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## Head-neck trauma and related epidemiology of road traffic accident deaths among Indian minors

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**Background:** India contributes to 1/6th of the world's population, 55% of them being minors (<18yrs). Urbanization, industrialization, sprawling road infrastructure and increased vehicle-purchasing- power are now part of a revolutionized, yet over-populated India. This has its own consequences; the gravest being 1 RTA (road traffic accident) fatality/4 minutes. This study was conducted at MLN Health institute, a major tertiary care facility of North India, to provide baseline data on commonly observed 'trends' in RTA fatalities among minors, so as to identify 'preventable areas' and facilitate intervention.

**Methodology:** Hospital/Forensic records (5600 deaths in 15 years: 2000-2015) were used to collect epidemiological data on socio-demographic parameters-Age, Sex, Place, Time, Cause of death, Vehicular occupancy etc. Data was analyzed through SPSS-16 (Chi-square  $p < 0.05$  significant).

**Results:** Maximum victims belonged to Uttar Pradesh (40%) and Bihar (36%) states. Rural population observed greater deaths (62%). Males were significantly more affected than Females (68% M vs. 32% F). Head injury was a major cause (79%), followed by multiple chest/abdomen injuries (22%). A whopping 42% death occurred in the 16-18 year age group. Two-wheel-riders predominated (45%), followed by Pedestrians (38%). Most fatalities occurred between 10am-5pm (38%) and during September-December.

**Discussion:** Exploding population, superfluous vehicles, poor road conditions and usual disregard for traffic regulations increases fatalities among young Indians. Head-neck trauma is the main cause of death because our brain is a delicate, yet most important organ, containing vital cardiac and respiratory centers. Traditional culture, particularly among rurals promotes males 'going out' more frequently than females, leading to their RTA susceptibility. While increased crime rates deter people from venturing out late nights, most work being done during the day accounts for higher diurnal RTAs. Public-Holidays involve more outdoors, increasing vulnerability.

**Conclusion:** Minors represent promising human resource for any nation. Such overwhelming magnitude of RTA casualties needs traffic rules to be 'actually' implemented and road safety policies improved. This requires an attitude change among key stake holders. There is an urgent need for practicable measures like Mandatory Helmets, Vehicular-Laning, additional Red-light & Zebra-crossings, Road side Cameras and Pot hole fillers; existing not merely on municipal records but 'physically' on roads.

### Biography

Tabinda Hasan is MBBS, MD, PGDHE (higher education) and PhD (Anatomy), is Assistant Professor in College of Medicine, Riyadh, Saudi Arabia. She has 12 years teaching experience in anatomy and is proficient in Cadaveric Dissection and prosection, video based case construction in problem based learning, research methodology, research ethics and Atomic force microscopy. She was awarded by Boston University School of Medicine, USA (advancing ethical research award), Stem cell unit, King Saud University, KSA; OSDOW 2011 nominee, Elsevier, Trieste-Italy, Faculty of medicine & Health Sciences, Jazan, KSA. She has headed the scientific committee for 3 consecutive years for Medical Research Day international conference organized by MOHE, KSA from 2010 to 2012. She is a renowned author, with 37 journal publications and 72 citations, 34 conference presentations including USA, California, Germany, Venice-Italy, Bulgaria, Malaysia, Korea, Greece, Abu-Dhabi, Qatar, India, Saudi Arabia, Pakistan. She is a keen researcher and has served as principal investigator in 7 research projects including 2011 grant funded research project of MOHE, KSA. Her current research area is angiographic analysis of retinal vasculature. She is a Member American Association of Anatomists and board member of several international medical journals.

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