



Status Summary 2023: Road Safety Risk Factors

Bloomberg Philanthropies Initiative for Global Road Safety

KAMPALA, UGANDA



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

**International
Injury Research Unit**



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

The following report highlights results from an ongoing study that captured observations of two risk factors:* speed and helmet use. The results are based on data collected between February 2021 and October 2023.

*The study observed seat-belt and child restraint use and shared the findings in the 2022 Status Summary Report.

The mean speed among speeding vehicles was high



Speeding was highest among SUVs



Correct helmet use among all motorcyclists was very low

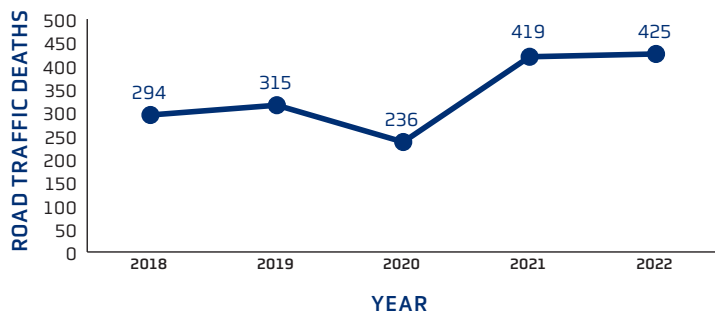


Correct helmet use was highest among ride-share drivers

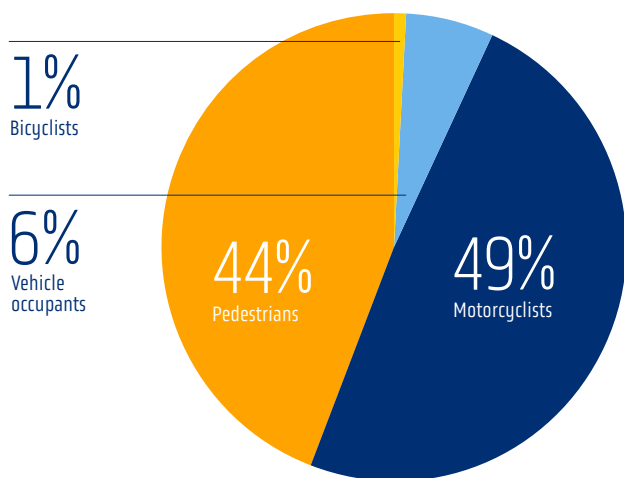


Road Traffic Fatalities in Kampala

Road traffic deaths have increased since 2020



Deaths by road user, 2022



Vulnerable road users (motorcyclists, pedestrians, and bicyclists) accounted for 94% of the reported road traffic fatalities in 2022.

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

*Serious injuries are those that result in at least one person being hospitalized for at least 24 hours (Kampala Road Safety Annual Report 2019–2020).

Recommendations

Kampala Metropolitan Traffic Police

- Enhance enforcement of:
 - Speed limits, focusing on:
 - Local and collector roads.
 - SUVs, sedans/saloons, pickup/light trucks, and minibuses/minivans.
 - Roads partially accessible to pedestrians.
 - Correct helmet use among all motorcyclists, especially passengers.
- Make enforcement operations regular, visible, and widespread.

Kampala Capital City Authority and Ministry of Works and Transport

- Implement a maximum speed limit of 30 km/h on roadways in designated areas where motorized traffic mixes with pedestrians and bicyclists, and 50 km/h in urban areas.
- Implement speed-calming measures, such as bumps, rumble strips, safe speed signage, and designation of low-speed areas to protect vulnerable road users.
- Coordinate mass-media campaigns with enforcement efforts, focusing on:
 - Speed reduction and consequences of speeding, aligned with the messaging of the December 2022 and December 2023 mass-media campaigns.
 - Correct helmet use especially among passengers.



Speed in Kampala

Higher speeds lead to a greater risk of a crash and a higher probability of serious injury. An increase of 1 km/h in mean 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.



5% of observed vehicles were exceeding the posted speed limit.



Speeding was higher on roads partially accessible to pedestrians (15%) compared with roads freely accessible to pedestrians (4%).**



Speeding was high among SUVs (10%), sedans/saloons (9%), minibuses/minivans (8%), and pickup/light trucks (7%).



Speeding among motorcycles was low (3%).



Applying the global recommendation of 30 km/h for local and collector roads and 50 km/h for arterial roads, 60% of the observed vehicles were traveling at unsafe speeds on local and collector roads, and 6% on arterial roads.

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 through or bypass the area.

Local road: 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 roads are shorter than arterial but longer than local roads.

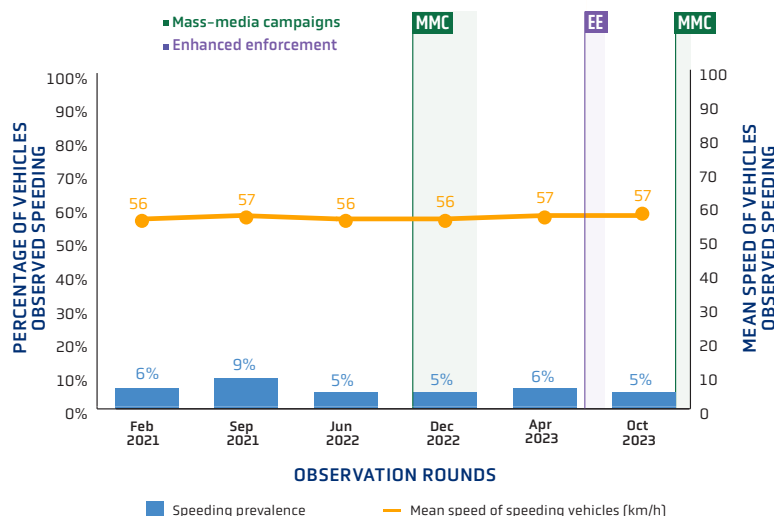
These roads provide less mobility than arterials at lower speeds and for shorter distances.

*Kampala has a speed limit of 50 km/h for all road types.

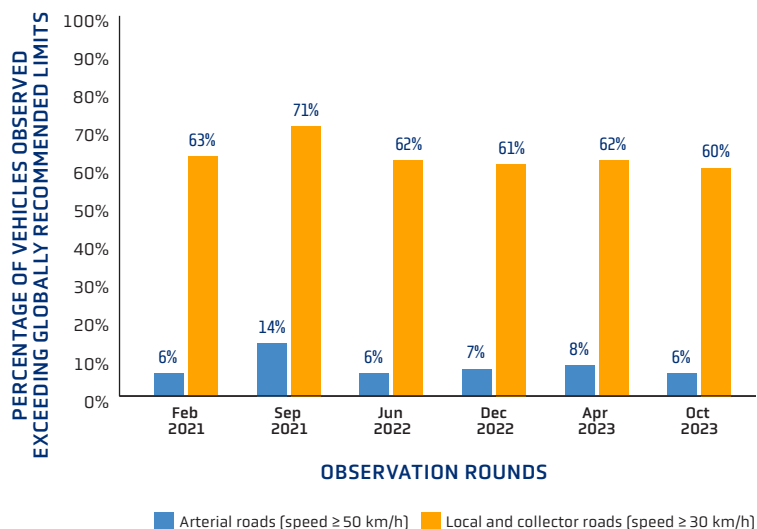
**Partially controlled roads are those where pedestrians have limited access to the road. For example, limited number of direct accesses, such as main roadways with frontage or service roads running parallel. The partially controlled roads observed in Kampala were arterial roads.

Key Findings on Speed in Kampala

Despite low prevalence of speed, the mean speed of speeding vehicles remains very high in Kampala



Speeding was consistently higher on local and collector roads



Recommendations

Kampala Metropolitan Traffic Police

- Given the high mean speeds, enhance enforcement of speed limits focusing on:
 - Local and collector roads.
 - SUVs, sedans/saloons, pickup/light trucks and minibuses/minivans.
 - Roads partially accessible to pedestrians.

Kampala Capital City Authority and Ministry of Works and Transport

- Implement a maximum speed limit of 30 km/h on roadways in designated areas where motorized traffic mixes with pedestrians and bicyclists, and 50 km/h in urban areas.
- Implement speed-calming measures, such as bumps, rumble strips, safe speed signage, and designation of low-speed areas to protect vulnerable road users.
- Enhance enforcement efforts in coordination with existing mass-media campaigns on the dangers of speeding.
- Monitor and evaluate all enforcement activities and existing mass-media campaigns to assess their continuous effectiveness.

Speeding in African Cities (2023)

Guidance notes:

Prevalence: The percentage of speeding from the latest round of observational data on speeding.

Mean speed: Mean and standard deviation of speed in km/h from the latest round of observational data on speeding.

Median speed: Median speed in km/h from the latest round of observational data on speeding.

% change: Magnitude and direction of change in the prevalence of speeding between the last two rounds of observational data on speeding.

Speeding: The arrow indicates the change in direction between the last two rounds of speed observations.

Kumasi

Prevalence: 35%

Mean speed: 64 (± 12 km/h)

Median speed: 60 km/h

% change: 17% increase

Speeding ↑

Accra

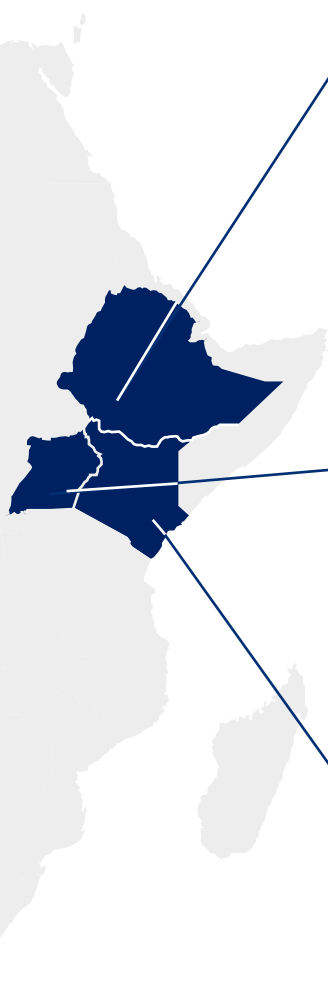
Prevalence: 47%

Mean speed: 70 (± 14 km/h)

Median speed: 68 km/h

% change: 4% decrease

Speeding ↓



Addis Ababa

Prevalence: 52%

Mean speed: 58 (± 15 km/h)

Median speed: 58 km/h

% change: 2% increase

Speeding $\uparrow$

Kampala

Prevalence: 5%

Mean speed: 57 (± 6 km/h)

Median speed: 55 km/h

% change: 17% decrease

Speeding $\downarrow$

Mombasa

Prevalence: 26%

Mean speed: 58 (± 7 km/h)

Median speed: 56 km/h

% change: 4% decrease

Speeding $\downarrow$

Helmet Use* in Kampala

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.



Correct helmet use among all motorcyclists was very low (39%), and almost non-existent among passengers (2%).



Correct helmet use was very low on both local and collector roads (39%) and arterial roads (40%).



Correct helmet use was 20% lower on weekends.



Correct helmet use was highest among drivers of ride-share motorcycles (84%) compared with drivers of commercial motorcycles (50%), taxis (55%), and private and government motorcycles (55%).

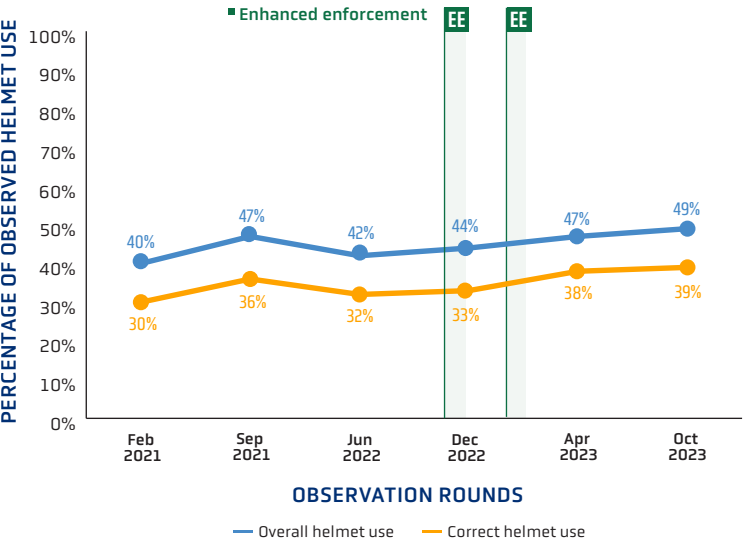
Commercial motorcycles: These include all motorcycles with company logos including those used for delivery.

Taxi: These include all motorcycles without ride-share logos (logos usually on helmets or reflector of riders). In Kampala's context, these are called boda bodas.

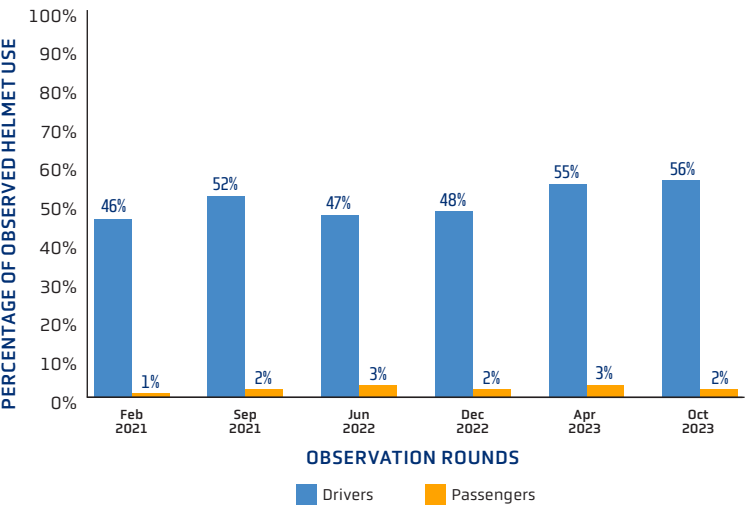
Private and government motorcycles: These include motorcycles whose riders are considered to be non-boda boda riders according to the observers' discretion (riders wearing suits, uniforms of the armed forces like the Uganda police, etc.) and motorcycles with registration plates that belong to government agencies.

Key Findings on Helmet Use in Kampala

Correct helmet use increased from 2022 to 2023, but still remains very low



Correct helmet use is almost non-existent among passengers



Recommendations

Kampala Metropolitan Traffic Police

- Enhance enforcement of correct helmet use focusing on:
 - Passengers.
 - Throughout the week.
 - Arterial, local and collector roads.
 - Taxi and commercial motorcycles.

Kampala Capital City Authority and Ministry of Works and Transport

- Implement mass-media campaigns on correct helmet use, in coordination with enhanced enforcement efforts.
- Advocate for enforcement of penalties and fines for driving without using a helmet correctly.



Uganda Traffic Police Officers conducting a speed enforcement exercise in Kampala, Uganda.





METHODS

Since 2021, the Johns Hopkins International Injury Research Unit has partnered with Makerere University to conduct roadside observations. The methods for these findings were developed by the Johns Hopkins International Injury Research Unit and implemented in collaboration with the Trauma, Injury and Disability Unit at Makerere University. This report provides results from twice-a-year cross-sectional observational surveys that represent population-level (citywide) prevalence of important road safety risk factors—speed and helmet use—to show changes over time. Across the six rounds of observations, over 515,000 and 650,000 observations have been made for speed and helmet use, respectively.

Observation sites were randomly selected, conditional on the safety of observers. There were 16 observation sites per risk factor, and a standardized protocol was used with vehicles selected for observation in a systematic quasi-random fixed sequence. Observations were performed between 7:30 a.m. and 6:15 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. The regional team and data management team at Johns Hopkins International Injury Research Unit reviewed and cleaned the data to perform the analyses available in this report.

ACKNOWLEDGMENTS

Technical support was provided by officials in Kampala, Uganda; a consortium of international initiative partners; and local collaborators from the Trauma, Injury and Disability unit from Makerere University.

CONTACT: jhsph.iiru@jhu.edu

CITATION: Status Summary Report 2023: Road Safety Risk Factors in Kampala, Uganda. Baltimore: Johns Hopkins International Injury Research Unit; 2023.



REPORT PREPARED BY:



Bloomberg
Philanthropies

Initiative for Global
Road Safety

Vital
Strategies



Makerere University
College of Health Sciences
SCHOOL OF PUBLIC HEALTH

