



# CYCLIST REPORTING OF INCIDENTS TOOL

## Toward safer cycling: A new cyclist incident reporting system

Cycling has numerous health, environmental, and economic benefits; however, the perceived and actual risks of cycling act as a strong barrier to prevent people from using bicycles as a form of transport. The statistics around cycling safety make for sobering reading. Globally, cycling fatalities make up around 6% of the total number of road deaths (WHO, 2015) and research has found that cyclists are 12 times more at risk of death than car drivers (Pucher & Dijkstra, 2003). In Australia specifically, cyclists make up 1 in 40 of all road crash deaths (Garrard et al., 2010).

Despite significant progress in enhancing cyclist safety, vehicle-cyclist collisions remain poorly understood (English & Salmon, 2017; Goode et al., 2015; Salmon et al., 2021). Existing crash analysis systems are limited, focusing only on a small set of causes, and there are few mechanisms available for road users to report sufficient details about collisions and near misses. In particular, cyclists have limited opportunity to report their crashes and near misses. As a result, interventions designed to prevent cyclist collisions have not had the desired impact, partly because they are not based on a full understanding of the contributory factors involved.

A recognised approach for helping to understand and prevent safety compromising incidents is the use of an incident reporting and learning system (Goode et al., 2018). This involves providing a mechanism to report incidents and their contributory factors and then using the resulting data to inform safety management activities. Whilst the use of formal incident reporting and learning systems is an accepted component of safety management in most safety critical domains, they are yet to be adopted in the area of cyclist safety.

### Cyclist Reporting of Incidents Tool (CRIT)

Up until now, a valid and easily accessible cyclist incident reporting and learning system has not existed in Australia. As part of a program of research funded by the Road Safety Innovation Fund, we have developed the Cyclist Reporting of Incidents Tool (CRIT). The CRIT App provides cyclists with a free to use, simple, and quick way of reporting the crashes and near miss incidents that they experience whilst cycling, including important information regarding the incidents themselves (e.g. time and location, incident description) and the contributory factors involved. CRIT users also provide information on their weekly cycling hours, which enables the calculation of crash and near miss incident rates. The incidents reported through the CRIT App form the National Incident Dataset (NID).

With anticipated users from all over Australia, the information submitted to CRIT will be used by the research team to identify trends in incidents and incident causation, enhancing our understanding of cyclist crash and near miss causation and informing the development of strategies designed to enhance cyclist safety.

### For more information

Visit the project's website: [www.usc.edu.au/CRIT](http://www.usc.edu.au/CRIT)



# CRIT data collection

The CRIT App collects data that will enable a detailed understanding of cycling crashes and near misses, including incident type, location, and severity.

Enter incident details

Incident Details

Date  
November 25, 2021

Time  
02:27 PM

Form of Activity  
☒ Road ☐ Off Road

Type of Incident  
☒ Crash ☐ Near Miss

NEXT

Enter incident location

Location

Move map to select location or use square search function.

230 Karawatha Dr, Buderim QLD 4556, Australia

Set Location

NEXT

Enter incident severity or potential severity (for near misses)

Severity

☒ Minor  
Requires localised care with short term effects.

☐ Moderate  
Requires ongoing care (localised or external) with short to medium term effects.

☐ Serious  
Requires timely external care (hospital/GP) with medium to long term effects.

☐ Severe  
Requires urgent emergency assistance with long term effects.

☐ Critical  
Requires urgent emergency assistance with serious ongoing long-term effects.

☐ Fatal  
Fatality.

NEXT

Enter the factors that contributed to the incident

Contributory factors

Please select the contributory factors that you feel played a role in the incident from the list below

Equipment

Environment

Cyclist

Cycling Group

Other Road Users

Community Cycling Groups

Service Providers

Local Councils

NEXT

## CRIT key features

The CRIT App provides a summary of the national data for crashes and near misses, as well as your own personal incident data. The CRIT App also calculates an incident rate which will show the occurrence of incident per 1000 hours cycled.

Incidents

TOTAL	HOURS CYCLED	INCIDENT RATE
111	654	170 (Total / Hours Cycled) * 1000

Crashes

TOTAL	HOURS CYCLED	INCIDENT RATE
84	654	128 (Total / Hours Cycled) * 1000

Near misses

TOTAL	HOURS CYCLED	INCIDENT RATE
27	654	41 (Total / Hours Cycled) * 1000

Most frequently reported contributory factors

- Equipment, Bicycle (90)
- Cyclist, Behaviour (18)
- Environment, Cyclist infrastructure (11)

Home Riding Log Settings

Provides a summary of incidents across all users, including:

- overall incident rate
- crash incident rate
- near miss incident rate
- top three most frequently reported contributory factors.

Users enter their weekly cycling hours to enable the calculation of overall, crash, and near miss incident rates.

Riding Log

WEEK 48  
22 Nov 2021 > 28 Nov 2021  
7.0hrs.

WEEK 48  
22 Nov 2021 > 28 Nov 2021  
6.0hrs.

WEEK 48  
22 Nov 2021 > 28 Nov 2021  
8.0hrs.

WEEK 48  
22 Nov 2021 > 28 Nov 2021  
10.0hrs.

WEEK 43  
18 Oct 2021 > 24 Oct 2021  
8.0hrs.

WEEK 45  
01 Nov 2021 > 07 Nov 2021  
7.0hrs.

WEEK 44  
25 Oct 2021 > 31 Oct 2021  
7.0

Home Riding Log Settings