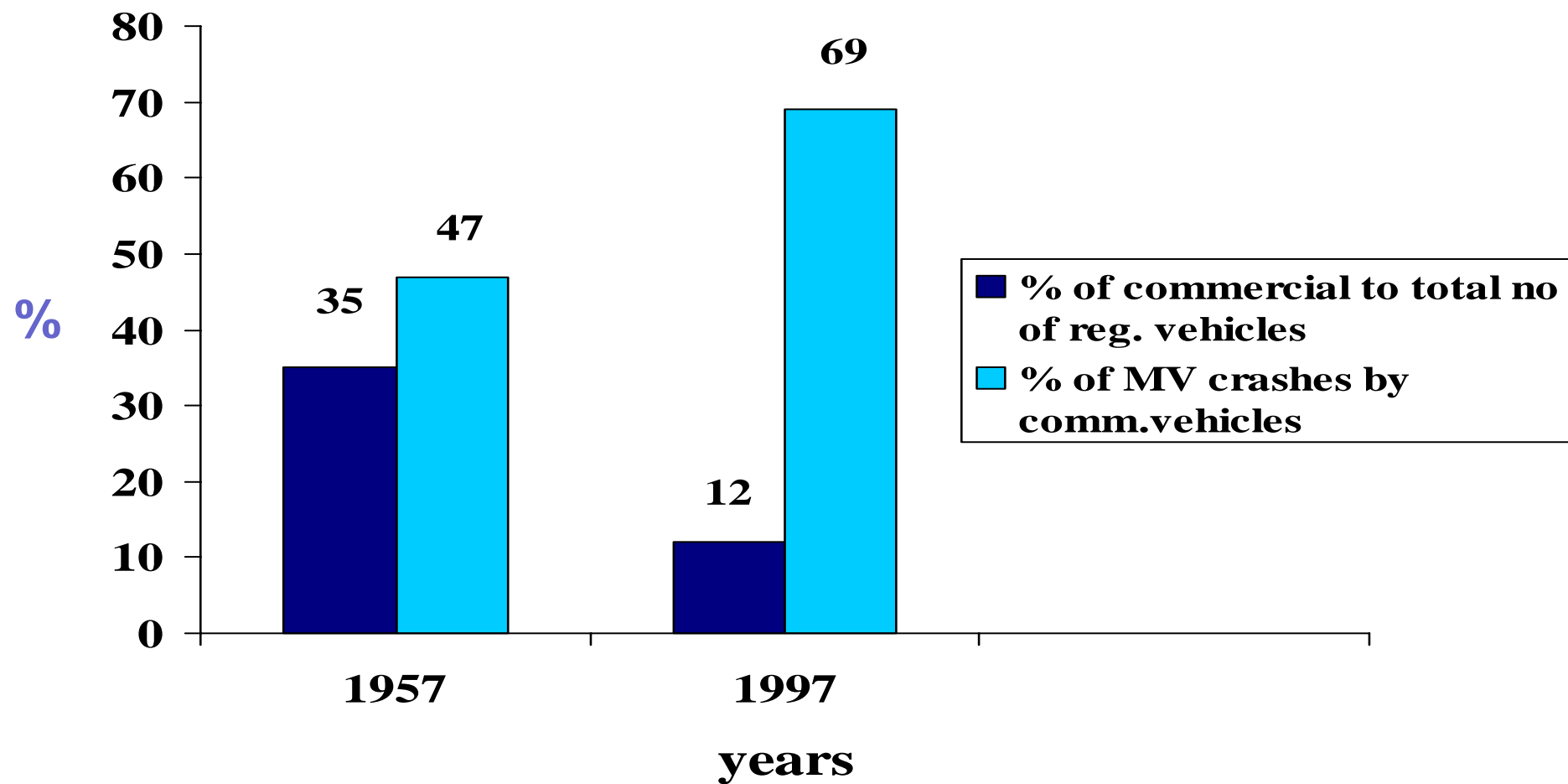
Questions

1. Identify the data source for mortality
2. *Comment on figure one and critique the presentation of the data*
3. Which intentional and unintentional injuries are covered in this article?
4. Do you agree with the policy recommendations? Why or why not?
5. If given the opportunity of doing one study after viewing this paper, what would be the area of study?

Homicide and Assault Rates in Pakistan, 1985–1994



Contribution of Commercial Vehicles to Motor Vehicle Crashes in Pakistan



Recommendations for Pakistan

- ◆ Government of Pakistan needs to seriously consider an operational *assessment* of the burden of injuries in Pakistan
- ◆ It should facilitate the way for *legislation and implementation* of safety standards

Recommendations for Pakistan

- ◆ Clearly define the *public health related effects* of injuries and prepare to meet the challenges that urbanization will bring in the future

Questions

1. Identify the data source for mortality
2. Comment on figure one and critique the presentation of the data
3. Which intentional and unintentional injuries are covered in this article?
4. *Do you agree with the policy recommendations? Why or why not?*
5. *If given the opportunity of doing one study after viewing this paper, what would be the area of study?*



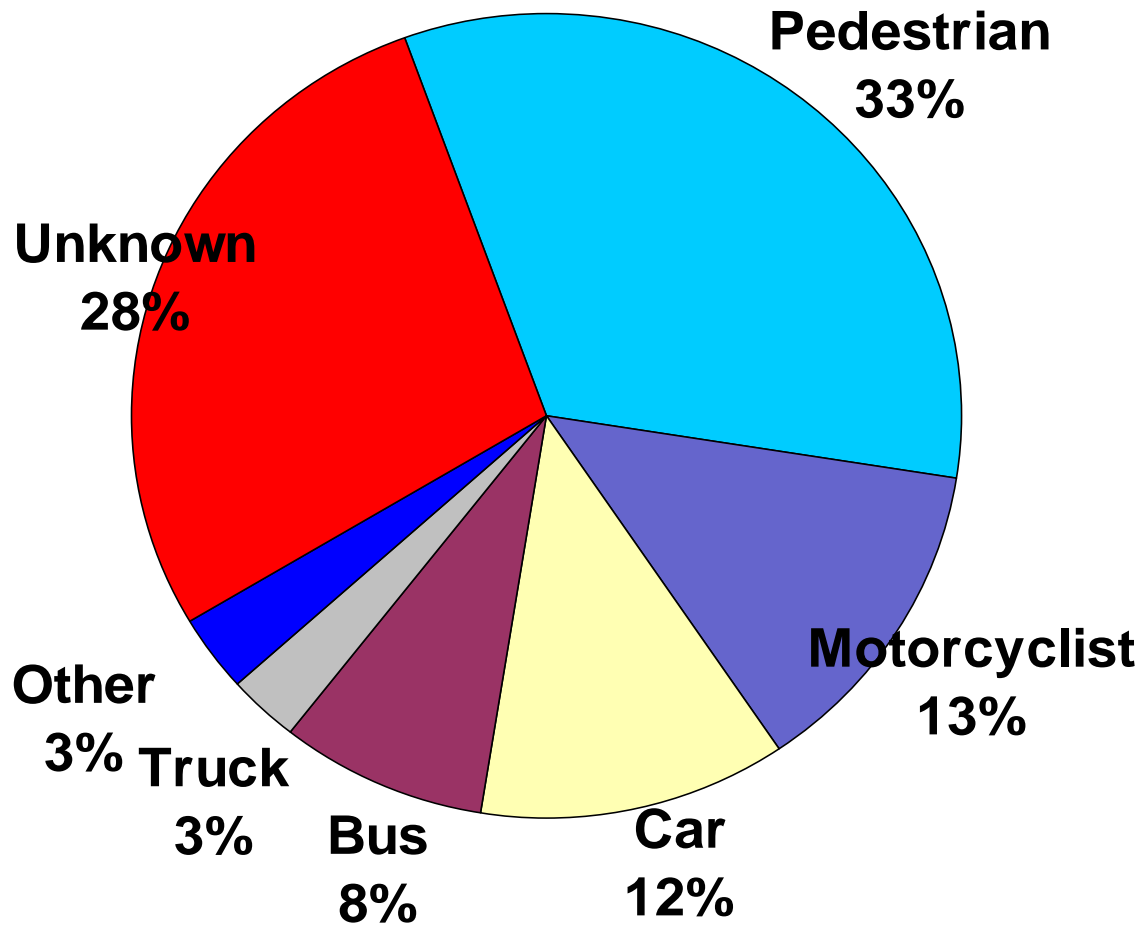
JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

Section C

*Motor Vehicle Crashes in Pakistan:
A Review*

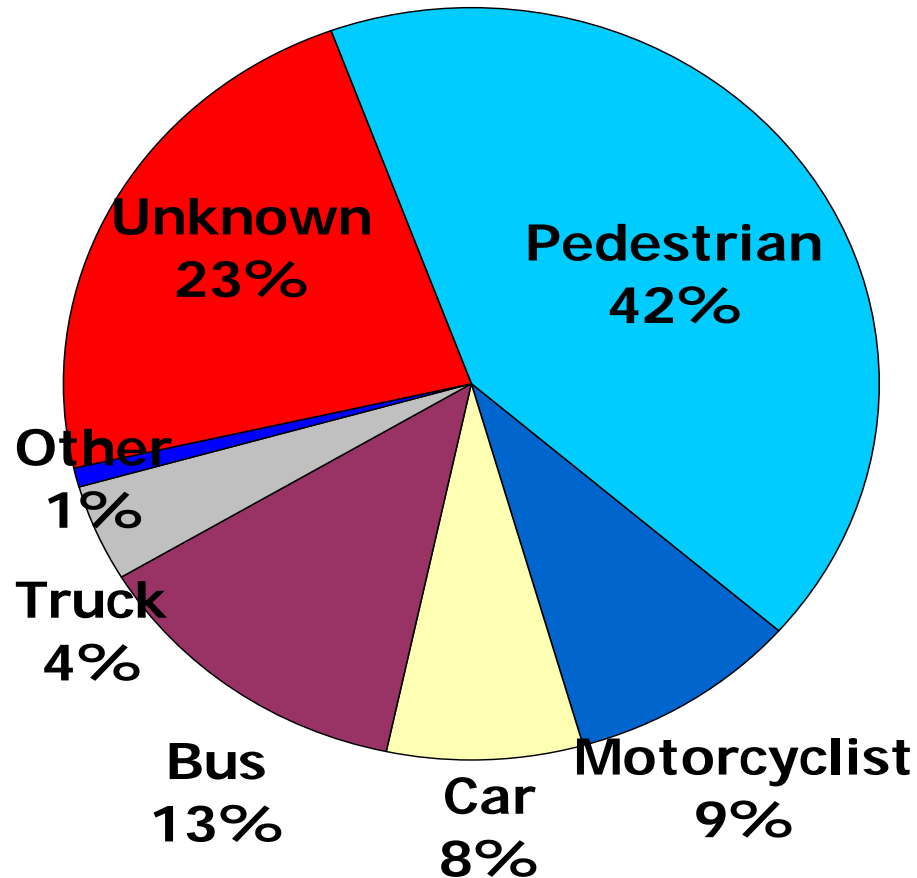
Distribution of Motor Vehicle Injuries

Presenting to Two Trauma Hospitals, Pakistan

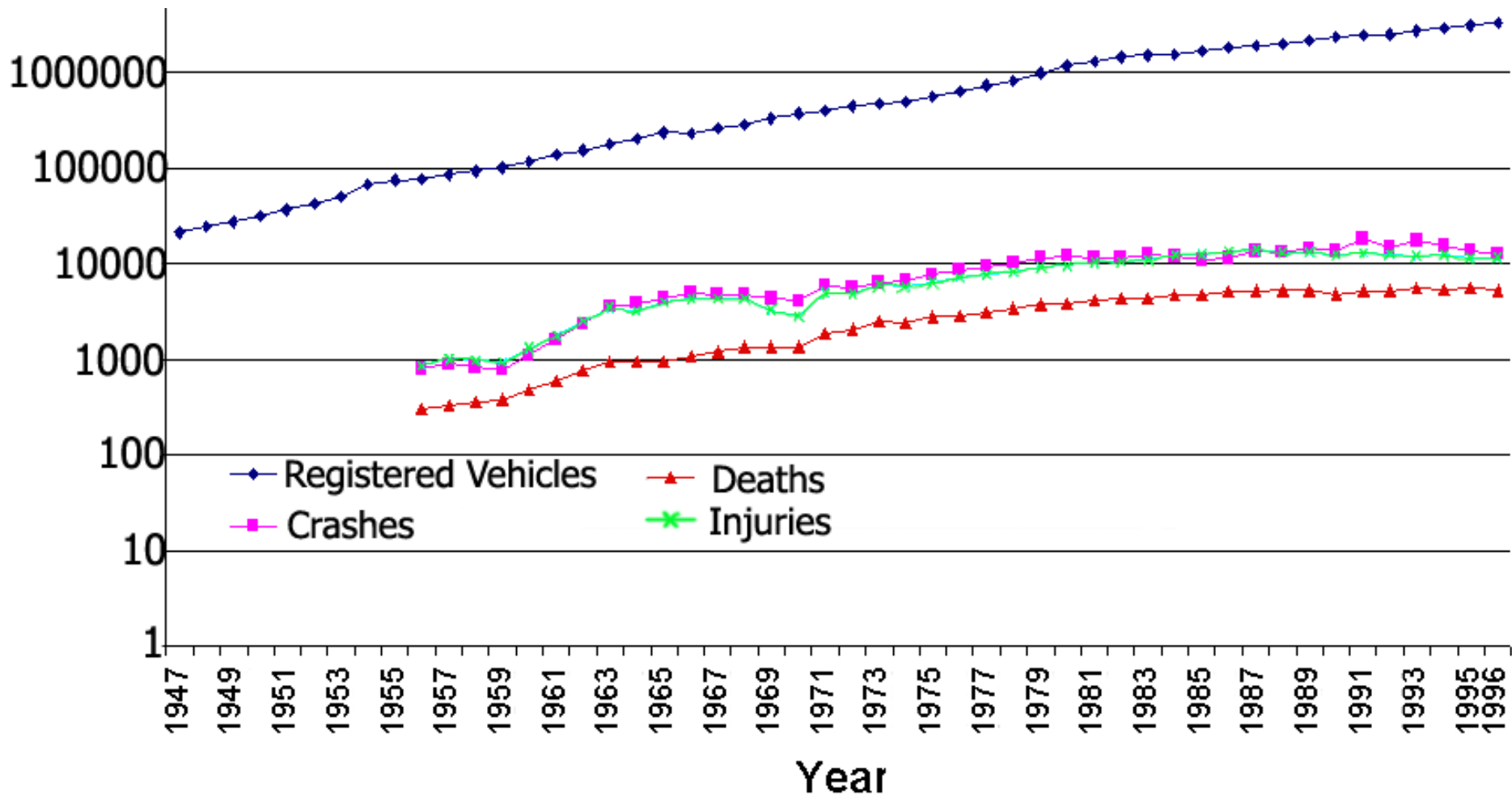


% of Motor Vehicle Crash Deaths

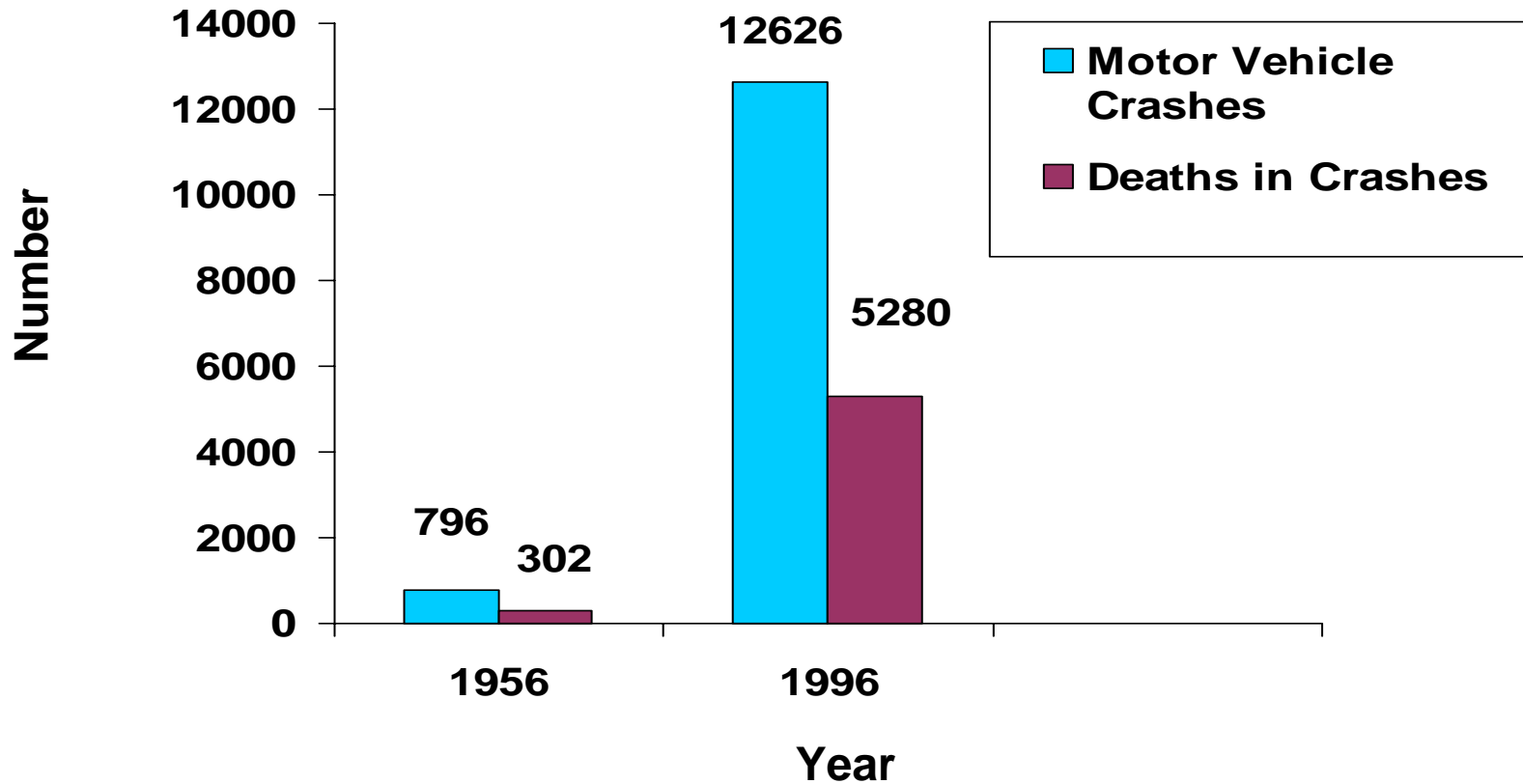
Presenting to Two Trauma Hospitals, Pakistan



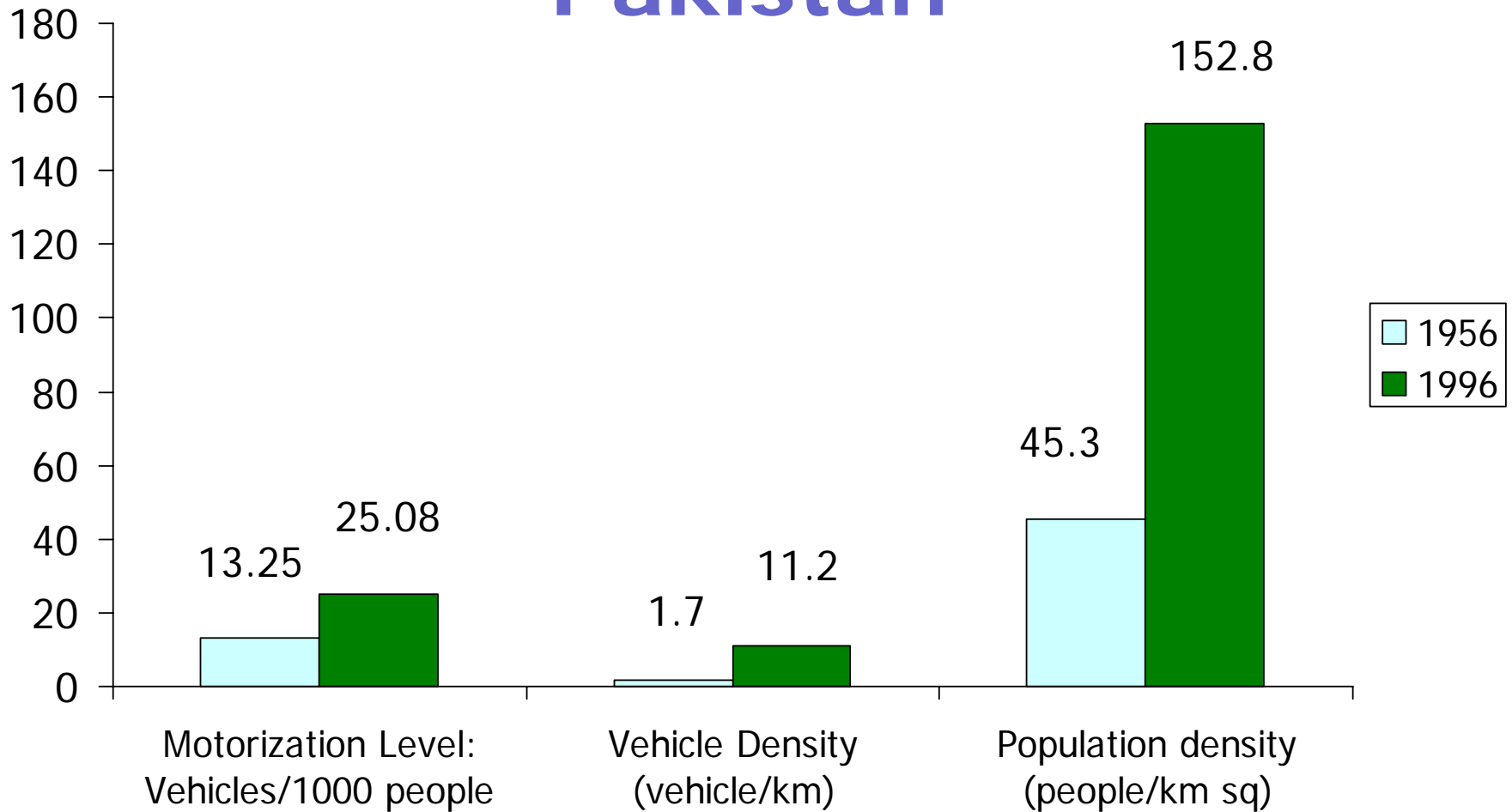
Total Number of Registered Vehicles, Crashes, Deaths, and Injuries in Pakistan



Motor Vehicle Crashes and Deaths in Pakistan, 1956–1996



Change in Motor Vehicle Injury Risk Factors, 1956 and 1996 Pakistan



Police Data for Motor Vehicle Crashes in Pakistan

Source:	In-depth Interviews (1998)	Razzak and Luby (1998)	1996 Police Records
No. of Injuries (100%)	35	2,048	28,889-78,302*
Injuries in Police Records (%)	5 (14.28%)	793 (38.7%)	11,186

* Estimated

Motor Vehicle Crashes: The Emerging Epidemic in Pakistan

- ◆ Pakistan is a developing nation demonstrating all the features of urbanization and economic growth that portend an increasing risk for motor vehicle crashes (MVC)
- ◆ Persistent growth in number of MVC since 1956 as indicated by police reports (40 year period 1956-1996)

Motor Vehicle Crashes: The Emerging Epidemic in Pakistan

- ◆ Commercial and public service vehicles are disproportionately involved in majority of crashes
- ◆ Public health sector in Pakistan must recognize and respond to the emerging epidemic