



ROAD SAFETY IN INDIA

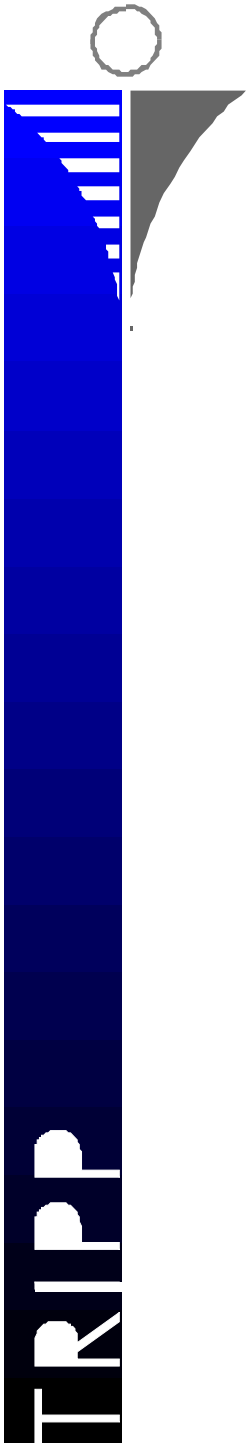
Current status

Geetam Tiwari

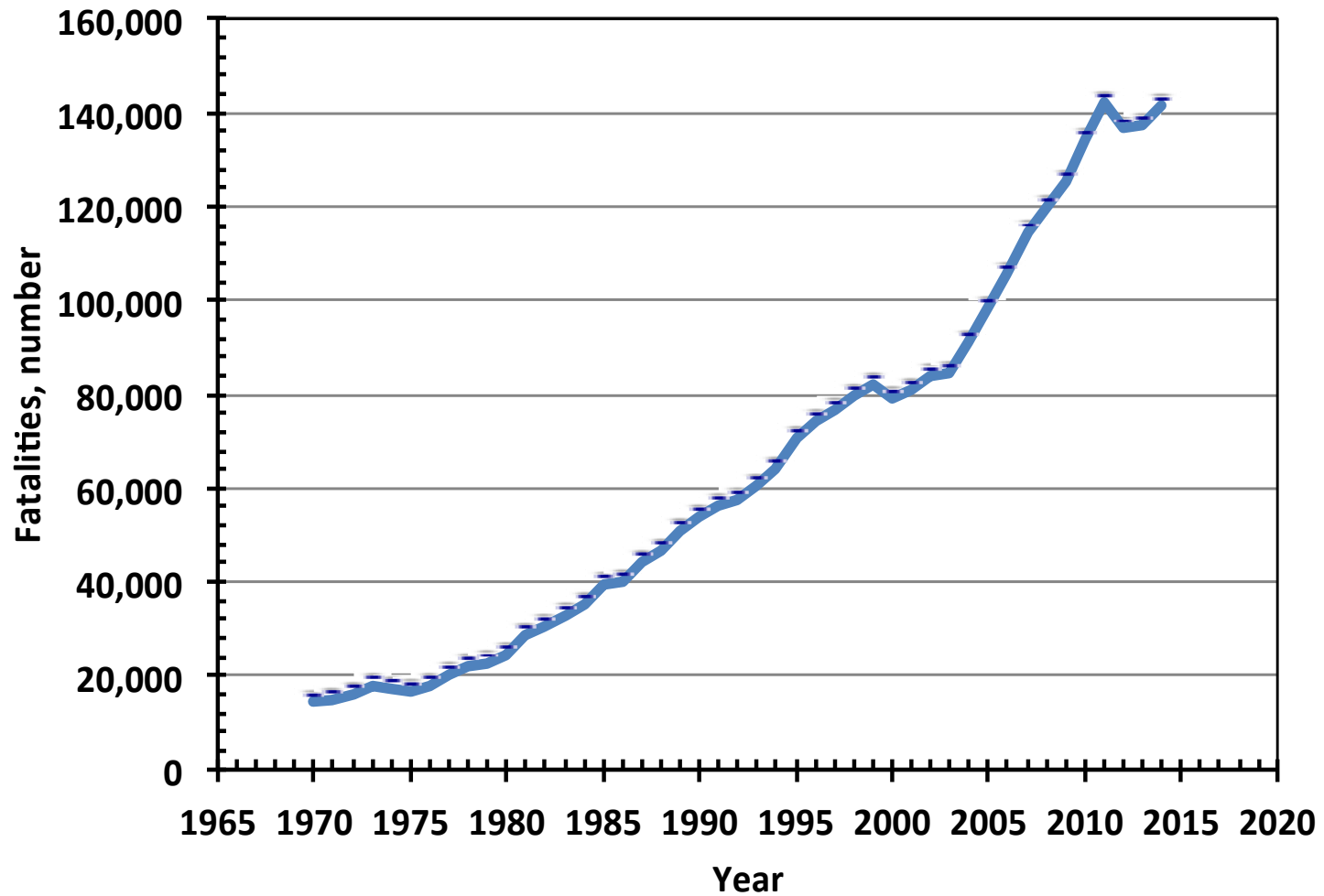
MoUD Chair professor, Transportation Research and injury
prevention programme

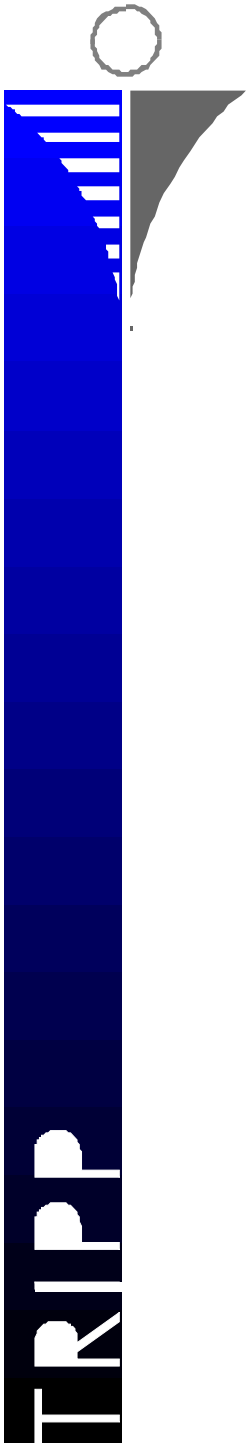
INDIAN INSTITUTE OF TECHNOLOGY DELHI

2nd GIFTS Session November 19, 2016, Tokyo

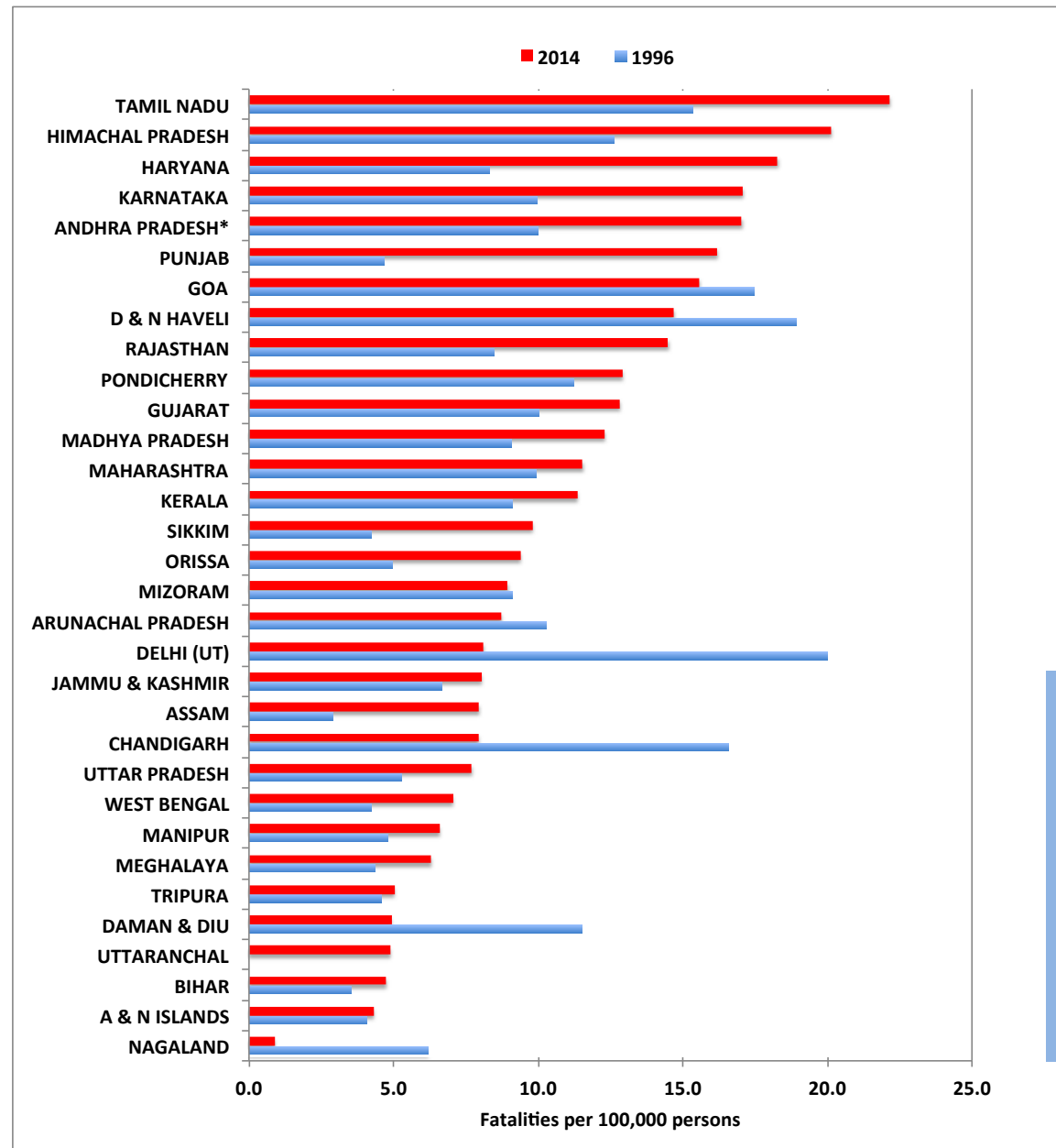


Road traffic deaths in India 1970 through 2015 (Source: NCRB).



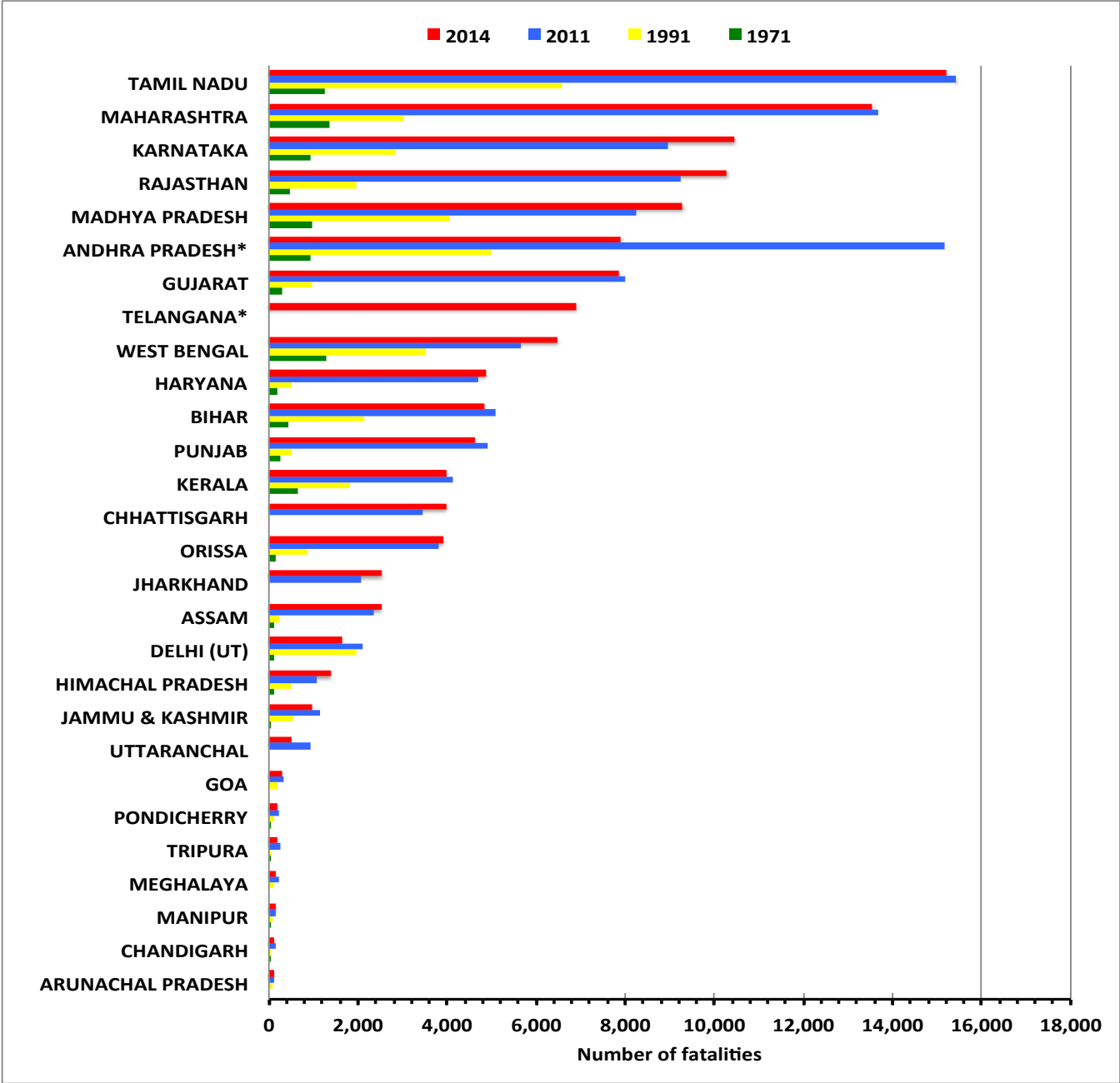


Fatalities per 100 thousand population



TN, HP,
HY, K, AP
high rates

Uts have
reduced
rates





Share of different road user fatalities

Road user	MoRTH data	Hsaio et al	WHO	Authors' estimate
Pedestrian	8.8	37	9	33
Bicycle	2.9	8	4	6
MTW	29.3	20	34	34
Auto ricksha	5.1	3	-	-
Car	16.3	9	17	7
Bus	8.7	3	7	4
Truck	12.3	4	13	11
Other	16.6	16	16	5

Estimates of the share of different road user fatalities by MoRTH (Transport Research Wing, 2015), W.H.O. (W.H.O., 2015), Hsiao, M. et al. (2013) and the authors of the present report

Modal share of road traffic fatalities in four rural highway locations in India.

Location	Fatalities by type of road user, per cent						
	Pedestrian	Bicycle	Motorised				Unknown & other
			two-wheeler	Car	Bus	Truck	
Highways (1998) ¹	32	11	24	15	3	14	1
2lane NH8 (2010-2014) ²	20	2	42	14	9	13	1
4lane NH24 (2010-2014) ²	27	5	44	8	7	4	4
6lane NH1 (2010=2014) ²	34	3	10	6	5	41	1

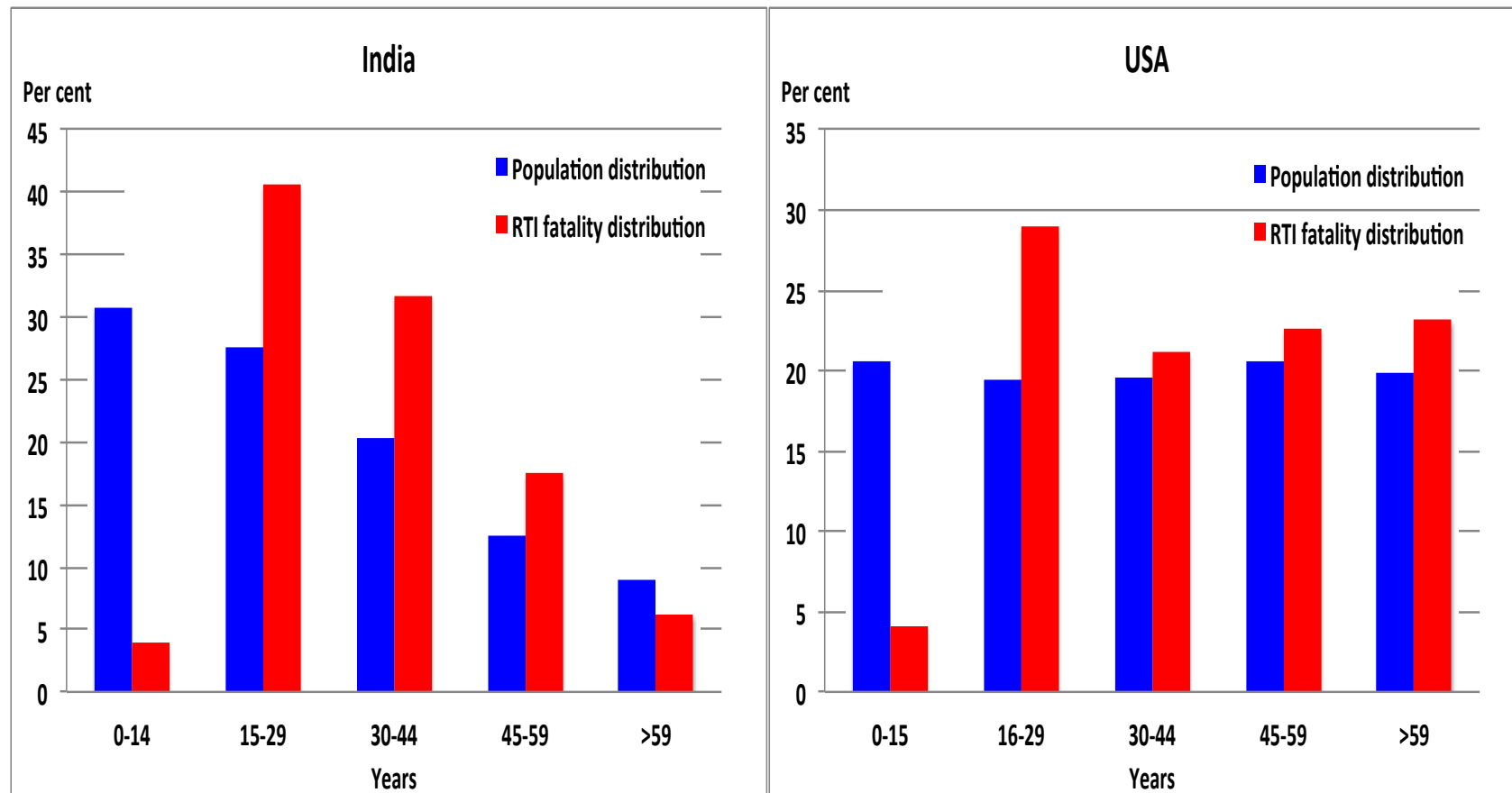
Notes: (1) Data from locations on 34 national and state highways in India (Tiwari, G. et al., 2000). (2) Tiwari, G., 2015

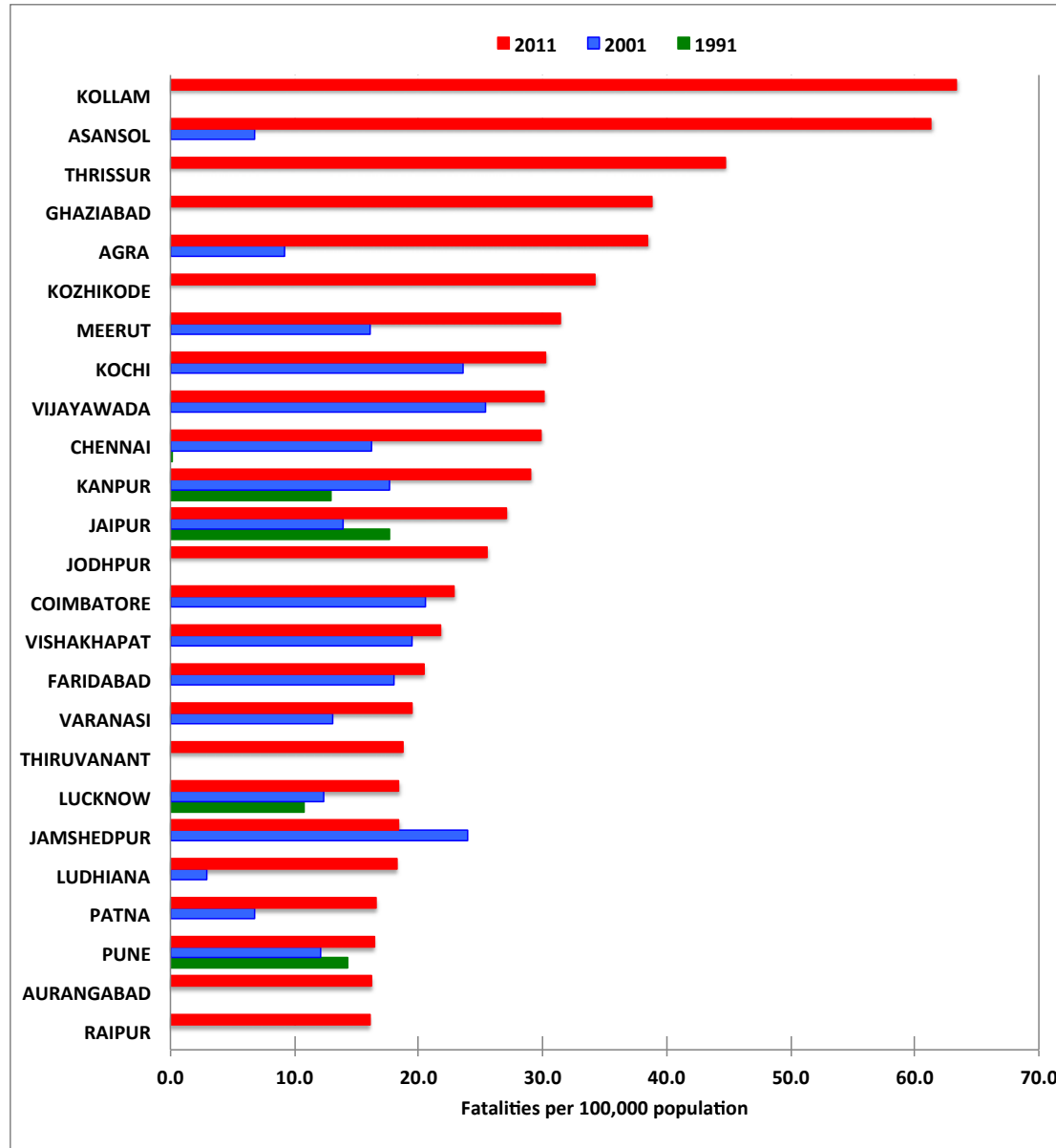
Proportion of impacting vehicle type in fatal crashes on selected highway locations

Location	Vehicles involved, percent						
	Truck	Bus	Car	TSR	MTW	Others	Total
Highways (1998) ¹	65	16	15	1	3	-	100
2lane NH8 (2010-2014) ²	47	5	17	1	5	25	100
4lane NH24 (2010-2014) ²	54	8	9	4	3	22	100
6lane NH1 (2010=2014) ²	72	3	12	1	2	10	100

Notes: (1) Data from locations on 34 national and state highways in India (Tiwari, G. et al., 2000). (2) Tiwari, G., 2015

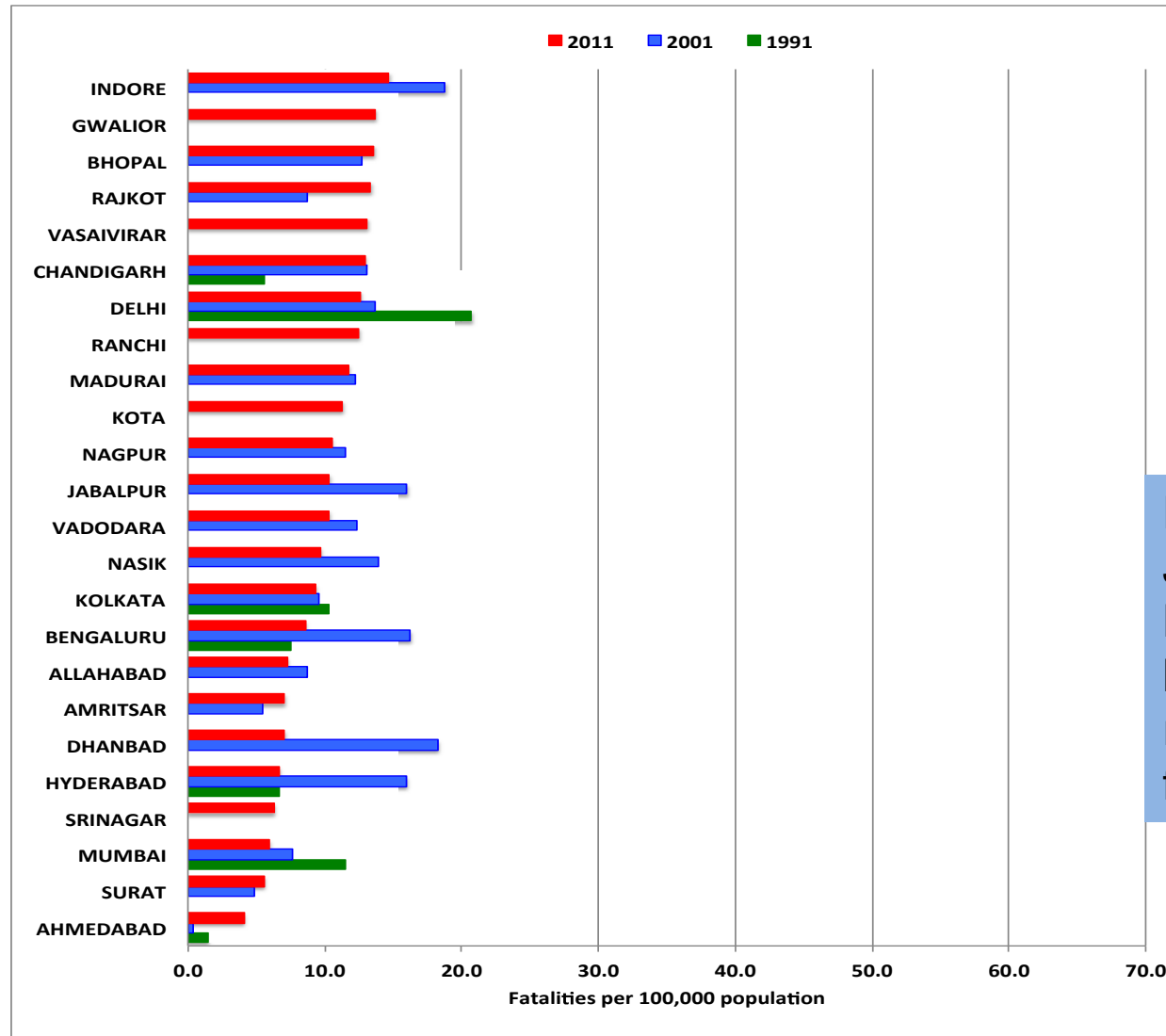
RTI fatality & population distribution by age in India & USA (Source: NCRB, 2015 and National Center for Statistics and Analysis, 2015).





2-4 times
increase in
2 decades

Annual RTI deaths per 100,000 population in million plus cities 1991-2011



Delhi,
Jabalpur,
Bangalore,
hyderabad
reduce
fatality rates

Annual RTI deaths per 100,000 population in million plus cities 1991-2011

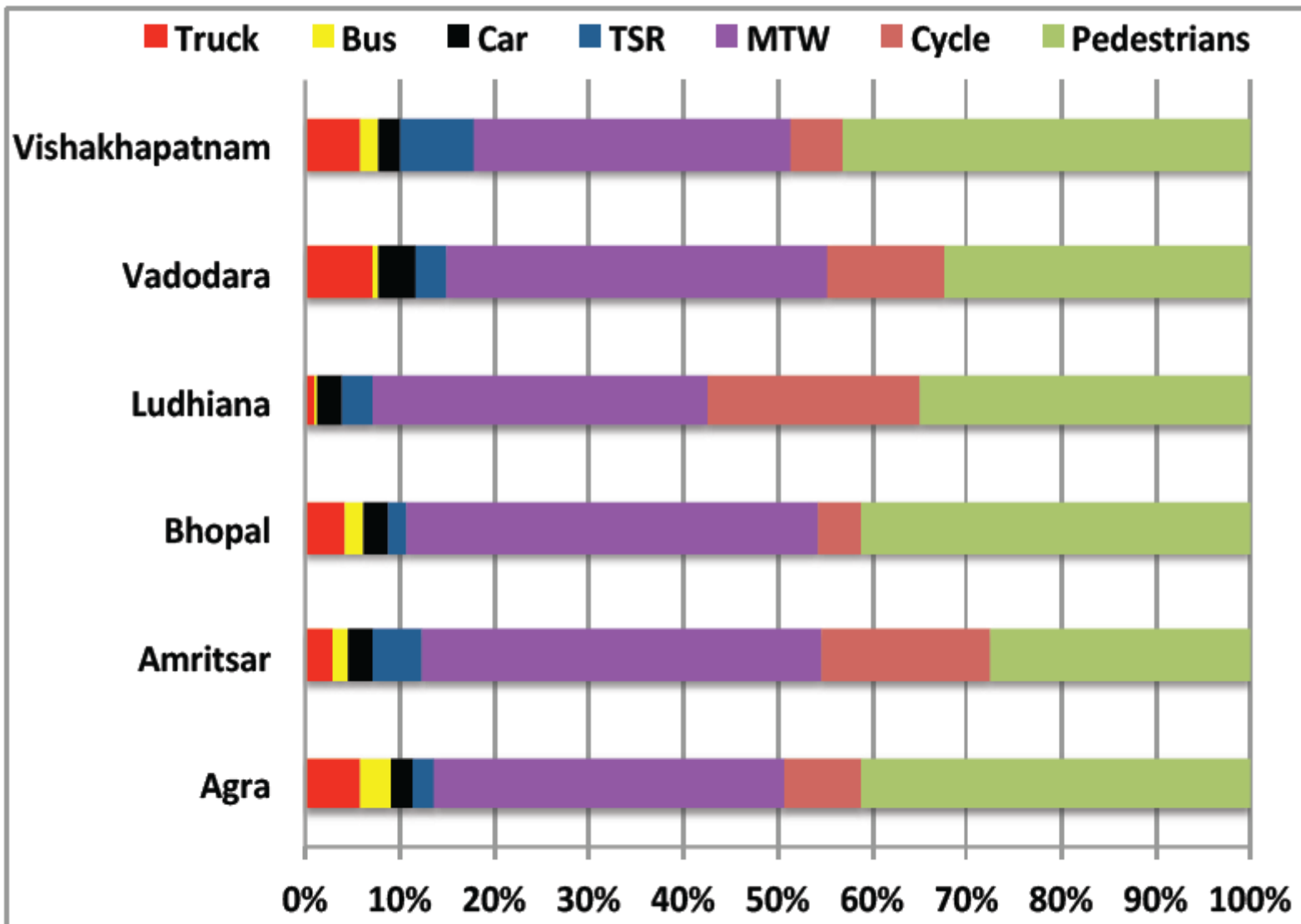
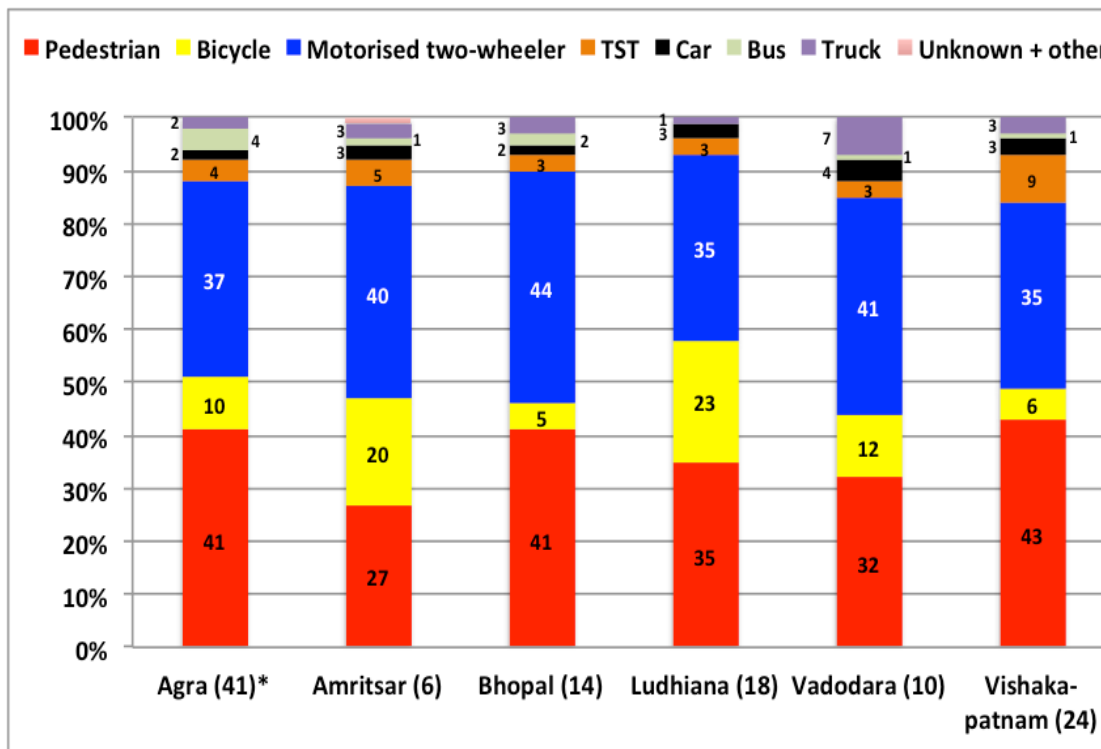


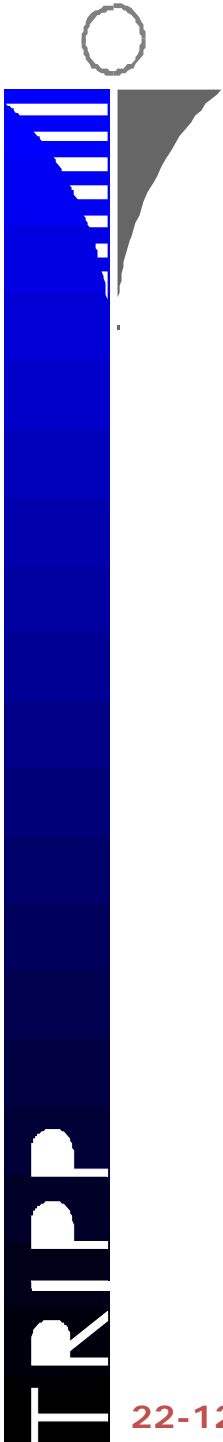
Figure 11. Proportion of RTI fatalities by road user type in six study cities (MTW - Motorised two-wheelers, TSR - Three-wheeled scooter rickshas).

Proportion of road traffic fatalities by road user type (vehicle occupants, bicyclists and pedestrians) in 6 Indian cities (IITD study)



City	Per cent pedestrian fatalities
Agra	0
Amritsar	0
Bhopal	<1
Delhi	5
Ludhiana	3
Mumbai	10
Vadodara	6
Vishakhapatnam	17

Proportion of pedestrian fatalities according to NCRB (2015)



National Policy and Targets

To reduce road fatalities by 50% in 2020

- National Workshop on “improving the safety of most vulnerable road users” was held at New Delhi on 03.04.2012. Besides, a meeting was also held with State Transport Ministers on 31st July 2012. .
- the states were advised to draw up an annual action plan for road safety and strengthen the institutional mechanism at the state level to address road safety issues.
- Setting up of state road safety councils and district road safety committees,
- setting up of road safety funds by pooling of 50% of the penalties realized by way of compounding of traffic offences,
- identifying and rectification of black spots on state highways and rural roads,
- setting up of more driving schools with private participation,
- inclusion of road safety curriculum in school syllabus etc.
- They were also advised to share their experiences and to adopt the good practices prevalent in the other states.



Progress since 2012

- Supreme court appointed committee has asked for compliance report on specific items.
- National data continues to underreport vulnerable road users.
- Absence of targeted strategies to achieve target of 50% reduction.
- Number of fatalities continue to increase.