

Motorcycle-Friendly Roads – Applying a Customer Lens on the Journey from Identification to Implementation

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Abstract

Last year there were 54 motorcyclist deaths on New Zealand roads and more than 1,000 injuries. The costs to the Accident Compensation Corporation Scheme are higher for this group of road user than for any other.

A joint initiative between Accident Compensation Corporation (ACC), Motorcycle Safety Advisory Council (MSAC), New Zealand Transport Agency (NZTA) and Local Authorities (LAs) aims to make motorcycling safer by developing a programme of motorcycle-friendly roads.

This paper follows the journey of identifying the highest risk motorcycle routes, engaging motorcyclists to find their most favoured riding routes, implementing safety improvements, along with some key insights from the motorcyclist's perspective.

The Journey

The first step on the journey was to identify the highest risk roads for motorcyclists from a technical engineering perspective. For the analysis an adaptation of the Urban KiwiRAP model done specifically for motorcyclists was used. This model identified that around 48% of the serious and fatal crashes involving motorcyclists in the last 5 years occurred on just 3.1% of the road network or 2,798 kilometers. Seventy percent of those crashes were on rural road with speed limits greater than 70km/h. Ninety percent of the road network has had less than 1 injury crash in the last 10 years.

Understanding the customer perspective is the key to delivering successful road safety interventions on our roads, so the next step was to engage with motorcyclists and apply their lens to the data. Risk maps were made available on a website alongside some 135+ routes that had been identified by motorcyclists as 'good rides'. Motorcyclists were surveyed online and 1,566 responses were received from a pool of around 120,000 licensed motorcyclists.

Gaining visibility of the risk for motorcyclists alongside where the riders were actually riding through the use of GIS mapping has provided insight that has not been available in the past. Sections of high risk that are popular to motorcyclists can be viewed alongside information about safety improvement work under construction, allowing contributions to be made to motorcycle-friendly infrastructure improvements in a timely and cost effective manner.

Case studies showcase motorcycle-friendly treatments and perceptual countermeasures trials. New Zealand's first motorcycle-friendly demonstration project on the Coromandel Loop has been completed by the NZTA and highlights the benefits of using a participatory design process involving motorcycle riders.

One of the most prevalent crashes for motorcyclists on rural roads is the failure to negotiate curves. The NZTA's Crash Analysis System identifies common curve factors of; speed too fast, swinging wide and braking in the bend causing loss of control. Perceptual countermeasures designed to

correctly position riders on entry to a bend and encourage braking before curve entry are being trialed on the Coromandel Loop and results will be available mid 2017.

Having technical data overlaid with the favoured routes that motorcyclists ride will help target investment and efforts to improve safety to the right places. This should make sure that the motorcyclist's safety levy will provide the greatest safety benefit for riders, at the same time reducing claim costs to ACC. With international interest in the findings, this work has the potential to contribute to motorcycle safety around the world.