

Per Ten Thousand Vehicles

- 5.7 The data on registered vehicle is available only upto end of the financial year 2005-06. The all-India average of road accidents per ten thousand vehicles has consistently declined over the years and fallen to 9 by 2004 with quite a variation across the States [Annexure HAI]. For the year 2004 Kerala had the highest number of road accidents per 10,000 vehicle population at 152 followed by J&K at 129 [Chart 5b]; the lowest being Chandigarh (9) and Lakshadweep (93). Some of the North Eastern States (Arunachal and Sikkim in particular) and Karnataka had more than 100 accidents per 10,000 vehicles in 2005.
- 5.8 Similarly, the number of persons injured due to road accidents per 10,000 vehicles has consistently fallen over the years to 56.5 by 2006 with variation across the States [Annexure IIB]. For the period 2006 Sikkim and Tripura had the highest number of persons injured per 10,000 vehicles at around 178 and 156 respectively followed by Jammu & Kashmir and Himachal Pradesh at around 155 and 147 respectively;
- 5.9 The number of persons killed due to road accidents per 10,000 vehicles has also witnessed a discernible downward trend from 14.4 in 2002 to 12.0 by 2006 with variation across the States [Annexure IIC]. In terms of fatalities, Bihar and Sikkim had the highest road related accident deaths at 32 per ten thousand vehicles during 2006. In particular, some of the states in the North East recorded high accident related deaths per 10,000 vehicles and were Tripura (18), Meghalaya (18) and Mizoram (14). Besides, hilly States of Himachal Pradesh, Jammu & Kashmir and West Bengal and also had high accident deaths per 10,000 vehicles at 26, 19 and 16 respectively in 2006 [Chart 6b].
- 5.10 Among the 35 States/UTs of India, Road Traffic Accident mortality (RT AM) rate per lakh of population varied from a low of 1.8 in Bihar to as high as 21.4 in Dadra & Nagar Haveli. Amongst the States and UTs which recorded RT AM per lakh of population above the national average of 8.6 in 2005 were Puducherry (21.1) Goa (16.5), Tamil Nadu (15.1), Haryana (14.7), Sikkim (13.5), Himachal Pradesh (12.7), Chandigarh (12.7), Karnataka (12.4) (Annexure IIC and Chart 5b).

Chart 5 a : No. Of Road Accidents per Lakh Population during 2006

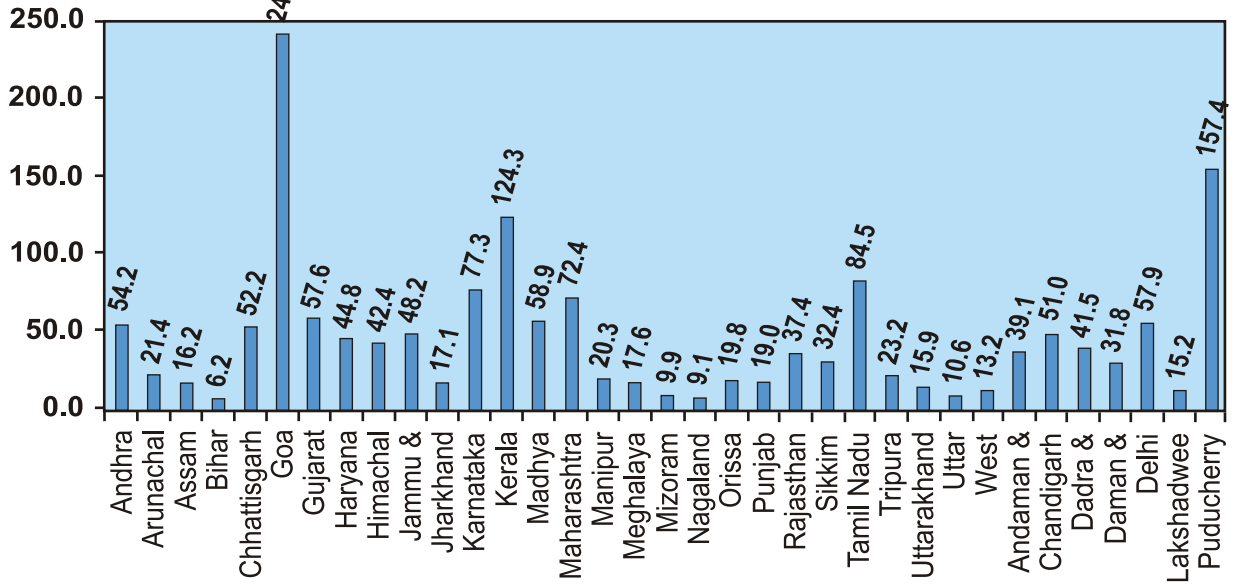


Chart 5 b : No. of Road Accidents per 10,000 Motor Vehicles during 2006

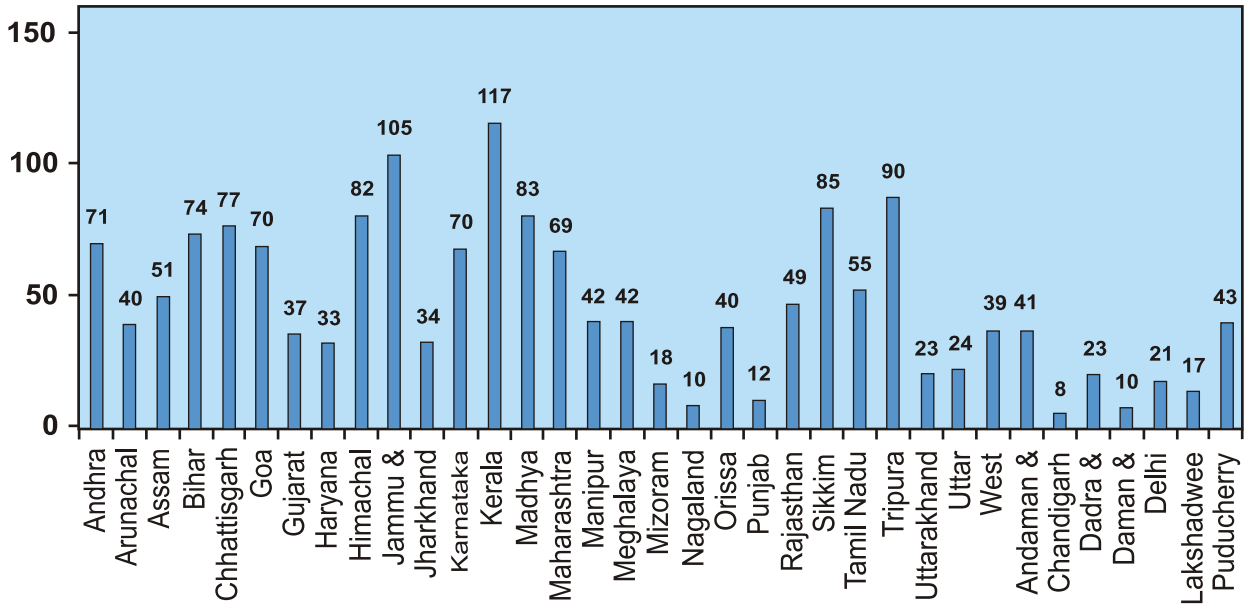


Chart 6 a : No. of Persons Killed per Lakh Population during 2006

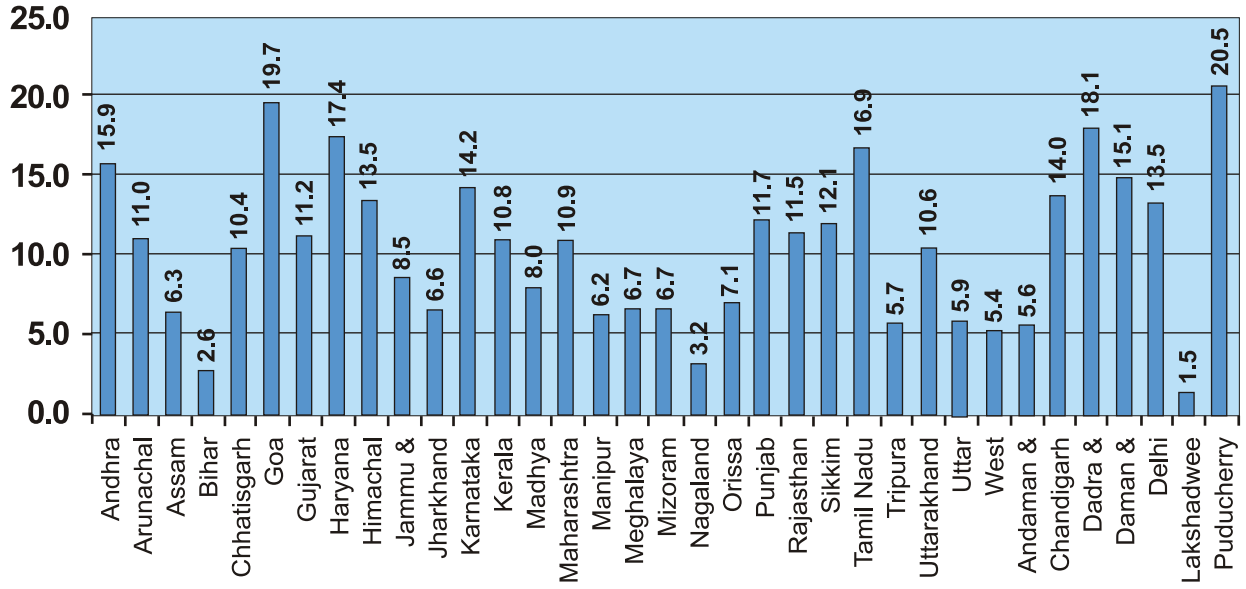


Chart 6 b : No. of Persons Killed per 10,000 Motor Vehicles during 2006

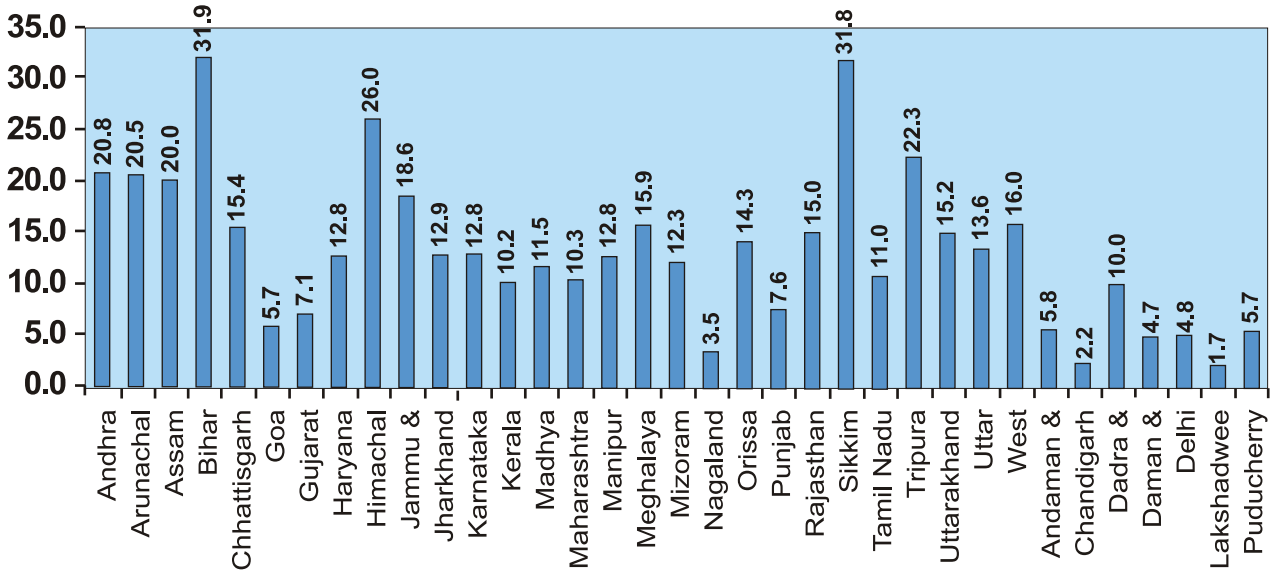
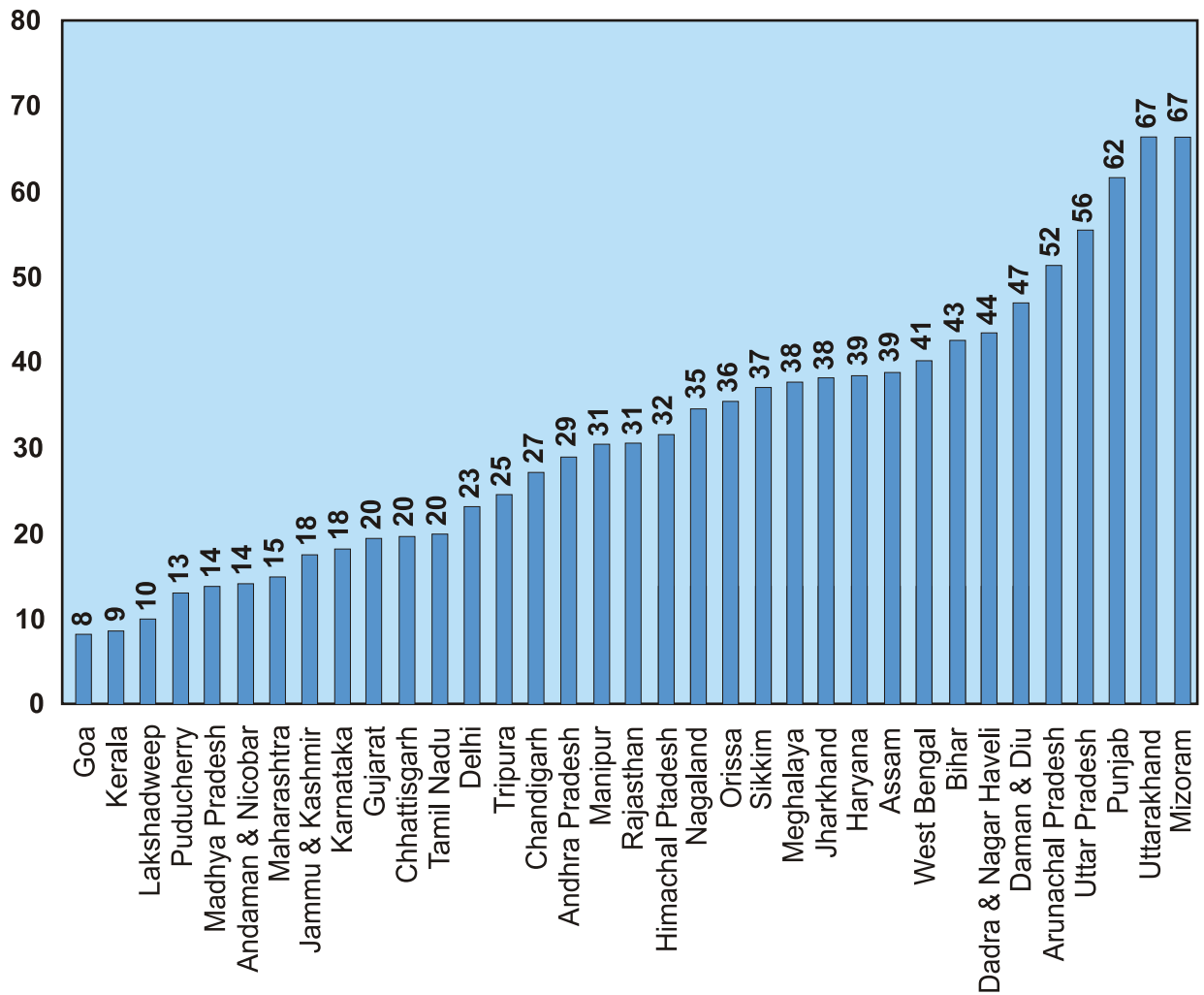


Table 4: Severity of Road Accident in India					
		No. of Persons killed per 100 Accidents			
	States	2003	2004	2005	2006(P)
1	Andhra Pradesh	27.8	27.1	28.4	29.3
2	Arunachal Pradesh	51.8	68.9	37.7	51.6
3	Assam	34.4	34.9	36.3	39.2
4	Bihar	38.6	44.5	42.1	42.8
5	Chhattisgarh	17.9	19.4	20.2	19.9
6	Goa	7.2	8.7	6.8	8.2
7	Gujarat	16.9	17.7	18.5	19.5
8	Haryana	34.8	36.7	36.3	38.9
9	Himachal Pradesh	27.4	29.8	29.0	31.8
10	Jammu & Kashmir	14.2	15.3	15.6	17.7
11	Jharkhand	40.3	40.5	38.3	38.4
12	Karnataka	16.5	16.7	17.1	18.4
13	Kerala	7.4	7.4	7.5	8.7
14	Madhya Pradesh	15.0	14.5	15.2	14.0
15	Maharashtra	14.4	14.6	14.2	15.0
16	Manipur	24.3	24.6	22.8	30.5
17	Meghalaya	27.2	31.2	29.4	37.9
18	Mizoram	62.3	71.1	61.5	67.4
19	Nagaland	45.5	42.9	23.0	35.1
20	Orissa	34.4	33.7	33.6	35.6
21	Punjab	59.9	59.4	60.7	61.9
22	Rajasthan	27.5	27.9	29.4	30.6
23	Sikkim	30.5	32.1	40.7	37.2
24	Tamil Nadu	18.2	18.1	18.1	20.0
25	Tripura	24.9	28.1	31.8	24.7
26	Uttarakhand	61.9	74.4	65.2	66.7
27	Uttar Pradesh	54.9	53.8	54.3	55.7
28	West Bengal	41.8	34.6	37.5	40.6
	UTs				
1	Andaman & Nicobar Islands	6.7	7.0	11.2	14.3
2	Chandigarh	30.3	35.7	25.5	27.5
3	Dadra & Nagar Haveli	46.6	48.6	43.3	43.7
4	Daman & Diu	26.4	39.3	38.7	47.4
5	Delhi	20.3	21.0	19.9	23.3
6	Lakshadweep	0.0	0.0	0.0	10.0
7	Puducherry	11.9	11.0	12.7	13.2
	National Average	21.1	21.5	21.6	22.9

Chart 7 : Severity of Road Accidents across States/UTs during 2006



6. Select Cities: Road Accidents, Injuries, Deaths and Severity

6.1 The data on road accidents is being collected for 23 select cities of India. For the year 2006, all cities have reported data on road accidents. For the year 2006 these 23 cities accounted for a share of 9.9% in India's total population estimated but accounted for a share of 18.9% in total road accidents in the country, 11.3% in total persons injured in the road accidents and 9.6% in total persons killed in road accidents. These 23 cities accounted for a much higher share of 28.6% in total vehicles registered which is almost three times their share of population.

6.2 The average for these 23 cities indicates number of accidents per lakh of population and persons injured at about 79 and 51 respectively which was much higher than the corresponding national average/100,000 of population of 41 road accidents and 45 persons injured. However, number of persons killed per lakh of population for these 23 cities was close to the all India average of 9.5.

The other notable feature is wide variation across cities of road accident parameters in terms of accidents per lakh of population (ranging from 13 in Patna to 185 in Kochi), persons injured per lakh of population (from a low of less than 1 in Pune to 164 in Kochi) and persons killed per lakh of population (little above 3 in Kolkata to more than 19 in Lucknow and Vishakapatnam). The low accident rates for cities like Kolkata and Mumbai may be due to low average traffic speed of motorized traffic.

The other accident related parameter is extent of accident severity (road accident related deaths per 100 accidents). It varies from a low of 2 in Mumbai to 61 for Varanasi, 51 for Ludhiana and 53 for Kanpur.

Total 5A: Accident Profile for Selected Cities 2006										
	Name of City	Population**	Total No. of				Accident severity*	No. per 100,000 population		
			Fatal Accidents	All Accidents	Persons Killed	Persons Injured		Total Accidents	Persons Killed	Persons Injured
1	Ahmedabad	5288962	238	2601	246	2642	9.5	49.2	4.7	50
2	Bangaluru	6698651	884	7576	919	6150	12.1	113.1	13.7	91.8
3	Bhopal	1708450	125	2851	127	2206	4.5	166.9	7.4	129.1
4	Chennai	7216068	1112	7400	1136	6722	15.4	102.5	15.7	93.2
5	Coimbatore	1683425	238	1306	245	1219	18.8	77.6	14.6	72.4
6	Delhi	15926245	2129	9189	2169	8279	23.6	57.7	13.6	52
7	Hyderabad	6601340	415	3477	427	3874	12.3	52.7	6.5	58.7
8	Indore	1774052	195	3122	205	2700	6.6	176	11.6	152.2
9	Jaipur	2872666	424	2379	453	2133	19	82.8	15.8	74.3
10	Kanpur	3140883	429	887	474	741	53.4	28.2	15.1	23.6
11	Kochi	1478456	157	2738	163	2432	6	185.2	11	164.5
12	Kolkala	14454844	467	2276	476	1752	20.9	15.7	3.3	12.1
13	Lucknow	2604459	447	1008	484	567	48	38.7	18.6	21.8
14	Ludhiana	1619535	235	473	242	307	51.2	29.2	14.9	19
15	Madurai	1266345	126	727	126	722	17.3	57.4	9.9	57
16	Mumbai	18771964	646	30484	669	747	2.2	162.4	3.6	39.8
17	Nagpur	2409012	265	1708	287	1808	16.8	70.9	11.9	75.1
18	Patna	2109943	151	281	125	207	44.5	13.3	5.9	9.8
19	Pune	4617904	360	2133	372	41	17.4	46.2	8.1	0.9
20	Surat	3825267	253	1347	262	965	19.5	35.2	6.8	25.2
21	Vadodara	1715174	134	1435	147	1198	10.2	83.7	8.6	69.8
22	Varanasi	1301122	143	239	145	110	60.7	18.4	11.1	8.5
23	Visakhapatnam	1518713	261	1532	275	1710	18	100.9	18.1	112.6
	Total 23 cities	110603481	9834	87169	10174	55956	11.7	78.8	9.2	50.6
	All India	1114202000	93917	460920	105749	496481	22.9	41.4	9.5	44.6

Note: * Accident Severity: Road accident deaths/100 accidents
**** Projected**

Table 5 B: Percnt Share of 23 Selected Cities in 2006 in India		
1	Population (2005)	9.9
2	Fatal Accidents	10.5
3	All Accidents	18.9
4	Persons Killed	9.6
5	Persons Injured	11.3
6	Registered motor Vehicles (2004)	28.6

Chart 8 a : Accident Severity in Select Cities during 2006

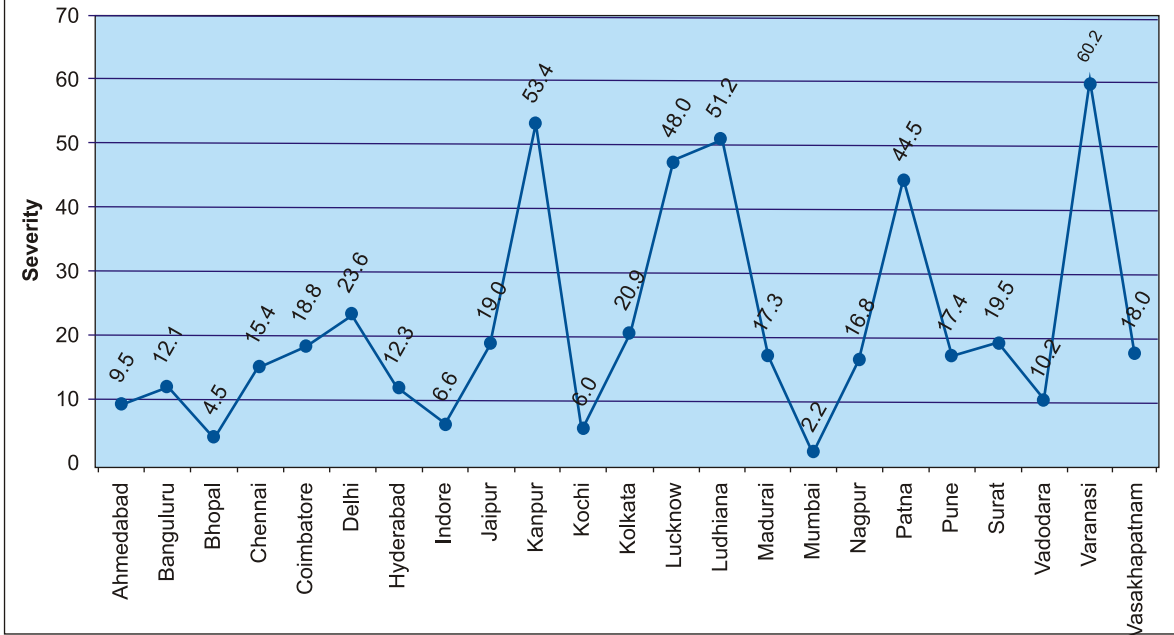
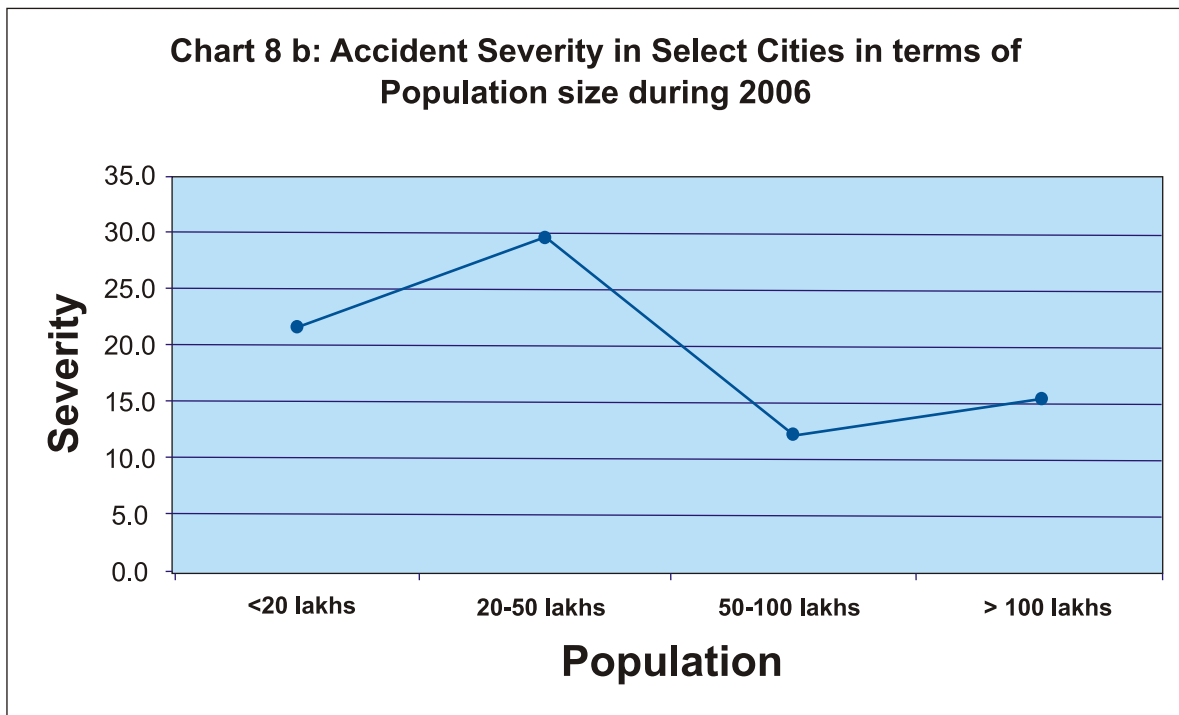
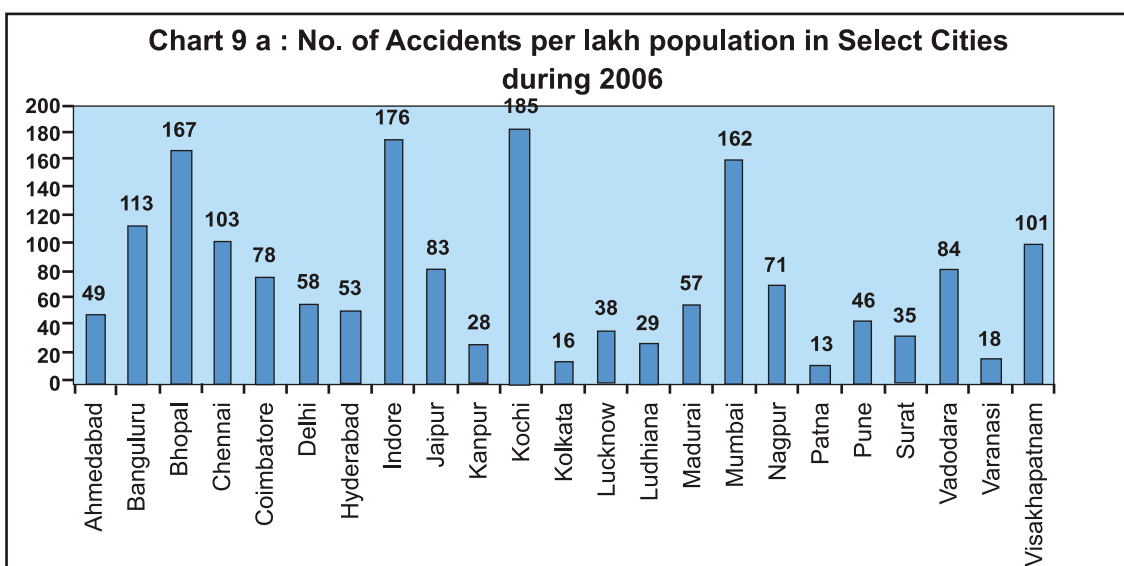
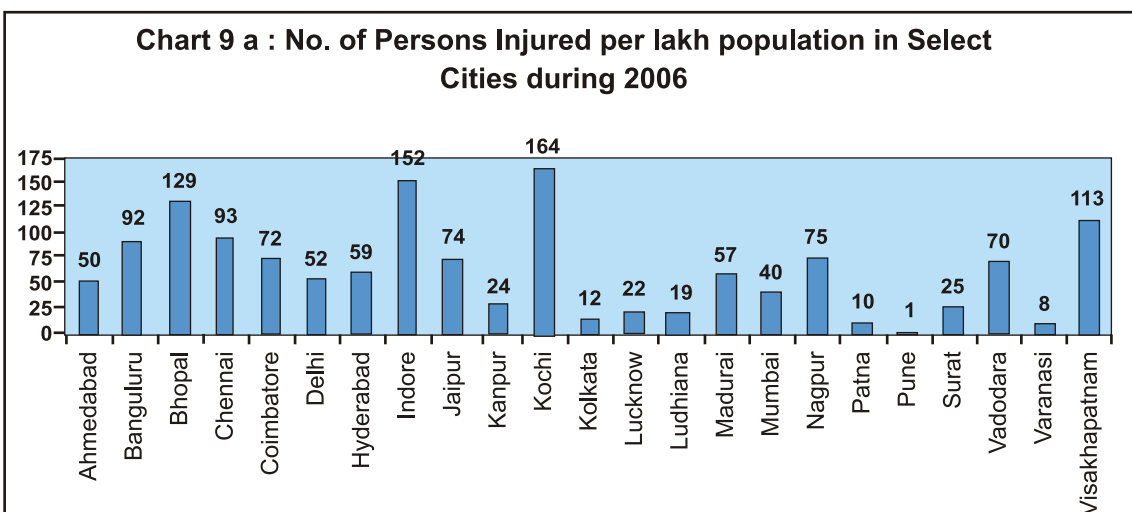
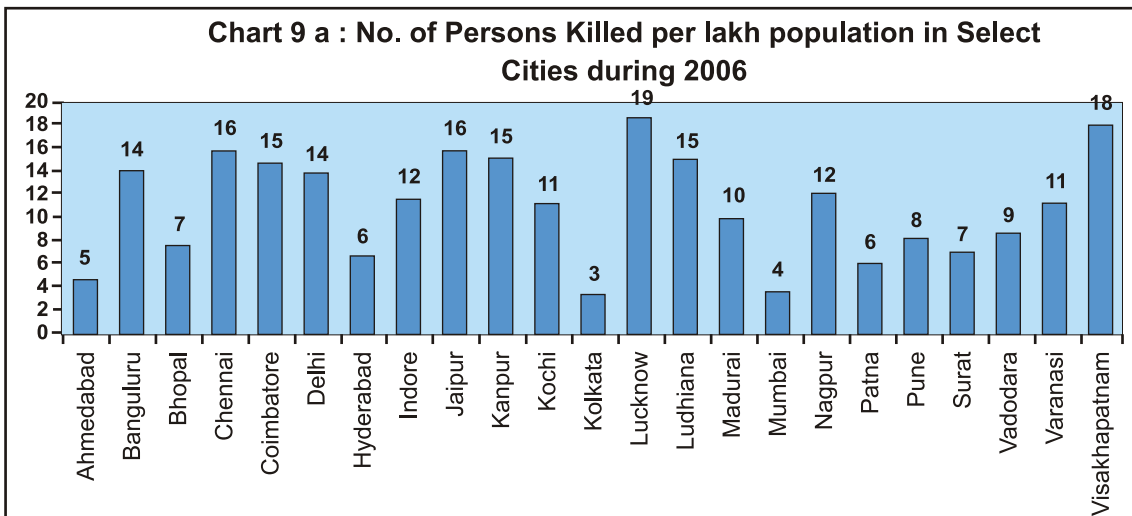


Chart 8 b: Accident Severity in Select Cities in terms of Population size during 2006





7. Some General Observations: Inter-State/ Cities Comparisons

- Inter State IUT comparisons of accident related data need to be viewed keeping in view the differences in road network, state of roads; size of human and vehicular population, levels of urbanization and accident reporting systems. These parameters have implications for accident rates across the States.
- Incidence of accident normalized in terms of road length, human population or vehicle population provides comparable accident data across States and UTs.

Box : 1 - Causes of Under reporting of Road Traffic Accidents and Injuries

- Absence of formal reporting agreements and sharing of information between police, hospitals and other agencies
- Some type of injuries like collisions with fixed and stationary objects, skid and fall, collision between smaller vehicles are not reported to police.
- Agreement between individuals involved in a crash is often found to be a suitable method between the parties, as involving police would lead to additional costs.
- Not all Road Traffic Injuries (RTIs) are reported to police uniformly in all parts of the country.
- Individuals do not feel the need to report to police unless the injury is serious, results in legal proceedings and influence compensation process.
- Even when injured persons go to police, they are not officially registered due to paucity of time or the busy schedule of activities in police stations.
- Individuals provided care by general practitioners; nursing homes and smaller health care institutions are not reported to police to avoid harassment and legal complications.
- Late hospital deaths due to various complications of road traffic injuries are not recorded as deaths due to traffic injuries, but given other causes. Death certificates are not filled in a systematic and standardized manner in hospitals across the country.
- The immediate procedures of burial or cremation based on local social cultural practices discourage families to get involved with police as this can delay the rituals.
- Limited manpower and facilities among police often make reporting very difficult.
- As there is no reporting practice on all deaths and injuries to any single agency from all health care institutions, information is not totally available within the health sector;

Source: Report on Road Traffic Injury Prevention in India Annexure to the Report (Volume-II) pages 46- 47 of the Report of the Committee on Road Safety and Traffic Management.