

Motorcycle Riders in Tanzania and Madagascar

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Boda Boda rider behavior in Tanzania, identifying risk factors using an online survey

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Background

Arusha is one of the most populated cities in Tanzania, with 535.000 inhabitants (3% annual change since 2002)



Background

WHO estimates that this road user group makes up 23% of road-related fatalities in Tanzania (WHO, 2018)



Aims

Investigates different types of Boda Boda motorcycle safety-related behaviours in Arusha, Tanzania, using the 'Motorcycle Rider Behavior Questionnaire' (MRBQ) (Elliot et al., 2007) translated into Swahili



Methods

The questionnaire was administered in the city of Arusha between January 2023 and April 2023



Results

233 riders replied to the MRBQ

The majority (n=230) were male, and only three were female

Their average age was 25.2 years



Results

Riders' average weekly driving hours 88.7 hours (12.7 hours per day)

Respondents reported an average of 1.3 crashes in the past 12 months

Older riders report more crashes than younger riders



Results and discussion

Boda Boda Motorcycle rider behaviour is associated with crash frequency

Interventions to improve motorcycle rider behaviour could reduce crash rates in Tanzania





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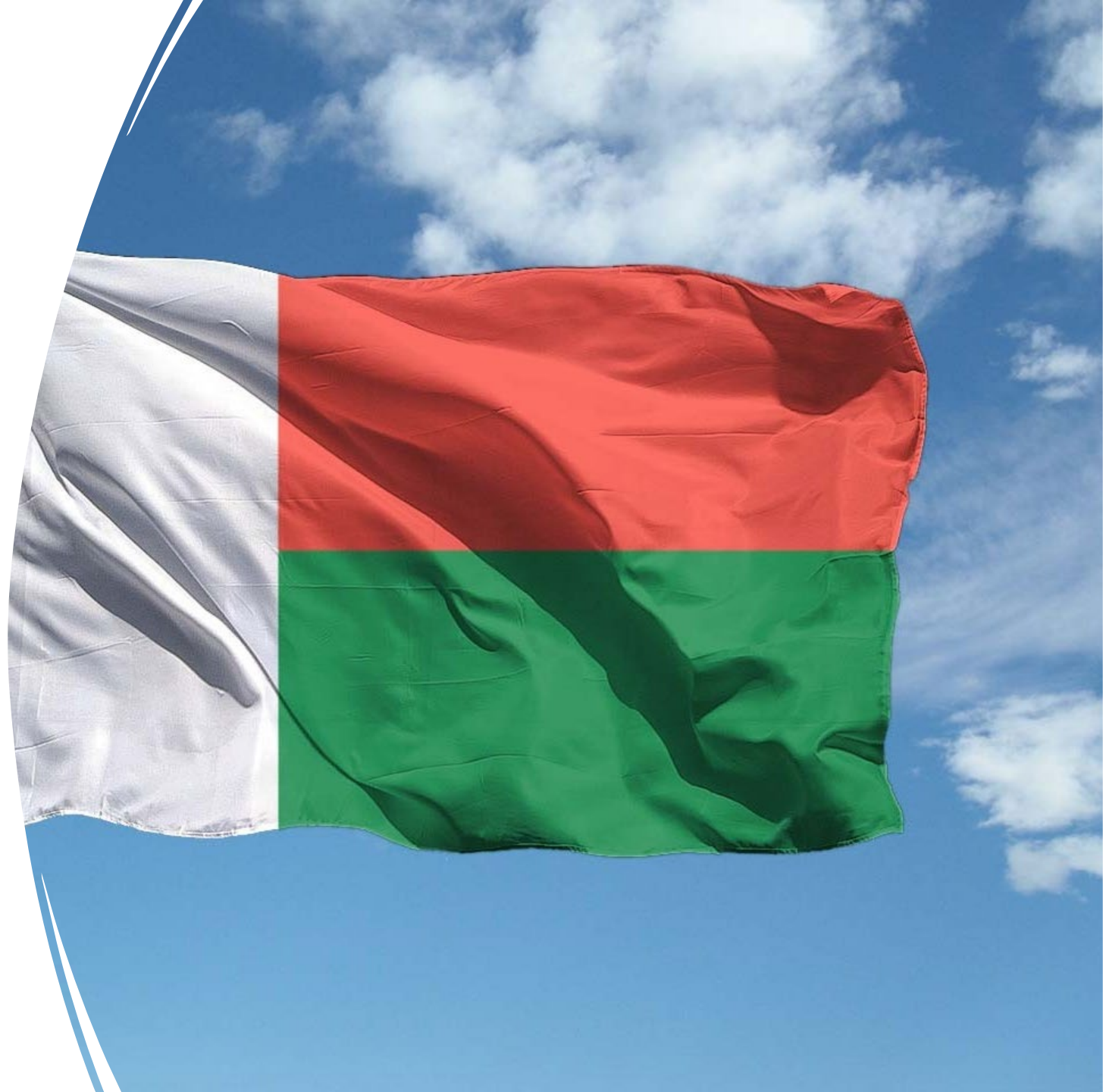


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Motorcycle rider behaviour in Tanzania, identifying risk factors
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A naturalistic observation study of motorcycle helmet use rates in Antananarivo, Madagascar

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Background

Antananarivo is the most populated city in Madagascar, with 1.2 million inhabitants





Background

Gap between the WHO's estimated number of road deaths and data reported by the Malagasy Gendarmerie

Lack of data on helmet use rate

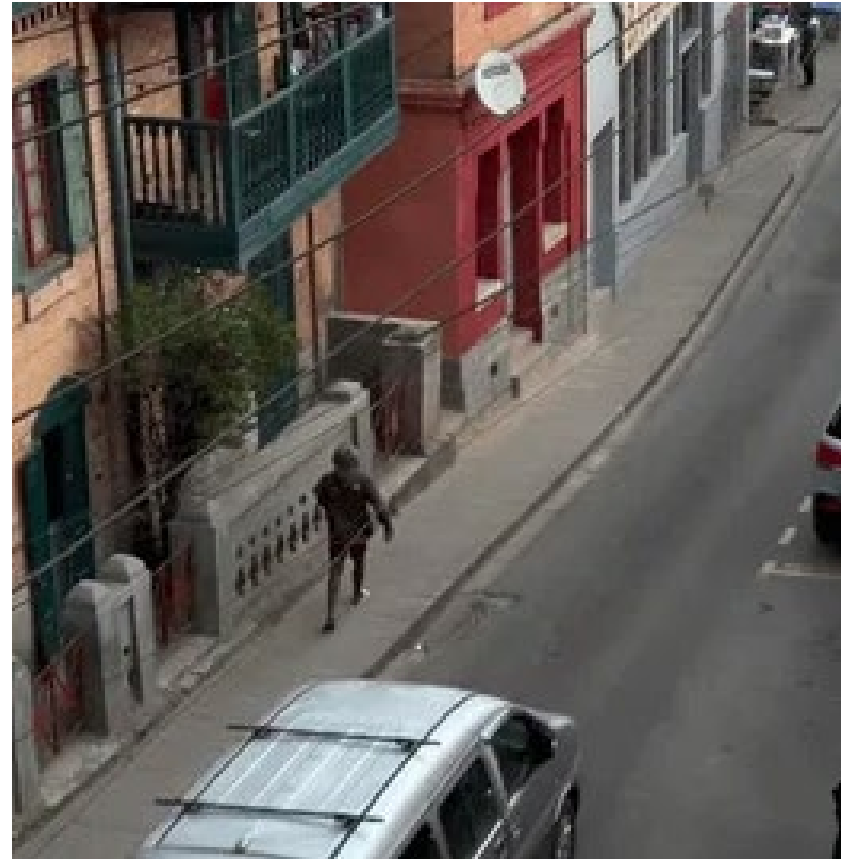
Aims

This study aims to generate new knowledge to improve the national road safety strategy and, in the long term, bring about positive change for road users in Madagascar.



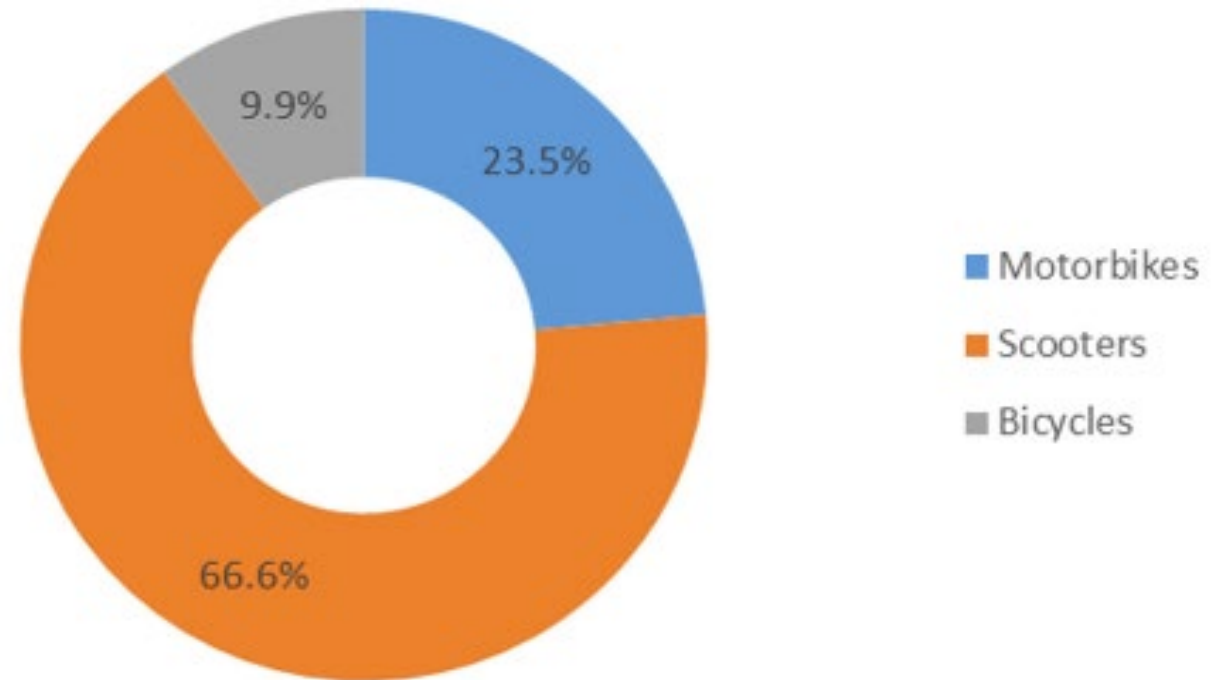
Methods

Observation using video recording in one site: ONG Lalana's office, located in the South-eastern part of Antananarivo's ring road (*Route Circulaire*)



Results

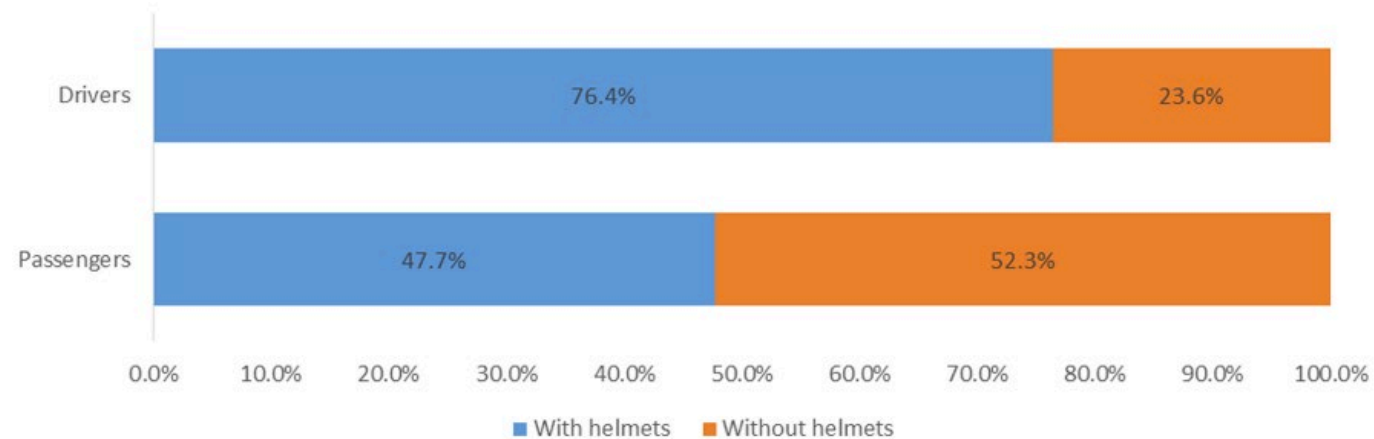
A total of 19,205 two-wheeled vehicles were observed.



Results

Position	Passengers observed
Driver	19,205
P0	202
P00	2
P1	4,952
P2	79
P3	2
Total	24,442

Helmet use rate for PTW drivers and their passengers:
76.4% of PTW riders wore helmets, while more than half of their passengers were not (47.7%)

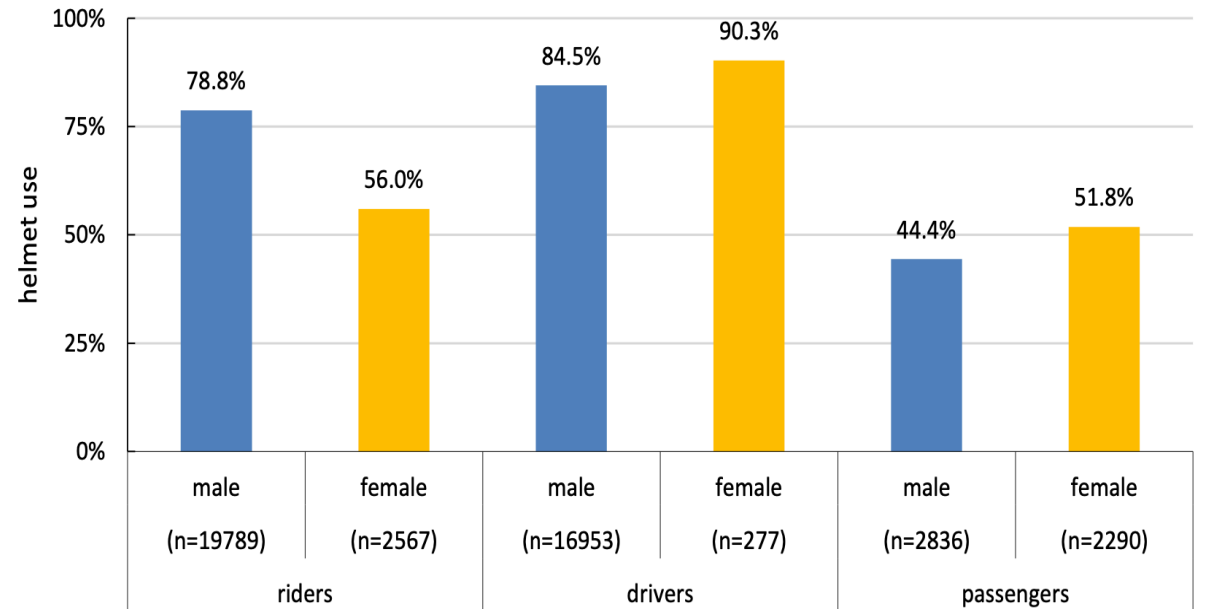


Results

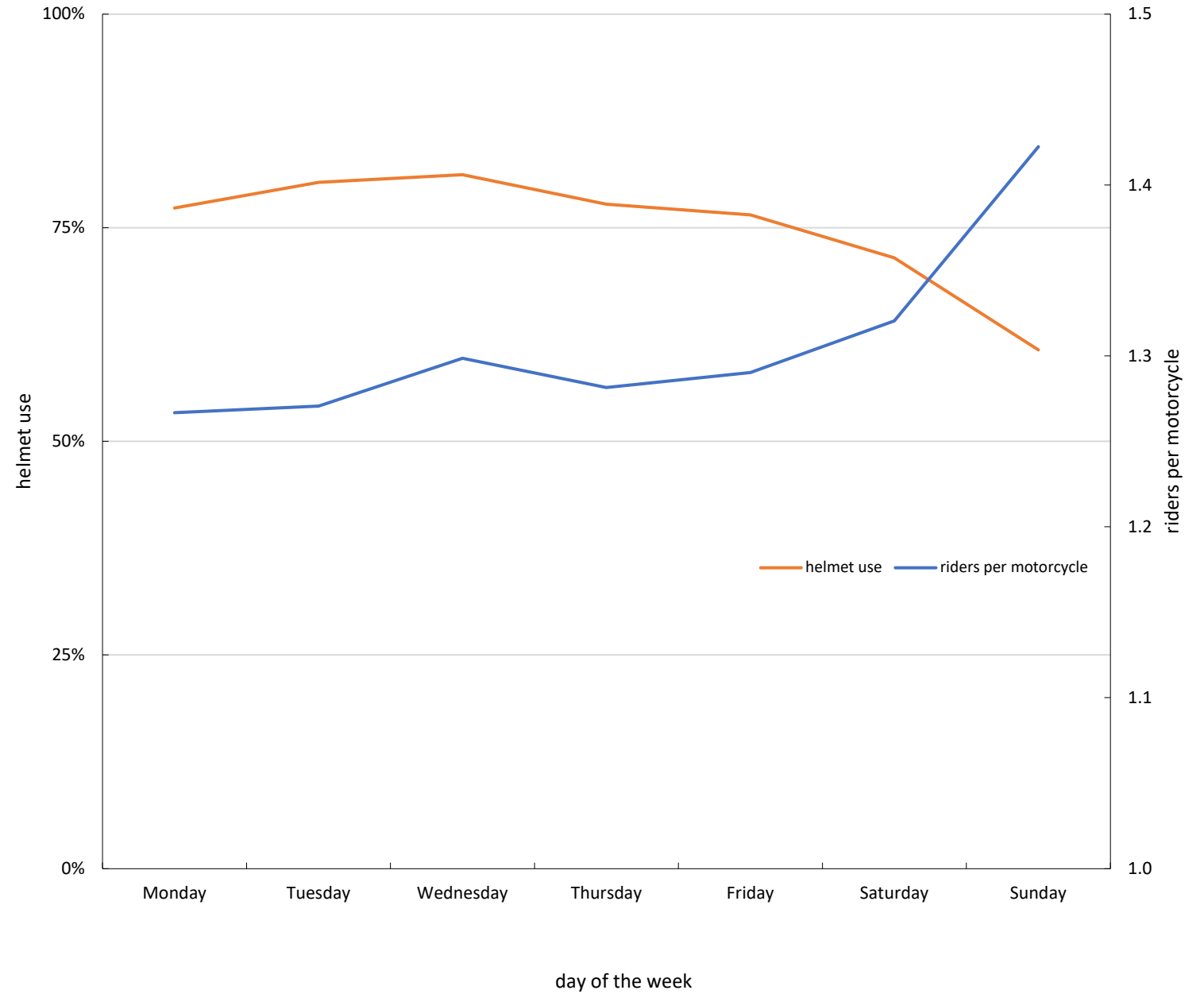
Overall, male riders displayed a higher helmet use rate compared to females.

When controlling for rider position, female drivers and passengers exhibited higher helmet use than their male counterparts.

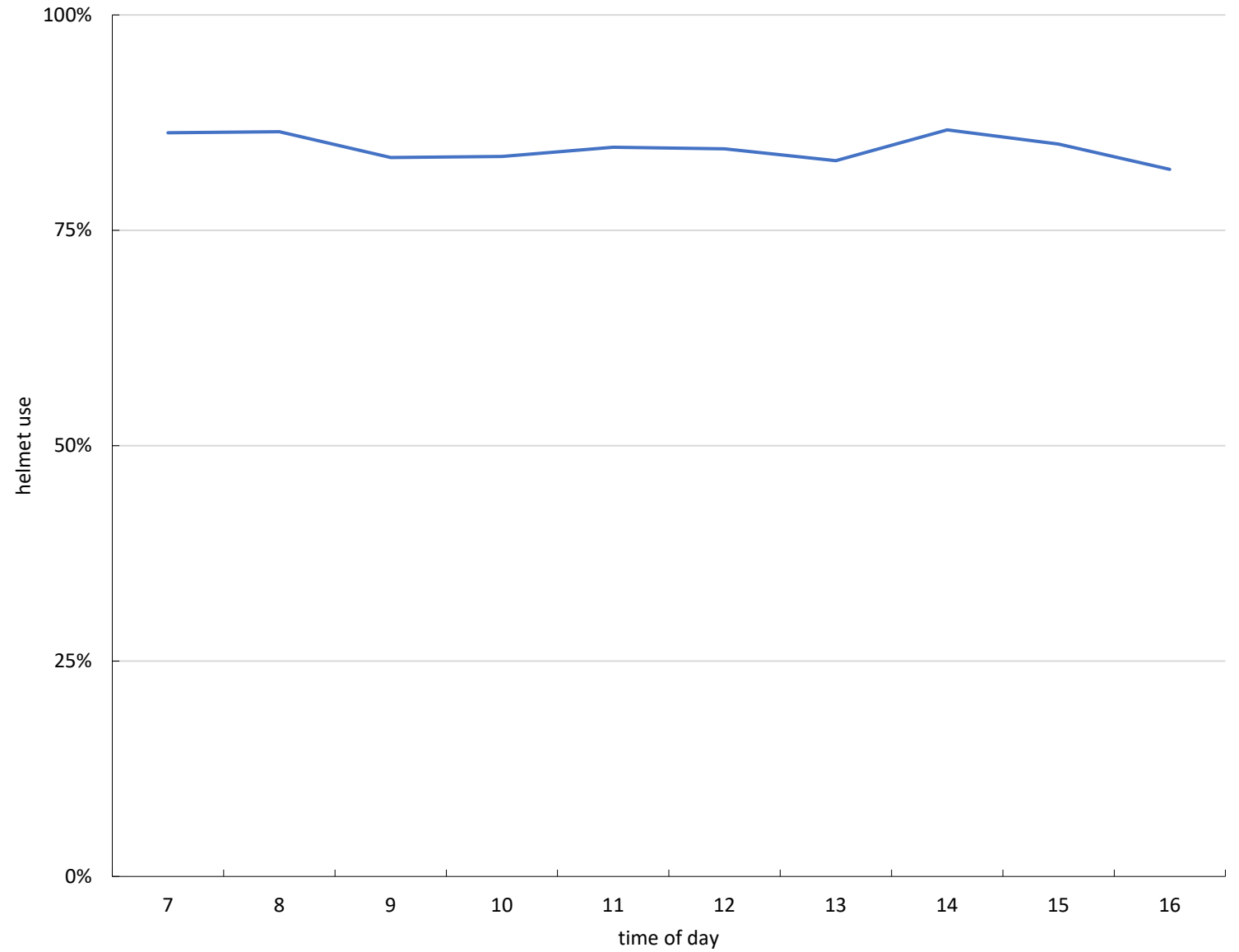
Females prioritise safety when given the opportunity.



Results



Results



Results and discussion

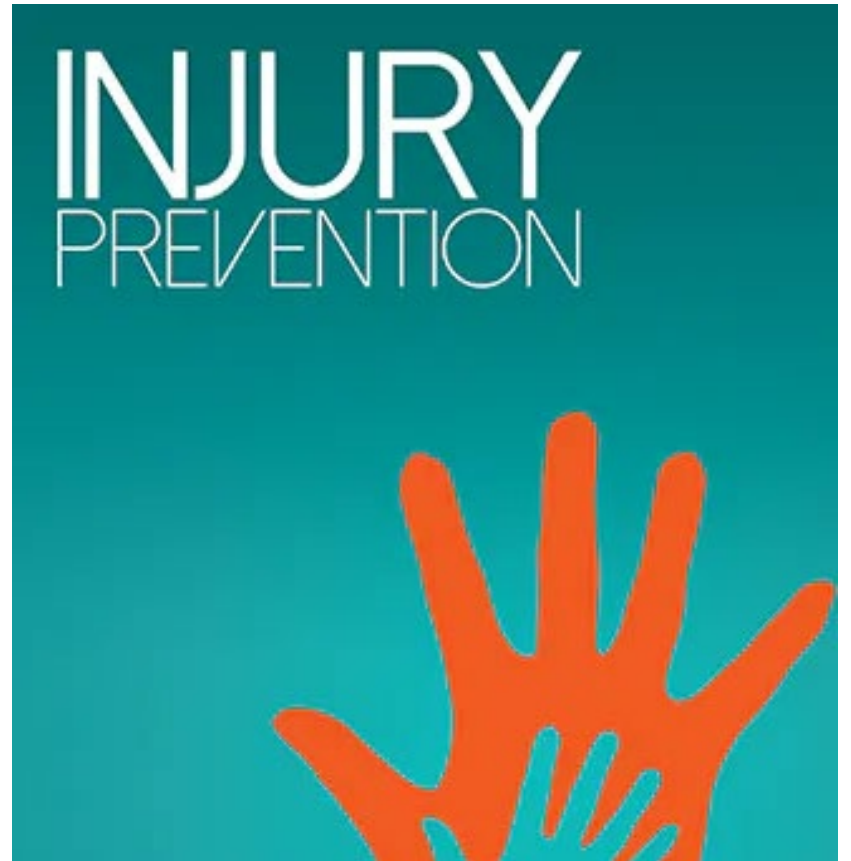
Awareness and enforcement actions must be strengthened so that all PTW riders and passengers know the road safety imperative of wearing helmets while riding their vehicles



F.W. Siebert, F. Brambati , A.L. Silva, J. Randrianarisoa, P. Perego (2024)

Gender disparities in observed motorcycle helmet use in Madagascar: Female motorcyclists behave safer but have lower overall protection.

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Thank you

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