



Australasian College
of
Road Safety
Victorian Chapter

19 May 2022

MOTORCYCLE SAFETY FORUM

Outputs Report



Motorcyclists and scooter riders are overrepresented in road trauma across Australia and New Zealand. They represent under five per cent of vehicle kilometres travelled, yet make up over 15 per cent of fatal and serious injuries.

The reasons for this overrepresentation are not a single cause, but many contributing factors such as the speeds at which we travel; the safety features of the vehicles on our roads; and the design, operation and maintenance of our roads and roadsides.

The Australasian College of Road Safety is committed to improving road safety for *all* road users, and this will involve altering the way we manage our road system to protect all road users. With this in mind, the Victorian Chapter was committed to coordinating and facilitating a Motorcycle Safety Forum with a broad cross-section of industry, riders, researchers, practitioners, and government officials. We aimed to provide an environment where these groups could work collaboratively to find ways to reduce motorcycle trauma.

These events take considerable time and effort to organise and run, and would not happen without the commitment of our volunteer committee members. In particular I would like to thank the volunteer organising committee for this event; Wendy Taylor, Shaun Lennard, Dr Tana Tan and Kenn Beer.

This event is a wonderful example of collaboration between varied groups to produce greater outcomes than any individual group can develop on their own. We will be presenting this report to the Victorian Government and other stakeholders. We look forward to seeing some of the valuable ideas presented by forum participants come to fruition and save motorcyclists' lives.

A handwritten signature in blue ink, appearing to read 'Chris Harrison', with a long horizontal flourish at the end.

Chris Harrison
Chair – Victorian Chapter
Australasian College of Road Safety

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ABOUT THE AUSTRALASIAN COLLEGE OF ROAD SAFETY

The Australasian College of Road Safety (ACRS) is the peak membership association for road safety professionals, advocates, and members of the public who are focused on saving lives and serious injuries on our roads.

The vision of the College is the elimination of fatal and serious injury on the road.

The purpose of the College is to support its members in their efforts to eliminate road trauma through knowledge sharing, professional development, networking and advocacy.



The objectives of the College are:

- ✓ To promote and advocate policies and practices that support a harm elimination agenda within society
- ✓ To share road safety knowledge and promote further research and evaluation to deepen the road safety knowledge base
- ✓ To promote and support professional development, institutional strengthening and networking in pursuit of its overall objective
- ✓ To promote a collegial and collaborative climate amongst all those with responsibilities for and working in road safety
- ✓ To improve relative safety outcomes for vulnerable demographic and user groups within the community
- ✓ To promote post-crash policies and practices which support its other objectives
- ✓ To promote road safety as a critical organisational objective within government, business and the community

www.acrs.org.au

VICTORIAN CHAPTER

The Victorian Chapter committee organises local events. We have events each year in the form of seminars/webinars, forums and workshops about topical and emerging road safety issues, solutions and innovations.

The Victorian Chapter hosted the 2021 Australasian Road Safety Conference in Melbourne with the support of the national office of the College.

REPORT DISCLAIMER

The views and opinions expressed in this report are those of the Workshop participants, and do not necessarily reflect the views of the Australasian College of Road Safety.

INTRODUCTION

Motorcyclists and scooter riders are an important part of our transport mix. However, they are over-represented in our road trauma. There is not a single cause for this over-representation. There are many contributing factors such as the speeds at which we travel, vehicle safety features, the riding task and the design, operation and maintenance of our roads and roadsides.

The purpose of the ACRS Victorian Chapter holding the Motorcycle Safety Forum was to bring together in one room a mix of people committed to making motorcycling safe, to workshop issues and to discuss solutions and innovation, and to collate everyone's comments into a report, and to distribute the forum proceedings far and wide.

THE FORUM

The Motorcycle Safety Forum flyer (Appendix A) was distributed and promoted through emails and social media. Forum participants included motorcycle riders, scooter riders, engineers, academics and researchers, operational police including solo riders, rider trainers, post-graduate research students, community and not-for-profit organisations representatives, road safety auditors, road safety practitioners, transport and road safety agencies representatives and those interested and invested in rider safety. The participants' expertise and knowledge was wide-ranging from research, strategy and policy to road infrastructure, engineering and human factors.

A world café methodology was used; inviting participants to move around the tables dedicated to the forum themes and to engage with others and to comment about:

- Vehicles
- Roads, infrastructure and roadsides
- People
- Gear
- Speed
- Other

Scribes at each table recorded participants' comments. The world café event finished with a wrap-up of each theme by each scribe, and guests and participants were invited to express any further comments.

The scribes' writing was transcribed, and is reflected in the pages that follow.

The details of the forum were:

Date: 19 May 2022

Time: 4:00PM – 9:00PM

Location: City of Melbourne Bowls Club, Flagstaff Gardens, Melbourne

This report is available at: <https://safesystemsolutions.com.au/wp-content/uploads/2023/06/S20220106-ACRS-MC-Safety-Forum-Report-FINAL.pdf>

Event photo gallery: <https://www.flickr.com/photos/128472272@N08/albums/72177720299076456>

For more information or enquiries please contact wendy.taylor@live.com.au or Kenn.Beer@SafeSystemSolutions.com.au

MOTORCYCLE SAFETY FORUM PARTICIPANTS

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Chris Harrison
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Samantha Buckis
Sandy Richards
Sandy Burgoyne
Shaun Lennard
Stephen Frost
Steve Evans
Susan Lewis
Tana Tan
Tandy Pok Arundell
Tayne Forrest
Trevor Allen
Wayne Jury
Wendy Taylor



REPORT DISTRIBUTION

This report will be sent to the Motorcycle Safety Forum participants, the Victorian Department of Transport, other Victorian road safety related agencies, and the ACRS College Office.

The Victorian Chapter Chair will table the report at an ACRS Executive Committee meeting.

The report will be available to ACRS members through internal communication processes.



FORUM OUTPUTS

The outputs of the Forum presented below are the scribes' direct transcriptions of the participants' views. The participants' views have not been altered. The intent was to capture this group's ideas, issues, topics and solutions to be further considered by other parties.

These views do not necessarily represent the views of the ACRS.

VEHICLES

Motorcycles should be acknowledged as a separate and legitimate form of transport. They should be treated as its own class of transport rather than grouped under vulnerable road users.

MOTORCYCLES:

- Motorcycles should have a user interface that better considers rider safety (e.g. limit the number of sub menus needed to access frequently used features and safety features)
- Motorcycle user interface should be consistent across all motorcycle makes to reduce the cognitive load on riders when they change motorcycles
- Motorcycle ergonomics should be designed with riders of various gender, stature, etc. in mind
- Anti-lock Braking System (ABS) should be required on all Learner Approved Motorcycle Scheme (LAMS) motorcycles
- Head-up displays would help lessen motorcyclist distraction when navigating, checking their travel speed, and checking other similar information
- Ban convex mirrors on motorcycles as this distorts distance judgement, especially when changing lanes and merging

MOTORCYCLISTS:

- Support should be provided to assist motorcyclists with correctly setting up their motorcycle and better understand the importance of motorcycle maintenance
- There needs to be education and/or campaigns that convey the benefits of electronic safety features to motorcyclists, especially novice riders as they are not very aware of such systems
- Novice riders are generally not aware of ABS availability on LAMS motorcycles. We need a good and central source of such information to encourage novice riders to purchase motorcycles with ABS technology
- We need to find ways of breaking down barriers to motorcycle rider uptake of safety technology

GOVERNANCE:

- We'd like to see a forward-thinking government with a strategy on motorcycle safety. We'd like to see governments be proactive rather than re-active
- Electric motorcycles are here and there is change occurring to the motorcycle fleet. We need to re-evaluate where we currently are and see where we are headed in the future with this significant change that is just beginning
- Accelerate safety technology update through the fleet of motorcycles
- Introduce incentives for motorcycle riders to take up safety technology (e.g. cornering, ABS, etc.)
- Australian Design Rules (ADR) and other motorcycle standards should be updated more frequently, especially with that from the European Union (EU) as they are generally ahead of Australia

TRUCKS

- Truck under-run protection should be installed on all trucks
- Systems (e.g. mirrors, cameras, etc.) should be implemented to help truck drivers see motorcycle riders who may be located around the truck, especially in blind spots

RESEARCH

- Motorcycle airbags needs to be researched to determine their effectiveness
- Electric Vehicles (EVs) are generally very quiet or silent. Research needs to be conducted to understand how this affects motorcycle riders (and cyclists and pedestrians)
- Evaluate the effectiveness of LAMS, especially the 660 cc engine capacity limit. This has not been previously verified as being effective in lowering fatal and serious injuries (FSI) crashes amongst novice riders
- Research is needed to understand how electric motorcycles, especially their power and torque delivery, affects motorcycle safety, especially amongst novice riders
- Research is needed to understand motorcycle type (e.g. naked, sports, enduro, touring, etc.) and crash likelihood, especially for novice riders
- Research is needed to assist the development and to evaluate the effectiveness of heads-up display in helmets and the safety benefits that may be had

PASSENGER VEHICLES

- Australasian New Car Assessment Program (ANCAP) should require all passenger vehicles to be fitted with motorcycle detection, alert/warning & braking system where applicable (e.g. for cross traffic, front and rear)
- Passenger vehicles should have mobile phone deactivation/disable technology fitted
- Passenger vehicles should have driver alertness monitoring system fitted



MAINTENANCE

- Improve/ fix road surface
- Centre and edge-line markings
- Repair worn linemarking
- Clear signage for roadworks
- Spray seal – mixed opinions
- Greater accountability for Roads Authority with legislative powers
 - Provides leverage for funding
- More education/promotion of Making Roads Motorcycle Friendly Guide
- Clear signage for road conditions
- Rucking and heaving needs to be repaired quickly
- Regular removal of hazards/debris
- Promote 'Snap, send, solve' and Vicroads reporting tools

DESIGN

- Increase intersection sight lines
- More motorcycle specific road safety audits
- Standardise/consistent road signs (e.g., form one lane and merging)
- Edge seal for narrow roads
- Remove unnecessary white lines, (e.g., arrows) and NOT with black paint – there are slip resistant options
- Glow in the Dark lines (e.g., trial in Metung and Kinglake) wait for evaluation
- Increase access to bus lanes or other areas/lanes
 - Channelisation
- Adherence to Vicroads road design – especially for contractors and sub-contractors
- Design roads for motorcyclists!
 - Improves safety for others too
 - Especially routes with high volume of motorcyclists
- Stop boxes and advanced stop lines support filtering
- Higher posts for curve alignment making for visibility

IMPLEMENTATION

- Austroads report 2015/2016
 - Infrastructure improvements to reduce motorcycle casualties
- Installation of rub rail on high motorcycle use routes
- Frangible/flexible posts in urban areas
- Separation of road users
- Education about how to handle poor conditions/surfaces
- Different owners of roads and roadsides – agencies are not communicating
- Anti-slip tram tracks
- More wide centre lines
- Better use of audio-tactile line marking (ATLM)
- Trafficable gutters
- Research barriers
 - Types of barriers
 - Publish
- Passing distance for all vulnerable road users

- Identify motorcycles as unique and legitimate road users
- High friction surfaces in high-risk locations
- Reduction in roadside furniture
- Sealing bell mouths
- Funding for research



SAFE PEOPLE

ISSUES FOR RIDERS

DATA

- Should crash rate be considered as per kilometre travelled or on an annual basis?

EDUCATION

- There are a range of rider courses available however uptake within the community is low
- There is a lack of support for post licence training from some government and industry experts
- Novice riders are overrepresented and there is a need for post licence mentoring
- There is an increase in riders due to increases in fuel costs

AT RISK RIDERS

- Safe System for riders focusses on infrastructure and vehicles and there is not enough emphasis on the rider to avoid a crash
- Disadvantaged youth and people from lower socio-economic backgrounds are more likely to experience road trauma. People from these groups sometimes can't afford vehicles and motorcycles are a cheaper alternative
- Riders with drugs and alcohol in their system
- Might ride when emotional (angry) that increases tendency to speed
- Most at risk when engaging in a combination of risky behaviours (drugs, speeding, etc.)
- Gig economy riders are vulnerable
- Riders think that a short trip doesn't necessitate safety gear
- Look, slow down, move away advice can be dangerous if riders are in a driver's blind spot
- Anything over 30km/h very dangerous if there is a crash
- Interaction with other road users
- Increased uptake of scooters

SKILLS

- There is no science to the optimal frequency needed to ride in order to maintain skills
- Adjustment needed when riding different motorcycles
- Intermittent riding results in a lack of practice which is different to experience
- There is nothing to track last ride or licence review after a break from driving
- Issue for returning riders as motorcycle technology has changed, it's a perishable skill
- Experience doesn't necessarily make someone a good rider

IDEAS FOR RIDERS

TYPES OF MOTORCYCLE RIDERS

- Research needed into what will motivate people to undertake training
- Initiatives should be categorised according to what motivation riders have to ride and education to these groups should be adjusted accordingly
- Consider solutions in the context of three types of riders: new, returning, continuing

MOTORCYCLE SAFETY

- Bring back the pre-ride check that was operational about 30 years ago

EDUCATION, TRAINING AND LICENSING

- A rider at 0.05 is at 200 times the crash risk of someone with a zero BAC, a driver at 0.05 has a 30% increase in their crash risk. A BAC limit of 0.02 for motorcyclists would align the risk back to around 30%
- Need for licensing process in other languages, i.e. rider handbook
- Riders should undergo skills training every 2-3 years
- Subsidise courses to increase uptake
- Post licence training needs to be evaluated in the Victorian context
- International riders should undertake some form of training
- Most training courses are skills focussed but should be road craft focussed
- Positive feedback on New Zealand program 'Ride Forever', shown to have reduction on crash risk and there are insurance discounts offered to people who complete the program
- Independent evaluation of training programs crucial
- Courses should be delivered post licence
- Positive sentiment around the Graduated Licensing System (GLS)
- MotoCAP and Consumer Rating and Assessment of Safety Helmets (CRASH) should be promoted more

ISSUES FOR OTHER PEOPLE

- Lack of understanding of the link between drivers speeding and motorcycle riders
- Lack of funding and resources for police to minor offences including those that impact riders as there is a greater emphasis on enforcing things such as drug and alcohol use
- Enforcement doesn't have an educational component, there needs to be a warning/mentoring component to policing rather than issuing fines which doesn't adequately address behaviour

IDEAS FOR OTHER PEOPLE

- Education for drivers and children about how to manage their own behaviour around motorcycles
- Road awareness of motorcycles should start in primary school and continue into secondary school
- Training on behavioural optometry, the psychology of seeing to train people to use their eyes more effectively (for riders and other road users)
- General awareness of other road users

REGULATION

- Mandatory gear? Enforcement would be difficult and not necessarily wanted by riders
- Gloves mandatory
- Mandate star rating for all safety gear
- Pre-licence:
 - educate about Motocap
 - Mandatory gear when learning
- Motorcycle gear during training should be mandatory or operational practice
 - subsidised (who pays?) and
 - timing is crucial
- Speed is the same for e-bikes whether bicycles or motorcycles, so mandating safety gear for motorbikes, would seem to be inconsistent if it doesn't apply to other riders also.

SUBSIDIES

- Subsidise safety gear
- TAC (should) pay for safety gear
- Protective gear subsidies or provided to rider trainers
- Rating of safety – price does not reflect quality

WORKPLACE

- Delivery riders:
 - Workcover and occupational health and safety (OHS)?
 - Completely inappropriate gear:
 - Inexperienced
 - No protection
- Change-facilities in workplaces for bike riders

OTHER

- Gear mitigates injury – but does not prevent incidents and can become irrelevant in serious injuries or incidents
- Motocap: Seemed to be the missing key to ensuring appropriate education, it needs to be more widely known and spoken about at the Pre-Learner and Learner stage. (i.e. ANCAP is more broadly known and advertised)
 - Is missing from the Vic learner riders handbook
 - Crash – helmets – separate ratings for protection vs ventilation
 - Funding for Motocap star rating gear
 - Manufacturers
- Study – increased visibility does not prevent incidents – study required to ascertain if safety vests for Learners makes them more visible.
- Attitude toward safety gear differs in different cohorts
- TAC – more campaigns about consequences
- Peer advice on gear influences choice (so) target safety gear cohorts
- Comfortable gear for weather – rider comfort
- Reliance on safety gear – bad riding
- Learner rider – light coloured helmet is more effective than hi-vis vests
- Right gear for the right climate and the right trip- a trip to the local shops is viewed differently to a day trip. Local area trip would usually be short and in a lower speed suburban area. A long or day trip

is planned and usually longer distance and higher speeds, so protective gear is generally more considered.

- Innovative and fashionable gear and gender appropriate and adaptable to body change. As gear is expensive, having it more adaptable to changing body shape and more appealing to the wearer.



SPEED AND OTHER

SPEED

- Licensing and speed restrictions
- Reduce for learners, etc?
- Scares me to change the speed for learner riders
- Evidence collection to back up speed changes
- More scientific approach to speed data
- Minimise speed where many interact with each other e.g, busy environments
- Need to be careful on reduction to speed on motorcycles
- Too much dropping of speed
- Variable speeds for road conditions:
 - Future roads monitored in real time and adjusted
- Additional awareness for motorcycles signage – confusion
- Road sign limits:
 - Too much
 - Can we improve?
- Can we make signs clearer and consistent?
- Speed considered amongst the other areas e.g., gear/bike environment
- Speed management tied with issue of providing the environment for that speed e.g., braking on altered roads
- There will always be some that go against the majority and speed
- Control the speed
- Trip planning needs to be managed:
 - google mapping etc needs to be more realistic
 - awareness on tripping needs to be more accurate or riders need to be aware they are not
 - times are not achievable
 - mapping assumes it is a car
- Variable speed limit for motorcycles to get out of trouble:
 - evidence gathering
- Inappropriate speeds for the environment or road situation
- Checking signs and speed limits – variation on speed – low level
- Speedos difficult to police (and) dangerous as watching the speedo instead of the road
- Contractors not removing road works signs
- Attitude to speed limits
- Different solutions e.g., for those who speed/enforcement:
 - speed management
 - how do we
 - system more forgivable
- Motorcycles are not talked about with lower speeds
- Speed management (in context of) Movement and Place guidelines
- 80 km/h on undivided roads
- Are we going to create safety by reducing speed?
- Vehicle limited speeds to all vehicles/technology is there
- Post-crash care – enforcement speed and signal to say in crash
- Should there be better enforcement strategies withing the current speeds?

OTHER

- Traffic engineers to have in mind motorcycles
- Training issue:
 - Guidelines may need to be reviewed
- Specialist treatments on roads surfacing
- Better road surfacing
- Gap when looking strategically (at) motorcycles:
 - never look at one group at the expense of another
- Holistically/more need to engage riders in government/research:
 - think they know best
 - engage better
- Bring rider voices to the table
- There are many different motorcycle communities with different thoughts
- Attitude/training is a minimum of two years in some countries
- A continuum of occupant protection – where do motorcycles fit in?
- Specialist motorcycle lanes
- Flipping the road hierarchy (with) vulnerable first – not car-centric
- Global positioning system (GPS) – is this on road only e.g., dirt roads
- Where does off-road sit – need more information
- What happened to the trail bike project?
- Black box on motorcycles

ACKNOWLEDGEMENTS

The Motorcycle Safety Forum was organised by ACRS Victorian Chapter members who volunteered their time and energy to organise and run the event and to produce this report:

- Wendy Taylor
- Dr. Tana Tan
- Shaun Lennard
- Kathy Doukouris
- Kenn Beer

Thank you to Victorian Chapter members who volunteered to scribe participants' views:

- Dr Tana Tan
- Elvira Lazar
- Chris Harrison
- Kathryn Collier
- Sam Buckis

The Transport Accident Commission (TAC), kindly sponsored travel and accommodation costs that enabled the forum organisers to invite four people from interstate who are immersed in improving motorcycle safety to attend and participate in the forum:

- Professor Narelle Haworth AM
- Dave Wright
- Duncan McRae
- Craig Hoey

Thank you to the TAC and to our guests.

The Motorcycle Safety Forum was held during National Road Safety Week, an annual initiative from the Safer Australian Roads and Highways (SARAH) Group, partnering road safety organisations and Government. The week highlights the impact of road trauma and ways to reduce it.



National Road Safety Week 2022



ACRS Motorcycle Safety Forum

Thursday 19th May 2022
4pm – 6.30pm, followed by informal dinner and networking

Motorcyclists and scooter riders are an important part of our transport mix, however they are overrepresented in our road trauma.

The reasons for this overrepresentation are not a single cause, but many contributing factors such as the speeds at which we travel; the safety features of the vehicles; the riding task and the design, operation and maintenance of our roads and roadsides.

The Victorian Chapter of The Australasian College of Road Safety is hosting an interactive Motorcycle Safety Forum to explore the current status quo, issues and solutions relating to motorcycle safety. This will be an interactive event requiring participants to inform the content and discussion.

The output will be used to help shape the College's position on motorcycle safety and will be provided to the Victorian Government for their consideration in motorcycle safety policy and investment.



Topics for which we'll be seeking participant input:

- Safe vehicles – Cars, trucks and motorcycles
- Safe speeds – Travel speeds on our network
- Safe gear – Protective gear standards, legislation, promotion
- Safe people – Training, skills, enforcement, licensing
- Safe roads – Infrastructure design, operation and maintenance
- Other topics that affect motorcycle safety



CLICK HERE TO REGISTER

Limited numbers due to Covid restrictions, so registration essential

Public transport: <https://www.ptv.vic.gov.au/journey>
 Motorcycle parking: William Street and Dudley Street. Note: no parking on paths in Flagstaff Gardens
 Vaccine status: All attendees must show proof of Covid-19 vaccination

 **City of Melbourne Bows Club**
 Flagstaff Gardens, Dudley St,
 West Melbourne VIC 3003

 ACRS Members – Free
 Non-members \$15 (inc. GST)



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