



Status Summary 2023: Road Safety Risk Factors

Bloomberg Philanthropies Initiative for Global Road Safety

Quần đảo Hoàng Sa

HANOI, VIETNAM

Quần đảo Trường Sa



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

**International
Injury Research Unit**

Beginning in 2021, the Johns Hopkins International Injury Research Unit conducted observations in Hanoi through the Bloomberg Philanthropies Initiative for Global Road Safety that aims to reduce road injuries and fatalities.

The following report highlights results from an ongoing study that captured observations of three risk factors*—speed, helmet use, and seat-belt and child restraint use. The results are based on data collected between December 2021 and September 2023.

*This study did not observe drink driving due to COVID-19 risks.

Speeding was highest among motorcycles



Seat-belt use among adult passengers was low



Correct helmet use was low among motorcycle passengers

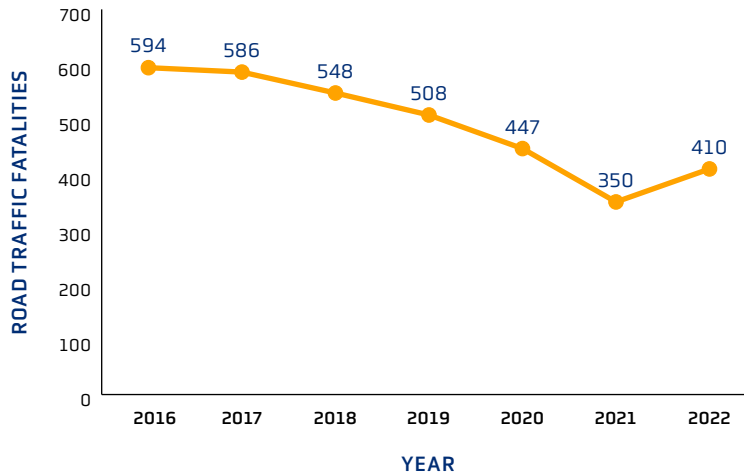


Child restraint use was almost non-existent at

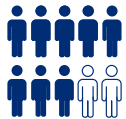


Reported Road Traffic Fatalities in Hanoi

Road traffic fatalities and injuries have been decreasing



- Information about deaths by type of road user is not available for Hanoi.
- Based on information from other cities in Vietnam, it is estimated that 3 out of 4 road traffic deaths are motorcyclists.
- Based on collision type data, at least a quarter of collisions involve pedestrian fatalities and injuries.



Vulnerable road users (pedestrians, motorcyclists, and bicyclists) accounted for more than **eight out of 10** reported road traffic fatalities from 2019 to 2021.

Note: Data from existing sources was used for the outcome data indicators. Police crash data systems are prone to underreporting.

Recommendations

Hanoi Traffic Police and Other Law Enforcement Agencies

- Enhance enforcement of:
 - Speed limits across the city with a focus on motorcycles and on weekends.
 - Helmet use, particularly among motorcycle passengers.
 - Seat-belt use, especially among rear-seat passengers.

Hanoi Traffic Safety Committee (TSC) and Hanoi Department of Transportation (DoT)

- Implement mass-media campaigns in coordination with enhanced enforcement of correct helmet use and seat-belt use.
- Implement infrastructure and road design interventions to reduce speed and protect vulnerable road users (pedestrians, cyclists, and motorcyclists).
- Advocate to enact a national child restraint law in line with global best practices.

Speed in Hanoi

Higher speeds lead to a greater risk of a crash and a higher probability of serious injury. An increase of 1 km/h in average vehicle speed results in an increase of 3% in the incidence of crashes resulting in injury and an increase of 4%–5% in the incidence of fatal crashes.*

*Save LIVES: A road safety technical package. Geneva: World Health Organization; 2017.



Motorcycles had the highest prevalence of speeding among all vehicle types [17%].



Speeding prevalence decreased from 16% in December 2021 to 11% in September 2023.

Functional Classification of Roads

Arterial road: These are roadways with high traffic volume; they provide a high degree of mobility and carry a high proportion of travel for long distance trips. These roadways carry the major portion of trips entering and leaving an activity center, as well as the majority of movements that either go directly or bypass the area.

Local roads: These roads provide limited mobility and are the primary access to residential areas, businesses, farms, and other local areas.

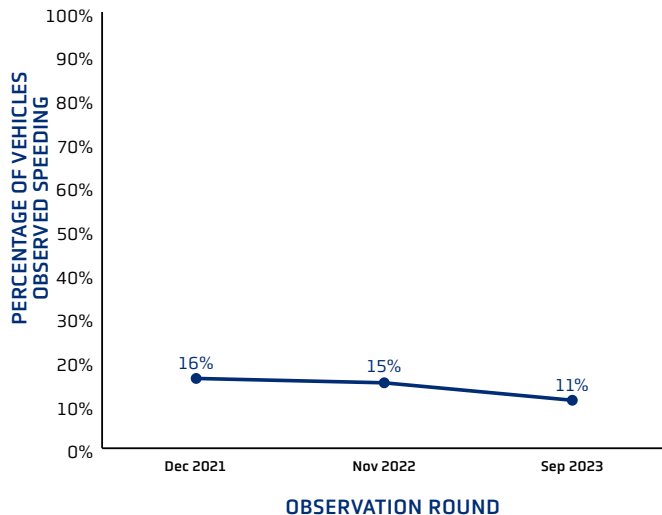
Collector road: These roads collect traffic from local roads and connect to arterial roadways. They penetrate neighborhoods and communities, collecting and distributing traffic between neighborhoods and arterial roads. Collector routes are shorter than arterial but longer than local roads.

These roads provide less mobility than arterials at lower speeds and for shorter distances.

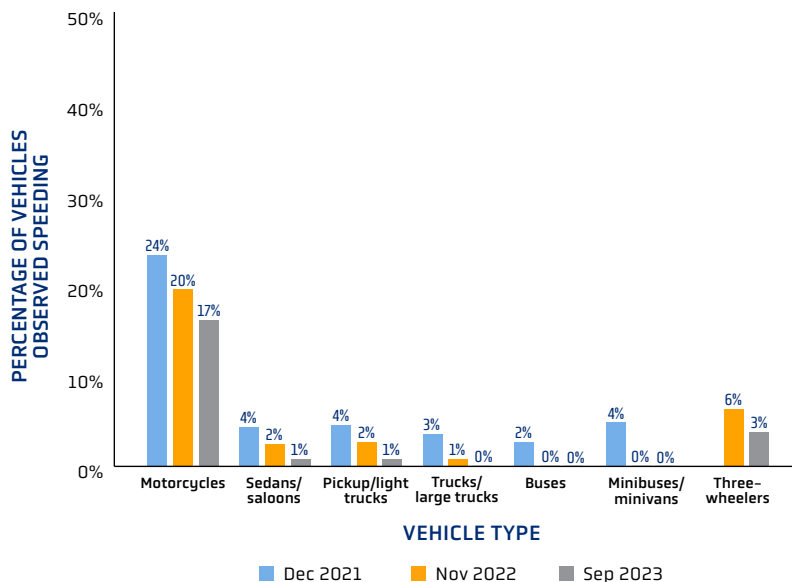
Note: These are not terms used in legislation in Vietnam but are descriptions based on typologies outlined in the World Health Organization's best practices for road safety.

Key Findings on Speed in Hanoi

Observed percentage of speeding declined since 2021, from 16% to 11%.



Motorcyclists consistently exceeded the posted speed limit more frequently than other vehicles.



Recommendations

Hanoi Traffic Police and Other Law Enforcement Agencies

- Enhance enforcement of speed limits:
 - Targeting motorcycle drivers.
 - Among drivers of ride-share vehicles.
 - On all road types.

Hanoi Traffic Safety Committee (TSC) and Hanoi Department of Transportation (DoT)

- Implement infrastructure and road design interventions aimed at speed calming and protecting vulnerable road users.
- Develop mass-media campaigns in coordination with enhanced enforcement efforts.

Helmet Use* in Hanoi

Using a motorcycle helmet correctly** can reduce the risk of fatality by 42% and the risk of serious head injury by 69% in the case of a crash.

*Overall helmet use was defined as strapped or unstrapped use of a helmet of any type.

**Correct helmet use was defined as the use of a standard helmet that was worn correctly and with the chin strap fastened.

Note: The strict definition of correct helmet use may have resulted in a lower observed rate than other studies.



Although overall helmet use was high (85%), correct helmet use was low (51%).



Correct helmet use was lower among female drivers (50%) compared with male drivers (58%). Correct helmet use among children was the lowest (19%).



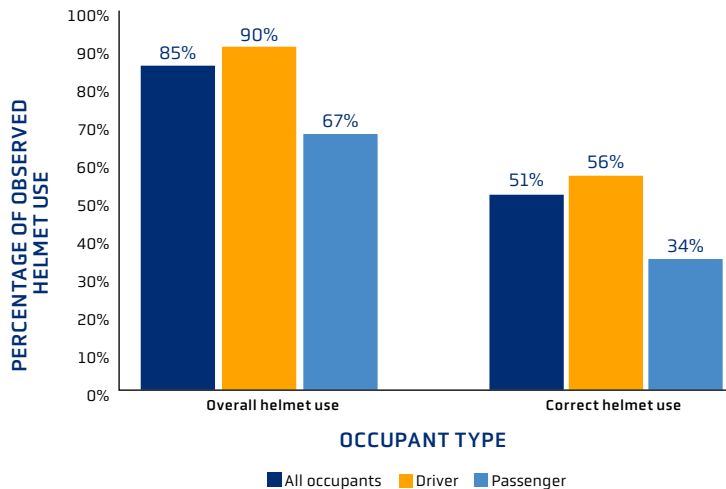
Correct helmet use was lowest in the evening (19%) for all vehicle occupants.



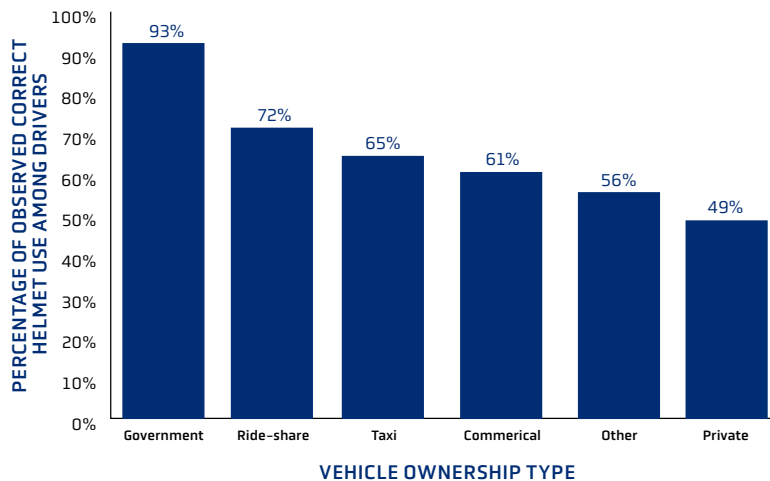
Correct helmet use was significantly higher among government riders (93%) compared with private riders (49%).

Key Findings on Helmet Use in Hanoi

Correct helmet use was low, reinforcing the need for enhanced enforcement and mass-media campaigns



Drivers of private vehicles were less likely to wear a helmet correctly compared with drivers of commercial or government vehicles



Recommendations

Hanoi Traffic Police and Other Law Enforcement Agencies

- Enhance enforcement of correct helmet use for all riders, especially motorcycle passengers.

Hanoi Traffic Safety Committee (TSC) and Hanoi Department of Transportation (DoT)

- Advocate for correct helmet use through mass-media campaigns in coordination with enhanced enforcement efforts.

Seat-Belt and Child Restraint Use in Hanoi

Seat-belts and child restraints play a significant role in reducing the severity of injuries in the event of a crash; they reduce mortality by 50% in crashes in which motorists, passengers (including rear-seat passengers), and children would otherwise die. Children in front seats have a 40% higher road traffic injury risk than children in rear seats.



Overall seat-belt use was low (57%).



Seat-belt use was very low among all rear-seat passengers over 12 years old (12%).



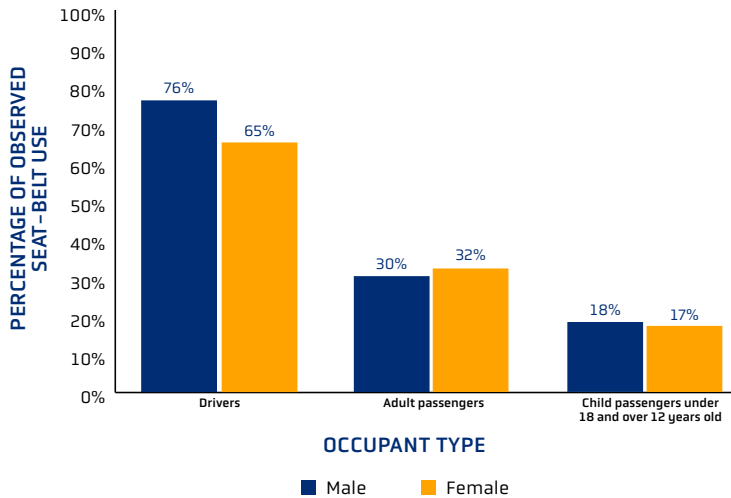
Seat-belt use was very low among adult rear-seat passengers (30%).



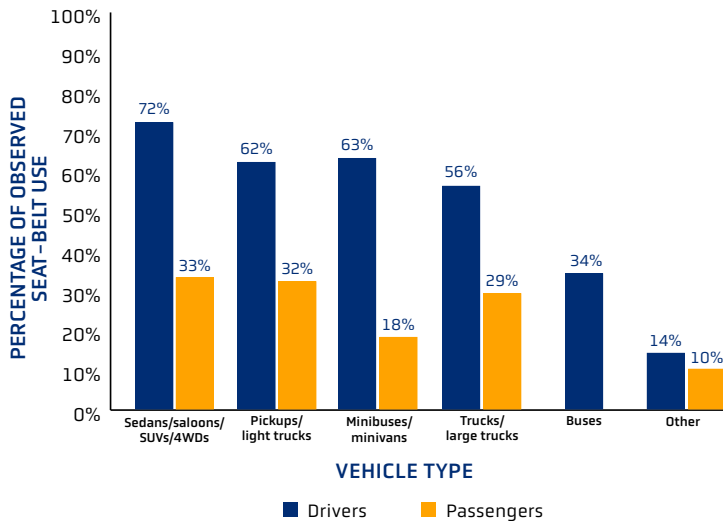
Child restraint use was almost non-existent (2%).

Key Findings on Seat-Belts in Hanoi

Seat-belt use was low among passengers—both children and adults



Seat-belt use was low among passengers of all vehicle types and drivers of buses



Note: Seat-belt use among bus passengers was not observed.

Recommendations

Hanoi Traffic Police and Other Law Enforcement Agencies

- Enhance enforcement campaigns targeting seat-belt use among drivers and passengers, especially among rear-seat and child passengers.
- Support efforts to pass a child restraint law in line with global best practices.

Hanoi Traffic Safety Committee (TSC) and Hanoi Department of Transportation (DoT)

- Implement mass-media campaigns in coordination with enhanced enforcement efforts.



Busy arterial road in Hanoi, Vietnam.

METHODS

Since March 2021, the Johns Hopkins International Injury Research Unit has partnered with Hanoi University of Public Health to conduct roadside observations. The methods for these findings were developed by the Johns Hopkins International Injury Research Unit and implemented in collaboration with Hanoi University of Public Health. This report provides results from observational surveys that represent population-level [citywide] prevalence of important road safety risk factors—speed, helmet use, and seat-belt and child restraint use—from 2021 to 2023. For speed, there were a total of 287,095 observations from baseline in 2021, to September 2023; for helmet use, there were 124,618 observations at baseline in 2021; and for seat-belt and child restraint use, there were 92,851 observations at baseline in 2021.

Observation sites were randomly selected, conditional on the safety of observers. There were 12 observation sites per risk factor, and a standardized protocol was used with vehicles selected in a systematic quasi-random fixed sequence. Observations were performed between

7:00 a.m. and 7:00 p.m. on both weekdays and weekend days. The methods were designed to estimate citywide prevalence and cannot provide insights into interventions conducted in specific locations in the city. Observational results from the selected sites are subject to sampling errors that are difficult to exactly quantify. However, there should be no systematic biases. The data management team at Johns Hopkins International Injury Research Unit reviewed and cleaned the data to produce the analyses available in this report.

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