

Children observe a lot. Adults need to do what we expect children to do. For example, if we expect children to wear helmets, we need to do the same.

Adults need to ensure the environment in which we are asking children to ride is safe – e.g. riding to and from school. We cannot assume that they will be able to assess and address risk as adults do. If adults are going to encourage children to ride to school then we need to make sure the paths they take and the built environment around them are safe.

Other children do not make the environment safer. Younger children need to be under the supervision of an adult or someone who can exercise an adult's responsibilities effectively.

On the other hand there is safety in numbers, in more than one sense. One or two children riding along a footpath may not be seen, whereas 500 children walking and riding to a school will be noticed and will impact on the reaction and behaviour of vehicles' drivers nearby.

Kidsafe has access to good examples of programs from a variety of countries that have addressed some of these key issues. Riding a cycle is a great, healthy pastime. However, we as adults need to make sure we provide a safe environment in which children can enjoy riding. It is an important safety issue.

Safe cycling: all we need is 3, 2, 1 to reach zero

by Marilyn Johnson

¹ Amy Gillett Foundation, G02, 616 St Kilda Road, Melbourne 3004 Australia

² Institute of Transport Studies, Monash University, Wellington Road, Clayton 3800 Australia

When it comes to riding bikes, Australia is not a world leader. While Australian champions such as Anna Meares, Cadel Evans and Ritchie Porte are leading world cycling, at home we have a long way to go for everyone to feel safe to choose to travel by bike. Creating a safe cycling environment in Australia is the mission of the Amy Gillett Foundation (AGF), Australia's national cycling safety organisation.

Amy Gillett Foundation

The AGF was created out of tragedy, the death of Amy Gillett, who was hit by an out of control motorist while cycling with her Australian National Cycling team mates in Germany. Since our inception we have been a catalyst for change, focused on what should be, rather than what is. That's why we have set ambitious aims and outcomes.



Our Mission: Safe cycling in Australia

Our Vision: Zero bike rider fatalities

The core values of the AGF honour Amy and her passion for life and sport, and focus on the change needed to keep bike riders safe:

- **Human:** a person is represented by every road trauma statistic. The AGF was created out of the tragedy of Amy Gillett's death and it connects us with the need to drive change.
- **Balanced perspective:** we look for the causes behind crashes and use that knowledge to drive our activity.
- **Safety is our priority:** safety sits above our love of cycling. Sometimes the right words to make people safe might not be the same words that promote cycling.
- **Shared respect:** we are positive about the future and believe that road users can use the road more harmoniously with shared respect for each other.
- **Collaborative:** the causes of crashes can be multi-faceted and the solutions are too. We work together with road, safety and concerned organisations to create safe solutions.
- **We are not – civil disobedience or protest:** we believe there are better ways to engage road users, the community and the decision makers to achieve safer cycling.

To achieve a safe cycling environment in Australia for everyone who wants to ride a bike, the AGF approach is structured into just three steps – 3, 2, 1 – to reach our goal of zero bike rider fatalities by 2020.

- 3 Take action on 3 critical factors
- 2 Work 2gether for safe bike riding
- 1 a metre matters
- 0 zero bike rider deaths in Australia from 2020

3: Take action on 3 critical factors

The action needed on three critical factors is based on the Safe System approach that underpins road safety in Australia.

Safe people

Under the pillar of Safe people, there are six key actions needed to improve the safety of bike riders:

- **18% of the road safety communication budget**

Bike riders make up 18% of all serious injuries on Australian roads [1]. A commitment to bike rider safety needs to acknowledge the magnitude of crashes involving riders that lead to not only death, but serious injury.

- **Mandatory cycling content in the driver licence process**

Currently, in every jurisdiction it is possible to become fully licensed without having to answer a single question about sharing the road with bike riders, interacting with cycling infrastructure or having to demonstrate skills that show an awareness of bike riders and an ability to interact safely. Mandatory cycling-related knowledge tests, skills assessment and cycling training as part of the driver licence process will contribute to an intergenerational shift in Australian drivers who will safely share the road with bike riders.

- **Mandatory bike skills training**

Bike skills training is necessary for all children throughout primary and secondary school and forms an essential component in road safety traffic education. Ongoing federal funding is needed to support AustCycle training programs to provide national coverage for all Australian children. Cycling is a fundamental life skill that will have an immediate impact on students' safety as road users, their future experiences as drivers and create an intergenerational shift to Australian drivers who safely share the road with bike riders. School-based delivery of cycling skills training would meet the cycling component of driver education. There also needs to be opportunities available for new and returning adult riders to increase their skills.

Further, individuals who have been involved in a cycling-related driving infringement should be required to complete a cycling skills training course that would contribute to real behaviour change.

- **Police investigation of all reported bike rider-vehicle serious injury crashes**

Currently all bike rider fatality crashes are reported to police. However, not all bike rider crashes are reported to police at the time of the event, or if they are reported post-event many bike riders report that police failed to take direct action and did not investigate the crash. Greater police action is required to follow up all reported bike rider serious injury crashes.

- **Review, improve and enforce rules for bike rider safety**

Many of the model Australian Road Rules, and the state rules, do not provide maximum protection for bike riders. The road rules are written largely from the perspective of the driver and often cannot be directly translated for bike riders or seem to exclude bike riders. Greater review of the road rules is needed to ensure bike riders are protected. Further, active police enforcement of existing rules is essential to create lasting behaviour change (e.g. fining all drivers and passengers who open vehicle doors and cause a hazard to another road user, particularly in crashes with bike rider injury outcomes).

- **Improve legal and regulatory protection for bike riders**

While bike riders are legal road users, there are many loopholes that mean they're not fully protected road users. For example, in Victoria, in the event of a bike rider crashing into the back of a parked car – even if they were forced into the crash to avoid being hit by a moving vehicle – they are not covered by the Transport Accident Commission (state government-owned organisation that pays for treatment and benefits for people injured in road crashes). More comprehensive legal and regulatory protection is needed for bike riders.

Safe roads and safe speeds

Safe roads and safe speeds are inextricably linked. We have considered both Safe System pillars together.

- **Reduce speeds**

Lowering speed limits is one of the most effective ways to improve safety for bike riders on the road, particularly in areas with high volumes of cycling traffic. Speed modelling has clearly demonstrated that 30km/h is the maximum speed tolerance for injury for an unprotected person on the road, see figure 1 [12, 4]. The current National Road Safety Strategy 2011-2020 highlights that the chances of surviving a crash between a pedestrian and a car rapidly decrease at speeds over 30kph. Yet Australian speed limits are set with human tolerances survivable only by vehicle occupants, including the default urban speed limit of 50kph.

Local streets, where almost every bike ride will begin, are a hostile speed environment for bike riders.

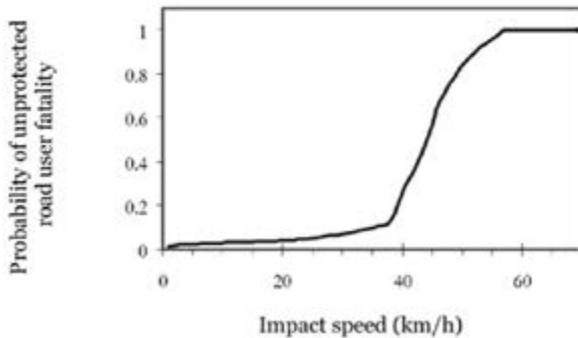


Figure 1. Relationships between probability of an unprotected road user fatality and impact speed. Adapted from Corben et al [4]

The AGF supports trials of lower, human safe, speeds including:

- In residential streets to promote liveability, safety, active trips and safe cycling. A reduction to 40km/h would realise some safety benefits however the greatest safety benefits would be realised at 30km/h;
- 40 km/h limits on arterial roads in areas of high pedestrian and/or bike rider activity (such as strip shopping centres); and
- 50 km/h limits on collector streets where on-road cycle lanes are provided.

- **Minimum spend for cycling facilities (federal, state and local)**

Ongoing, dedicated funding to reshape our roads to include bikes is fundamental to improving bike rider safety. As the responsibility for roads is spread across all levels of government, funding to improve the amenity of the roads for all users also needs to be met by all levels of government.

- **Targeted action to reduce bike rider black spot road sections and reduce all bike rider crash types**

Dedicated attention is needed to address sections of road that have been identified as high crash risk areas for bike riders as well as broader measures that reduce all bike rider crash types. In Australia, when cycling infrastructure is built, it is built to the standards set by the Austroads guidelines. Yet these guidelines do not reflect the world's best practice and lock us into road designs that follow old ways of thinking, failing to encourage innovative and creative solutions. Examples need to be adopted from world's best practice including the Dutch CROW Design manual for bicycle traffic (2007) cycling within the five

widely known main requirements for bicycle-friendly infrastructure: cohesion, directness, safety, comfort and attractiveness.

- **Benchmark guidelines for bike friendly towns and communities**

Benchmark guidelines that incorporate all elements of urban planning and integration of land users is urgently needed to help Australian towns and communities create safe spaces for people to ride bikes. In addition to guidelines, model cycling communities are needed in Australia to provide examples of safe cycling to local towns and communities. Cycling demonstration towns overseas have successfully created local examples of cycling friendly towns (e.g. six towns in the UK, New Plymouth and Hastings, New Zealand).

Safe vehicles

There are a wide range of vehicle and bicycle features, both active and passive, that could be enhanced to improve bike rider safety.

- **Safer motor vehicles**

There are a wide range of features that could be actively promoted through vehicle design standards, for example: pedestrian and bicycle rider detection technology; pedestrian and bicycle rider friendly crumple zones; driver's side door opening warning devices to prevent "dooring" incidents; automated braking technology including ABS and EAB; rear view cameras (in particular to prevent crashes with bicycle riders and pedestrians when backing out of driveways and parking bays); restrictions on window tinting, especially after-market tinting that reduces the driver's ability to see peripherally and other road-users' ability to make eye contact or observe the visual field of the driver; vehicle design to minimise drivers' blind spots, and; removal of front end modifications (e.g. bull bars).

- **Safer bicycles**

Bike riders also have a responsibility to maintain a safe and legally compliant bicycle including: regular servicing (e.g. brakes, tyres, steering, lights); appropriate bicycle style and fit according to riders' experience levels, and; conspicuity features (e.g. day time lights).

2: Work 2gether for safer bike riding

Communication, collaboration, cooperation and coordination across federal, state and local government, businesses and the community is needed to create safe cycling. We welcome collaboration from everyone who can help us achieve safe bike riding in Australia.

The AGF works together with corporate partners to promote safe cycling, including Toll, Wiggle, Subaru and Europcar.

These partners provide unique opportunities to promote safe cycling messages (see Figure 2).

The AGF also holds a range of public participation bike rides nationally including Amy's Ride Victoria, Amy's Ride South Australia, Amy's Big Canberra Bike Ride, Amy's Gran Fondo and the Amy's Share the Road Tour. With a focus on safe riding, the events create an opportunity to reinforce key safety messages to bike riders about their safe behaviour and responsibilities on the road.

The AGF has also worked closely with partners to develop and disseminate cycling safety messages. Every year state governments, local governments and community groups spend their small allocation of road safety funding on designing and redesigning public awareness messages about cycling and bike rider safety. The result is often a mishmash of messages that fail to cut through all the other messaging to reach the community and affect any change in behaviour. We need to be smarter about how we engage the public about road safety. We need a coordinated approach that stops reinventing the wheel. In bike rider safety, the AGF has taken a leadership role in developing a smarter, more coordinated approach.

Cycle Safe Communities is a free public AGF platform that provides cycling safety messages. Cycle Safe Communities contains ready-to-use campaign materials, available online, that bring to life cycling safety messages in the community. Each item has been identified to assist in the promotion and education of important safety messages for all road users, and can be developed and expanded to include other materials and resources. This community platform enables

consistent messaging to be adopted and embedded in the Australian community.

Resources include high resolution artwork, messages for print use, radio community service announcements and a series of animations are currently in development. Examples of campaigns that are currently available include *a metre matters* and *It's a two-way street*. The *It's a two way street* campaign was originally funded and developed in collaboration with the New South Wales Government, who generously made all the artwork and messaging available free of charge via the AGF's Cycle Safe Communities. This means that Australians can develop their own bike rider safety campaigns without the expensive costs of creating artwork. It also enables the roll out of consistent messaging across Australia, which will help raise public awareness for the need to improve bike rider safety.

On 1 October 2014, the Tasmanian Government's Department of State Growth launched an adapted version of the *It's a two-way street* campaign, using key messaging from the road safety initiative. Utilising existing artwork and messaging allowed the Department of State Growth to spend a greater proportion of their budget on delivering the message, rather than developing it.

The AGF has developed a wide range of other collaborative projects, including *Sharing Roads and Paths* (Victoria), and is also contributing to the South Australia Citizens' Cycling Jury; an innovative initiative of the South Australian Government to engage the public in complex, 'wicked' problems.



Figure 2. Examples of safe cycling messaging with AGF partners (Toll, Europcar)

However, a lack of comprehensive data – including data on bike rider crashes [11, 6] – is one of the most significant gaps in road safety research going forward. This gap does not only affect those researching road safety, but also hampers the efforts of everyone working in the field of public health. Together with public health and injury prevention colleagues, the road safety community can contribute to address the gaps in nonfatal road trauma data. There are two main data issues that directly impact cycling safety evidence: injury data and cycling exposure data.

Injury data

There is a growing awareness that the focus of all road safety efforts must be extended beyond reducing fatality crashes to also reduce injury crashes. Further, the contributing factors in a fatality crash may not be the same as those of an injury crash and therefore different action is needed. However, to understand the issue and to monitor the impact of any efforts made, it is essential that we understand the magnitude of the issue.

Two key components of injury data urgently needed in Australia are:

- A nationally agreed definition of injury outcome: currently the definitions vary across jurisdictions and this limits meaningful national comparisons
- The availability of injury data/a central database for injury data: the current delays in publicly-available analysis of injury data significantly decreases its relevance for monitoring road safety impacts.

To create effective and efficient databases of injury data requires cooperation within the road safety community and with other sectors including public health and all levels of government.

Cycling exposure data

The second major data gap is cycling exposure data. This fundamental denominator data is essential to understanding the context of cycling safety. Currently it is not possible to determine if the increase in bike rider fatality and serious injury crashes is a function of increased riders, increased cycle trips or a decrease in cycling safety.

Cycling exposure, or cycling travel data includes cycling participation but extends this to include details of how people use their bicycles, for example: how often people ride their bicycle (trip frequency), destinations they ride to or trip purpose (e.g. local shops, fitness/training), route choice (including on-road, off-road, bike lanes etc.), distance travelled (kilometres) and trip time (can be disaggregated to on-road, off-road). It is likely that existing cycling participation data has significantly under-represented the current level of people using bicycles in

Australia as binary data fails to provide the context for bicycle use for all cyclists and typically children are also excluded.

1. a metre matters



The campaign *a metre matters* was launched in 2009 and is the AGF's longest running campaign. It started as a public education/awareness campaign and in 2013 became a push for legislative change following a finding in a Brisbane court that the driver responsible for the death of 22-year-old bike rider Richard Pollett was not guilty [10].

The push for legislative change is the AGF's commitment to ensuring that people who are riding bikes are safe. While cycling infrastructure is constantly increasing, we are a long way from a European style segregated cycling network and almost all bike riders will at some time need to travel on the road with moving motor vehicles. This amendment to our road rules will help keep bike riders safe while we wait for the physical environment to catch up with more infrastructure and lower speeds.

For bike riders to have safe space on the road, drivers need to allow a safe passing distance when overtaking. A motor vehicle hitting a bike rider from behind while travelling in the same direction is the most common crash type that results in a bicycle rider being killed [2]. Insufficient overtaking distance is also a major contributing factor in serious injury crashes, near-crashes and contributes to bike riders feeling unsafe on our roads [3, 8, 9].

The most important road rule to provide protection for bicycle riders and improve their safety is the amendment of the road rules to legislate a minimum passing distance when overtaking bike riders that must be observed by all drivers. The introduction of specific distances is a great start to behaviour change and increasing road user awareness and mutual respect between bicycle riders and drivers on the roads. The specific distances are:

- 1 metre – in speed zones up to and including 60km/h
- 1.5 metre – in speed zones over 60km/h.

Queensland has shown leadership in this space with a two-year trial of the road rule amendments which started 7 April 2014. In addition, on 25 September 2014, the Australian Capital Territory Government announced that it will also trial the road rule amendments to replicate the Queensland trial.

It is essential the trial is appropriately evaluated to ensure that an accurate evidence base is generated that successfully captures any change in bike rider-vehicle crashes, but also the changes in subjective safety. For many people, sharing the road with moving motor vehicles is a barrier that stops them riding a bike. Fear of moving vehicles and driver behaviour is often cited as the single biggest barrier to cycling in Australia [3, 7]. Changes in subjective feelings of safety that may encourage more people to ride their bike must be included in the evaluation of all trials.

The AGF has compiled a comprehensive report that includes the background and evidence for the minimum overtaking distance. The full reference report can be accessed here: www.amygillett.org.au/minimum-overtaking-distance

0: zero bike rider fatalities by 2020

All the action of the AGF – the 3, 2, 1 – leads to this final aim: for Australia to be bike rider fatality free from 2020.

Currently we are tracking in the wrong direction. In 2013, there were 50 bike riders killed in Australia and as at the first week of October, bike rider deaths for 2014 was trending towards 48 deaths.

At the AGF, we will continue to work for the safety of everyone who chooses to ride a bike. We invite and welcome collaboration from everyone who can help us achieve safe cycling in Australia.

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Toll

Safety is a core value at Toll. We believe everyone has the right to get home safely. As the largest mover of road freight in Australia we have a role to play in making our roads safer and in helping others understand the importance of safely sharing the road.

That's why working with the Amy Gillett Foundation, Australia's leading cycling safety group, is an important part of our ongoing efforts to prevent road incidents, protecting all road users and the communities they travel through. Together we can be safe.



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Road Safety and cycling – a view from the handlebars

by John Armstrong¹ and Roger Bacon²

¹ Executive Officer, Pedal Power ACT

² Advocacy Team, Pedal Power ACT

Pedal Power ACT is a not-for-profit organisation founded in 1974 to act as a rallying point for people who ride bicycles in the Australian Capital Territory and Queanbeyan regions. It represents the interests of people who ride bicycles and who potentially would ride bicycles. It promotes the activity of cycling for transport, recreation and sport as well as the benefits of improved fitness and the positive contribution cycling makes to the community and a sustainable environment.

Road safety and cycling

How timely! The ACT government has just provided a response to a series of recommendations identified to address vulnerable road users – motorcyclists, cyclists and pedestrians - as a result of an inquiry to address the concerns in the ACT. This comes after similar inquiries in Queensland, NSW and Victoria.

The aim is to address the issues surrounding the vulnerability of those that choose to ride a bike on the road and identify the key platforms by which one would suggest the safety of all road users is improved.

Pedal Power ACT in its submission to the inquiry identified that there is no silver bullet – not one means (by itself) will be sufficient to see an increased level of safety for vulnerable road users. However there are some key platforms that address the safety of the cycling community on the road including;

- effective urban planning and road infrastructure
- the reduction in speed at conflict areas
- the increased use of cycling in itself leads to a reduction of incidence of injury
- education, training and increased awareness in the broader community
- policy development and legislative changes
- funding to implement the changes and the savings that such an investment makes.

What is the case for increased safety measures?

This requires a review of the links between cycling infrastructure, cycling participation, injury rates and wider public health. Pedal Power ACT proposes that governments should invest in safe, convenient cycling infrastructure in order to encourage cycling by the large number of people (especially women and children) who would like to ride but currently don't because of the perceived risk. This in turn would reduce accident rates because of safer conditions and the 'safety in numbers' effect. The ultimate benefit would be a reduction in lifestyle illnesses, leading to major savings in public health budgets.

An unfit society

Canberra has the highest rate of car use of any city in Australia [7, 4].

ABS Census data show that for travel to work, four out of five Canberrans use cars — one of the highest rates in Australia and this has been unchanged for the last 30 years. Bus usage is declining, and is currently around 7%. Cycling and walking to work were 2.8% and 4.9% respectively at the 2011 Census. The ACT government realise this as well, noting in the ACT Budget Paper 2 in 2014 that "Our Healthy Weight Initiative goes hand in hand with additional walking and cycling infrastructure ..."