

Transport for NSW: Centre for Road Safety

# **Trial of the Minimum Passing Distance Rule for drivers passing cyclists: Summary of Findings**

May 2018



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# 1 Background

In Australia, the most common type of crash in which cyclists are killed involves being hit by a car or heavy vehicle from behind when cycling in the same direction (Australian Transport Safety Bureau, 2006).

In NSW, the then Minister for Roads, Maritime and Freight, Mr Duncan Gay, announced a trial of the Minimum Passing Distance (MPD) road rule in December 2015. The two-year trial of the rule came into effect on 1 March 2016, and required that all drivers passing or overtaking a bicycle rider must leave at least 1 metre when the speed limit is 60 km/h and below, and 1.5 metres above 60 km/h.

The introduction of a minimum distance rule for passing cyclists aims to remove ambiguity about safe passing distances, along with making drivers more aware of the vulnerability of cyclists, and so encourage drivers to leave enough room between the bicycle and their vehicle.

To make it easier for motorists to comply with the new rule, the NSW Road Rules were amended to permit motorists to cross centre lines (including double unbroken centre lines), straddle lane lines and drive on painted islands to pass cyclists, but only when it is safe to do so.

Transport for NSW's Centre for Road Safety commissioned the Centre for Accident Research and Road Safety-Queensland (CARRS-Q) to evaluate the trial in terms of its effects on cyclist and driver safety, and the implementation factors contributing to these effects. The evaluation sought to answer the following questions:

1. Has the trial led to improved cyclist safety?
2. Has the trial impacted the safety and behaviour of drivers?
3. How has the trial impacted driver awareness of the rule and community attitudes towards cycling and cyclist-driver interactions?
4. Has the trial resulted in unintended outcomes?
5. Who for, where and how did the trial work best?
6. How might the laws and implementation be improved to better achieve road safety outcomes?

This document provides a summary of evaluation findings from the final report.

## 2 Methodology

The methodology included the following data collection methods:

- Pre-rule (n=1,755) and post-rule (n=1,812) surveys with cyclists and motorists conducted in February 2016 and February 2017 respectively.
- Pre- and post-rule observations of passing events at 12 lower and high-speed sites across metropolitan and regional NSW (with 3,329 passing events measured in the pre-rule period and 2,650 measured in the post) collected in February 2016 and February 2017 respectively. Observation sites included in the evaluation and their characteristics are outlined in Table 1.
- Interviews and focus groups with 18 stakeholders conducted from May to August 2017, including 10 local government Road Safety Officers (RSOs), five member organisations (advocacy, cycling and motorist groups) and three NSW Police Force representatives.
- Analysis of infringement data, analysis of crash data trends and estimation of crash reductions relevant to the rule.
- A review of existing research on the introduction of MPD rules in other jurisdictions.

**Table 1. Observation sites for video recording of passing distance and site characteristics**

Location	Region	Speed limit	Bicycle facility*
McKell Avenue, Royal National Park	Regional (non-urban)	60 km/h	Minimal/no shoulder
Coward Street, Mascot	Metropolitan (urban)	50 km/h	Bicycle shoulder lane
Coward Street, Rosebery	Metropolitan (urban)	60 km/h	None
Enmore Road, Marrickville	Metropolitan (urban)	60 km/h	None
Parramatta Road, Glebe	Metropolitan (urban)	60 km/h	Bus lane during peak
Darley Road, Randwick	Metropolitan (urban)	60 km/h	None
Princes Highway, Engadine	Metropolitan (urban)	70 km/h	No shoulder
Princes Highway, Heathcote	Metropolitan (suburban)	100 km/h	Wide shoulder lane
Pacific Highway, Cowan	Metropolitan (suburban)	70 km/h	Minimal shoulder
Illawarra Road, Robertson (high speed)	Rural (suburban)	100 km/h	Minimal/no shoulder
Illawarra Road, Robertson (lower speed)	Rural (non-urban)	50 km/h	Shoulder lane and marked bicycle lane
Broken Head Road, Suffolk Park, Byron Bay	Regional (tourist/suburban)	50 km/h	Shoulder

\*This column shows whether the road has a bicycle facility such as a marked bicycle line, or other features of the road that may provide space for passing a bicycle.

### 3 Key findings

The results obtained from all data collection methods were analysed to assess practical implementation, impact on road users' behaviours, attitudes and perceptions, and road safety benefits of the MPD rule. Key findings from the evaluation include:

- Overall, the findings suggest that the trial has led to improved cyclist safety. Compared to the pre-MPD rule crash trend, there was an estimated 15 per cent reduction in casualty crashes indicative of not providing the minimum passing distance in the 10 months after the trial began.
- Findings on the impact of the trial on the behaviours of drivers were mixed, but generally positive. Observed compliance with the MPD rule was high both before and after the rule was introduced, and both drivers and cyclists felt compliance increased after introduction of the rule.
- The trial improved both driver and cyclist awareness of the rule. Driver awareness of the road rule exemptions also improved, but is still relatively low.
- There is no clear evidence of any negative unintended outcomes of the trial, despite initial concerns from Police and some survey respondents over the road rule exemptions for drivers.
- There was no strong evidence that the trial worked better for particular groups. Stakeholders and survey respondents thought it was harder to comply where there were narrow lanes and oncoming traffic. Police held some concerns about enforcing the MPD rule, although infringements have been issued since the rule was introduced.
- The evaluation showed widespread support for retaining the MPD rule. Implementation of the MPD rule could be improved by further public education and working with Police to assess approaches to enforcing the rule.

## 4 Findings on different aspects of the evaluation

This section summarises results obtained from the evaluation as they relate to each of the key evaluation questions.

### 4.1 Has the trial led to improved cyclist safety?

- Crash data analysis showed that, compared to the pre-MPD rule trend, there was an estimated 15 per cent reduction in casualty crashes related to not providing the minimum passing distance in the 10 months after the trial began. Crashes related to not providing the minimum passing distance were defined as rear-end and sideswipe crashes involving a bicycle and motor vehicle in the initial collision.
- Crash data analysis also showed an estimated 14 per cent reduction in all casualty crashes involving a bicycle and motor vehicle, when comparing pre- and post-rule trends.
- Most drivers (69 per cent) and cyclists (81 per cent) in the post-rule survey supported the MPD rule (compared with 64 per cent and 74 per cent respectively in the pre-rule survey).
- Most Road Safety Officers and Police thought the rule had improved cyclist safety. The views of cycling advocates were mixed.

### 4.2 Has the trial impacted the safety and behaviour of drivers?

- The post rule median passing distances across lower-speed sites (60 km/h or less) were observed to range between 1.2 and 1.8 metres, and between 1.7 and 2.8 metres across high-speed sites (>60 km/h).
- Observed MPD rule compliance by drivers was generally high. Observed compliance did not change after the introduction of the rule and changes in compliance rate also varied substantially across some lower and high speed zone sites.
- Self-reported compliance with the required passing distance did not increase after the Trial commenced. About half of the drivers self-reported usually complying (48 per cent pre-rule and 47 per cent post-rule). However, the proportion of cyclists (especially) and drivers who reported that drivers in general were providing more space than 12 months ago was greater after the Trial began (49 per cent and 37 per cent respectively in the post-rule survey).
- While self-reported compliance by drivers was similar for the 1 metre and 1.5 metre requirements, drivers and cyclists were less confident of their ability to judge the larger distance.
- Almost all the drivers in the pre-trial and post-trial surveys (98 per cent for both) did not report being involved in any bicycle crashes in the 12 months post-rule.
- Drivers reported no change in crashes and near misses with a vehicle travelling in the opposite direction when the other vehicle was overtaking a cyclist (around 1 per cent for crashes and 5 per cent for near misses).
- Analysis of crash data showed that there were no collisions between vehicles travelling in the opposite direction while overtaking a cyclist during the 18 months after introduction of the rule.

### 4.3 How has the trial impacted driver awareness of the rule and community attitudes towards cycling and cyclist-driver interventions?

- All stakeholders thought the rule has improved driver awareness of the need to provide space when overtaking, and validates bicycle riders' right to cycle on roads.
- Awareness of the rule increased for both cyclists (55 per cent pre-rule and 68 per cent post-rule) and drivers (49 per cent pre-rule and 67 per cent post-rule) between pre and post-rule survey.
- Awareness of the road rule exemptions increased from 8 per cent of drivers before the trial commenced to 22 per cent of drivers 12 months later.

### 4.4 Has the trial resulted in unintended outcomes?

- Police consulted during the evaluation expressed concern that drivers may have difficulty in judging when it is safe to use the exemption provision, and that the introduction of the road rule therefore has the potential to increase the risk of crashes and near-misses for side-swipe and head-on collisions. These concerns were not supported by crash data, with no crashes of these types observed during the 18 months after introduction of the rule.
- The survey showed that driver concerns about the road rule exemptions reduced after the trial started. Concern about driving over centre lines decreased from 75 per cent pre-rule to 66 per cent post-rule, and concern about driving over lane lines decreased from 70 per cent to 59 per cent. Nevertheless, this still left a majority of drivers concerned about crossing the centre line and driving over lane lines. Drivers were less concerned about driving on painted islands (42 per cent pre-rule and 40 per cent post-rule).
- Less than 3 per cent of drivers reported being involved in crashes when they were overtaking bicycles.
- About a fifth of the drivers surveyed said they were annoyed with the rule, but this did not worsen in the year after the trial began. The percentage of cyclists reporting intentional harassment by drivers also did not change after the trial began.
- Cyclists reported fewer incidents of road rage after the Trial commenced.

### 4.5 Who for, where and how did the trial work best?

- While Police had concerns about enforcing the rule, Revenue NSW reports that 61 infringement notices related to MPD rules were issued between 1 March 2016 and 28 February 2018.
- Self-reported compliance and support for the rule were generally higher among cyclists. Agreement with the rule increased with driver age and was greater for female drivers. Male drivers were more likely than female drivers to oppose the rule both before and after the trial commenced, and male cyclists were more likely than female cyclists to oppose the rule after the trial commenced.
- Stakeholders noted that many locations in Sydney have a limited number of traffic lanes or narrow traffic lanes, which can make complying with the road rule difficult for drivers and this is exacerbated when cyclists ride two or more abreast, which is legal in NSW.

- Stakeholders thought that there would be greater awareness of the rule in urban areas because of greater awareness of the existing 'A Metre Matters' communications.
- Drivers believed it was easiest to comply on roads with bicycle lanes and wider lanes, and where there was no oncoming traffic and cyclists were not riding two-abreast.

## 4.6 How might the laws and implementation be improved to better achieve safety outcomes?

- All stakeholders supported the retention of the road rule, and generally considered that the minimum passing distances and the speed limit ranges to which they applied were appropriate.
- While the drivers surveyed noted that the rule was difficult to comply with on narrow and winding roads, there were no calls from stakeholders to modify the implementation of the road rule by introducing exceptions to the road rule for particular road environments.
- Infringement data from Revenue NSW shows 61 fines relating to the MPD rule were issued between 1 March 2016 and 28 February 2018.
- The evaluation findings suggest that implementation could be improved by further public education and working with Police to assess approaches to enforcing the MPD rule.
- While there was strong awareness of the rule, awareness of the road rule exemptions remained relatively low at 22 per cent of drivers in the post period (noting that this increased from 8 per cent of drivers surveyed before the trial).

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