Monitoring India's progress on road safety will require investment in data systems

We need reliable statistics of road traffic injuries for two reasons: first, when such statistics enable comparisons with other health conditions, they allow traffic injuries to be prioritised appropriately on the national policy agenda. Second, detailed and timely statistics provide evidence of the effectiveness of safety measures. The estimates from the Global Burden of Diseases, Risk Factors, and Injuries Study (GBD) have proven extremely valuable in establishing that traffic injuries are a pressing societal concern in low-income and middle-income countries; however, the large uncertainties in GBD estimates should not be overlooked.

In *The Lancet Public Health*, the India State-Level Disease Burden Initiative Road Injury Collaborators[1] present estimates of road injuries in India from GBD 2017; the implications of the uncertainty in these estimates need to be understood. The key underlying source of mortality data for this study was the national Sample Registration System, which includes verbal autopsy data on cause of death in a state-level representative population.[2] GBD 2017 used Sample Registration System data for 2004–13 to estimate 219 000 deaths due to road injuries in India in 2017.[1] Although the estimate appears to have a high level of certainty (95% uncertainty interval [UI] 202 000–231 000), comparisons with other analyses that used the same primary data (Sample Registration System 2004–13) reveal that uncertainty is much higher. Menon and colleagues[3] estimated 275 000 deaths due to road injuries (95% UI not reported) in 2017, 26% higher than that reported in GBD 2017.[1] These varying estimates suggest that the uncertainty in GBD's estimate could be about three times that reported—ie, about 20% higher or lower at the national level, and much higher at the state level where verbal autopsy sample sizes are much smaller. Notably, the primary underlying data are the same in these analyses, and so much of the uncertainty could be due to variations in GBD modelling strategies that are unaccounted for and which are unclear to an external audience.[3]

The uncertainty in the GBD estimates make them poorly suited for tracking progress. Low-income and middle-income countries need timely and reliable surveillance data to monitor progress towards the Sustainable Development Goals (SDG) target for road safety. Reliable crash data systems are a pre-requisite for effective safety programmes. The Safe System approach recommended by WHO, and as adopted by the Towards Zero Foundation, involves developing an intervention strategy based on assessing population-level risks, available interventions, and allocating resources to the most effectual approaches. Quantitative targets are set for final outcomes (deaths or injuries), intermediate outcomes (eg, prevalence of helmet use), and the institutional outputs (eg, enforcement levels) needed to achieve outcome targets.[4] Furthermore, data are needed for monitoring performance and recalibrating efforts on an ongoing basis. These data requirements can only be fulfilled by purpose-built surveillance programmes.

Police reports will likely be at the core of crash surveillance in most countries because they are the only viable source for population-level monitoring of traffic injuries. Because their purpose is legal adjudication of responsibility, statistical reports from police often do not describe aspects important for health and safety policy.[5] Harnessing police data for safety surveillance will require establishing ongoing processes of trained data collectors reviewing police reports, extracting information relevant to policy, and recording in a standardised database. Furthermore, an ongoing research programme will need to test and address issues of completeness and bias in police data. Such surveillance is not cheap. The US National Highway Traffic Safety Administration spends US$43 million annually on harmonising police reports and special investigations that produce public information and dictate the agency's activities. If low-income and middle-income countries hope to achieve the SDG targets for road safety, they will need similar investments in crash data systems that provide the information necessary for an evidence-based approach to safety management.

I declare no competing interests.

Kavi Bhalla
kavibhalla@gmail.com

Department of Public Health Sciences, University of Chicago, Chicago, IL 60637, USA

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For more on the **US National Highway Traffic Safety Administration** see https://www.transportation.gov/sites/dot.gov/files/docs/mission/budget/334271/fy-2020-nhtsacbj-submission-final-31219-tag.pdf

For an example of the **Safe System approach** see http://www.towardszerofoundation.org