

INQUIRY INTO VULNERABLE ROAD USERS

Organisation: BIKESydney
Name: Ms Elaena Gardner
Position: President
Telephone: (02) 8213 2437
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BIKE/SYDNEY 

Towards Zero

BIKEsydney's response to the NSW Parliamentary Joint Standing Committee on Road Safety (Staysafe) inquiry into vulnerable road users.

August 2010

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Front cover photo: Jason Doyle - Studio Commercial



Prepared by BIKESydney
PO Box M59 Missenden Rd
Camperdown, NSW, 2050
Phone +61 (0)2 8213 2437
Web: www.bikesydney.org
Email: cityride@bikesydney.org
Contact: Elaena Gardner

Overview

BIKESydney is pleased to provide its response to the Parliamentary Joint Standing Committee on Road Safety (Staysafe) inquiry into vulnerable road users.

We commend the Committee for undertaking this inquiry which will examine the safety of people who choose to ride bicycles and look specifically at: trends in injuries and fatalities, including underlying causes of such incidents; current measures and future strategies to address the safety of these road users; consideration of the needs of motorcyclists and bicyclists during the planning and management of the road system; and vulnerable road user safety issues and strategies in other jurisdictions.

About BIKESydney

BIKESydney is an incorporated not-for-profit community organisation. We advocate on behalf of our members and people who ride bicycles who live and work in the City of Sydney local government area. We are affiliated with Bicycle NSW.

We want to live in a city ...

- Where riding a bicycle is part of everyday life
- That is vibrant, healthy, productive, creative and robust
- That values community, mobility, health, wellbeing social equity and sustainability
- Where people of all ages can make easy choices to ride a bicycle, walk and take public transport

BIKESydney:

- provides people who ride a bicycle with a strong collective and public voice
- encourages the development of safe, direct cycling routes in a network that connects the villages within the City area, public transport and the CBD
- participates in the City of Sydney's Cycling Advisory Committee and the Sydney Traffic Committee
- participates in government and industry consultative forums to voice the interests of bicycle users
- organises and leads regular social rides and other fun events
- provides a bicycle-valet parking service for events
- brings bicycle users together to develop a connected and supportive community
- provides information to bicycle users and the public about services and events
- informs bicycle users of their rights and obligations
- promotes the economic, social, health, environmental and fun value of cycling
- raises the profile of cycling as an everyday means of transport
- campaigns and lobbies on issues that affect bicycle users
- collaborates with neighbouring bicycle advocacy groups and other organisations with a passion for community health, mobility and sustainability
- serves as a contact for the media about cycling issues in Sydney

Scope

BIKESydney has a particular interest in the safety of bicycle users in Sydney's CBD and inner suburbs. Our response to the terms of the inquiry are shaped by this interest.

The City of Sydney Local Government Area has 167,000 residents (more than a 50% increase in the last 10 years) and many more people coming into the area for work, entertainment, education. The City of Sydney is now embarking on its four-year roll out its cycleway network, which will see the number of cycling movements significantly increase.

All levels of government have made commitments to increase the number of people using bicycles as everyday transport. There is a strong consensus among urban and metropolitan transport strategies that the historical trend of increasing use of the private car for personal travel has to be reversed for a range of reasons, including:

- Road and transport safety
- Community health
- Congestion
- Local and global (greenhouse) environmental impacts
- Urban sprawl and land use impacts
- Increasing cost of providing and maintaining transport infrastructure and services
- Social inclusion and equity.

Transport policy decisions are inextricably linked with economic, health, environmental, and energy policy concerns. Road safety policy and programs need to be progressed in a way that ensures proper concordance with these other critical policy areas.¹

Ken's story

I was lucky enough to meet people who encouraged me to ride. Prior to riding as an adult in my 30's, I had only ridden a bike as a child. I started riding socially with others and this gave me the confidence to start riding to work on my own. Riding to work gives me 40 minutes of exercise a day, I have a confirmed arrival time and I don't use the crowded public transport. It gives me the flexibility to stop at shops along the route home, often small businesses where they have parking rails, I get to know the owner and gives me a greater sense of being part of the community.

BIKESydney supports a systems approach to road safety issues. Achieving road safety outcomes for any road user requires a whole of government approach. Bicycle users, like pedestrians, are people of all ages and backgrounds. Bicyclists use the public road space for a range of reasons including transport for work, shopping and errands; recreation; tourism; and exercise.

¹ Ian Faulks, Lecture to the NSW (Sydney) Chapter Australasian College of Road Safety 21 November 2008

BIKESydney believes that Parliament's approach to improving the road safety outcomes for bicyclists must:

- Be results focused and include a strategic focus that links the delivery of interventions with subsequent intermediate and final outcomes.
- Coordinate key agencies to develop and deliver road safety policy and strategy.
- Provide effective legislation and enforcements of that legislation to enable desired results to be delivered.
- Provide adequate funding and well targeted resource allocation.
- Promote road safety within government and the broader community.
- Provide robust and systematic monitoring and evaluation to measure progress.
- Provide proactive research and development and knowledge transfer programmes which actively influence improvement in interventions, institutional management functions and performance monitoring.

Political will and leadership are required to support programs that legitimise cycling as an essential form of transport that deserves infrastructure, investment and promotion.²

This report makes specific comment on the priorities recommended in the NSW Government's New South Wales Bike Plan 2010.

Collection of data for this submission

BIKESydney welcomes this inquiry and believes it is particularly significant at this time as the number of journeys by bicycles increase. To support this submission and the work of the inquiry BIKESydney undertook to inform its members and the general cycling community and consult with them on the terms of reference. This was done by:

- A public forum held on 29 July, with three transport experts providing a background to the issues and an interactive exercise which collected qualitative data, details can be found at Appendix 1
- An online survey, 'the BIKESydney Safety Survey, details of which can be found at Appendix 2
- Release of the draft of this submission to members for comments.

Data from the survey will be referred to throughout this submission, and the case studies distributed through the document to demonstrate the experience of cyclists.

² Daley, M., Rissel, C., Lloyd, B. All dressed up and no-where to go? a qualitative research study of the barriers and enablers to cycling in inner Sydney. *Road and Transport Research* 2007

Executive summary

The crux of the safety problem for bicycle riders centres on the fact that there is lack of planning for providing for them and that the traffic system is predominantly designed for the movement of cars, not people.

There are compelling reasons to increase the number of people using bicycles for everyday transport, including the safety of all road users.

Specific recommendations to address the safety concerns of bicycle riders are provided at the end of each section of this report.

BIKESydney makes the following key recommendations. That the:

- NSW Government acknowledges evidence that increasing the number of bicycle riders improves the safety of all road users. (Recommendation 3.1)
- Staysafe Committee reviews all this inquiry's recommendations to ensure that they encourage more trips by bicycle. (Recommendation 3.2)
- NSW Government increase funding to match bicycle related spending to mode share percentages. If it to reach its target of having 5% of trips made by bicycle by 2016, the NSW Government must allocate a similar percentage of its roads capital expenditure to bicycle specific infrastructure. This would allow a substantial increase in funding to local councils for bicycle projects. (Recommendation 7.1)
- NSW Government fund a program of purpose-built bicycle only facilities that include cycle friendly lighting, paved surfaces and low angled grades. That this program be separately budgeted for and reported on. (Recommendation 3.4)
- Department of Transport and RTA give equal weight to pedestrians, bicycles, public transport and motor vehicles when planning, designing and implementing management and infrastructure projects. (Recommendation 5.1)
- NSW Government recommits to the Safe System approach to policy development and planning. That heads of department across all transport planning authorities in NSW undertake Safe System training. (Recommendation 4.1)
- NSW Government enshrines a Safe System approach in its new road safety strategic planning documents for the next decade to 2020. (Recommendation 4.2)
- The RTA refocus their objectives to support the movement of people rather than primarily on the movement of private vehicles. All infrastructure should be planned and designed to meet the needs of all road users. This should include new and existing infrastructure. (Recommendation 5.2)
- NSW Government adopts and promotes a target that seeks in the long term to eliminate death and serious injury of bicyclists using the road transport system. Adopting this goal will alter the community's perception of the dangers of bicycle use, alter institutional and societal responsibilities and accountability, and change the way in which road safety interventions are shaped. (Recommendation 2.1)

- NSW Government adopts and promotes targets to by 2020:
 - Reduce by two third the number of journeys undertaken by car drivers and passengers for trips under two kilometres
 - Reduce by half the number of journeys undertaken by car drivers and passengers for trips between two to five kilometres
 - Reduce by one third the number of journeys undertaken by car drivers and passengers between five to 10 kilometres. (Recommendation 3.8)

- NSW Government continues to support the NSW Bike Plan's target of 5% of local and district trips by bicycle by 2016. A further target of 10% of trips should be set for 2020. Progress towards the targets set by the NSW Bike Plan to increase cycling should be publicly reported on an annual basis. (Recommendation 1.6)

- NSW Government develop programs to work with schools to encourage cycling to school through education of drivers and children, securing access for bicycles, building of safe infrastructure within a two kilometre radius of the school and social organisation of bike buses. (Recommendation 1.7)

- RTA provides funding to employ two bike bus coordinators initially for three years for Sydney, Newcastle and Wollongong to develop resources, promote the scheme and train leaders. One coordinator should focus on adult commuting and the other on journeys to school. (Recommendation 4.4)

- Department of Transport report annually on a range of data relating to bicyclists including information relating to usage, crashes, fatalities, injuries, and hospitalisation. (Recommendation 2.2)

- RTA develop a state-wide online system of reporting near misses, conflict points and road rage incidents to enable authorities to identify and fix potentially risky infrastructure. (Recommendation 2.4)

- NSW Police and the RTA work together to implement a telephone and online reporting system that allows all road users to report unsafe or risky driving. This could be modelled on the New Zealand Roadwatch Program. (Recommendation 3.10)

- NSW Government and the RTA work with the community to introduce blanket speed reduction to 30km/h in residential streets and shopping strips. (Recommendation 3.7)

- NSW Police, in partnership with bicycle user groups, develop an education campaign for existing traffic and new Police Officers, to ensure the rights of people on bicycles are widely understood within the Service. (Recommendation 3.11)

- STA work with bicycle user groups to develop an education program to help bus drivers and bicycle riders better understand each other's needs on the road and particularly in bus lanes. (Recommendation 3.15)

- RTA installs directional signage on all official bicycle routes by 2011 and require that all 50/50 funded bicycle infrastructure projects include route signage and wayfinding strategies. (Recommendation 3.17)

- RTA develops an online route finding system for bicycle riders as part of the 131500 website by 2011. (Recommendation 3.18)

- Local councils work together to ensure whole of region planning. Each council should identify the points of interconnections which require redesign and establish a plan to undertake the work over the next three to five years. (Recommendation 3.19)
- RTA issues a technical directive that all future bicycle logos are to be placed in the centre of the road. (Recommendation 3.22)
- RTA and local councils commence a program to replace all logos currently placed to the left of the lane with centre placed logos, completing the project within three years. (Recommendation 3.23)
- The NSW Sentencing Council undertake a study of court sentences for driving offences involving a bicycle rider's death or serious injury or assault of a bicycle rider. The review should consider whether there are significant inconsistencies and recommend steps to improve outcomes for the community. (Recommendation 3.24)
- RTA and local council avoid shared paths wherever possible. Where this is not possible, the local community should be consulted, community education should take place, and clear signage and markings included on the pathway. (Recommendation 3.25)
- The NSW Government build a cycle way across Darling Harbour or a raised carriageway across the current bridge for pedestrians only. (Recommendation 3.27)
- RTA establishes a program that ensures all new intersections treatments provide safe access for cyclists and a program over the next decade to retrofit all intersections to be safe for cyclists. (Recommendation 3.28)
- Department of Education to introduce issues of vulnerability of all road users into the road education curriculum delivered in NSW high schools. (Recommendation 4.5)
- RTA delivers road education campaigns addressing issues of road rules, courtesy, patience and sharing. (Recommendation 4.6)
- That driver knowledge of rules is tested when they renew their license, either through an online survey or completion of questions selected randomly at the RTA office. (Recommendation 4.7)
- RTA includes specific questions relating to cyclists in all road knowledge tests. (Recommendation 4.8)

1. Patterns of bicycle usage in New South Wales

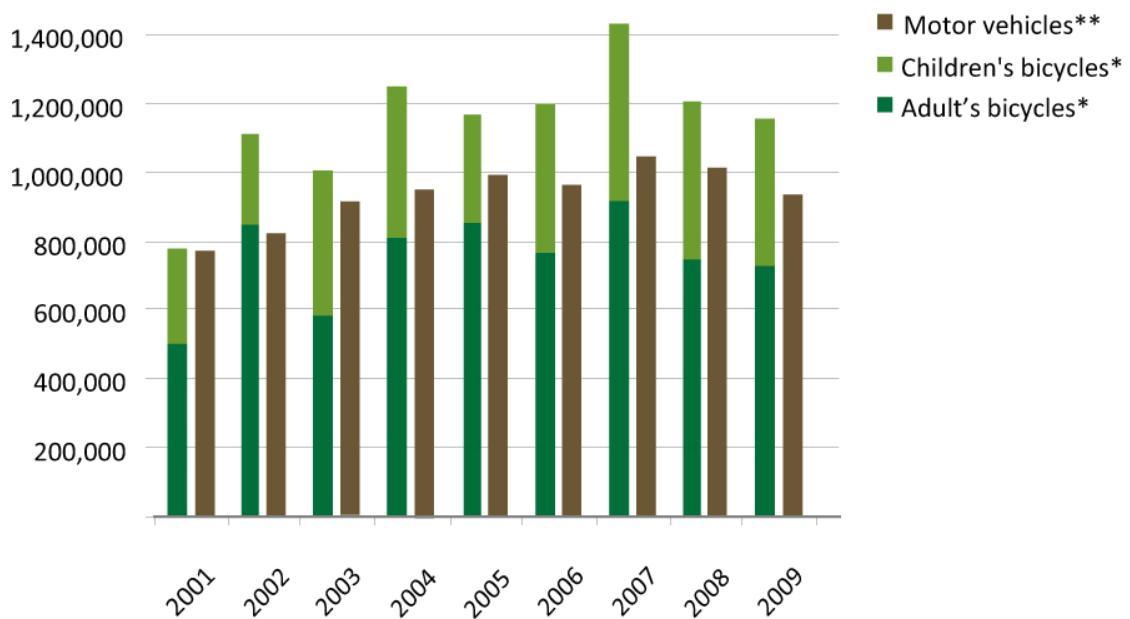
At a glance....

- More bicycles are sold than cars
- Bicycles are increasingly used for everyday transport
- The proportion of women cycling relates to safety
- Children are frequent and particularly vulnerable users
- Access to accurate data is important for future planning and development

More bicycles are sold than cars

Since 2001 bicycle sales have exceeded car sales in Australia.

Australian bicycle sales compared with motor vehicle sales



Source: Cycling Promotion Fund (2010) + VFACTS (2010)

* Figures are based on bicycle import data

** Figures are based on motor vehicles sold, excluding heavy vehicles

Bicycles are increasingly used for everyday transport

More than half of all work commute trips taken in NSW are made in Sydney and close to 22,000 people choose to ride a bicycle for all or part of that trip. The number of people travelling to work in NSW and Sydney continues to grow. Planning for and encouraging different modes of travel, including bicycling, walking, and public transport, will help relieve congestion and make Sydney a more liveable city.

Method of travel to work: NSW and Sydney

	2001	2006	Note
NSW			
Bicycle only	17,771	19,274	8% increase (Average increase of all Australian States and Territories 11%)
Bicycle + other mode	3,594	2,635	27% decrease (Average decrease of all Australian States and Territories is 15%)
Total bicycle use	21,365	21,909	3% increase (Average increase of all Australian States and Territories is 7%)
All modes of travel to work	2,150,171	2,283,892	6% increase (Average increase of all Australian States and Territories is 11%)
Sydney			
Bicycle only	9,222	10,887	18% increase (Average increase of all Australian capital cities 11%)
Bicycle + other mode	2,470	2,068	16% decrease (Average decrease of all Australian capital cities is 15%)
Total bicycle use	11,692	12,955	11% increase (Average increase of all Australian capital cities 7%)
All modes of travel to work	1,464,649	1,529,109	4% increase (Average increase of all Australian capital cities 11%)

Source: Australian Bureau of Statistics - Census of Population and Housing (Australia), Method of Travel to Work (2001 & 2006)

Note: ABS (2001 & 2006) Figures based on count of employed persons aged 15 years and over, based on place of usual residence

Cycling trips to work grew in all of the central Sydney precincts between 2001 and 2006.³ One in five people in Inner Sydney used a bicycle and/or walked to work for at least part of the journey to work.⁴

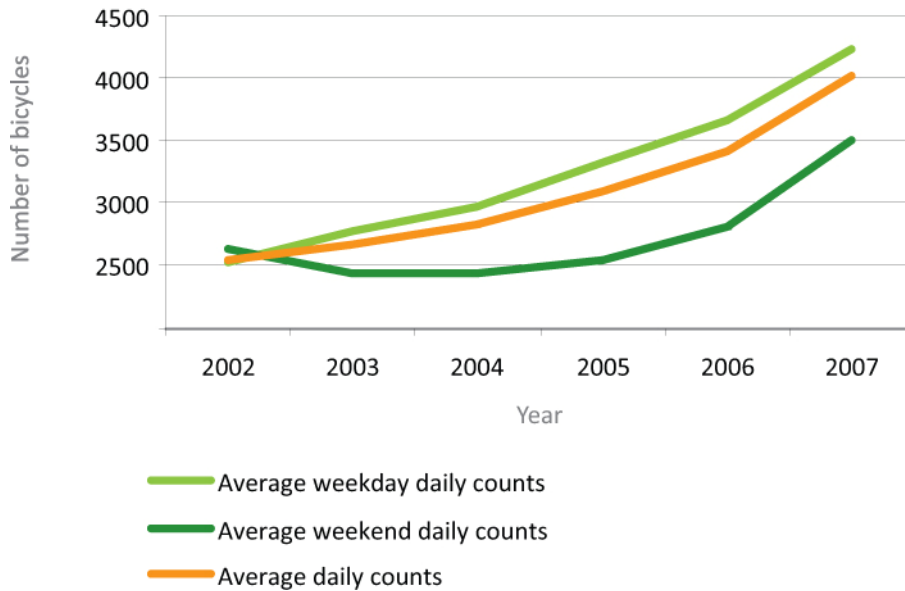
Growth of commuter cycling across the Sydney Metropolitan Area between censuses is a low 11% in comparison to Melbourne where there has been a comparative 42% increase of all bicycle work trips. In fact, Sydney's growth in bicycle commuting is lower than all capital cities except Darwin (where commuting by bicycle has decreased).

³ Ministry for Transport TransFigures Employment and Commuting in Sydney's Centres, 1996 - 2006 Dec 2008

⁴ Australian Bureau of Statistics 1338.1 NSW State and Regional Indicators, March 2010

The RTA has had 12 bicycle counters installed on Sydney cycleways since 2002 to monitor bicycle usage. The data from the bicycle counters is summarised and averages are reported by week day use, weekend use.

RTA Sydney Bicycle Counters Data



The counter data from 2002 to 2007 reveals the following significant increases in Sydney based bicycle usage:

- The average weekly daily count has increased by 68% from 2,524 in 2002 to 4,235 in 2007.
- The average weekend daily count has increased by 33% from 2,629 in 2002 to 3,507 in 2007.
- The average daily count has increased by 57% from 2,550 in 2002 to 4,016 in 2007.⁵

The number of counters is very small and only provides information about use on a small percentage of official cycleways and completely misses data from unofficial routes regularly used by cyclists.

⁵ RTA Fact Sheet :Cycling in Sydney (2008 Release)

Copenhagen Cykelbarometer



Photo: Matt Blackett at Flickr

The City of Copenhagen provides public bicycle counters, equipped with an air pump for the convenience of bicycle riders. The display shows the number of riders who pass daily and annually. The design aims to encourage more people to ride by showing how many are already are. The numeric displays show a daily and annual tally.

The proportion of women cycling relates to safety

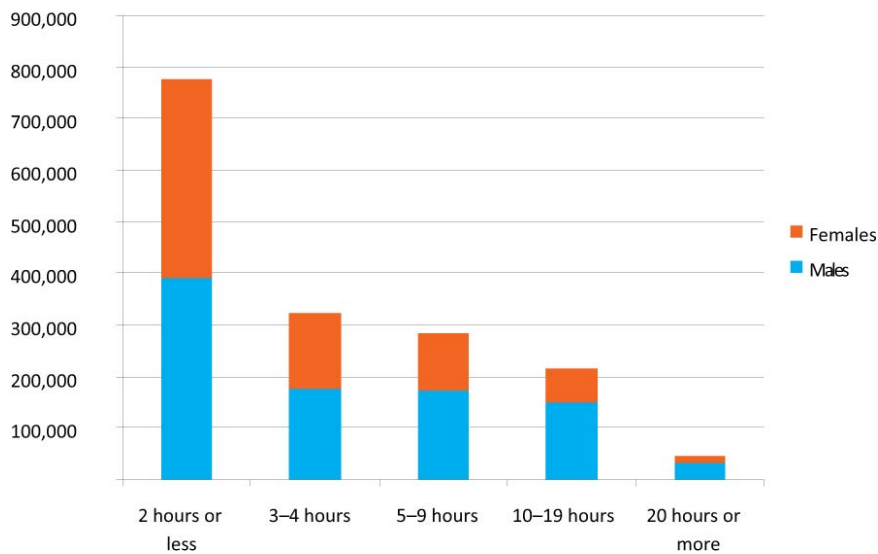
Professor John Pucher, as US based academic, says women are a litmus test for cycling safety as many will ride only if they feel safe. Twenty-five per cent of commuting cyclists in Melbourne are women, but only 17 per cent are in Sydney. In Denmark the figure is 45 per cent and in the Netherlands 55 per cent.⁶

Children are frequent and particularly vulnerable users

The Australian Bureau of Statistics Children's Participation in Cultural and Leisure Activities, Australia, April 2009 found that 60% (1.6 million) of children aged 5-14 years had ridden a bicycle in the two weeks of the survey. In NSW more than 500,000 children had ridden a bicycle or about 55% of the population of children. The 2009 survey results showed a decrease in the bike riding participation rate, falling from 68% in 2006 to 60% in 2009. This was evident in the participation rate for both boys and girls. This could be partly to do with the introduction of a new category in the survey of 'Skateboarding, rollerblading or riding a scooter'. In NSW 434,000 children participated in this category.

⁶ <http://www.smh.com.au/nsw/sydney-the-city-that-hates-bikes-20100312-q45h.html>

Number of children in Australia participating in cycling by time spent on their bicycle



Source: Australian Bureau of Statistics, *Children's Participation in Cultural and Leisure Activities, Australia, Apr 2009*

There appears to be little data available about the number or trends associated with children riding their bicycles to school. The NSW Planning Guidelines for Walking and Cycling (2004): reported that in Sydney, in the 20 years 1981 to 2001: total trips involving children being driven to school increased by 117%. As the population grew by just 21% in the time and total car trips increased 41% there is an indication that we are seeing a significant change on behaviour in terms of transport choice to school.

United Kingdom: Keeping Kids Safe



Every local authority in the UK has a government appointed school travel advisor. Advisors help each school develop a travel plan. The plans looking at how the students, staff and regular visitors get to the school and examine ways of cutting car use including encouraging people to walk, cycle and use public transport to get to school.



The percentage of women who ride a bicycle is a good indication of how safe people feel the road system is for bicycle riders. In Sydney women make up 17 per cent of bicycle commuters. Photo: Bob Moore.

Access to accurate data is important for future planning and development

Tracking the use of formal and informal bicycle networks helps government and the community make better decisions about the type and placement of infrastructure.

Some informal routes are very heavily used by people on bicycles. The routes may not be on the official map but they are well known and well used by people for utility trips including commuting to work, shopping and visiting friends.

The Super Tuesday Bicycle Count is undertaken in Sydney once a year. By undertaking the count just one day each year the data collection can be heavily skewed by the weather on the day. The counts are done by volunteers and in 2010 were undertaken in Leichhardt, North Sydney, Parramatta, Randwick, Willoughby, Warringah, Waverley and Woollahra Local Government Areas. Raw morning data is made available to the public but full reports are made to the local council.

The Cycling Data and Indicator Guidelines produced by the Australian Bicycle Council with funding from the Commonwealth Department of Health and Aged Care in November 2000 nominate a set of fundamental data, external rates and indicators to be collected and reported by each state and territory. It is proposed that the fundamental data and indicators be reported on a regular basis. The report will provide a picture of the 'State of Cycling' in each state and territory, and will over time identify trends in the cycling usage, safety, infrastructure, ownership and cyclist demographics.

The Sydney Household Travel Survey (HTS) collects travel data annually for approximately 3,500 households in the Sydney Greater Metropolitan Region. The survey is conducted by the Transport Data Centre, which is an agency of the NSW State Government. Data is reported on by financial year. Information is collected on the mode of travel used, the purpose of each trip, location of origin and destination, and time of departure and arrival. Detailed socio-demographic information is collected on the household, such as dwelling type and household structure, as well as the age, gender, employment status, occupation and income of each member of the household. Details of all vehicles used by the household are also collected. The Australian Bicycle Council recommends the Sydney HTS as the data source for

Sydney data on cyclists and cycling trips. Unfortunately the survey reports often include reports of bicycle travel in an 'other' category' and the survey sample size is insufficient to be statistically reliable for cycling data.

The fact sheet "Cycling in Sydney" (2008 Release) by the RTA reports on 2005 HTS data and is now sadly outdated. The fact sheet provides information about the use of bicycles in Sydney including: frequency of use; purpose of trip; duration of trip; age and gender of users; labour force status of users; personal income; household type dwelling type; drivers licence holding; number of bicycles per household; geographic distribution of ownership and use. There does not seem to be a more recent similar publication available.

In these times when transport use is rapidly changing, census data is quickly outdated. Ideally cycling data would be collected and reported annually. This will allow information to be presented as soon as possible after it has been collected and provide valuable input to the development of cycling policy and strategy.

Recommendations

BIKESydney recommends that the:

- 1.1 RTA and local councils install automatic counters on all official and a sample of unofficial bike routes to continuously count usage. Make the reports public on an annual basis as part of a 'State of Cycling' report.
- 1.2 Department of Transport increase the sample size for the Sydney Household Travel Survey.
- 1.3 Department of Transport collects and publicly releases statistics showing the number of children riding to school on an annual basis. This data should be available on a NSW basis and be available by postcode.
- 1.4 NSW Government undertakes a qualitative survey which examines barriers to cycling for children and their parents should be undertaken with the data publicly released.
- 1.5 Department of Transport produces an annual Fact Sheet 'Cycling in Sydney'. This report should include Sydney specific data that shows:
 - urban bicycle network coverage and continuity
 - cycling mode share
 - frequency of use
 - purpose of trip
 - duration of trip
 - proportion of population cycling
 - age and gender of users
 - labour force status and personal income of users
 - household type dwelling type
 - drivers licence holding
 - number of bicycles per household
 - geographic distribution of ownership and use
 - injury rates – hospital reported – by age and gender and by severity
 - crash rates – police reported – by age and gender by location.
- 1.6 NSW Government continues to support the NSW Bike Plan's target of 5% of local and district trips by bicycle by 2016. A further target of 10% of trips should be set for 2020. Progress towards the targets set by the NSW Bike Plan to increase cycling should be publicly reported on an annual basis.
- 1.7 NSW Government develop programs to work with schools to encourage cycling to school through education of drivers and children, securing access for bicycles, building of safe infrastructure within a two kilometre radius of the school and social organisation of bike buses (see page 38 for information and page 39 for recommendations about Bike Buses).

2. Short and long term trends in bicycle injuries and fatalities across a range of settings, including on-road and off-road uses

At a glance...

Fatalities are low but children are over represented

Injury rates are high and are particularly high for children

Slightly more injuries occur on road than off road

Shoulder and upper limb injuries were the most common injury (doorings are the most common cause in inner Sydney)

Most seriously injured bicycle riders are men

There has been a concerning and significant increase in serious injuries to bicycle riders

There is evidence that data collection under-represents bicycle riders

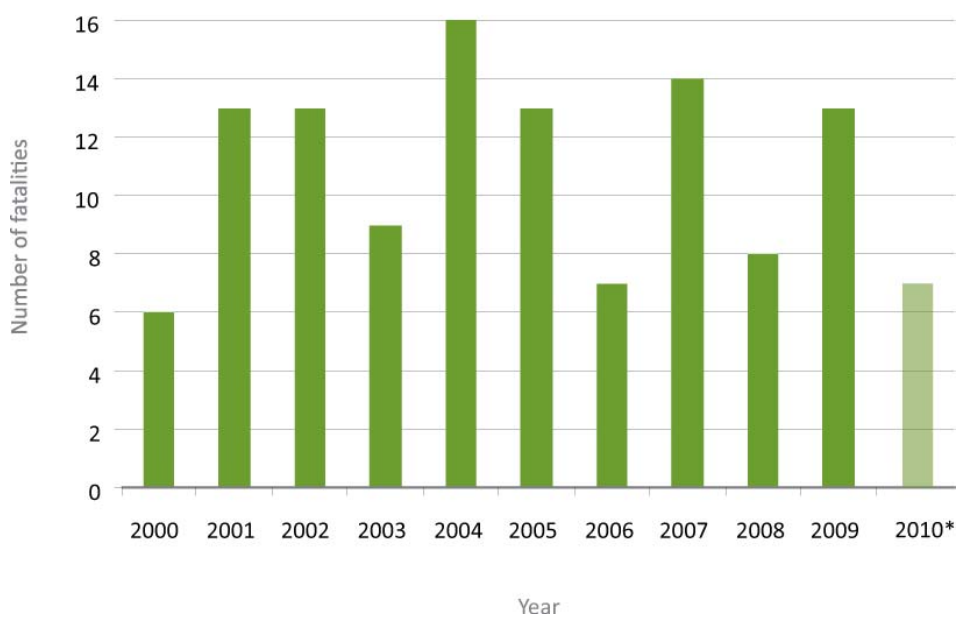
Data collection fails to capture near-misses and conflict, and injury from road rage/assault

Fatalities are low but children are over represented

The rate of road transport related deaths, injuries and accidents in NSW has been declining since the 1970s. Between 2000 and 2007 transport fatalities declined from 9.3 per 100,000 persons to 6.3 per 100,000 (-32%). Injury (-17%) and accident rates (-19%) have also declined.⁷

On average around 11 people are killed riding a bicycle each year in NSW.

Bicycle riders killed in NSW 2000-2010

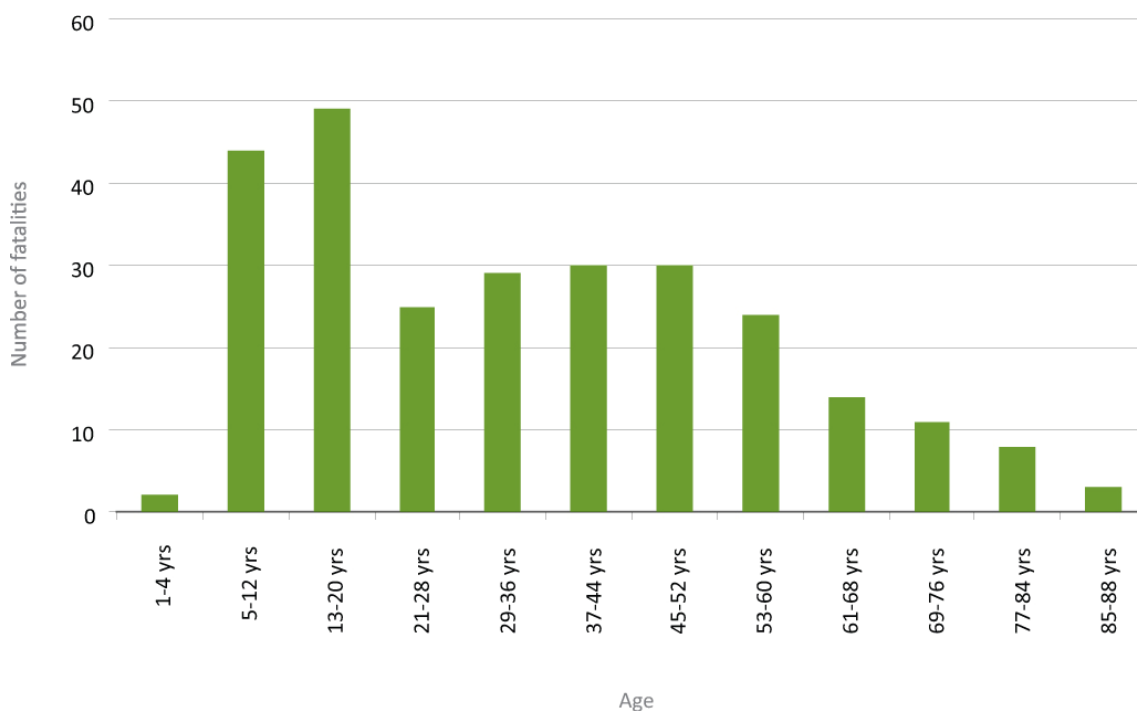


Source: Australian Road Deaths Database⁸ Note* 2010 figure is as at 27 July.

⁷ Australian Bureau of Statistics 1338.1 - NSW State and Regional Indicators, March 2010

Riders aged between five and 20 years are over represented indicating that specific programs are required to target younger people.

Bicycle riders killed in NSW 1989-2010*



Source: Australian Road Deaths Database⁹ *Note: As at 27 July 2010

Fatality rates and contributing causes to accidents varied considerably between regions during 2007. Sydney had the lowest fatality rate of the regions at 3.2 per 100,000 persons. The contributing causes of speed, alcohol and fatigue to accidents were lower in Sydney than the rest of the state.¹⁰

⁸ Australian Road Deaths Database
http://www.infrastructure.gov.au/roads/safety/road_fatality_statistics/fatal_road_crash_database.aspx
 Date of access 27 July 2010.

⁹ ibid

¹⁰ Australian Bureau of Statistics 1338.1 - NSW State and Regional Indicators, March 2010

Injuries to bicycle riders

Serious injury to Australian bicycle riders 2006-07

The Australian Institute of Health and Welfare reports on serious injury due to land transport accidents¹¹. In its 2006-07 report it stated that during 2006–07 there was an estimated 53,553 serious injury cases due to some form of transport accident in Australia. Almost two-thirds of those seriously injured in a land transport accident were injured in traffic conditions (ie on public roads). The report also states that:

- Just under one third (32.2%) or 269 of the seriously injured children aged 0–4 years were pedal cyclists. It seems that only one of these cases involved a collision with a motor vehicle.
- 39% or 1,077 of the seriously injured children aged 5–17 years were pedal cyclists. Of these, 242 (22.5%) were involved in a collision with a motor vehicle.
- 11.5% or 2,558 of the seriously injured adults aged 18 years and older were pedal cyclists. Of these, 853 (33.3%) were involved in a collision with a motor. Non-collision transport accidents accounted 1,140 (44.6%) pedal cyclists.
- The rates of serious injury for pedal cyclists peaked at ages 10–14 years (males: 111 and females: 22 per 100,000)
- 28.2% of serious injury cases due to road vehicle traffic crashes presented a high threat to life. Pedestrians (39.8%) were more likely to sustain a high threat to life injury than any other road user group, while pedal cyclists (18.1%) were least likely to sustain a high threat to life injury.
- Pedal cyclists in Victoria and the Australian Capital Territory had population-based serious injury rates that were significantly above the national rate. Serious injury rates for pedal cyclists were significantly below the national rate in New South Wales, Western Australia and South Australia.
- Shoulder and upper limb injuries were the most common among pedal cyclists (43%) with head injuries being the second most frequent (24%).
- The mean length of stay in hospital was 2.9 days for pedal cyclists and mean length of stay generally increased with age.

Wal's story

About five weeks ago I was lucky not to be killed when knocked off my bike by a car that went through a 'give way' sign. I have been cycling for nearly 60 years, despite all this experience, there was nothing I could do to avoid the collision. However on a positive note, my rehab is going well!

¹¹ AIHW: Henley G and Harrison JE 2009. Serious injury due to land transport accidents, Australia 2006–07. Injury research and statistics series no. 53. Cat. no. INJCAT 129. Canberra: AIHW.

Serious injuries to Australian bicycle riders by mechanism of injury 2006-07

Mechanism	Number of traffic (on-road) serious injuries	Number of non-traffic (off-road) serious injuries
Car, pick up truck or van	1064	32
2-3 wheeled motor vehicle	9	5
Bicycle	132	87
Pedestrian or animal	27	20
Heavy transport vehicle or bus	48	0
Train	0	0
Other non-motor vehicle	0	9
Stationary object	199	271
Non-collision accident	1605	3177
Unspecified	1700	579
Total	4,789	4,180

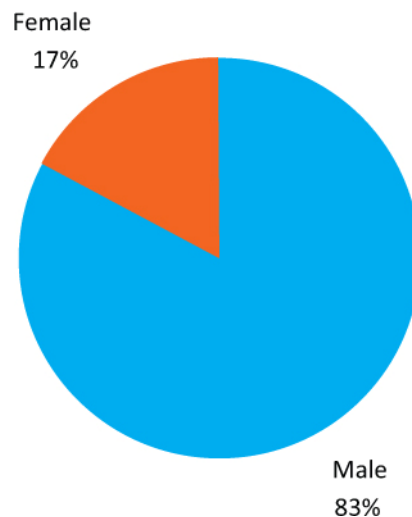
Source: *Serious injury due to land transport accidents, Australia 2006-07*¹²

Injuries to NSW bicycle riders 2006-07

There were 2,809 seriously injured bicycle riders in NSW in 2006-07, just over 30% of all seriously injured road users in the state in that time.

In NSW 1,428 bicycle riders were seriously injured by road vehicle traffic crashes in 2006-07. Bicycle riders made up almost 14% of all NSW road users seriously injured by road vehicle traffic crashes.

Seriously injured bicycle riders in NSW due to road vehicle traffic crashes 2006-07



Source: *Serious injury due to land transport accidents, Australia 2006-07*

¹² AIHW: Henley G and Harrison JE 2009. Serious injury due to land transport accidents, Australia 2006-07. Injury research and statistics series no. 53. Cat. no. INJCAT 129. Canberra: AIHW.

Comparison serious injury to bicyclists 2000-01 and 2006-7

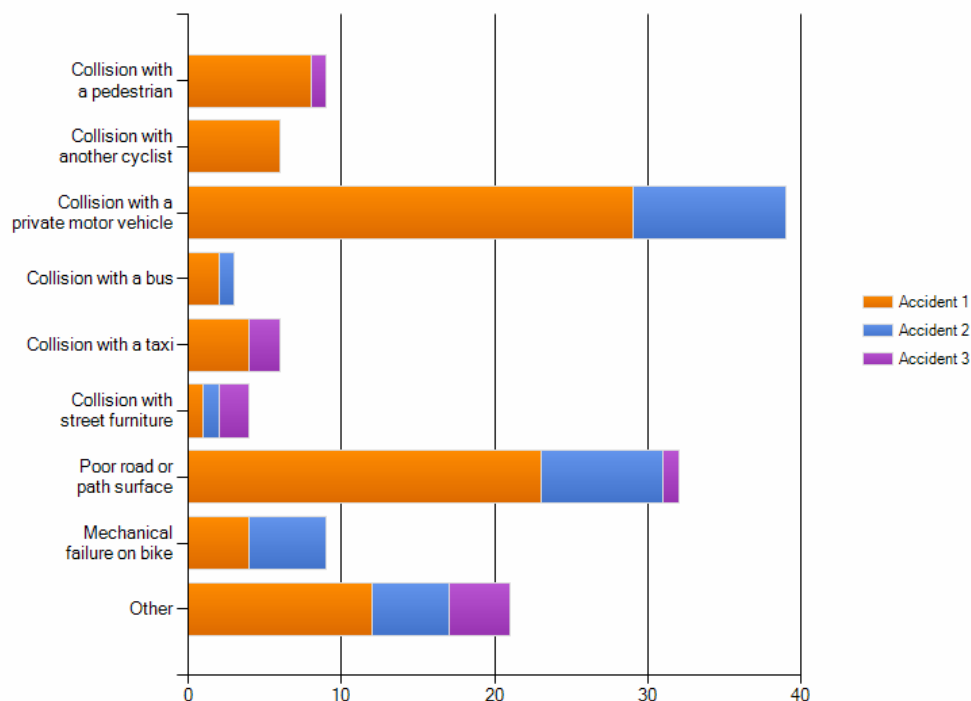
The Australian Institute of Health and Welfare report¹³ also compares rates of serious injury over time. For the period from 2000-01 to 2006-07, there was an increase of 47% in age-standardised rates of serious injury for motorcyclists and an increase of 47% in rates for pedal cyclists. All other modes of transport recorded only relatively small changes in rates over this period. A similar pattern was seen for those seriously injured with high threat to life injuries. The report found:

- There was a 49% increase in the rate of serious injury among male pedal cyclists from 25.3 per 100,000 in 2000–01 to 37.5 per 100,000 in 2006–07. For females there was a 42% increase in the rate of serious injury from 6.3 per 100,000 in 2000–01 to 8.9 per 100,000 in 2006–07.
- The age-standardised rate of serious injury with a high threat to life among pedal cyclists increased by 39% over the five-year period from 3.0 per 100,000 in 2002–03 to 4.1 per 100,000 in 2006–07. The increase was mainly attributable to male pedal cyclists; the male rate of serious injury increased by 39% from 5.1 per 100,000 in 2002–03 to 7.1 per 100,000 in 2006–07. Although there was a similar increase in the female rate (40%) over the five-year period, this rate remained low at only 1.2 per 100,000.

Injuries to Sydney riders 2009-10

More than a third (34%) of respondents in BIKESydney’s Safety Survey 2010 (see Appendix 2) had had an accident in the past 12 months. 85% of respondents reported suffering an injury from the accident/s. Most injuries were bruises, scratches and lacerations. Fourteen people reported that they had visited a hospital (half of them were taken there in an ambulance).

Cause of accidents to bicycle riders in Sydney



Source: BIKESydney Safety Survey 2010

¹³ AIHW: Henley G and Harrison JE 2009. Serious injury due to land transport accidents, Australia 2006–07. Injury research and statistics series no. 53. Cat. no. INJCAT 129. Canberra: AIHW.

Reporting assaults

The Australian Institute of Health and Welfare reports on serious injury due to land transport accidents. Serious injury is defined as an injury which results in the person being admitted to hospital, and subsequently discharged alive either on the same day or after one or more nights stay in a hospital bed (i.e. deaths in hospital are excluded). The definition of transport injury used includes only unintentional injuries. Hence, cases given an external cause of assault are excluded.

This approach means that injuries caused by road rage are potentially not recorded in the statistics. Road rage and assaults are very real threats for bicyclists and the incident of injury caused by assault needs to be addressed as a road safety issue. Since people who ride bicycles are vulnerable road users, we can become easy targets and intolerance can put us at risk of violence. Many people who ride bicycles regularly experience violence either in the form of verbal abuse or from drivers using their cars in an attempt to intimidate, threaten or injure them¹⁴. Without statistical collection of incidents it is difficult to judge the extent of this problem or trends associated with it.

Underreporting of bicycle injuries

A 2003 review¹⁵ of the sources of data about bicycle injuries found that hospital data report twice as many pedal cycle injuries compared with RTA data. The issue of under-reporting bicyclist injuries is real and acknowledged by the RTA.

The review recommended that there should be more transparency around the analysis of RTA data and of data collections held by similar authorities in other states, and it would be desirable to see a consistent national data system established so comparisons between states could readily be made. In NSW there clearly needs to be a greater allocation of resources to reduce bicycle injuries, and review of black-spot funding programs to take into account risks to pedal cycles. It may be worth using hospital statistics for reporting injury rates for pedal cycles (despite its limitations), rather than relying on police data, which may be incomplete.

A 2008 report¹⁶ by NSW Injury Risk Management Research Centre University of New South Wales described the process of linking hospital and traffic crashes datasets to provide a more comprehensive picture on traffic injuries in NSW.

In New South Wales, the Roads and Traffic Authority (RTA) Traffic Accident Data System (TADS) and the New South Wales (NSW) Inpatients Statistics Collection (ISC) are the two major sources of information on motor vehicle crashes. While the TADS is rich in information about the circumstances of traffic crashes it contains very little information about injury outcomes. The opposite is true for the ISC, which contains detailed information on injury outcomes but limited information on the circumstances of injury.

A linkage of NSW hospitalisations and police crash records was undertaken in order to minimise the limitations of both datasets and to provide a more complete picture of the circumstances leading to, as well as the nature of, motor vehicle (including pedal cycle) injuries.

Using probabilistic record linkage techniques, hospitalised land transport crash cases were linked to records of casualties resulting from traffic crashes reported in TADS between 1 July 2000 to 30 June 2001.

¹⁴ Komanoff, C 1999. Killed by Automobile: Death in New York City 1994-1997, August 1999. Rights of Way: New York City. Garrard, J. 2004 'Submission: Inquiry into Violence Associated with Motor Vehicle Use', Parliament of Victoria: Drugs and Crime Prevention Committee.

¹⁵ Voukelatos, Rissel, Campbell; Pedal cycle injuries in NSW: A comparison of data sources, Road and Transport Research, Dec 2003

¹⁶ Boufous, Finch, Hayen, Williamson, Data Linkage of Hospital and Police Crash Datasets in NSW, NSW Injury Risk Management Research Centre University of New South Wales, July 2008

Because it is mandatory to report a traffic crash to the police when a person has been injured in a crash, all cases admitted to hospital should be reported to the police and be classified within police road traffic crash reports as a casualty and should therefore link to a TADS record. However, previous data linkage studies have indicated that this is not necessarily the case with only between 20% and 80% of hospitalised cases for traffic accidents are matched to road crash data.

The study found that pedal cyclists in particular had lower levels of linkage than other types of road users. The study examined NSW data from 2001 and found that of 545 pedal cyclists admitted to hospital, only 45% linked to a TADS record.

The outcome of the record linkages of hospital records and police casualty records suggest that researchers and policy makers should be cautious when examining traffic crashes based on separate analysis of police crash records and hospital separations as they are individually limited in terms of the scope and quality of the information they contain. For example, using police records alone to examine crashes involving cyclists would miss the majority of them and any investigation would need to be complemented by examining hospitalisation data. On the other hand hospitalisation data does not provide information about the circumstance and characteristic of crashes and need to be used in combination with police data to understand risk factors and outcomes.

Reporting near misses and identifying conflict

Most safety systems recognise the importance of recording and acting on near misses. Near miss statistics would provide vital information about potential risks due to road use behaviour and infrastructure design and maintenance. This type of data would allow authorities to strategically develop safety information campaigns targeting behaviour in particular locations. For example urban drivers might be targeted with messages about door opening behaviour while rural drivers might be targeted with message about speed.

Conflict is normally defined as an interaction between a bicycle rider and another road user such that at least one of the parties has to change speed or direction to avoid a collision. Types of conflict examined in bicycling safety studies in North America include avoidance manoeuvres at intersections, bicycle-motor vehicle interactions during passing events on roads, lanes, or paths, and "wrong side passing events" on multi-use paths. Conflict studies can offer valuable insights into how cyclists and other road users behave during their interactions on various types of infrastructure.¹⁷

An online system of reporting near misses and conflict points would enable authorities such as local councils and the RTA identify and fix potentially risky infrastructure.

¹⁷ Reynolds, Harris, Teschke, Cipton and Winters: The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature, *Environmental Health* 2009

Recommendations

BIKESydney recommends that the:

- 2.1 NSW Government adopts and promotes a target that seeks in the long term to eliminate death and serious injury of bicyclists using the road transport system. Adopting this goal will alter the community's perception of the dangers of bicycle use, alter institutional and societal responsibilities and accountability, and change the way in which road safety interventions are shaped.
- 2.2 NSW Department of Transport report annually on a range of data relating to bicyclists including information relating to crashes, fatalities, injuries, hospitalisation, usage.
- 2.3 NSW Department of Transport work with the Australian Institute of Health and Welfare to ensure injuries to road users from road rage assaults is captured and reported.
- 2.4 RTA develop a state-wide online system of reporting near misses, conflict points and road rage incidents to enable authorities to identify and fix potentially risky infrastructure.
- 2.5 NSW Government work with other State and territories to establish uniform collection of data that increases information about bicycle use and accidents.
- 2.6 Blackspot program include data about cyclists experiences from police records of assault on cyclists and injuries and hospital data on injuries in the short term.
- 2.7 NSW Government in the medium to long term, ensure that police records record 100 percent of injuries to cyclists, including those caused by assault.

3. Underlying factors in bicycle risk, injuries and fatalities

At a glance...

- Why there's safety in numbers
- The importance of infrastructure design and maintenance
- Sharing infrastructure with other vulnerable users
- Crashes with other vehicles
- The role of speed
- Driver distraction
- I didn't see you....
- Safe passing
- Knowledge of the road rules
- Police inaction
- Courts inconsistency

Safety in numbers

There is good evidence to support the idea that cycling gets safer the more people do it.¹⁸ Studies in many countries have shown consistently that the number of motorists colliding with walkers or cyclists doesn't increase equally with the number of people walking or bicycling. For example, a community that doubles its cycling numbers can expect a one-third drop in the per-cyclist frequency of a crash with a motor vehicle.

The emphasis must now be on tackling the fears that prevent people from cycling more or not cycling at all. This can be done by: improving driver behaviour, creating more welcoming and cycle-friendly streets and giving people the confidence to cycle more. This will be good not only for our health, but also for streets, communities and the environment.

There are plenty of examples to show that steep increases in cycling can go with reductions in cycle casualties. For example:

- London has seen a 91% increase in cycling since 2000 and a 33% fall in cycle casualties since 1994-98. This means that cycling in the city is 2.9 times safer than it was previously.¹⁹
- York, comparing 1991/3 and 1996/8: mode share for cycling rose from 15% to 18%, cyclist killed and serious injuries (KSI) fell 59% (from 38 to 15).²⁰
- The Netherlands has witnessed a 45% increase in cycling from 1980-2005 and a 58% decrease in cyclist fatalities.²¹

¹⁸ Jacobsen P. *Safety in numbers: more walkers and bicyclists, safer walking and bicycling*. Injury Prevention vol. 9 pp 205-209, 2003 (see <http://ip.bmjournals.com/cgi/reprint/9/3/205>).

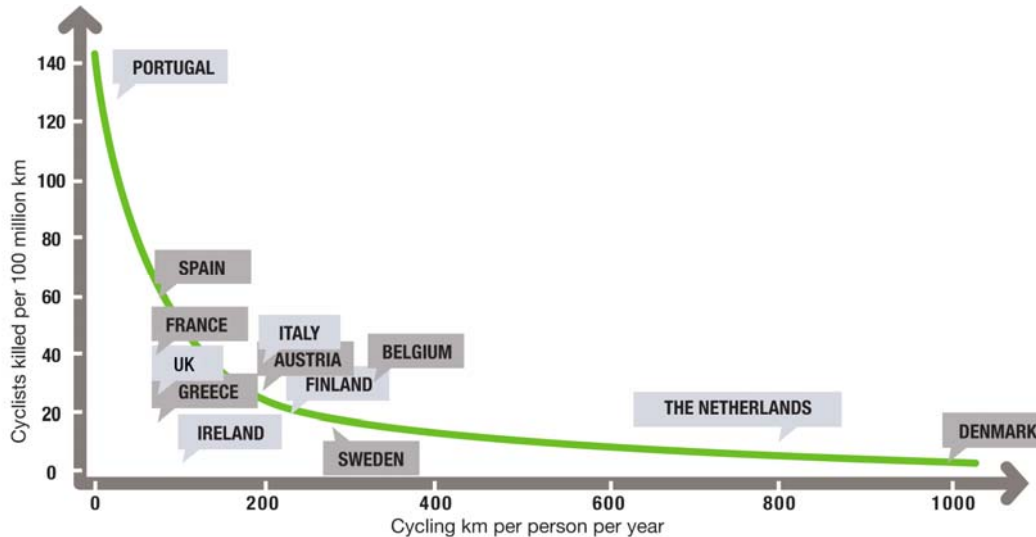
¹⁹ Transport for London press release. 16/6/08.

²⁰ Harrison J. *Planning for more cycling: The York experience bucks the trend*, in World Transport Policy & Practice, Volume 7, (4), 2001

²¹ Ministerie van Verkeer en Waterstaat. *Cycling in the Netherlands*.2007

- Copenhagen, 1995-2006: 44% increase in cycling, 60% decrease in KSIs, with cycle to work modal share rising from 31% to 36%.²²

Countries in Europe with high levels of cycle use tend to be less risky for bicycle riders. In Denmark, people cycle over 900 kilometres a year and it is a far safer country to cycle in than Portugal, where barely 30 km is covered by each person by bike annually. See graph below.



Source: *Safety in Numbers*, CTC²³

The correlation between cyclists' safety and bicycle use - the 'safety in numbers' effect – may exist for a variety of reasons:

- Drivers grow more aware of people on bicycles and become better at anticipating their behaviour.
- Drivers are also more likely to ride bicycles themselves, which means that they are more likely to understand how their driving may affect other road users.
- More people cycling leads to greater political will to improve conditions for cyclists.

Increasing bicycle use is good for the safety of other road users too. The Australian National Road Safety Action Plan 2001-2002²⁴ identified the benefit of encouraging cycling and walking as a strategy to reducing car crashes. For every kilometre travelled, fewer injuries involve cyclists than motor vehicles. Every cycle trip that is a switch from car use means fewer injuries and deaths to others.

Infrastructure design and maintenance

A 2009 study examined the impact of transport infrastructure on bicyclist safety in North America. The evidence from the 23 papers reviewed (eight that examined intersections and 15 that examined straightaways) suggests that infrastructure influences injury and crash risk.²⁵

Intersection studies focused mainly on roundabouts. They found that multi-lane roundabouts can significantly increase risk to bicyclists unless a separated cycle track is included in the design.

²² City of Copenhagen, *City of Cyclists: Bicycle Account*. 2006

http://www.vejpark2.kk.dk/publikationer/pdf/464_Cykelregnskab_UK.%202006.pdf

²³ http://www.ctc.org.uk/resources/Campaigns/CTC_Safety_in_Numbers.pdf

²⁴ Australian National Road Safety Action Plan 2001-2002, Australian Transport Council

²⁵ Reynolds, Harris, Teschke, Cripton and Winters: The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature, *Environmental Health* 2009

In Sydney, the treatment of intersections on cycle specific infrastructure is frequently poor or non-existent. This seems to be largely the result of the RTA refusing to recognise bicycle riders as legitimate road users and continually giving preferential treatment to motor vehicles. The western end of the separated contraflow lane on Wilson Street Newtown and the southern end of the contraflow lane on Mary Street Newtown are examples of cycle-specific infrastructure ending without lights to help cyclists safely navigate intersections. Long delays while local councils negotiate with the RTA means cyclists are sometimes left to negotiate dangerous intersections for years.

The light phasing on the King Street cycleway in the CBD is governed by the RTA. The sequencing is designed to favour motorised traffic and severely disadvantages bicycle riders in comparison to other traffic. Bicycle riders are left waiting for long period of time at red lights, often while there is no other traffic on the road. Nearly all bike riders either avoid using the separated lane or break the law by crossing through the intersection on a red light.



Bicycle rider chooses the road rather than King Street cycleway in the CBD due to light sequences that discriminate against riders. Photo: Jon Reid Sydney Morning Herald 26 June 2009

The North American studies of straightaways suggest that footpaths and multi-use trails pose the highest risk, major roads are more hazardous than minor roads, and the presence of bicycle facilities (on-road bike routes, on-road marked bike lanes, and off-road bike paths) was associated with the lowest risk.²⁶ The evidence suggests that purpose-built bicycle-only facilities (e.g. bike routes, bike lanes, bike paths, cycle tracks at roundabouts) reduce the risk of crashes and injuries compared to cycling on-road with

²⁶ Reynolds, Harris, Teschke, Cripton and Winters: The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature, *Environmental Health* 2009

traffic or off-road with pedestrians. In fact, the studies found evidence that on-road bike lanes reduced crash frequency, crash rates, and injury rates by around 50%.

Respondents to the BIKESydney Safety Survey (see Appendix 2) also reported feeling more comfortable travelling on cycle specific infrastructure. Most respondents (87%) reported that they felt anxious on a cycling on a road where there were no bicycle markings or lanes.



Cycleways that are separated from motorised traffic, such as this one on Bowden Street in Alexandria, makes many bicycle riders feel safer. Photo: City of Sydney

Street lighting, paved surfaces, and low-angled grades are additional factors that appear to improve cyclist safety. The major advantage of infrastructure modifications, compared to helmet use, is that they provide population-wide prevention of injury events without requiring action by the users or repeated reinforcement. Given the influence of safety on individuals' decisions to cycle, the importance of cycling modal share to safety, and the ancillary benefits of this active and sustainable mode of transportation, infrastructure enhancements have the opportunity to promote an array of improvements to public health.²⁷

In Australia we need more research on the relative merits of different types of infrastructure, using appropriate information about *exposure to risk*.²⁸

Infrastructure design which is inherently unsafe and widespread in Sydney are bicycle lanes and bicycle symbols painted in car door zones. Nearly 70% of respondents to the BIKESydney Safety Survey 2010 (see Appendix 2) had experienced car doors opening into their line or path of travel. Dooring (the opening of a vehicle door impacting with a bicycle rider) is the most common cause of cyclist injury in the CBD (40.7%

²⁷ Reynolds, Harris, Teschke, Cripton and Winters: The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature, *Environmental Health* 2009

²⁸ Hatfield J, What does the research say about a "safe cycling system"? NSW Injury Risk Management Research Centre, University of NSW, 2010 (Presentation to BIKESydneyBrainsTrust)

of injuries) and the rest of Sydney City (17.6%)²⁹. Bicycle riders can be seriously injured by the impact of a car door and the impact can throw them into moving traffic with fatal consequences.

The RTA website says that when a bicycle lane is marked on the road, cyclists must use it.³⁰ Drivers and bicycle riders alike misinterpret this directive as a requirement for bicycle riders to stay within the bounds of all marked lines and logos on the road. This widespread misunderstanding creates danger for bicycle riders who ride too close to parked cars and risk being doored, and creates anger and hostility amongst motorists who believe bicycle riders riding in the centre of the lane are selfish or breaking the law.

Terry's story

Recently, riding along King Street, Newtown, quite slowly, a driver opens his door without looking, nearly causing me to collide with the door. It was simply frightening and annoying, particularly because the driver abused me for riding too close to the car. My choice is to ride quite close to the left or in traffic, the outcome was two annoyed people. This incident has made me physically nervous. Drivers should look and I'd like to be treated with more respect.

Bicycle logos painted on roads should always be placed in the centre of the lane and never be placed to the left of the lane in the car door zone. All road users need to be educated about the need for bicycle riders to ride in the centre of the lane. Claiming the centre of the lane keeps bicycle riders clear of opening doors and makes them more visible to drivers at side streets.



*Morning commuters on Lilyfield Road, Leichhardt, staying safe outside the door zone.
Photo: Robert Moore*

²⁹ <http://www.sydneycyclist.com/forum/topics/feedback-to-the-city-of-sydney>

³⁰ <http://www.rta.nsw.gov.au/roadsafety/bicycles/cyclingrules.html>

The network of bicycle routes across Sydney is disconnected. This is a particular issue at council boundaries. As a result bicycle riders can find themselves cycling along a safe separated cycle-lane on one part of a busy road and then be required to walk their bicycle across an intersection and then join the traffic along the next part of the road. There is rarely signage to help direct bicycle riders to quieter residential streets or help them connect with other, sometimes nearby, official bicycle routes.



This signage at Henley Marine Drive, Drummoyne directs bicycle riders to cross the road to avoid the end of cycle path ahead. A ramp is hidden behind the power pole. There is no signage to direct bicycle riders whether they should continue along the main road or take a side street. At the end of the cycle path, bicycle riders are directed to make a u-turn. This is a popular recreational route and provides access to Birkenhead Shopping Centre. Photos: Robert Moore

Many people new to bike riding, and so less confident on the roads, do not know how to find a low traffic route to their destination. It is hard for any bicycle rider to know where to go if they are unfamiliar with an area. Many bicycle riders choose to ride on high trafficked roads with high speed limits simply because they cannot work out a better way to go. Extensive signposting is required on existing routes and all new projects should be signposted as a matter of course. The promotion of bicycle routes with maps and publicity will also help people identify safe routes.

General road and pathway conditions also cause safety concerns for people on bicycles. More than 60% of respondents to the BIKESydney Safety Survey 2010 (see Appendix 2) reported encountering dangerous potholes and nearly half encountered debris on the road or path. Glass is a particular issue for bicycle riders as it can damage bicycle tires and injure riders.

Stormwater and drainage grates create a particular hazard for bicycle riders. Many older grates have holes or gaps that allow a bicycle wheel to slip through and become stuck in the grate, throwing the rider off the bike. This can have fatal consequences if the rider is thrown or rolls into moving traffic.



*Drainage grate in Balmain show the hazards associated with this type of infrastructure.
Photo: Robert Moore Photo: Robert Moore*

Potholes, ruts and uneven surfaces and sharp or high lips on ramps are often unnoticed in motorised traffic but can be dangerous for bicycle traffic. Maintenance authorities often do not recognise the danger to bicycle riders of these types of maintenance issues and requests for attention can go ignored for months, sometimes years.



This sunken access plate and uneven surface on a bicycle lane in Balmain can be hazardous to bicycle riders and are difficult to see at night. Photo: Robert Moore

A public online reporting system that captures near miss and conflict points could also be used to report non-urgent maintenance requests. A central system that allows all road users to report issues in one place without having to know the correct agency to report the issue to would benefit the whole community.

Responsibility for maintenance of paths in Sydney can be very complex with several agencies involved, if by a river or railway line, State Rail, Sydney Water, the local council or energy authority could all be involved. These agencies need to allocate funds in their budgets for maintenance and a section that can take reports and responsibility for ensuring the work is carried out.

Ian's story

I was on my cycle ride before starting work on a good wide cycle path. I approached a curved corner that had railings forming a barrier on one side, before it straightened and entered onto a wooden planked bridge. The railings of the bridge were not aligned to the curve of the bridge; they came out at an angle, rather than following the curve of the corner. I struck my shoulder on the edge as I came around the corner and came off my bike suffering a serious injury. My injuries included severe bruising, deep cuts requiring stitches, mild concussion, as well as damage to the bike. I was taken away in an ambulance; this emergency response should lead to a report to authorities to fix the problem. There was no clear way of reporting the problem.

Sharing infrastructure with other vulnerable users

More than 60% of respondents to the BIKESydney Safety Survey 2010 (see Appendix 2) had experienced pedestrians unexpectedly moving into their path of travel.

Shared paths, those paths that cater for pedestrians and bicycle riders are regularly areas of conflict and potential injury. The key issues that may lead to conflict between pedestrians and bicycle riders fall into three broad categories: path user behaviour, path design and path maintenance.



Bicycle riders have a slalom course of poles to run on this shared path along The Crescent in Annadale. The path is not signposted and the surface is in poor condition. Photo: Robert Moore

Ideally, cyclists should be separated from pedestrians and vehicles. If however, this is not possible early planning to incorporate bicycle riders into shared paths will minimise conflict and potential injury. Community consultation and signage can play an important role in ensuring appropriate behaviour on shared paths by all users.

There needs to be broad community education for all users about the need to keep left on shared paths. Education is also required to normalise ways of alerting pedestrians to the presence of bicycle riders. Pedestrians need to understand that the ring of a bell is meant as a friendly warning to stay or move left. Bicycle riders need to feel comfortable about using their bells and confident that pedestrian understand their meaning and will behave predictably in response. The growing trend of path users to use portable music players and talk on mobile phones can prevent bicycle riders from making themselves heard. Others pedestrians may have a hearing impairment that makes it difficult to hear an approaching bicycle rider even when warning is given. People with a disability, seniors and young children are especially

vulnerable users of shared paths because of their reduced sensory, cognitive and motor capacities. And dogs off leash can behave unpredictably and aggressively. All users need to be considerate of each other.

Bicycle riders need to be educated about the need to give way to pedestrians on shared paths. The use of on path markings has been effective on the Glebe Foreshore shared path.

It is inappropriate for shared paths to be off-leash dog areas. Off-leash areas should be kept away from shared paths to ensure uncontrolled dogs do not come in conflict with bicycle riders. Local councils should patrol these areas.



Uncontrolled dogs on the Glebe Foreshore shared path make it difficult to navigate safely . Photo: Robert Moore.

The provision and maintenance of good lighting on shared paths is critical for the safety of all users. It is often unclear who to report faulty lighting to. For example the lights on the Hawthorn Canal shared path were faulty for many years. Reports to the council were ignored. The path at night was extremely dark and has an uneven surface. Ultimately it turned out that the lights were not maintained by the council. When the faults were reported to the correct agency they were fixed within days. A small sticker or tag on light-poles would allow easy identification and reporting when maintenance is needed. A Sydney-wide online reporting tool that allowed all road and path users to report non-urgent maintenance could also be useful in identifying where maintenance was required to ensure the ongoing safety of users.

Some shared paths simply do not have the capacity to handle the volume of pedestrians and bicycle riders that want to use the path. This is the case with Pyrmont Bridge and the Western Distributor ramp (between Pyrmont Bridge and Sussex/Kent), a shared path that links the CBD with Darling Harbour. The path is used by more than 1,000 bicycle riders during morning peak hours. And it is a popular area for tourists and school groups. When the City of Sydney completes the Union Street Cycleway we predict the issue of conflict on the bridge will escalate as more and more people choose to ride bicycles to work along this popular route. We recommend that the NSW Government fund a pedestrian only bridge across Darling Harbour or provide a raised carriageway across the current bridge to provide a pedestrian only zone.



The sheer volume of pedestrians and bicycle riders on some shared paths is a risk for all users.

Other design deficiencies leading to conflict on shared paths include:

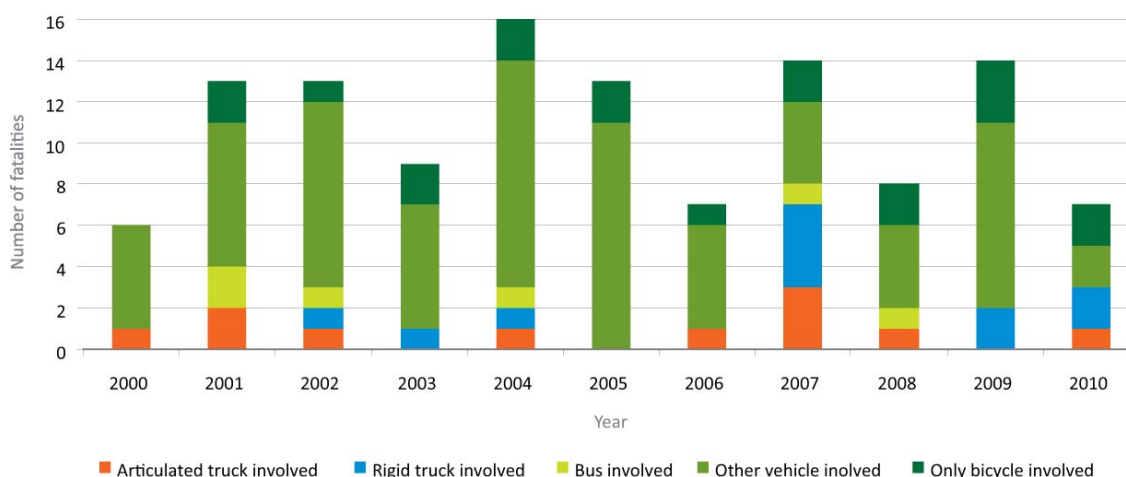
- blind or acute corners and bends
- inappropriate landscaping
- inappropriate path surfaces i.e. concrete joiners, paving slabs, brick paving, severe lips on ramps or changes in surface treatments
- poor visibility and sightlines
- poor layout and installation of bollards or grab rails causing obstruction (such as the two knee high concrete bollards on the shared path on the eastern side of South Dowling Street, Surry Hills)
- the presence of furniture, signs and obstacles on paths
- regular and severe flooding (such as at the Tempe railway underpass on the Cooks River Cycleway)
- lack of detour provisions and signage when paths are closed.

Poor maintenance such as tree roots degrading path surface, corrugations and debris on shared paths also contribute to conflict and create risks of injuries from falls.

Crashes with vehicles

Most fatalities are the result of a crash between a bicycle rider and another vehicle.

NSW Cyclist Fatalities showing involvement different vehicles 2000-2010



Source: Australian Road Deaths Database³¹

Trucks are regularly involved in fatal accidents involving people on bikes. Bicycles are at opposite ends of the spectrum of these vehicles in terms of size, mass and manoeuvrability.

Fatal accidents involving buses are irregular and bicycle riders frequently operate in the same road space as buses. In NSW bicycle riders are legally allowed to share bus lanes but not 'bus only' lanes³². In bus lanes the cyclist presents a small visibility profile. The design of buses may mean that the driver has poor visibility with respect to certain areas surrounding the bus, where a cyclist might be located. Although the increasing use of more upright ('mountain bike') styles of bicycle may have enhanced cyclist visibility, recumbent cycles pose particular visibility problems especially in areas alongside large vehicles with high-mounted mirrors – not just buses.³³

Cath's story

Riding up Enmore road I was in the left lane, a bus overtook me without giving me any berth. I was ridden off the road and had to jump off my bike and drag it up the gutter onto the footpath to avoid being run over or crushed. This scared me so much I now walk instead of cycle. There should be a designated space for bikes so we don't have to compete with cars, trucks and buses. I can understand that a bus would want to overtake because I am slower but it should still be possible to ride a bike.

³¹ Australian Road Deaths Database

http://www.infrastructure.gov.au/roads/safety/road_fatality_statistics/fatal_road_crash_database.aspx
Date of access 27 July 2010.

³² New South Wales *Bicycle Guidelines* (RTA NSW, 2003)

³³ Bus-bike interaction within the road network, Austroads Research Report, 2005

The Austroads Research Report into bus-bike interaction within the road network recognises the importance of bus driver training and cites the “high proportion of angular crashes at non-intersection locations, which indicates that a substantial proportion of angular crashes is related to lateral movement of buses in the roadway. Such crashes are likely to include ones due to impatience (bus overtaking bike when there is inadequate gap in other traffic), vision blind spots (bus driver cannot see bicycle in rear vision mirrors) and misjudgement of cyclist speed (bus driver under-estimates time and distance needed to overtake bicycle).”

The report notes that this may have been exacerbated in recent times, in the case of scheduled public transport services operated under contract to State governments, by financial penalties for late running being incorporated in contracts.



*Bus drivers and bicycle riders need to better understand each other's need and limitations.
Photo: Elaena Gardner*

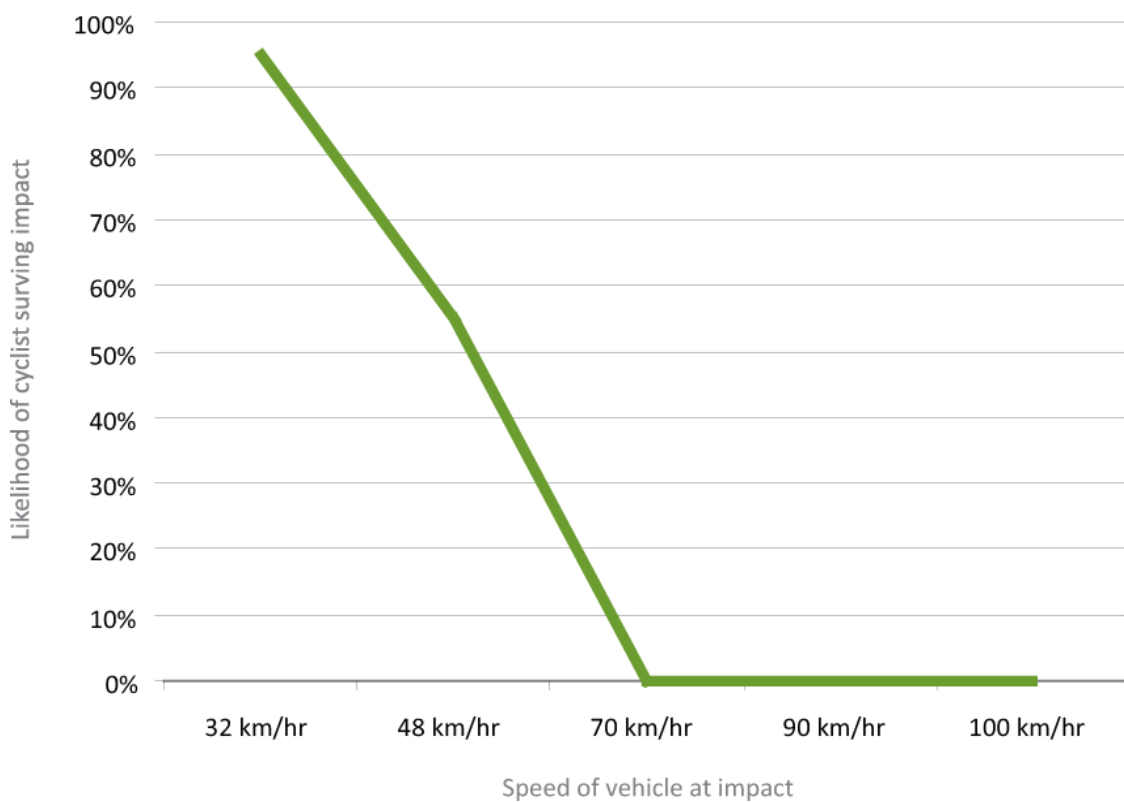
However, bicycle riders behaviour and attitudes can also contribute to problems and bicycle riders need to take responsibility for riding responsibly. In particular, riders need to be more aware of the mode of operation of buses in the roadway, especially limitations on the drivers' ability to see them and the manoeuvrability of buses.

The role of speed

Australia has had one of the highest urban area speed limits of any OECD country.³⁴ Between 1990 and 2007 speed increased as a contributing cause in accidents from 13% to 16%.³⁵ Safer cycling infrastructure is not always visible and not always cycling-specific, speed management is critical.³⁶

The speed at which a bicycle rider is struck is vitally important in determining how seriously they will be injured. Bicycle riders struck at 32 km/h have a 95 percent chance of survival. If they are struck at 48 km/h their survival chance decreases to 55 percent. Finally, once the impact speed reaches 70 km/h, the survival chance is virtually zero. The risk which speed poses to more vulnerable riders, such as the elderly and children, are likely to be even higher due to their natural fragility.³⁷

Likelihood of bicycle rider surviving being struck by a vehicle by speed of impact



Reducing the speed differential between motorists and bicycle riders could improve local cycling conditions without a large investment in cycle-specific infrastructure.³⁸

The Austroads Guide to Traffic Engineering Practice Part 10 says “Local streets should be attractive and feasible for most pedestrian and bicycle movement, and it is not necessary to provide separately for

³⁴ McLean A.J., Anderson R.W.G., Metrication of the urban speed limit and pedestrian fatalities, Centre for Automotive Safety Research, University of Adelaide, November 2008,

³⁵ Australian Bureau of Statistics 1338.1 - NSW State and Regional Indicators, March 2010

³⁶ Hatfield J, What does the research say about a “safe cycling system”? NSW Injury Risk Management Research Centre, University of NSW, 2010 (Presentation to BIKESydneyBrainsTrust)

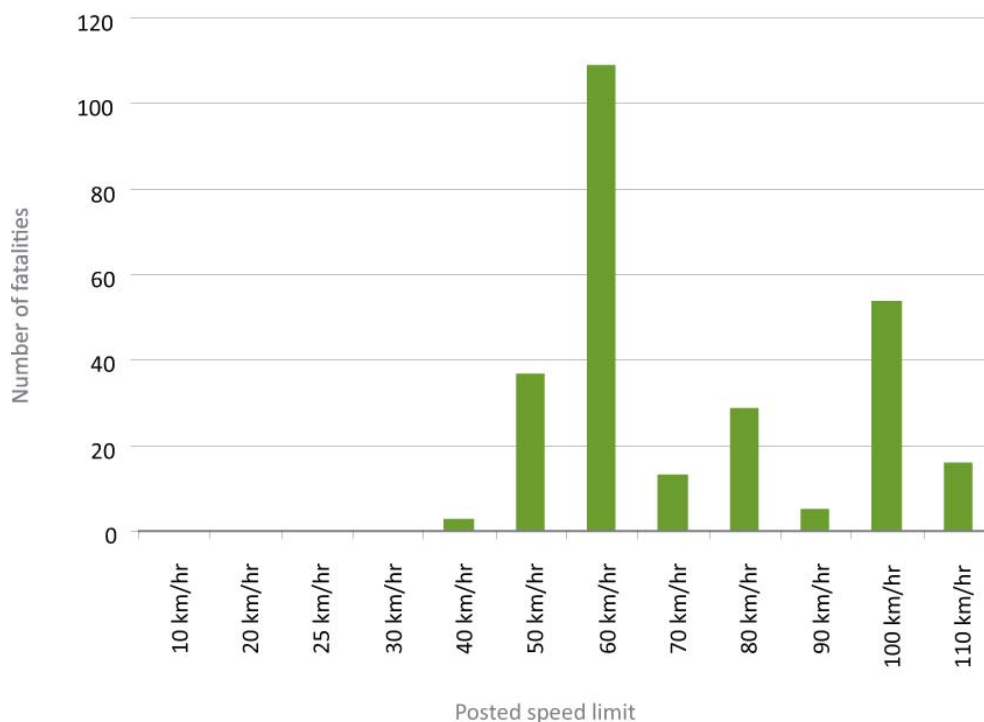
³⁷ Cyclist Crash Facts 2009, Ministry for Transport, New Zealand

³⁸ Daley, Rissel, Lloyd. All dressed up and no-where to go? a qualitative research study of the barriers and enablers to cycling in inner Sydney. *Road and Transport Research* 2007

pedestrians and bicycle riders in local streets to an excessive manner. Conditions in local streets should therefore cater for the expectation that these different road users may need to share the street space.”

The guide also says “Unless speeds are quite low (ie <30 km/h) some form of separation for bicycle riders may be desirable (at least on the designated bicycle network).

NSW Cyclist Fatalities by Posted Speed Limit 1989-2010



Source: Australian Road Deaths Database³⁹

BIKESydney believes that the general urban speed limit of 50 or 60 km/h is no longer acceptable. Nearly all cyclist fatalities in the last 20 years have occurred in areas with speed limits of 50 km/h and above. A 30 km/h limit might be better in terms of road safety, noise and improved quality of urban life. It has been shown that speed reductions can lead to a decrease in both the number of people injured and the severity of injury. A general speed limit of 30 km/h for all but the major roads was introduced in Graz, Austria in 1992. Consequently the number of accidents has fallen by 15%.

At the very least a 40km/h limit should be introduced across all residential streets and shopping strips and throughout the Sydney CBD.

A reduction in car speeds will significantly impact the safety of bicycle riders. In a 30km/h area the difference in speeds between bicycle riders and motorised vehicles would be much reduced. A speed reduction would encourage more people to ride bicycles which would make the road safer for all users.

³⁹ Australian Road Deaths Database
http://www.infrastructure.gov.au/roads/safety/road_fatality_statistics/fatal_road_crash_database.aspx
 Date of access 27 July 2010.

Attitudes to and behaviour around speed

Speed reduction, especially in residential areas, and an adequate enforcement mechanism of lower speed limits are important to bicycle riders. In conjunction with adopting cycling campaigns, changes in urban conditions in order to allow for safe increases in walking and cycling need to be ensured.

Moderation of speeds chosen by drivers and riders is critical in establishing a safer road system. At lower speeds:

- there are fewer crashes because road users (including pedestrians and bicycle riders) have more time for decision making, motorists are less likely to lose control, and vehicles have much shorter stopping distances
- crashes that do occur result in less severe injuries because of the lower impact energies involved.

One in four Australian drivers still believe that “it is okay to exceed the speed limit if you are driving safely”⁴⁰.

The Community Attitudes to Road Safety: 2009 Survey Report⁴¹ found there are significant gender differences in relation to speeding. Males are more likely than females to have been booked for speeding, are less likely to see the connection between increased speed and involvement in an accident, more likely to think speeding is okay if driving safely, and less likely to think the speed limits are generally reasonably set.

A key reason for speed reduction and other measures is to encourage more responsible driving behaviour.

Road user behaviour is elemental to the safety of our road transport system. Safety authorities must therefore continue to adopt measures to reduce the frequency of ‘unsafe’ behaviours – that is, behaviours that involve an unacceptable increase in casualty crash risk. Road users can be motivated to change their behaviour over short time periods by effective deterrent measures such as integrated enforcement and publicity campaigns. However, measures to inform and educate motorists about risk factors, and encourage longer-lasting behaviour modification, are also required.

Camera technology can act as a complementary measure to the physical re-design of road networks in order to support 30 kph zones. It enables better enforcement of vehicle speed limits and the control of red-light jumping at signalled junctions. These camera systems can support the improvement of safety at those locations where cycle routes interact with the control of motorised traffic.⁴²

⁴⁰ Community Attitudes to Road Safety: 2009 Survey Report, Department of Infrastructure, Transport, Regional Development and Local Government, Dec 2009

⁴¹ ibid

⁴² Cycling and Safety, The European Network for Cycling Expertise, <http://www.velo.info>

Driver distraction

Mobile phone usage is a well established risk factor and there are growing concerns about the array of modern in-vehicle systems that can compete for driver attention.

Nine in ten active drivers now have a mobile phone and 61% report that they use a mobile phone while driving. Mobile phone usage by drivers continues to increase year-on-year. In 2009:

- 58% answered calls while driving (56% in 2008, 52% in 2006 and 43% in 2005)
- 34% made calls (32% in 2008, 28% in 2006 and 24% in 2005)
- 30% read text messages (28% in 2008, 21% in 2006 and 16% in 2005), and
- 16% sent text messages (14% in 2008, 13% in 2006 and 8% in 2005).⁴³

This is important because research identified that drivers using a mobile phone exhibited more impairment than when driving with a 0.08 Blood Alcohol Content.⁴⁴

Lack of driver attention at intersections was of particular concern to respondents to the BIKESydney Safety Survey 2010 (see Appendix 2). More than 66% of recipients had felt unsafe at intersections in the past 12 months.

Elaine's story

I find a common risk I am faced with is the inattentive drivers, here are a couple of examples that have happened to me:

- *a motorist did a burnout, off the footpath and into my lane, not once did he signal or look (for cyclists or other cars). When he did see me he brakes and then accelerates trying to bully me out of my lane.*
- *a taxi sped out of a car park, he had his head down, filling out his paperwork.*
- *a bus driver tailgating me, when I looked up, he was reading a book*
- *drivers opening car doors without looking.*

It's difficult not to get angry when I've nearly been killed by someone else's aggression and negligence behind the wheel. Motorists should have understood that they have no right to put someone else's personal safety at risk.

⁴³ Community Attitudes to Road Safety: 2009 Survey Report, Department of Infrastructure, Transport, Regional Development and Local Government, Dec 2009

⁴⁴ Strayer, David; Drews, Frank; Crouch, Dennis (2003). "Fatal Distraction? A Comparison of the Cell-Phone Driver and The Drunk Driver" (PDF). University of Utah Department of Psychology.
<http://www.psych.utah.edu/AppliedCognitionLab/DrivingAssessment2003.pdf>.

I didn't see you...

While bicycle riders can take care to make sure they are visible on the road, frequently drivers simply don't see them. This phenomenon occurs the world over and is also experienced by motorbike riders. Whether this is because motorists have not properly looked, or were looking specifically for cars rather than all possible road users, or were distracted at the time, the issue is often discussed on cycling websites and social media sites. In the UK it has been the topic of a series of TV advertisements. There seems to be little formal research into the problem but it poses an ongoing risk to bicycle riders and should be further investigated.

Mick's story

I was riding down a street with angle parking when a driver pulled a quick left into a vacant angle slot, directly across my path. Braking, I would have had no chance. Instead I steered with the car and slid in beside him, scraping his paintwork but not hurting myself. The driver apologised - he was taking his elderly mother to the nearby hospital and was desperate to find a parking spot. It was a classic SMIDSY - he was looking for parking slots, not bicycles!

Dave's story

On my way home from the City to Manly I had no less than three cars and one bus pull out in front of me at intersections in which I had right of way. Upon reflection I don't think this was arrogance of the drivers' part. They simply didn't see me. I put this down to a two factors, one I wasn't visible enough and it was around 5.30/dusk so my lights were less effective and two, the drivers simply weren't looking out for/expecting a cyclist and were too busy looking for a gap in the traffic (traffic that excludes someone on a bike).

Pending a cyclist aware campaign it has made me realise that I am going to have to increase my visibility considerably so there is no excuse for not seeing me. I curse them when they ride past me on the bridge but now I understand why many riders have blinding, almost car like lights on the bikes.

Misha's story

Driving to pick up my daughter from art class I very nearly t-boned a cyclist. I was driving along a residential street in Stanmore approaching a roundabout. It was dark and I was on the lookout for headlights. In hindsight it would seem the cyclist's headlight did not meet my "lookout for headlights" criteria.

I didn't see the cyclist until I was entering the roundabout and he was approaching from my right. I braked hard and he took evasive action. The good news is that my car only contacted with his rear wheel and he was able to continue riding to the side of the road where he stopped and got off the bike.

I also stopped and lamely and profusely apologised to the cyclist. As I heard myself speak my apologies sounded quite insufficient for what had just happened. The cyclist was calm and, graciously, he said he was fine apart from a good shot of adrenalin. It could have been much worse. He checked the rear wheel of his bike and concluded it was fine also.

I ride a bike regularly and am very aware of the risks for a cyclist mixing it with cars. As a driver I try to be on the lookout for cyclists. But tonight a lapse from me, as a driver, almost ended in disaster for a cyclist. A very sobering experience. This experience has left me questioning my whole driving technique and reviewing my visibility on the bike.

Knowledge of the road rules

Drivers need to be aware that with the privilege of driving on our roads comes a responsibility to fellow road users.⁴⁵

A survey reported⁴⁶ in the 2002 Australian Journal of Primary Health states that poor knowledge of the road rules is considered as one contributing factor to motor vehicle crashes, though it has been infrequently studied. The survey found that a low level of understanding of the road rules were significantly associated with poor attitudes towards cyclists. This has safety implications for cyclists if motorists do not know the rules and are not predisposed to being tolerant of cyclists on the road. The survey also revealed a perception that cyclists do not follow the road rules and were not courteous to motorists. Bicycle riders often break road rules in an attempt to make themselves feel safer. This is particularly the case when adults choose to ride on footpaths that run alongside heavily trafficked roads, roads with high levels of truck movements and roads with higher speed limits. A lack of understanding of bicycle specific road rules, such as making hook turns at intersections, also influences bicycle riders in their decisions to break the rules.

Bernard's story

I occasionally break the rules. For example when I am waiting in the middle of a multi-lane road to turn right, I go through a red light when it is safe, to minimise time I spend waiting in the middle of the road. Occasionally I ride on pavement to avoid very heavy traffic.

There is a need for better understanding by motorist and bicycle riders of the road rules as they relate to different users. All road users should be provided with hard and soft infrastructure that provides safe and comfortable passage.

Safe passing

Most bicycle riders have had the scary experience of having a vehicle pass too close to them. More than 85% of respondents to the BIKESydney Safety Survey 2010 (see Appendix 2) had had a private car pass too close to them in the last 12 months. More than half of the respondents had also experienced buses, trucks and taxis passing too close.

When a vehicle passes too close, a bicycle rider can be thrown off balance and fall. In extreme cases when a large truck speeds too close, the bicycle rider can be picked up by the draft of air behind the vehicle and thrown from their bike.

Gretel's story

I was squeezed at a roundabout and abused as the driver went past. I ignored this, but was very perturbed, I wish there was somewhere I could have reported the incident.

⁴⁵ RTA Website http://www.rta.nsw.gov.au/rulesregulations/brendans_law.html

⁴⁶ Rissel, Campbell, Ashley and Jackson, Driver Road Rule Knowledge and Attitudes towards Cyclists, Australian Journal of Primary Health, Vol 8, No 2, 2002

Angry motorists will often use close passing as a demonstration of their anger; these interactions are usually accompanied by high revving of the vehicle's engine and speeding. This aggressive driving is dangerous for all road users. Nearly 60% of respondents to the BIKESydney Safety Survey 2010 (see Appendix 2) had been subjected to road rage in the last 12 months.

A system that would allow all road users to report unsafe or risky driving to the Police would be of benefit to all road users. Reported drivers could be sent a letter outlining the dangers of their behaviour. Drivers who record three warning letters could be personally visited by Police.

Community Roadwatch Report, New Zealand



The Community Roadwatch program is a partnership with New Zealand Police and the public. The telephone and online reporting allows people to alert Police about unsafe or risky driving behaviour. Drivers who are reported are sent a letter detailing the driving behaviour. A Community Roadwatch Report is not a formal complaint. The program aims to change the way someone drives and prompt them to take care on the roads.

Police inaction

A common complaint BIKESydney hears is about police behaviour towards cyclists. Some of the situations reported to BIKESydney include Police officers:

- Refusing to attend an accident when a bicycle rider was injured.
- Refusing to record incidents involving bicycle riders, including those where witnesses were available, damage was caused to property, and details of the alleged offender were provided.
- Refusing to prosecute a driver who deliberately reversed into a rider, even after police had an admission from the driver himself and three witnesses willing to give statements.
- Telling bicycle riders to “get on the footpath” and “ride single file”.
- Driving in a hazardous manner, pushing cyclists into the gutter – without a siren or other warning.
- Refusing to issue traffic infringement notices to drivers parked in no-parking zones if the zone blocks access to a cycle path.

These incidents indicate the need for Police to be educated about the rights of bicycle riders. A bicycle liaison officer stationed in each Sydney Command could provide community education and training, which would be of benefit to the whole community.

Courts inconsistency

The way in which police and courts treat drivers who kill or injure cyclists is inconsistent. A number of drivers have killed a cyclist and received a small or no penalty.

Magistrates and police, like all members of the community, must be educated about the rights of bicycle riders to be on the road.

If NSW had legislation that made drivers responsible for their actions given that in any collision they are likely to cause the most damage, then courts could include this when weighing up of factors for consideration. Lenient sentences and penalties also potentially discourage police from pursuing cases.

The following is an example of the variation in Australian courts.

No charges

In March 2010 no charges were laid against a driver who killed a cyclist on Mt Eliza, Victoria.

In Melbourne, a car drove on the wrong side of the road, onto a separated cyclepath. The cyclist moved onto the grass verge, but the driver followed, hitting the cyclist head on.

Charged but no convictions

A driver hit the cyclist from behind, claiming she did not see him, even though the cyclist had a back light, a reflector, a reflector vest, and reflectors on shoes. The cyclist broke his back. The magistrate blamed the cyclist for not being seen. Charges were dismissed.

A nine year old boy was riding his pushbike in Dubbo when he was struck from behind by a car being driven by a 16 year old unlicensed driver. The driver failed to stop after carrying the boy some distance to his death on the roadway. The Local Court Magistrate found the driver not guilty of driving in a manner dangerous occasioning death and negligent driving occasioning death.

Alison's story

I am an experienced cyclist. I've been travelling from the inner west to the city for work for nearly a decade. I think you would describe me as petite, I ride at an even pace, keeping to the road rules, which means I ride on the road with traffic for most of my trip.

I think the attitude of car drivers is getting better, but my worst experience with a driver led me to be a witness in court. It began on Elizabeth St in the city, a truck driver dangerously tailgated me. When we were both stopped at a red light, the truck driver got out of his truck and went to punch my face, pulling back his fist when it was about to make contact with my face. He did this several times, as I stood there shocked. As he did this he was shouting 'you don't pay f---g rego'.

The police charged him with assault and driving offences. In court I was not allowed to explain that the dangerous driving was what would have killed me, if he had touched my wheel I would have been under his wheel, but this was considered 'speculation'. The magistrate asked how many points he had on his licence, which wasn't many left due to a long history of infringements. The driving charges were dismissed, it seemed, so that he wouldn't lose his licence. His defence that he was 'having a bad day' seemed to work as he was fined only \$400 for the assault. It cost me more than that to take the day off work to appear in court.

Small fines

In Sydney in 2008 a driver swerved in front of 60 cyclists on a training run, and stopped suddenly. He then left the scene of the accident. He admitted in court he believed cyclists were not allowed in 'his' lane, but only in the emergency lane. The Magistrate corrected the driver on this point. He was fined \$1,200, there was no compensation for the \$45,000 in damages the cyclists suffered.

A prominent lawyer in Adelaide was charged with killing a cyclist in a hit and run accident. He reported to police after the two hour limit for a blood alcohol test had expired. He was fined \$3,200 for driving without due care.

Brian's story

I was run into by a car travelling at high speed while cycling. I received multiple fractures and spent an extended period in hospital. I have permanent deformities and disabilities due to this crash. It caused serious disruption to my family life for about a year. It's a challenge not to believe that the motorist may not have had any malicious intentions and it's been a challenge to recover from the physical and psychological barriers and to return to cycling. The driver received a small fine. His defence was that cyclists should not be on main roads. There should be more acknowledgment that I have a right to ride on the main road and that the motorist was inattentive. There needs to be greater understanding by cyclists and drivers, focusing on blame is not productive. I now consider myself to be a wiser and more capable cyclist. If I could change something from this, I would change the fixed attitude of the legal system.

Prison sentences

A Victorian driver was sentenced in 2009 for killing a cyclist the previous year. The driver was drunk and speeding; he pleaded guilty to culpable driving and negligently causing serious injury. He was sentenced to 13 years detention.

In 2005 a driver stood trial in Victoria over the death of a cyclist in 2005. The driver had failed to stop, was driving an unroadworthy vehicle and reported that he had visited four licensed premises before driving. He pleaded guilty to dangerous driving causing death, and sentenced to 18 months jail with a minimum of nine months, fined \$300 and had his licence suspended for two years.

These interactions lead all road users in the mistaken belief that bicycle riders are not equal before the law. If police were to incorporate a rights based approach to their training and implementation of the law, action could be taken to correct practices and procedures which disadvantage specific groups in the community.

Recommendations

BIKESydney recommends that the:

- 3.1 NSW government acknowledges evidence that increasing the number of bicycle riders improves the safety of all road users.
- 3.2 Staysafe Committee reviews all this inquiry's recommendations to ensure that they encourage more trips by bicycle.
- 3.3 NSW Government continues to support the NSW Bike Plan's target of 5% of local and district trips by bicycle by 2016. A further target of 10% of trips should be set for 2020.
- 3.4 NSW Government fund a program of purpose-built bicycle only facilities that include cycle friendly lighting, paved surfaces and low angled grades. That this program be separately budgeted for and reported on.
- 3.5 NSW Government follows the Victorian best practice model for achieving speed limit compliance.
- 3.6 RTA adopts the Australian Transport Council's proposal to conduct further research and promote the links between the safety benefits of lower speeds and reductions in fuel consumption, greenhouse impact and vehicle/fleet operating costs.⁴⁷
- 3.7 NSW Government and the RTA work with the community to introduce blanket speed reduction to 30km/h in residential streets and shopping strips.
- 3.8 NSW Government adopts and promotes targets to by 2020:
 - Reduce by two third the number of journeys undertaken by car drivers and passengers for trips under two kilometres
 - Reduce by half the number of journeys undertaken by car drivers and passengers for trips between two to five kilometres
 - Reduce by one third the number of journeys undertaken by car drivers and passengers between five to 10 kilometres.
- 3.9 NSW Police have targeted campaigns to educate and enforce the prohibition on use of hand-held mobile phones while driving, and discourage use of mobile phones of any type while driving. Establishing a reporting mechanism where cyclists can report drivers using a mobile phone will provide data to direct these campaigns.
- 3.10 NSW Police and the RTA work together to implement a telephone and online reporting system that allows all road users to report unsafe or risky driving. This could be modelled on the New Zealand Roadwatch Program.
- 3.11 NSW Police, in partnership with bicycle user groups, develop an education campaign for existing traffic and new Police Officers, to ensure the rights of people on bicycles are widely understood within the Service.
- 3.12 NSW Police establish a bicycle liaison officer stationed in each Sydney Command to provide community education and training. The officer should be of a rank that allows him or her to direct other officers to record incidences reported by cyclists.

⁴⁷ Australian National Road Safety Action Plan 2009-2010, Australian Transport Council

- 3.13 RTA provides funding to local councils to undertake research to better understand the relative merits of different types of infrastructure. The RTA published the study results on its website to ensure knowledge is shared.
- 3.14 RTA and STA work together to: include bike symbols in bus lanes; make bus lanes 24 hours/7 days a week rather than timed; and allow bicycle riders to use 'B' bus priority lights.
- 3.15 STA work with bicycle user groups to develop an education program to help bus drivers and bicycle riders better understand each other's needs on the road and particularly in bus lanes.
- 3.16 RTA develops a state-wide online and SMS reporting system that captures near miss, conflict points, and non-urgent maintenance requests for roads, footpaths and shared paths.
- 3.17 RTA installs directional signage on all official bicycle routes by 2011 and require that all 50/50 funded bicycle infrastructure projects include route signage and wayfinding strategies. This should include sign posting, maps on the route in advertising panels and council notice boards, promotion of maps, support for tours, group rides and local events.
- 3.18 RTA develops an online route finding system for bicycle riders as part of the 131500 website by 2011. The system should include official and unofficial routes. The RTA should work with local bicycle user groups to identify unofficial routes. The site should alert riders to steep gradients. Route planning should allow riders to nominate that they avoid particular road types including particular speed limits and levels of traffic.
- 3.19 Local councils work together to ensure whole of region planning. Each council should identify the points of interconnections which require redesign and establish a plan to undertake the work over the next three to five years.
- 3.20 Notices on lights and paths that provide details of the agency to contact if maintenance is needed, that is whether it is council, water or energy authorities, RTA, or public transport agencies. Also arrange an MOU between councils and these agencies, so that if a member of the public contacts the 'wrong' agency, the agency of first contact can forward the details to the correct agency for action.
- 3.21 RTA fund academic research into why drivers 'don't see' bicycle and motorcycle riders on the road and possible countermeasures.
- 3.22 RTA issues a technical directive that all future bicycle logos are to be placed in the centre of the road.
- 3.23 RTA and local councils commence a program to replace all logos currently placed to the left of the lane with centre placed logos, completing the project within three years.
- 3.24 The NSW Sentencing Council undertake a study of court sentences for driving offences involving a bicycle rider's death or serious injury or assault of a bicycle rider. The review should consider whether there are significant inconsistencies and recommend steps to improve outcomes for the community.
- 3.25 RTA and local council avoid shared paths wherever possible. Where this is not possible, the local community should be consulted, community education should take place, signage and markings included on the pathway.
- 3.26 Local councils avoid off leash dog areas within 20 metres of a cycle path. This should be enforced by local council patrols.

3.27 NSW Government build a cycle way across Darling Harbour or a raised carriageway across the current bridge for pedestrians only.

3.28 RTA establishes a program that ensures all new intersections treatments provide safe access for cyclists and a program over the next decade to retrofit all intersections to be safe for cyclists.

3.29 Current programs to reduce unsafe behaviour by drivers include behaviour at locations where cycle routes interact with vehicles, particularly intersections.

3.30 RTA examines the benefits of shared use zones at pedestrian crossings.

Shared crossings Tokyo: Japan



In NSW children 12 and under and an adult accompanying them are allowed to ride on the footpath. Under current legislation they must dismount their bicycles to use pedestrian crossings. Shared zones, such as the one pictured, are used extensively in Japan. BIKESydney would like to see the benefits of this type of shared zone explored for use in NSW.

4. Current measures and future strategies to address bicycle safety, including education, training and assessment programs

At a glance...

- Putting people at the heart of policy
- Riders taking action
- Teaching adults safety skills
- Planning for safer journeys to school
- Driver training

Putting people at the heart of policy

Australia has adopted a Safe System approach as national and state/territory road safety policy.

This approach to road safety policy has to put citizens at the heart of its action: it has to encourage them to take primary responsibility for their safety and the safety of others.⁴⁸ In Sweden there is widespread public acceptance and support for the country's "Vision Zero" policy, and an understanding of their responsibility to contribute to the collective goal.

Road safety policy should aim at raising the level of road safety, ensuring safe and clean mobility for citizens everywhere. It should foster equity among road users through focused efforts to improve the safety of more vulnerable road users (bicyclists, motorcyclists, pedestrians).⁴⁹

BIKESydney believes that the current state of planning for bicycles in NSW reflects a widespread lack of understanding of the Safe System approach.

Alan's story

Drivers will shout at cyclists "Get off the road!!!". Pedestrians will shout at cyclists "Get off the footpath". We have nowhere safe to ride which doesn't help us build confidence. Build more cycleways that are separated. We are actually one less car on the road, we are doing everyone a favour by reducing smog and traffic. If these good points about cyclists were drummed into people, perhaps there would be less antagonism.

⁴⁸ Faulks, I. Vulnerable road users – safe systems and the Staysafe inquiry, Safety and Policy Analysis International & Dept. of Psychology, Macquarie University, Presentation to BIKESydney 2010

⁴⁹ *ibid*

How do bicycle riders make themselves feel safe?

The vast majority (99%) of bicycle riders surveyed in the BIKESydney Safety Survey 2010 (see Appendix 2) take some action, often multiple actions, to make themselves feel safer. Actions include fitting lights to their bikes (94%) and wearing high visibility clothing (70%) to ensure they are seen at night. Around 80% ride in quiet backstreets where possible and 78% ride outside the door zone. 80% reported that they signal turns and 73% report that they know and follow the road rules.

More than 57% of respondents said they had taken specific action in the last 12 months to make themselves feel safer. The four most common actions were to ride more assertively (47%), ride in quiet backstreets (38%), start wearing high visibility clothing (38%) and put lights on their bikes (34%). A number of respondents specifically mentioned buying more or brighter lights for their bicycles.



Nearly all bicycle riders take some action, often multiple actions, to make themselves feel safer. The most riders have lights on their bikes and choose to wear high visibility clothing.

A number of respondents mentioned concerns about quieter residential streets being increasingly used by motor vehicle drivers as 'rat runs' to escape congestion.

Respondents to the 2010 BIKESydney Safety Survey reported that cycling websites and friends were the places they got most of their information about safe cycling. Cycling magazines were also popular sources of information.

Partnering and mentoring new riders

Community based bicycle users groups do much to support new riders and introduce them to safer routes and good riding techniques.

Many bicycle user groups provide free social rides in their local areas. The rides are run by volunteers. BIKESydney, for example, runs a Tuesday evening ride once a month. The rides show riders how to travel from the CBD to a popular local destination such as Bondi Beach or Balmain using quiet residential streets and official bike routes.



Local bicycle user groups provide information to the community about safe cycling routes, road rules, and cycle training. Photo: Elaena Gardner

The bike bus concept was established by a local bicycle user group. A bike bus is a group of people who cycle to work in a group; it travels to a set route and timetable so it can pick up more “passengers” along the way. The routes use official cycle routes and quiet residential streets. The group helps new riders feel safe and provide support and encouragement.



Sydney Bike Bus heading from the inner west into the CBD. Photo: Simon Alekna

Teaching adults safety skills

The City of Sydney's Cycling in the City course is a free course available to adults. The course teaches low risk and responsible riding and is designed for people who can already ride but want confidence to ride on city streets.⁵⁰ The excellent program attracts a high percentage of women and should be used as a case study for councils across the State.

Planning for safer journeys to school

The Safe Routes to School (SRTS) is an Australian road safety program that focuses on travel to and from school. The targeting of school travel is an initiative designed to reduce children's involvement in road accidents. In Australia, the SRTS programs tend to be delivered by a state road authority in conjunction with local government, the school community and the police.

Safe Routes to School (SRTS) programs have existed in most states for a number of years. Developing an action plan is a central part of SRTS programs. Many states include the 4E's in their planning: engineering, education, encouragement and enforcement.⁵¹

The NSW program does not include Engineering in their planning. BIKESydney fails to understand the logic of attempting to plan safe routes to school without examining infrastructure.

Bicycle NSW runs a NSW Schools Program. BIKESydney would like to see key performance indicators for the program released and reported on. Currently the program seems to rely on reporting the number of children and schools that have participated in the program. With evidence that the program is encouraging more children to ride to school, BIKESydney would recommend additional funding to expand the program.

Driver education

"Whether I was a pedestrian or cyclist I found the level of the hostility of enough Sydney motorists worse than I had seen anywhere in the world," said Professor John Pucher, a visiting US academic who has researched cycling conditions all over the world. Professor Pucher said that while he was in Sydney he did not cycle often because he was almost killed several times and experienced drivers cutting him off, squeezing him off the road and not stopping.⁵² It's a common experience for all road users but the consequences of poor driving are potentially far more serious for bicycle riders than for other road users.

As mentioned previously, research has shown drivers have low levels of knowledge of the road rules. Education that teaches people to respect all road users should start early and be repeated.

In NSW government schools driver education is taught as part of the mandatory Personal Development, Health and Physical Education (PDHPE) course in Years 9 and 10 and the mandatory *Crossroads: personal development and health education course for Stage 6* (Years 11 and 12). The focus of this driver education is on developing the knowledge, understanding and decision-making skills needed to deal with road use issues such as alcohol and drug use, risk-taking, speeding, fatigue, peer influence, occupant restraints and the requirements of the Graduated Licensing Scheme.⁵³ BIKESydney recommends that vulnerability of all road users be introduced into the curriculum.

⁵⁰ <http://www.cityofsydney.nsw.gov.au/AboutSydney/ParkingAndTransport/cycling/CyclingConfidenceCourses.asp>

⁵¹ http://www.travelsmart.gov.au/training/packaging_schools_routes.html

⁵² <http://www.smh.com.au/nsw/sydney-the-city-that-hates-bikes-20100312-q45h.html>

⁵³ <http://www.curriculumsupport.education.nsw.gov.au/policies/road/driver/index.htm>

Specific driver education campaigns are needed for different types of drivers including bus drivers, truck drivers, taxi drivers and new drivers. As a bare minimum, specific questions relating to cyclists must be included in all road knowledge tests. Education should address issues of road rules, courtesy, patience and sharing.

Sally's story

Driver education is the biggest problem in Sydney, compared to London where I commuted for several years, many drivers here think you don't have a right to be on the road. Until that attitude changes there will always be conflict and the more vulnerable road users will always come off worst.

Recommendations

BIKESydney recommends that the:

- 4.1 NSW Government recommits to the Safe System approach to policy development and planning. That heads of department across all transport planning authorities in NSW undertake Safe System training.
- 4.2 New South Wales enshrines a Safe System approach in its new road safety strategic planning documents for the next decade to 2020.
- 4.3 RTA ensures that all new road proposals cater for the safe transport of people on bicycles.
- 4.4 RTA provides funding to employ two bike bus coordinators initially for three years for Sydney, Newcastle and Wollongong to develop resources, promote the scheme and train leaders. One coordinator should focus on adult commuting and the other on journeys to school.
- 4.5 Department of Education to introduce issues of vulnerability of all road users into the road education curriculum delivered in NSW high schools.
- 4.6 RTA delivers road education campaigns addressing issues of road rules, courtesy, patience and sharing.
- 4.7 That driver knowledge of rules is tested when they renew their license, either through an online survey or completion of questions selected randomly at the RTA office. Incentives could be offered such as a small reduction in the license fee if all questions are answered correctly.
- 4.8 RTA includes specific questions relating to cyclists in all road knowledge tests.

5. The integration of bicyclists in the planning and management of the road system in NSW

The crux of the safety problem for bicycle riders centres on the fact that there is lack of planning providing for them and that the traffic system is predominantly designed for the movement of cars, not people.

Nell's story

I get really annoyed when council or RTA do new work and fail to think about cyclists. For example, the council recently closed off a road, no problems with this, but there is no access ramp from the footpath that runs along the closure. This means no access for prams, wheelchairs or bikes. For me, it means that instead of taking a quiet road adjacent to a park I must go through the park and annoy walkers, dogs and their owners. A little thought and small design feature would prevent a lot of aggression from dog owners and excrement in my tyres. Before any work is done, the engineer signing it off should have to check off that they have consulted with the transport planner or local bike group, or at least think about access implications before work takes place. Also needed is monitoring to make sure work is done correctly, too many ramps are put in that are not level with the road, they have a small step, just enough to throw you off your bike if coming in from an angle.



Construction works block bicycle shoulder in Lilyfield. No bicycle detour, warning signs or lower speed restrictions provided. Photo: Robert Moore

Towards Zero

Recommendations

BIKESydney recommends that:

- 5.1 The Department of Transport and RTA give equal weight to pedestrians, cyclists and public transport when planning, designing and implementing management and infrastructure projects.
- 5.2 The RTA refocus their objectives to support the movement of people rather than primarily on the movement of private vehicles. All infrastructure should be planned and designed to meet the needs of all road users. This should include new and existing infrastructure.
- 5.3 The RTA consult with bicycle user groups regarding all new infrastructure to ensure it meets the needs of all users.
- 5.4 The RTA consult with bicycle users groups regarding road closures and infrastructure upgrades to ensure appropriate detours are planned and signposted.
- 5.5 The RTA ensures all traffic studies include the count of bicycle riders.
- 5.6 All existing transport infrastructure and traffic management schemes should be cycle audited.
- 5.7 Progress towards the targets set by the NSW Bike Plan to increase cycling should be publicly reported on an annual basis.
- 5.8 Other recommendations that relate to this issue and which have been previously mention include reducing motor traffic, reducing motor traffic speed; implementing extensive and connected cycle specific infrastructure; and influencing behaviour and attitudes.

6. Bicycle safety issues and strategies in other jurisdictions

Reports

Pedestrian and Bicyclist Safety and Mobility in Europe: Feb 2010

Comprehensive examination of engineering, education, enforcement, encouragement and evaluation programs throughout Europe.

<http://www.international.fhwa.dot.gov/pubs/pl10010/pl10010.pdf>

Speed limits

Sweden: Over two thirds of municipalities have implemented 30km/h speed zones (mainly in residential areas).⁵⁴

United Kingdom: Speed limits of 20 miles an hour (32km/h) have been introduced in various parts of London over the past 16 years, and a study by the Department of Public Health and Policy at the London School of Hygiene and Tropical Medicine showed that in the 20 years to 2006 the number of casualties and collisions fell about 40 per cent.⁵⁵

Public education

Queensland: Department of Transport road safety advertising.

Distracted driving:

http://www.transport.qld.gov.au/Home/Safety/Road/Campaigns/Driver_distractions_campaign

Share the road:

Over the last few years Queensland Transport has run a variety of public education campaigns that aim to raise awareness of issues affecting safe cycling.

The 'Share the road' campaign aimed to teach motorists and cyclists how to share the road safely. This campaign is one action stemming from the State Government's commitment to increase Queensland cycling rates from the current 2 per cent of all trips to 8 per cent by 2011. This was the first major Queensland Transport campaign to focus on improving relations between cyclists and motorists.

In August 2000, around 85 per cent of people who saw the television commercial agreed that it made them feel they should leave more room for cyclists on the road when they are driving. Four in five people agreed the ad made them feel they should check for cyclists when driving. Similarly, four in five people endorsed the position that the ad made them feel they should give way to cyclists when driving. Around 65 per cent of respondents agreed with the statement 'since the ad I have made more of an effort to check for cyclists when I am driving'.

http://www.transport.qld.gov.au/resources/file/eb91df059858d06/Pdf_rs_share_the_road_pub_ed.pdf

United Kingdom: Cycling near lorries safety campaign including website information, video and 'exchanging places' events where bicycle riders can sit in the cab of a truck and observe blind spots first hand. <http://www.tfl.gov.uk/roadusers/cycling/14799.aspx>

⁵⁴ Swedish Road Administration, 2008

⁵⁵ Chris Grundy, Rebecca Steinbach, Phil Edwards, Judith Green, , Ben Armstrong, Paul Wilkinson, Effect of 20 mph traffic speed zones on road injuries in London, 1986-2006: controlled interrupted time series analysis *BMJ* 2009;339:b4469 http://www.bmj.com/cgi/content/full/339/dec10_3/b4469

Collecting and reporting data

New Zealand: Ministry for Transport Annual Cyclist Crash Facts Report. Provides crash reports and hospitalisation data. Looks at deaths and injuries: across age groups; numbers of hours spent riding; time of day; road type; type of crash; who was at fault; and speed.

<http://www.transport.govt.nz/research/cyclistcrashfacts/>

New Zealand: Community Roadwatch Report. The Community Roadwatch program is used by New Zealand Police. The telephone and online reporting allows people to alert Police about unsafe or risky driving behaviour. Drivers who are reported are sent a letter.

<http://www.police.govt.nz/faq/items/15334>

Sweden: STRADA (Swedish Traffic Accident Data Acquisition) database that integrates police crash data and hospital admissions data. The STRADA database addresses the underreporting problem common to walking and biking and gives Swedish Engineers and planners a more complete picture of biking and walking safety.

Denmark: Copenhagen Cykelbarometer. The City of Copenhagen provides public bicycle counters, equipped with an air pump for the convenience of cyclists. The display counts the daily number of bicycle riders that use the new Green Path that slices diagonally across the Copenhagen and Frederiksberg pathway system. There is a 'sensor line' in the asphalt on the bike lane a few metres in front of the counter which registers the rider. The idea is to encourage more people to ride by showing how many are already are. The numeric displays show a daily and annual tally.

<http://www.copenhagenize.com/2009/05/bicyclists-count-in-copenhagen.html>

United Kingdom: CTC Stop SMIDSY campaign. Stop SMIDSY (Sorry mate I didn't see you) collects information about crashes, near misses and travel patterns. It also provides legal information for road users. <http://www.stop-smidsy.org.uk/>

United States: Close Call – an online reporting mechanism for bicycle accidents, close calls and collisions in Portland Oregon <http://bikeportland.org/closecall/home.php>

Reporting hazards

United States: See, click, fix is an online hazard reporting tool. The tool allows people to report a road hazard and include photos, video and a location map. Other community members can then vote on whether they also believe the issue requires fixing and include their own photos and videos to further illustrate the problem <http://www.seeclickfix.com/>

Safety infrastructure

United Kingdom: an initiative installing mirrors at intersections to avoid people being squashed at intersections by lorries turning and not been able to see in their blind spot.

<http://www.bikeradar.com/news/article/new-mirrors-spearhead-london-bike-safety-drive-26921?CPN=RSS&SOURCE=BRGENHOME>

Safe cycling for children

United Kingdom: Every local authority in the country has a government appointed school travel advisor. Advisors help each school develop a travel plan. The plans looking at how the students, staff and regular visitors get to the school and examine ways of cutting car use including encouraging people to walk, cycle and use public transport to get to school.

The advisors are provided with a budget and there are financial incentives for schools to prepare a travel plan. The grant amount, dependent on the number of children in the school and the type of school, is typically about £5,000 for primary schools and £10,000 for secondary schools.

London schools that complete the plan are also eligible for the Mayor's Cycle Parking Program for Schools and Colleges. This program provides schools with bespoke cycle parking solutions at no cost. After schools complete their travel plans and cycle training, they can access the Bike It program. Bike It, coordinated by Sustrans, provides a biking coordinator who works with kids, parents and staff to imbibe a cycling culture in the school. This can include setting up clubs and fun things like bike dress days and competitions and bike rides after school and weekends

United Kingdom: Links to Schools Program. Funded by the Department for Transport, the Sustrans Links to Schools project is in its fourth year and local authorities across England are working with Sustrans to connect schools and their communities to the National Cycle Network. <http://www.sustrans.org.uk/what-we-do/links-to-schools>

United Kingdom: Bike It. Giving kids the skills and confidence to ride to school. Schools participating in Bike It has seen car use to school fall by one quarter. <http://www.sustrans.org.uk/what-we-do/bike-it>

United Kingdom: Bikeability - cycle training for children and their parents. <http://www.bikeability.org.uk/>

United States: Safe Routes to School program. In August 2005, the U.S. Congress provided funding to create a Federal Safe Routes to School Program designated \$612 million in Federal transportation funds, distributed through each State's Department of Transportation. <http://www.saferoutesinfo.org/index.cfm>

Encouragement programs

United States: Chicago Bicycling Ambassadors Program. Bicycling Ambassadors and Junior Ambassadors are the City of Chicago's bike-safety and public-awareness outreach team. They promote safety for all road users – bike riders, motorists, and pedestrians – and encourage all Chicagoans ride their bikes more. <http://bicyclingambassadors.org/>

Safety planning

Europe: EU Road safety action programme 2011-2020. The European Commission has set out a mix of initiatives focusing on making improvements to vehicles, infrastructure and road users' behaviour. There are seven strategic objectives:

- Improved safety measures for trucks and cars
- Building safer roads
- Developing intelligent vehicles
- Strengthening licensing and training
- Better enforcement
- Targeting injuries
- A new focus on motorcyclists.

http://ec.europa.eu/transport/road_safety/events-archive/2010_07_20_road_safety_2011_2020_en.htm

7. Other related matters

Funding

The NSW Bike Plan 2010 outlines a ten-year bicycle infrastructure plan, including

- \$80 million over ten years to connect Sydney's district centres by building missing links in the Metro Sydney Bike Network
- \$78 million over ten years to fast-track subregional bike networks for Parramatta, Liverpool and Penrith to grow cycling in these three River Cities and
- at least \$5 million every year for regional cities and local councils across NSW to complete neighbourhood cycleway networks.

This is a total allocation of \$208 million over 10 years. Ten years ago the then Transport Minister Carl Scully had pledged \$250 million for cycling projects over the same timeframe.

The plans states that "as demand for cycling facilities at the local community level continues to grow the NSW Government will **maintain** existing funding for the RTA's local council cycleways program".

Recommendation

- 7.1 The NSW Government must, as a matter of urgency, review the budget allocation to cycling projects. If it to reach its target of having 5% of trips made by bicycle by 2016, it must allocate a similar percentage of its roads capital expenditure to bicycle specific infrastructure. This would allow a substantial increase in funding to local councils for bicycle projects.

NSW Bike Plan recommendations

The NSW Bike Plan released in May 2010 contains a number of recommendations which could impact on the numbers of people participating in cycling and their safety. The following tables provide commentary on the key recommendations that BIKESydney believe will impact on the risk and safety of bicycle riders.

Chapter 2 - Create connected cycling networks

Item	NSW Bike Plan Recommendation BIKESydney Comment
2.1	<p>Improve cycle networks in Sydney by:</p> <ol style="list-style-type: none">completing missing links in the Metro Sydney Bike Network of off-road regional routes, to connect all Metropolitan Strategy centrescompleting subregional cycle networks within a 10 kilometre catchment of western Sydney's River Cities, Parramatta, Liverpool and Penrithworking with local councils to improve the neighbourhood connections that serve Metropolitan Strategy centres to offer a 40-minute low-stress cycling travel time for residents within a 10 kilometre radius of any major centre.considering parallel cycleways as part of rail construction and upgrade projects andworking with local councils to accelerate construction of an inner Sydney strategic cycle network to help relieve congested inner area public transport services <p>We wholly support the creation of a cycling network. The following details of the proposed Moore Park shared bridge are required:</p> <ul style="list-style-type: none">• estimated completion date• project budget and funding• proposed location <p>We welcome cooperation between the state government and local councils, but there is a lack of detail in the plan about how this will work. We do not believe that words such as "considering" should be used in an implementation plan. Would much prefer this point to read: 'incorporate cycling capability into the maintenance tracks alongside lines'.</p>

Item	NSW Bike Plan Recommendation BIKESydney Comment
2.4	<p>Increase dollar-for-dollar assistance to fund local council bike plan actions that: RTA, councils</p> <ol style="list-style-type: none"> complete cycle networks in urban areas, making funding conditional (where relevant) on the development of networks that connect across local council boundaries improve wayfinding signage for existing facilities and provide facilities in NSW country towns and cities, focusing on improving accessibility for short cycling trips to CBDs, education, shops and regional services <p>While we welcome increasing the dollar for dollar assistance, we note that there is no budget amount for this. We recommend that the amount allocated be tripled when compared to current levels. It must be noted that under the current arrangements, some councils do not apply for matching because they do not have a budget to start projects. More money from the government would mean that more projects will be undertaken.</p>
2.5	<p>Help local councils promote their cycle facilities and associated programs by providing seed funding for community cycling events during NSW Bike Week. RTA, councils E</p> <p>There appears to be little evidence on the effectiveness of these events. We recommend that future funding for these types of events be reliant of setting and measuring goals to effect behaviour change. We recommend the Government publishes case studies of events that successfully achieve behavioural change goals.</p> <p>Every week should be Bike Week.</p>
2.6	<p>Review and promote good practice designs for the construction, linemarking and signage of safe shared pedestrian and cycle paths, and investigate options to convert existing footpath sections to shared use where safe.</p> <p>All very good, but it should be a given.</p>
2.7	<p>Provide local cycle links to new public transport interchanges through the delivery of major projects.</p> <p>We believe the plan should go further and deal with problems concerning the poor inter-connectedness of all modes of transport. This must be addressed as Sydney's performance in this area is the worst in the country.</p> <p>We recommend that the following matters addressed immediately:</p> <ul style="list-style-type: none"> Central Station, the state's premier rail facility, has no bicycle facilities. Rail Corp confiscates bikes attached to rail property – this draconian practice must stop.
2.8	<p>Work with relevant local councils to introduce lower speed limits where appropriate and investigate the feasibility and safety of changes to traffic regulations that improve accessibility for cyclists on the local street networks including wider use of "Bicycles Excepted" provisions and One Way and no Entry streets.</p> <p>We welcome this proposal but believe that as speed and traffic levels are both a danger to bicycle riders and a major deterrent to cycling that it should be rated as a high priority task.</p>
2.9	<p>Develop standard designs and traffic rules for shared pedestrian and cyclist road crossing treatments that can be used by riders without dismounting. Excellent! We wholly support this recommendation.</p>
2.12	<p>Build and maintain a comprehensive online source of NSW Government bicycle information that offers:</p> <ol style="list-style-type: none"> a bike route-finding facility on the Transport Info 131500 website accessible through web-enabled mobile phones and GPS devices a cyclist feedback facility to share route ideas, identify safe local opportunities for short shared path sections and alert road authorities to cycleway maintenance needs user-friendly instructions for creating and printing personalised cycle network maps and calculators that show how cycle trips contribute to recommended daily physical activity and carbon reduction benefits <p>We are supportive of these proposals and the rating of them as high priority areas. A major reason people give for not cycling is not knowing how to get there safely and quickly. We believe that such a site would help to mitigate risk and have recommended it's development in this submission.</p>
2.14	<p>Install route signage on all new cycleways that highlights the distance and typical duration of bike travel to key destinations and aligns with existing public transport interchange signage guidelines.</p> <p>We are supportive of this proposal but urge the government to make it a high priority.</p>

Item	NSW Bike Plan Recommendation BIKESydney Comment
2.15	<p>On existing Greater Metropolitan Region cycleways upgrade signage to show bike trip distance and duration when routes are maintained. RTA, councils</p> <p>We are supportive of this proposal but urge the government to make it a high priority.</p>
2.16	<p>Provide shared pedestrian and cycle off-road facilities in all appropriate locations as part of State Road projects in the Greater Metropolitan Region.</p> <p>We support this recommendation. Shared paths should only be used in areas of low pedestrian traffic.</p>
2.17	<p>Provide cycleways as part of all State Road projects in country NSW, aiming for:</p> <ol style="list-style-type: none"> in speed zones of 70 km/h and over – a sealed shoulder with enhanced linemarking to reinforce the visual separation of cyclists from motor traffic in higher-speed areas in urban areas – high-quality off-road shared facilities and in all locations – conflict-free access for cyclists at points where the road narrows to cross a bridge or go through a cutting. <p>In speed zones of 70km/h and over cyclists should be separated from traffic by something more visible than line markings. High speed roads are the most dangerous places for bicycle riders to be. Drivers must be constantly reminded to expect bicycle riders on the sealed shoulder.</p>
2.18	<p>Develop, test and install slimline bus shelters that improve visibility and reduce obstacles for cyclists using footpaths and shared paths adjacent to major bus corridors, such as the Inner</p> <p>We support this but we require more details. For example, it is unclear how this sits with the JC Decaux contract. We suggest the RTA carry the financial the cost of buying-out advertising contracts where advertising signage is dangerous to cyclists.</p>
2.19	<p>Consider the routine delineation of green-painted 'Bike Boxes' that provide a head-start for cyclists at traffic signals, when undertaking periodic resurfacing or line marking on regional or local cycle routes that meet one or more of the following criteria:</p> <ol style="list-style-type: none"> on a two-lane road on a road with a speed limit of 50 km/h or less and/or on a road with all-day kerbside parking on the approach to the intersection. <p>We urge the RTA and Councils to facilitate the implementation of bike boxes, not just consider them. Furthermore, we recommend that the RTA fund the implementation because they are responsible for traffic signals and bike boxes must be considered an integral part of traffic signal design. The RTA's current practice is to charge local councils for so called engineering works associated with painting bike boxes on the road. This practice must stop as it only discourages implementation.</p>
2.20	<p>Maintain safe cycleways by programming the sweeping of regional cycleways and debris clean-up from sealed shoulders. RTA, councils</p> <p>We support this however the current recommendation notes that this program is 'existing'. It must be noted that the ANZAC Bridge is swept only once a year and as far as we know, the Anzac Parade path at Centennial Park has never been swept.</p>
2.21	<p>Maintain programs that enable:</p> <ol style="list-style-type: none"> the progressive completion of the NSW Coastline Cycleway, through dollar-for-dollar support for local councils the delivery of cycleway projects under the Metropolitan Greenspace and Sharing Sydney Harbour Access Programs, through dollar-for-dollar support for local councils and the upgrading, extension and promotion of cycleways to and within major urban recreational destinations such as Centennial Park, Sydney Olympic Park, Parramatta Park and the Western Sydney Parklands. <p>Funding should be provided the enable the NSW Coastline Cycleway to be completed within 10 years. At the current funding level, we believe it will take 95 years to complete.</p>

Chapter 3 - Make bike-riding safe for all

Item	NSW Bike Plan Recommendation BIKESydney Comment
General	<p>We consider any initiative to encourage cycling to schools to be welcome, however, it must be pointed out that there is no program to discourage parents from driving their children to school. The success of this initiative will be determined by the reduction in the number of cars outside schools at pick-up and drop-off time. Other points:</p> <ul style="list-style-type: none"> • The Department of Education should be the lead agency in installing bike parking in all schools. • While schools have no authority outside school gates, some schools actively discourage children from riding to school. BIKESydney is of the opinion that they should actively discourage parents from driving children to and from school.
3.1	<p>Provide school communities with:</p> <ol style="list-style-type: none"> up-to-date safe cycling curriculum resources, as part of the School Road Safety Education program up-to-date policy advice and syllabus-based materials that focus on the personal and community benefits of active transport, including increased and safer cycling (see 4.3) and practical guidance on increasing access by active transport, as part of school travel plans for NSW Government schools. <p>In addition to these recommendations, BIKESydney recommends that infrastructure solutions must also be considered to allow children safe journeys to school by bicycle. BIKESydney also recommends the RTA investigate the UK's approach to travel planning for primary and secondary schools.</p>
3.2	<p>Develop a Bicycle Riding Skills Manual for teachers of senior primary and high school students. This should be developed as part of a complete transport planning model for school communities.</p>
3.4	<p>Provide NSW Police and local councils with cycling policy and safety advice for distribution to community groups. NSWCRS, RTA, DET, NSW Police, councils</p> <p>All police should be required to undergo refresher training on all road users – especially cyclists.</p> <ul style="list-style-type: none"> • Police should be instructed to take violence against cyclists seriously. • A cycling community liaison officer should be established within the police commands. • Anti-vilification laws should be extended so that they apply to cycling and cyclists.
3.6	<p>Offer train-the-trainer support to community groups, equipping accredited practitioners to pass on cycling proficiency skills to novice adult riders</p> <p>We support this recommendation.</p>
3.7	<p>Fast-track the roll-out of adult cycle skills training in the Western Sydney River Cities of Parramatta, Liverpool and Penrith, extending this initiative later to regional cities like Newcastle and Wollongong.</p> <p>We support this recommendation.</p>
3.8	<p>Investigate a national standard for the accreditation of adult cycle proficiency training and/or trainers, and establish if required.</p> <p>Do something tangible. Replace 'investigate' with 'facilitate'.</p>
3.9	<p>Facilitate new and inexperienced adult cyclists' contact with local bicycle user groups which can provide appropriate advice and support based on their knowledge of local cycling conditions and may operate their own 'Bike Buddy' and/or commuter 'Bike Bus' initiatives.</p> <p>We support this recommendation.</p>
3.10	<p>Promote safe riding practices by training and racing cyclists, including the Code of Conduct prepared in consultation with these stakeholders.</p> <p>We support this recommendation.</p>
3.11	<p>Explore ways of offering wet weather or breakdown 'Get you Home' cover for cyclists as a benefit of motorist association membership, including family cover for children.</p> <p>Do something tangible. Replace 'explore' with 'implement'.</p>

Item	NSW Bike Plan Recommendation BIKESydney Comment
3.12	<p>Develop and deliver road safety information and campaigns based on research evidence about key road safety issues affecting cyclists and other road users.</p> <p>We support this recommendation.</p>
3.13	<p>Continue to implement, evaluate and update regular ‘Share the Road’ activities to encourage mutual respect among road-users, including:</p> <ol style="list-style-type: none"> educating the public on road rules affecting all types of road users enabling cyclists to obtain online advice about quiet street route alternatives to major roads promoting safe behaviour by cyclists towards pedestrians and wheelchair users on shared paths with signage and pavement markings to reinforce pedestrians’ right-of-way providing information to minimise conflicts between cyclists and high-speed traffic on motorways where breakdown lane cycling is permitted and liaising with transport industry associations, unions and operators to understand the road-sharing needs of cyclists, trucks, buses and taxis and develop strategies to reduce conflicts. <p>We support this; however BikeSydney seeks to review the evaluation of <i>Share the Road</i> as we have doubts about the program’s efficacy. There needs to be a serious and effective campaign to educate motorists around vulnerable road users.</p>
3.14	<p>Complement information campaigns with ongoing enforcement of cycling-related road rules, including initiatives directed at both cyclists and drivers.</p> <p>We strongly support this, but it must be supplemented with police education and a willingness to change the current police culture.</p>
3.15	<p>Investigate ways to increase learner and novice driver understanding of cyclists’ needs, including:</p> <ol style="list-style-type: none"> appropriate coverage in the Driver Knowledge Test and information and assistance provided through driving instructors to students who may benefit from additional training in this area. <p>We strongly support this recommendation as we consider driver education to be a fundamental component in cycling safety. We believe this should be a high priority and needs to address the following issues:</p> <ul style="list-style-type: none"> As young drivers tend to revert to behaviour of their parents, driver training needs to include information for the parents of learner drivers. All drivers, regardless of age or experience, should be required undertake safety refresher training, in accordance with standard OH&S practices.
3.16	<p>Increase the rate of safe helmet-wearing by cyclists by:</p> <ol style="list-style-type: none"> promoting the requirements for and benefits of wearing an Australian Standards-compliant helmet, with a focus on children and teenagers and other types of cyclists with low helmet-wearing rates and enforcing the legal requirement for cyclists to wear an Australian Standards-compliant helmet through targeted road safety initiatives. <p>Helmet legislation was introduced in Australia without any proper risk assessment or safety benefit analysis and needs to be reviewed. We note that outside Australia, New Zealand and some states in the US, there are very few jurisdictions in the world that mandate helmets for cyclists. Mandatory helmet legislation</p> <p>While helmets are effective in reducing the severity of head injuries, they do not address impacts to other parts of the body. More importantly, they do not prevent incidents from occurring in the first place and legislating their use may even discourage cycling. There have been various studies relating to value of mandatory helmet legislation and its effect in terms of policy and safety outcomes.⁵⁶ BIKESydney recommends the Premier’s Council for Active Living funds an academic body to undertake a thorough review of these studies and prepares a public report into the findings as a basis for further investigation and policy development.</p>

⁵⁶ Rissel, [Bicycle helmet laws are “failed public policy” says public health expert](#), Croakey May 7, 2010

Chapter 4 - Plan cycling-friendly neighbourhoods

Item	NSW Bike Plan Recommendation BIKESydney Comment
General	From a sustainability perspective, cycling, walking and public transport should be at the forefront of any planning decision. Until there is a cultural change in the planning system to prioritise people over car movement, we will continue to fail to plan sustainable and liveable cities.
4.1	Ensure strategic planning for regions and subregions encourages cycling-friendly development concentrated in centres. We support this recommendation.
4.2	Promote the use of professional and educational resources that show how cycling can be supported through the design and delivery of local land use, public transport and road developments, including: a. updated Planning Guidelines for Walking and Cycling and associated guidance documents b. updated Transport Impact Assessment guidelines (including an online bicycle parking calculator) c. local area traffic management technical directions and d. school syllabus-based teaching and learning resources that help teachers integrate cycling-friendly development concepts into student learning, enhancing environmental education. We support these recommendations. In particular the need to update the planning guidelines and guidance documents as a matter of high priority.
4.3	Implement car parking policies that encourage cycling, by: a. using local planning instruments to increase the proportion of bike to car parking spaces in public and private developments in Major Centres b. providing guidance on the installation of bike parking within car parks in safe and convenient locations close to entrances and c. investigating incentives to encourage commercial car park operators to convert one or more car spaces into end-of-trip facilities for cyclists. We support this but more needs to be done to discourage car parking to generally discourage car use. We would also support increasing the car parking levy to provide end of trip facilities for cyclists.
4.4	Help local councils develop and apply a detailed understanding of cyclists' needs in Community Strategic Plans, by: a. updating How to Prepare a Bike Plan guidelines, including tips on structured and regular consultation with local bicycle user groups b. providing councils with new tools to model the costs and benefits of active transport projects c. promoting training in bicycle planning and design for council staff and d. when necessary, coordinating State agency participation in decision-making forums, such as Local Traffic Committees. We are very supportive of this, especially promoting training with traffic engineers and other relevant council staff.
4.5	In line with interchange planning guidelines, provide full-frame cycle racks, under cover and CCTV surveillance and near interchange entrances where possible, at all CityRail stations, ferry wharves and major bus interchanges, interchanges with significant levels of bike parking demand and as part of new commuter car parks. Extra funding needs to be provided for retrofitting, especially at Central Station. State Rail must actively work with the RTA to encourage people to walk and cycle to public transport.

Item	NSW Bike Plan Recommendation BIKESydney Comment
4.8	<p>Permit the free carriage of bagged folding bikes within specified dimensions on all CityRail services. This does not go anywhere near far enough. We recommend that there be a public review of all rules and regulations regarding carrying bikes on trains with a focus particularly on:</p> <ul style="list-style-type: none"> • people living in city and commuting long distances for work • aim to make taking bicycles in trains easier • permit the carriage of folding bikes within reasonable dimensions on trains at any time <p>We note that the government is yet to implement its 1995 election promise to provide bicycle storage on all rolling stock.</p> <p>Other points:</p> <ul style="list-style-type: none"> • Where buses are used to replace trains during track work, they must be capable of carrying bicycles. • Country Link must remove restrictions and costs for carrying bikes on their trains and follow the example of European train operators who carry bikes without charge and without fuss.

Chapter 6 - Get organisations working together to support bike-riding

Item	NSW Bike Plan Recommendation BIKESydney Comment
General	We support all of the action points in this chapter, particularly 6.18. To determine the success of the BikePlan, there must be car-usage reduction targets.
6.1	<p>Promote the use of new cycle facilities by coordinating encouragement programs with the completion of cycling infrastructure.</p> <p>We strongly support this recommendation.</p>
6.2	<p>Nominate community ambassadors to promote cycling and help overcome self-confidence barriers for people with low rates of cycling participation, including women.</p> <p>Needs to go further than having celebrity cyclists.</p> <p>We suggest a funded model and that you look to Chicago for inspiration with its <i>Mayor Daley's Bicycling Ambassadors program</i>.</p>
6.3	<p>Encourage cycling for its personal and community health benefits through:</p> <ol style="list-style-type: none"> the NSW Get Healthy Coaching & Information Service, the free NSW Health telephone service that helps people who have decided to change to a healthier lifestyle and individual health professionals. <p>There should also be a program to encourage health professionals to take up cycling.</p>
6.7	<p>Improve the quality, currency and usefulness of cycling data, by:</p> <ol style="list-style-type: none"> installing or upgrading permanent bicycle counters on major regional cycleway links undertaking observational counts on other major routes and of bike parking at transport interchanges surveying usage and/or satisfaction before and after the opening or implementation of new facilities or programs and providing online public access to permanent bike counter data. <p>We support these recommendations but would add that:</p> <ul style="list-style-type: none"> • The sample size of the household travel survey be increased to provide more representative cycling data • That permanent bike counters be placed on all regional routes and a sample of unofficial routes

Item	NSW Bike Plan Recommendation BIKESydney Comment
6.8	<p>Track the usage of commuter cycling between Australian national censuses by:</p> <ul style="list-style-type: none"> a. collecting interim data, including counts on major regional routes, to monitor cycling usage against a target of doubling the share of cycling for the journey to work in NSW between 2006 and 2016 b. reviewing this target against the interstate use of cycling recorded in the 2011 Australian Census and c. recommending an increased NSW target to match a revised interstate benchmark after 2011, if necessary. <p>We support these recommendations but would add that the collected data should be published.</p>
6.10	<p>Report NSW cycling outcomes annually, against adopted targets and alongside aggregated NSW Government expenditure on cycling-related projects and programs.</p> <p>We support this recommendation but recommend that it deserves to be a high priority project.</p>
6.15	<p>Extend cooperative working arrangements between the City of Sydney and the RTA and other relevant NSW Government agencies to develop and implement the City's cycling strategy.</p> <p>We support this recommendation.</p>
6.18	<p>Promote the uptake of RTA-developed Bicycle and Pedestrian Planning and Design training and related professional development initiatives by:</p> <ul style="list-style-type: none"> a. updating training material to take account of NSW BikePlan priorities and wider developments in providing for cyclists b. requiring the proponents of cycling projects submitted for NSW Government funding to participate in training and c. offering scholarships for staff from local councils with a restricted capacity to fund training. <p>We support these recommendations.</p>

Report
Vulnerable road users – safe systems and the Staysafe Inquiry
Forum conducted by BIKESydney
22 July 2010, 7-9pm, Sydney Mechanics Institute

Speakers

Ian Faulks, Partner, Safety and Policy Analysis, International Honorary Associate, Department of Psychology, Macquarie University

Mr Faulks described the background to the Staysafe committee, provided injury and fatality statistics and discussed driver attitudes and improving bicycle safety.

Fiona Campbell, Marrickville and South Sydney Bicycle Group

Ms Campbell presented the evidence and exposure to risk and injury prevention.

Dr Julie Hatfield, Senior Fellow, Injury Risk Management Research Centre, UNSW

Dr Hatfield described the most recent evidence available about injury prevention for cyclists.

Question and Answer session

The presentations were followed by an audience question and answer session to the panel of speakers.

Participants Exercise: individual narratives

Twenty people from the forum took part in an interactive exercise following the speakers and question and answer session. The exercise involved working through a process that allowed people to identify the issues that were most important to them and encouraging each person to think about barriers and solutions.

The following stories were written by the participants after identifying an issue and discussing the outcome with a partner in the group. The stories have been divided into five categories to correspond to the model used in the body of this submission: Engineering, Education, Encouragement, Enforcement, Evaluation and Planning.

The information has been de-identified, with name and place changes as necessary.

The majority of cases were about poor infrastructure, education of drivers and enforcement of road rules. When asked about what would make the most difference to cycling, the majority of participants elected 'education', followed by better resources, and lastly, enforcement. A common comment, regardless of the subject of the story was a desire to report an incident, generally, participants felt helpless when faced with abuse, threats or breaches of road rules from drivers.

Case Studies

Engineering

Terry's story

On my regular trip I have to swerving to miss slots in drain grates. Road bike tyres fit into the slots which run in the same direction as the road. Other dangers include the new cycle lanes on Bourke street that suddenly end in a concrete curb. (R17)

Ian's story

I was on my cycle ride before starting work on a good wide cycle path, I approached a curved corner that had a railings forming a barrier on one side, before it straightened and entered onto a wooden planked bridge. The railings of the bridge were not aligned to the curved bridge, they come out at an angle, rather than following the curve of the corner. I struck my shoulder on the edge as I came around the corner and

came off my bike suffering a serious injury. My injuries included severe bruising, deep cuts requiring stitches, mild concussion, as well as damage to the bike. I was taken away in an ambulance, this emergency response should lead to a report to authorities to fix the problem. There was no clear way of reporting the problem. (R8)

Harry's story

Riding up Enmore road I was in the left lane, a bus overtook me without giving me any berth, I was ridden off the road and had to jump off my bike and drag it up the gutter onto the footpath to avoid being run over or crushed. This scared me so much I now walk instead of cycle. There should be a designated space for bikes so we don't have to compete with cars, trucks and buses.

I can understand that a bus would want to overtake because I am slower but it should still be possible to ride a bike. (R7)

Vic's story

I was riding uphill on Roseville bridge on a Sunday morning when a 4WD passed me extremely closely, as I looked around I saw it was towing a boat that was wider than the 4WD. I hurried to the left and ducked my shoulder just in time as the trailer and boat missed me by a matter of inches. I was very scared and now won't ride on that road. The driver should have given me more space, the driver should have known the width of his boat and allowed for more room. The driver was ignorant of just how dangerous the situation was. (R19)

Education

Terry's story

Recently, riding along King Street, Newtown, quite slowly, a driver opens his door without looking, nearly causing me to collide with the door. It was simply frightening and annoying, particularly because the driver abused me for riding too close to the car. My choice is to ride quite close to the left or in traffic, the outcome was two annoyed people. This incident has made me physically nervous. Drivers should look and I'd like to be treated with more respect. (R17)

Coleen's story

I was abused by a motorist who thought I should not be using a bus lane. (R2)

Elaine's story

I find a common risk I am faced with is the inattentive drivers, here are a couple of examples that have happened to me:

- a motorist did a burnout, off the footpath and into my lane, not once did he signal or look (for cyclists or other cars). When he did see me he brakes and then accelerates trying to bully me out of my lane.
- a taxi sped out of a car park, he had his head down, filling out his paperwork.
- a bus driver tailgating me, when I looked up, he was reading a book
- drivers opening car doors without looking.

All of these instances made me angry, leaving me physically and emotionally distressed. When I get angry, they get angry. It's difficult not to get angry when I've nearly been killed by someone else's aggression and negligence behind the wheel. Motorists should have understood that they have no right to put someone else's personal safety at risk. A 'sorry' instead of a 'get f...d', would have been nice. (R4)

Quentin's story

I was riding down a steep hill on a share path passing a pedestrian without ringing my bell, pedestrian hears me and instantly moves into my path where I was riding. As a result I fell off my bike, if I had been going slower I would have had more time to stop, if the pedestrian heard the bell earlier, they might have

moved out of the way. The pedestrian moved quickly and I didn't foresee them doing that. I learnt to ring my bell and go slowly when passing pedestrians. Need more education and more signs. (R14)

Rhonda's story

I ride down Bourke Street bike path in Alexandria. I've had some close calls with motorists, many motorists do seem to expect a cyclist to move out of these bike paths. I haven't been harmed, but I always need to be ready to stop, signs and bicycle crossings are needed. (R15)

Ursula's story

I was riding close the left side of the lane when my handlebars accidentally clipped the mirror of a car. Thankfully I did not fall because my front wheel was loaded with a pack. The driver following me then abused me because they thought I was supposed to be on footpath. The mirror was a mistake but the abuse was unnecessary, it was a weekend how much of a hurry do people need to be in. Drivers could be more patient about passing and be alert to the fact that bicycles can take an entire lane but cyclists move to the left out of courtesy. There needs be information about statistics on how long it takes to pass a bike compared with a passing a car, like billboard campaigns about bikes. (R18)

Encouragement

Fred's story

I find that cycling conditions have greatly improved over the last few years. Congratulations to everybody who contributed to this.(R5)

Jim's story

I started riding because I live close to work. Now that I live far away I don't ride for commuting. I ride socially, but since there are no facilities for leaving bikes or transporting them I tend to take the chance of riding while mildly intoxicated. I go along to a bar, drink one to two beers and ride alone home in the dark. There should be a way to transport my bike in a taxi or bus, I don't think the current situation is safe if I want to be social and cycle. It would be better if there were more cyclists and safe places to leave a bike and transport home. Drinking is a normal part of society in Australia but bike infrastructure doesn't support nights with too much alcohol. (R9)

Ken's story

I was lucky enough to meet people that encouraged me to ride. Prior to riding as an adult in my 30's, I had only ridden a bike as a child. I started riding socially with others and this gave me the confidence to start riding to work on my own. Riding to work gives me 40 minutes of exercise a day, I have a confirmed arrival time and I don't use the crowded public transport. It gives me the flexibility to stop at shops along the route home, often small businesses where they have parking rails, I get to know the owner and gives me a greater sense of being part of the community. (R10)

Enforcement

Wal's story

About five weeks ago I was lucky not to be killed when knocked off my bike by a car that went through a 'give way' sign. I have been cycling for nearly 60 years, despite all this experience, there was nothing I could do to avoid the collision. However on a positive note, my rehab is going well!

Alison's story

I am an experienced cyclist, I've been travelling from the inner west to the city for work for nearly a decade. I think you would describe me as petite, I ride at an even pace, keeping to the road rules, which means I ride on the road with traffic for most of my trip.

I think the attitude of car drivers is getting better, but my worst experience with a driver led me to be a witness in court. It began on Elizabeth St in the city, a truck driver over took me, coming within an inch of my back wheel, as we were both stopped at a red light, the truck driver got out of his truck and went to

punch my face, pulling back his fist when it was about to make contact with my face. He did this several times, as I stood there shocked. As he did this he was shouting 'you don't pay f---g rego'.

The police charged him with assault and driving offences. In court I was not allowed to explain that the dangerous driving was what would have killed me, if he had touched my wheel I would have been under his wheel, but this was considered 'speculation'. The magistrate asked how many points he had on his licence, which wasn't many left due to a long history of infringements. The driving charges were dismissed, it seemed, so that he wouldn't lose his licence. His defence that he was 'having a bad day' seemed to work as he was fined only \$400 for the assault. It cost me more than that to take the day off work to appear in court. (R1)

Gretel's story

I was squeezed at a roundabout and abused as the driver went past. I ignored this, but was very perturbed, I wish there was somewhere I could have reported the incident. Adults should be able to use footpaths, even where there is a cycle lane. It's a safe option on busy roads. Official rules prohibit this, it discourages cyclists or they just ignore the law. Laws discourage cycling, for those learning, these rules should be changed, widen the footpaths. (R6)

Brian's story

I was run into by a car travelling at high speed while cycling. I received multiple fractures and spent an extended period on hospital. I have permanent deformities and disabilities due to this crash. It caused serious disruption to my family life for about a year. It's a challenge not to believe that the motorist may not have had any malicious intentions and it's been a challenge to recover from the physical and psychological barriers and to return to cycling. The driver received a small fine, his defence was that cyclists should not be on main roads. There should be more acknowledgment that I have a right to ride on the main road and that the motorist was inattentive. There needs to be greater understanding by cyclists and drivers, focusing on blame is not productive. I now consider myself to be a wiser and more capable cyclist. If I could change something from this, I would change the fixed attitude of the legal system. (R2)

Darren's story

While driving on the M2 cycleway last Sunday morning, a passenger threw a full bottle of water at me. It whizzed past my head, narrowly missing me. I only had time to see he was in a black V8 sedan with red P-plates. I felt vulnerable, devastated, helpless by this attack it, but what could I do? I just kept riding. Some drivers need therapy and there needs to be much more effort at prosecution and fines.(R3)

Lyn's story

I was abused and almost run down by a motorist who misunderstood the use of a contra blow bike lane (a bicycle lane that allows cyclist to travel against the direction of a one way street). The motorist shouted 'get in the f---g bike lane' as he overtook me. When bike infrastructure was added motorists thought it should keep cyclists off the road, it makes them unwilling to share the road. I just wanted to avoid conflict at the time, I was shocked, I didn't report the driver, I wish there was somewhere I could report the drivers who do this. There needs to be more driver education on road rules, I shouldn't be harassed or abused because of this. There is sometimes poor signage on roads and there is a need for culture change about sharing the road. (R11)

Pip's story

In March 2009 I was hit by a car on my way home, it turned right, in front of me, failing to give way to me. Later that year a left turning bus didn't wait for me to get out of its way, nudging my panniers. (R13)

Evaluation and Planning

Mike's story

The university put up a 'no bike riding' sign on a previously accessible arcade. The alternative was to ride up and over a hill and over some square concrete speed bumps. Facilities I called about this asked me why a bike could not ride over speed humps when a car could. Facility planners should know why a bike is different from a car.(R12)

Nell's story

I get really annoyed when council or RTA do new work and fail to think about cyclists. For example, the council recently closed off a road, no problems with this, but there is no access ramp from the footpath that runs along the closure. This means no access for prams, wheelchairs or bikes. For me, it means that instead of taking a quiet road adjacent to a park I must go through the park and annoy walkers, dogs and their owners. A little thought and small design feature would prevent a lot of aggression from dog owners and excrement in my tires. Before any work is done, the engineer signing it off should have to check off that they have consulted with the transport planner or local bike group, or at least think about access implications before work takes place. Also needed is monitoring to make sure work is done correctly, too many ramps are put in that are not level with the road, they have a small step, just enough to throw you off your bike if coming in from an angle.(R20)

Participants also made the following comments and suggestions about safety

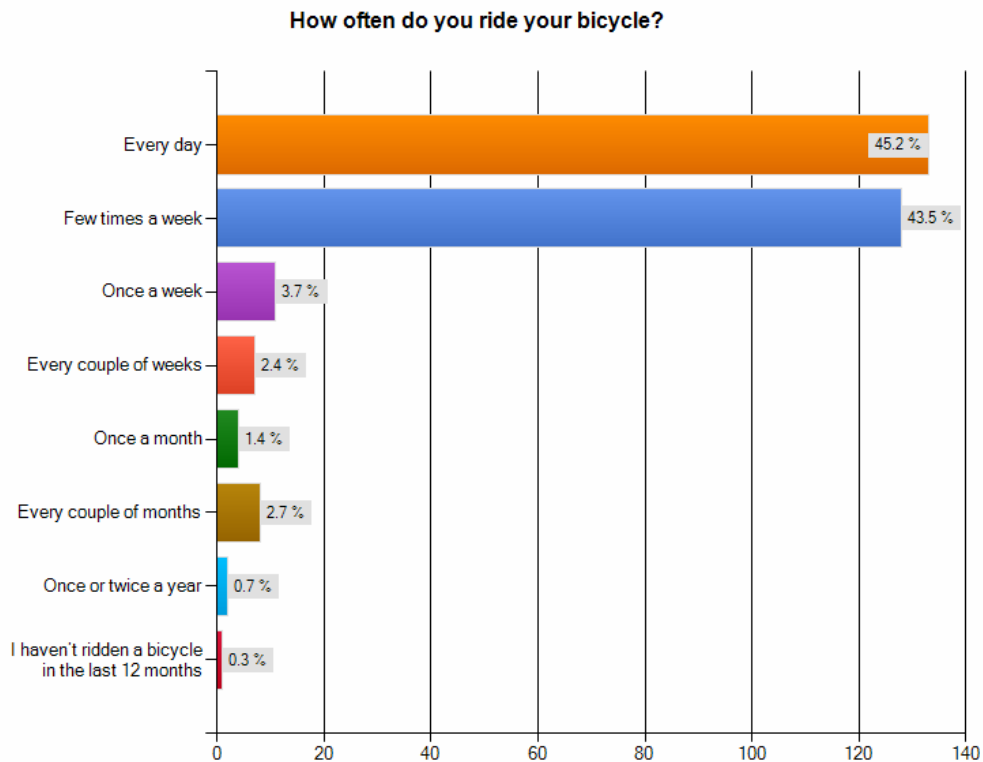
- More consistency in bike traffic planning and if its only roads fine, but stuff disappearing does not build trust
- Could use ad campaigns, research on society benefits of increased cycling, to reduce congestion, better health, lower pollution and better social interactions
- I am concerned the Staysafe Inquiry Media release says 'continuing increases in the numbers of riders compounds the risk of injuries...', as this implies the committee is not in tune with the safety-in-numbers concept and would not be likely to recommend a promotion of cycling use as a primary safety measure. Also I am concerned that the onus for safety to put upon the vulnerable user very often instead of on the larger/faster vehicles and the difficult infrastructure.
- Advertising and public service announcements
- Promote the important difference between perceived and real risk
- The key is education for both drivers and cyclists
- No more bike paths in car door zone. No more bike lanes protecting the parked cars from the traffic.

**Report
BIKESydney Safety Survey**

BIKESydney conducted an online survey in 2010 to examine safety issues and concerns for current cyclists in Sydney. The online survey was open for participation from July 21-August 3 and promoted to BIKESydney’s supporters and the general cycling community. The survey was undertaken by 295 people with a 95% completion rate.

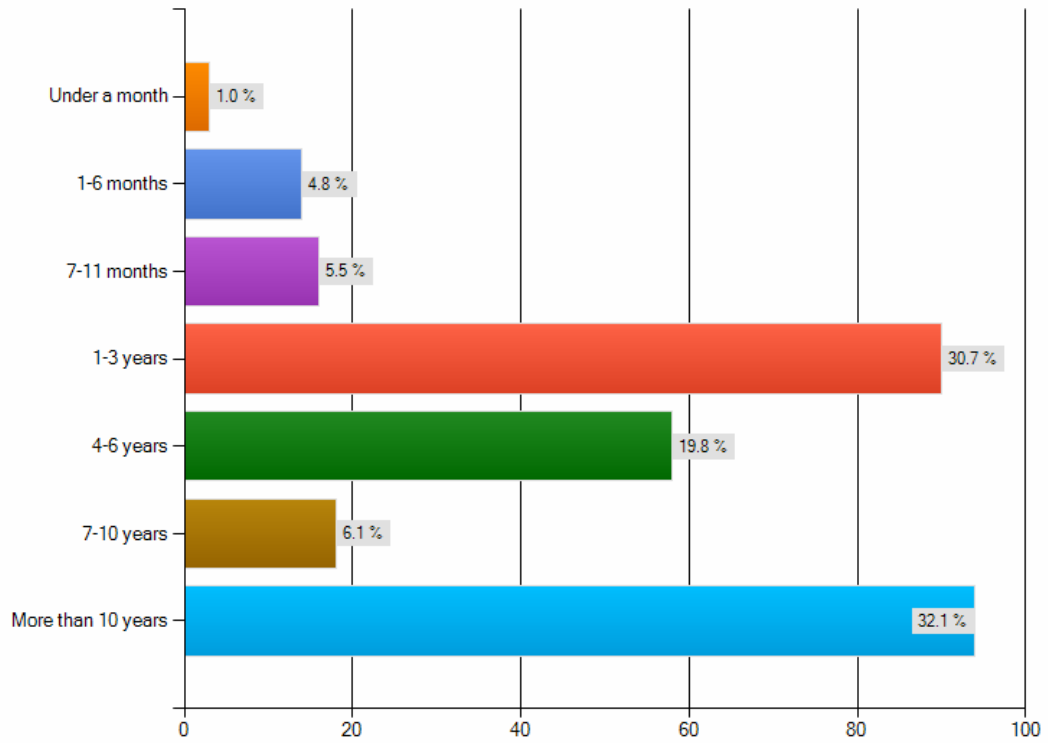
The survey contained 30 questions. The responses to the closed response questions are provided in a chart format. Responses to the open ended question still require further work to collate the responses and will be reported on fully by BIKESydney at a later date.

Question 1



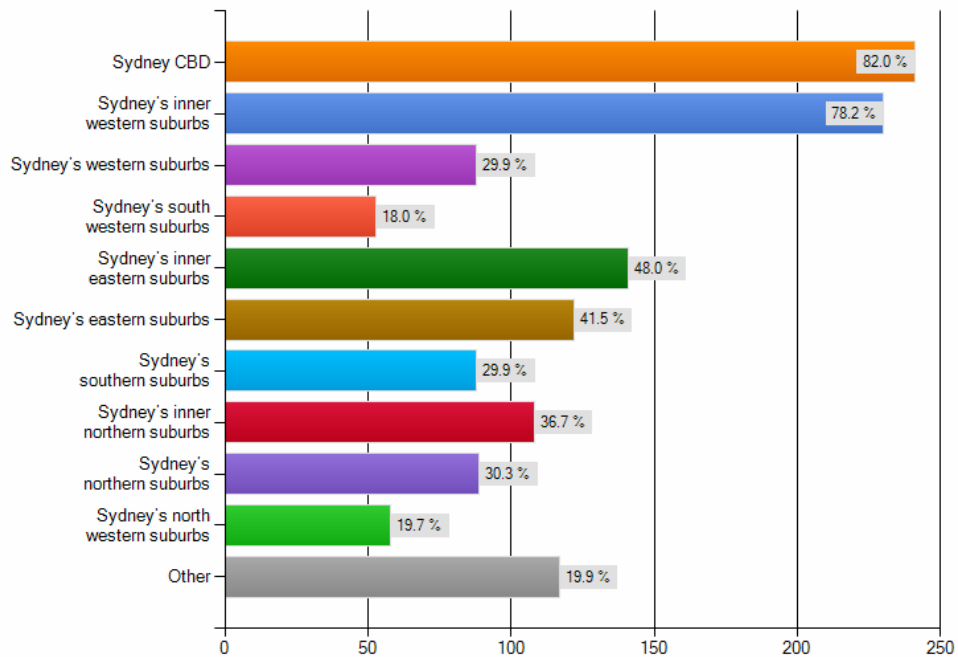
Question 2

How long have you been riding your bike in and around Sydney?



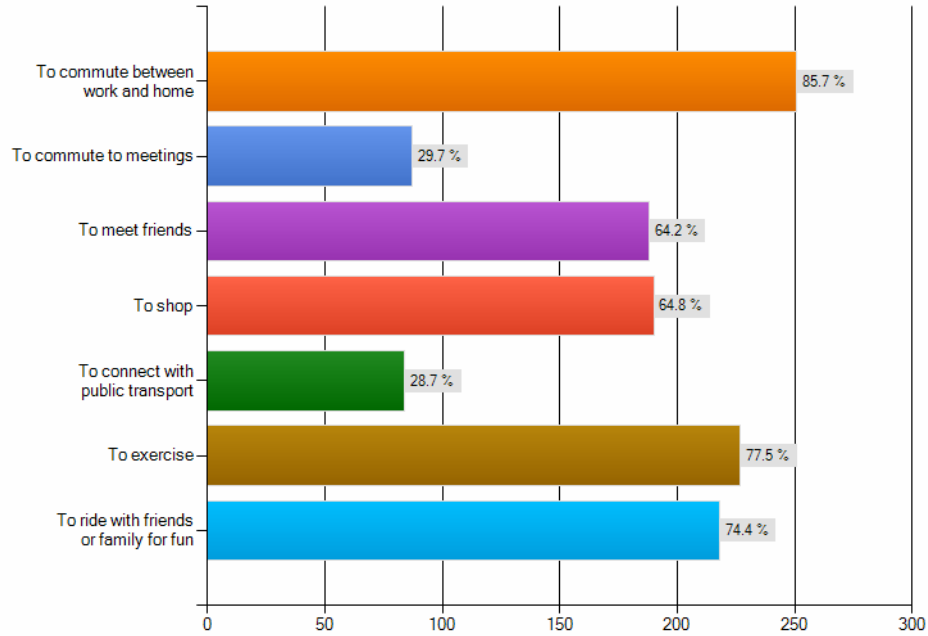
Question 3

Where have you ridden your bicycle in the last 12 months? Please select all relevant options.



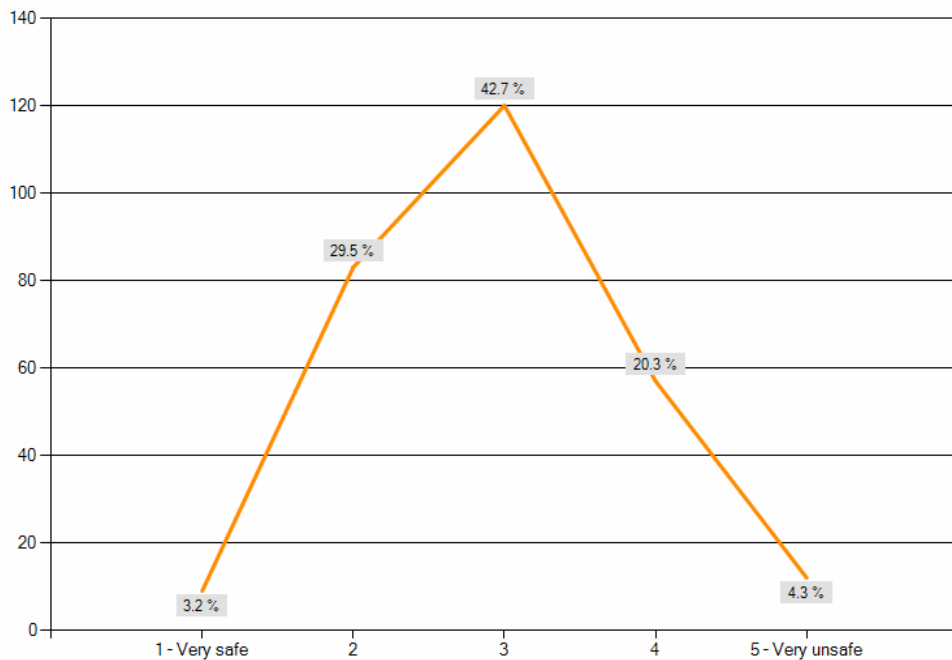
Question 4

In the last 12 months how have you used your bicycle? Please select as many options as necessary



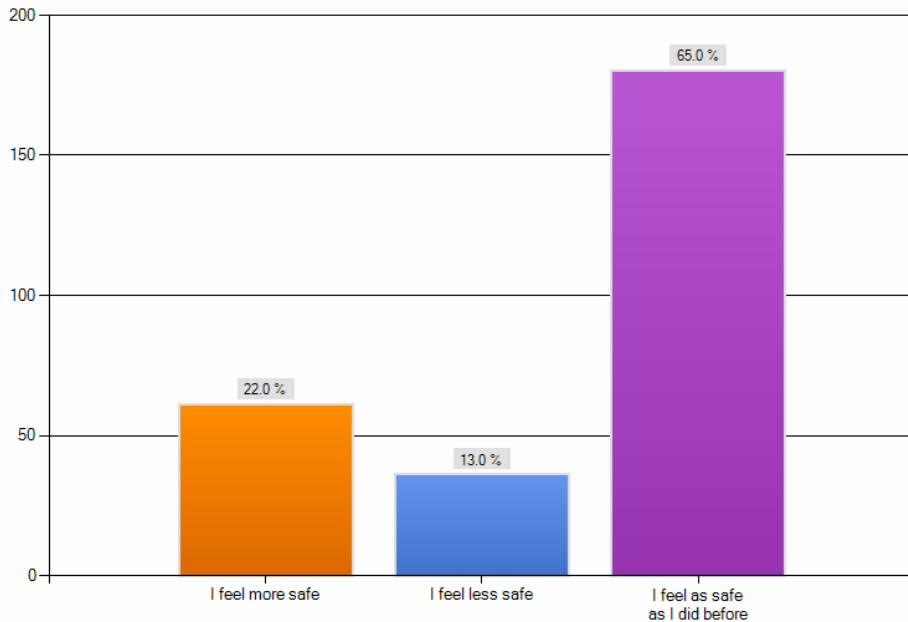
Question 5

Using a scale from 1-5 (where 1 is very safe and 5 is very unsafe), how safe do you feel for the majority of the time when riding your bike in Sydney? Please only select one answer.



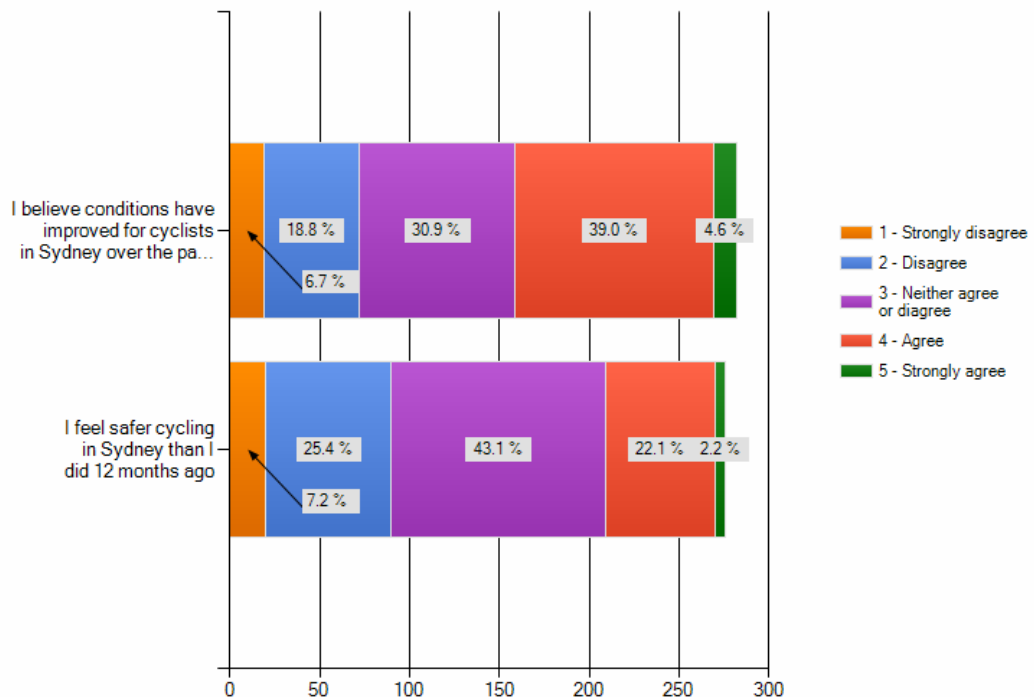
Question 6

In the last 12 months have your feelings of safety when cycling in Sydney changed? Please select from the drop down box below:



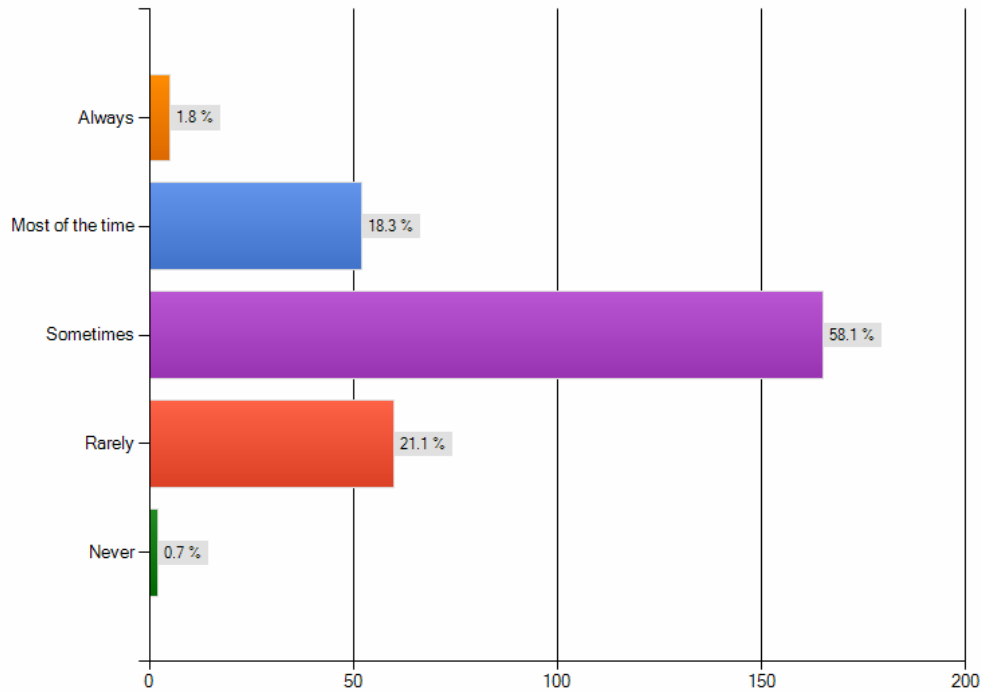
Question 7

Thinking about the below statements, how strongly do you agree or disagree, when 1 is strongly disagree and 5 is strongly agree. (Please pick one answer per statement).



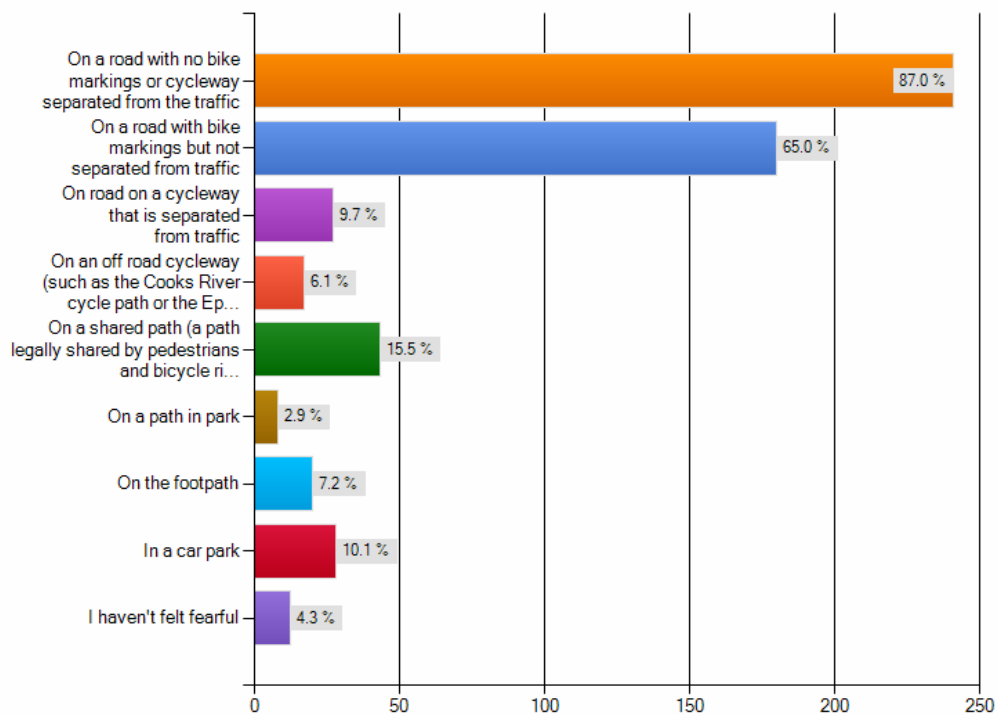
Question 8

How frequently do you feel nervous or fearful when cycling in Sydney?



Question 9

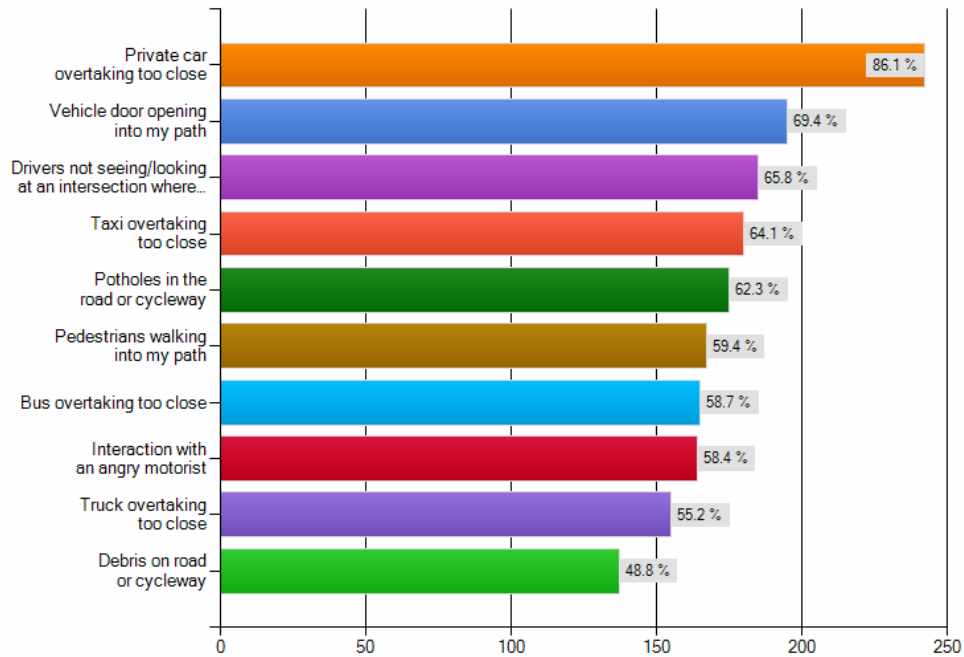
In the last 12 months where were you when felt nervous or fearful when cycling?



Question 10 & 11 (open questions): Is there a specific spot in Sydney that you feel is particularly dangerous for cyclists? Why is this spot dangerous?

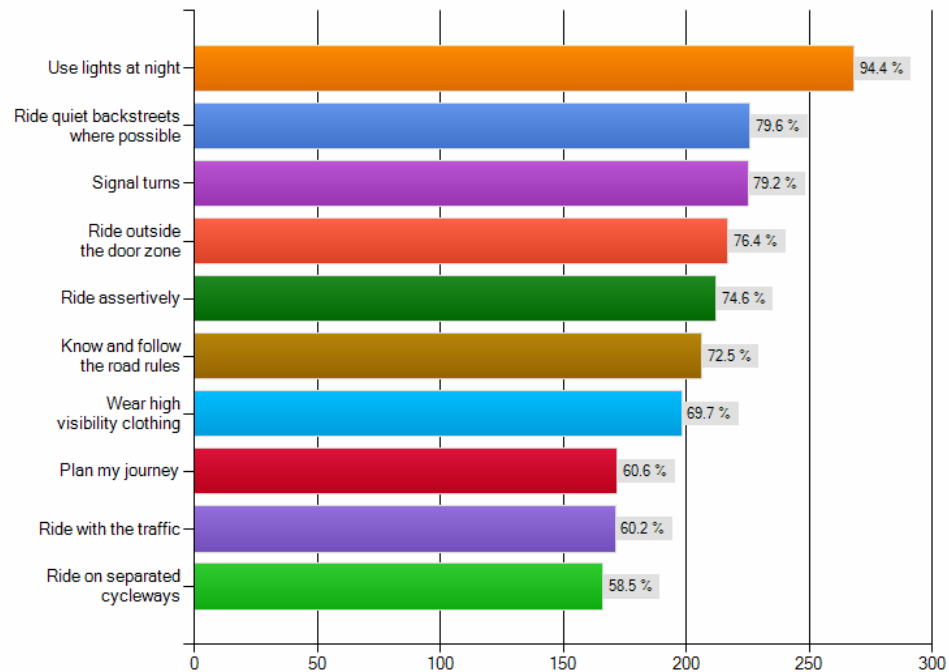
Question 12: top 10 responses

In the last 12 months which of the following have made you feel unsafe? Please select as many as necessary:



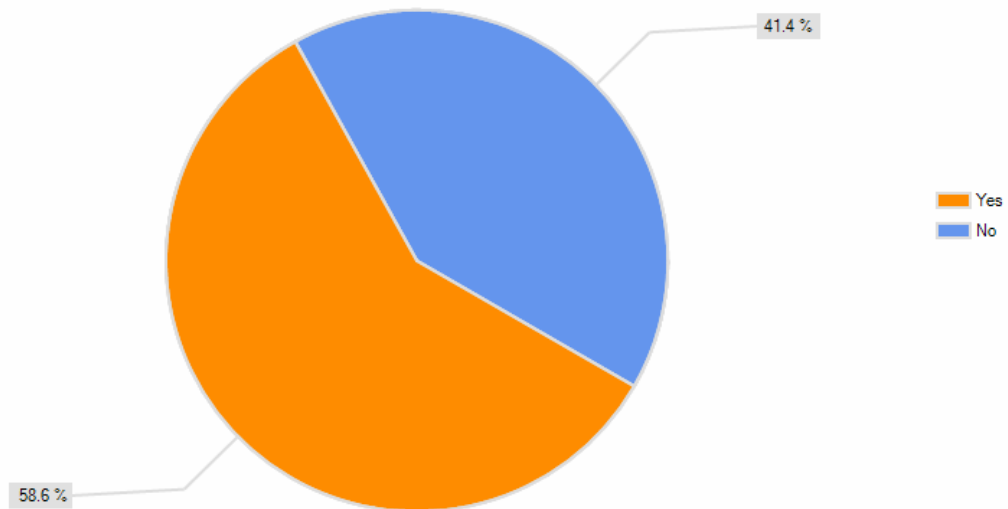
Question 13: top 10 responses

How do you make yourself feel safe when riding?



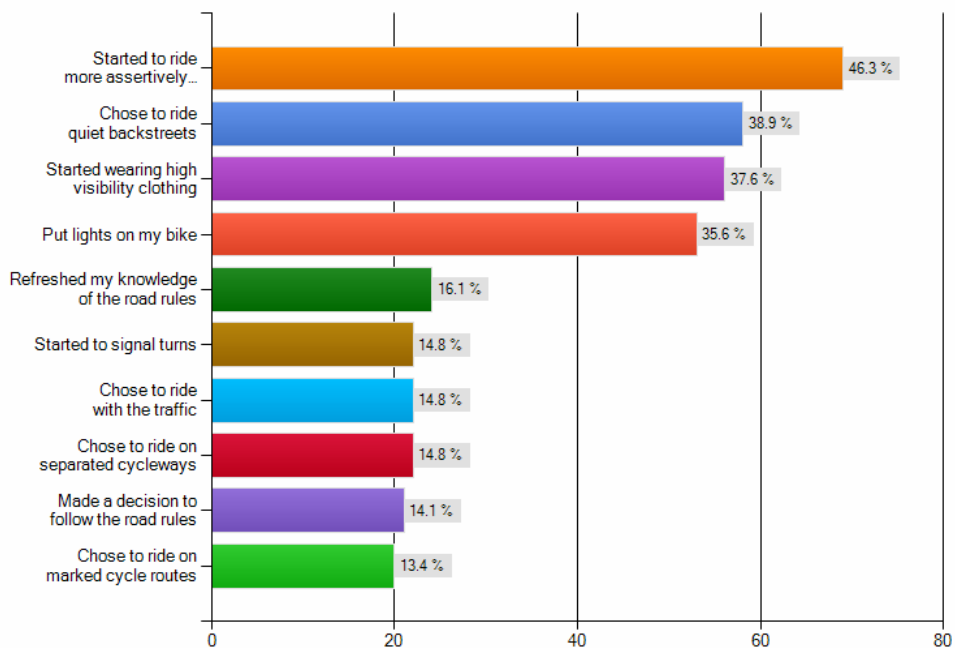
Question14

In the last 12 months specifically, have you done anything to make you feel safer when riding your bike?

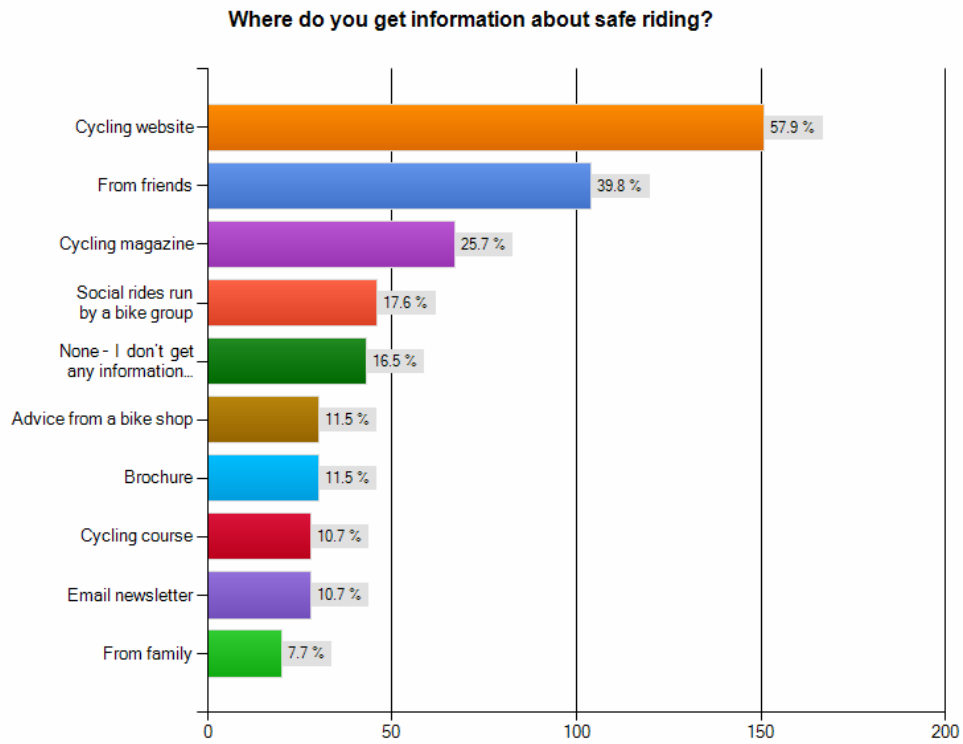


Question 15: Top 10 responses

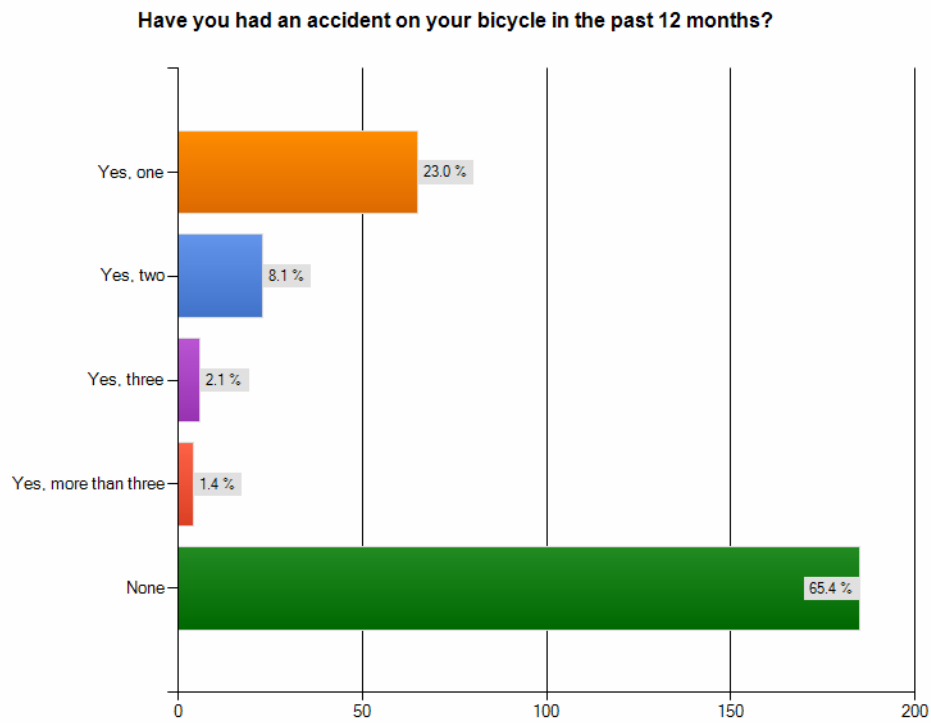
If yes, what have you done specifically in the last 12 months to make you feel safer when riding your bike?



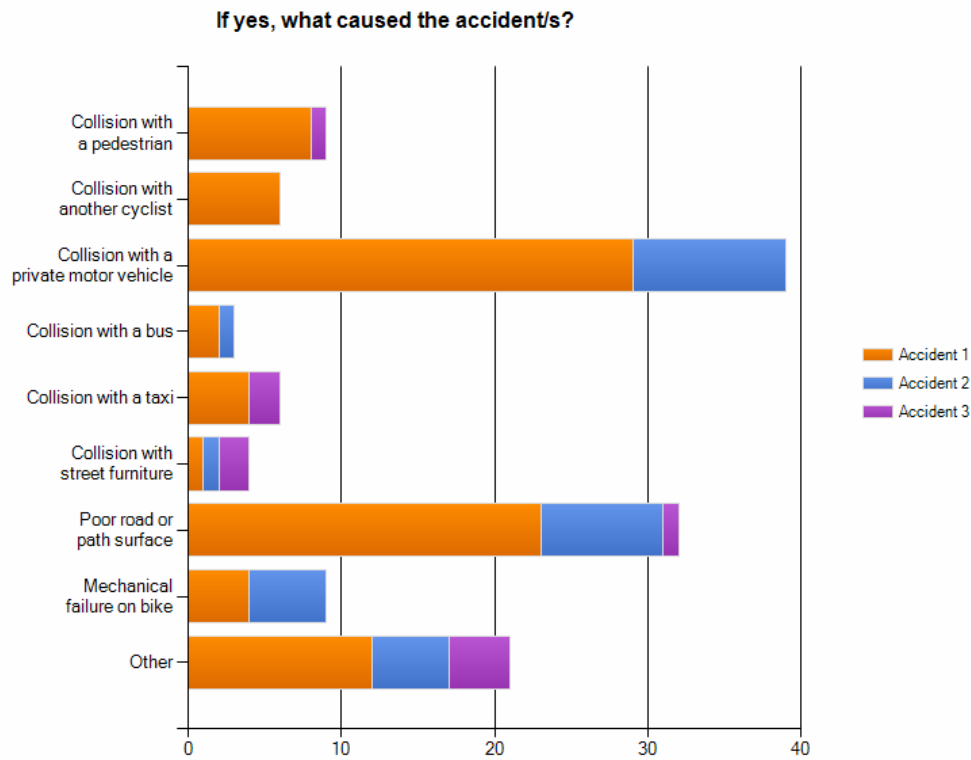
Question 16: Top 10 responses



Question 17



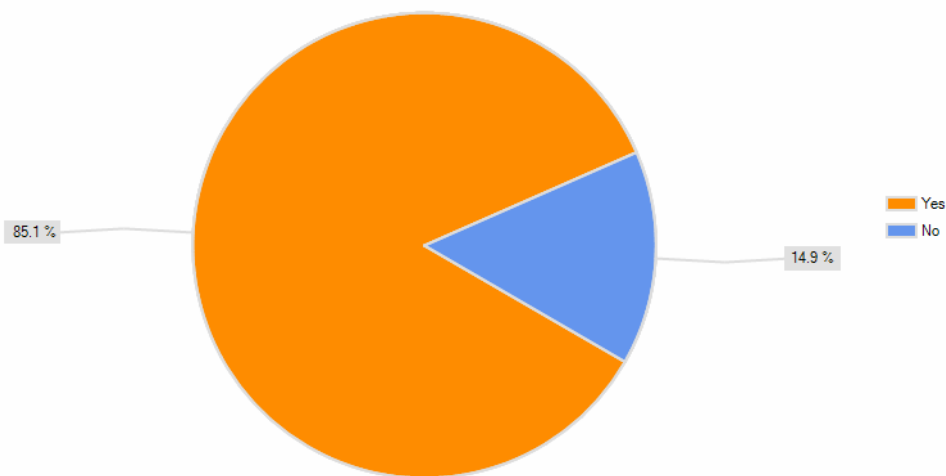
Question 18



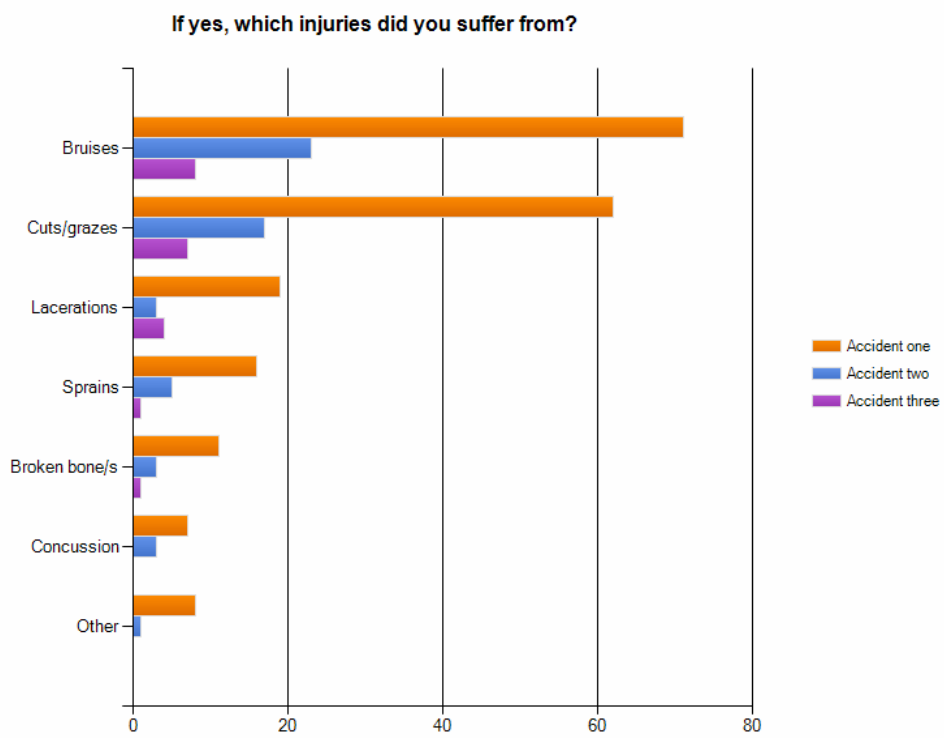
Question 19, 20 & 21 (open response questions): Where did the accidents occur?

Question 22

Did you suffer from any injuries from the accident/s?

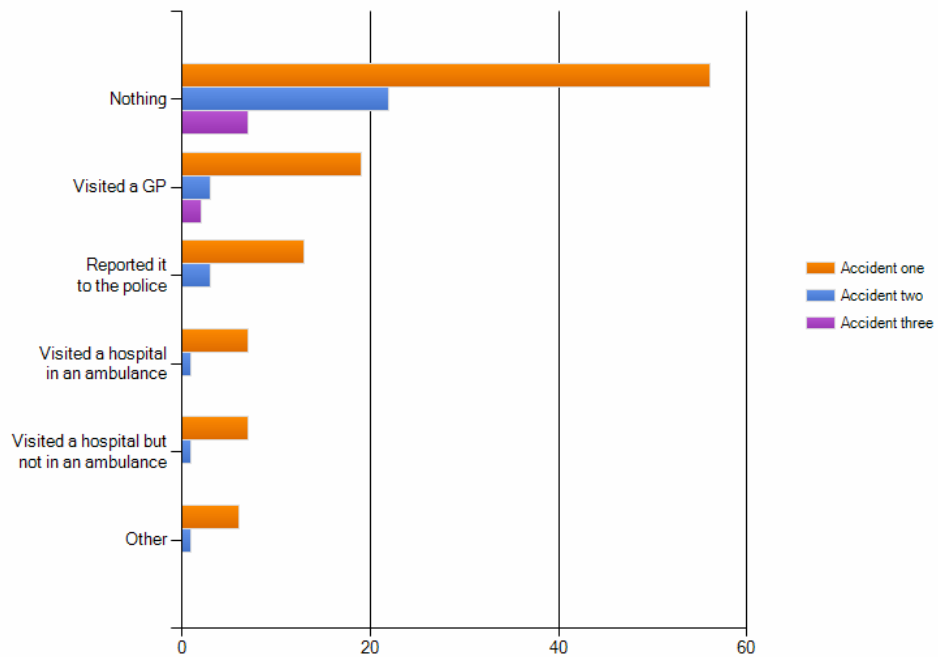


Question 23



Question 24

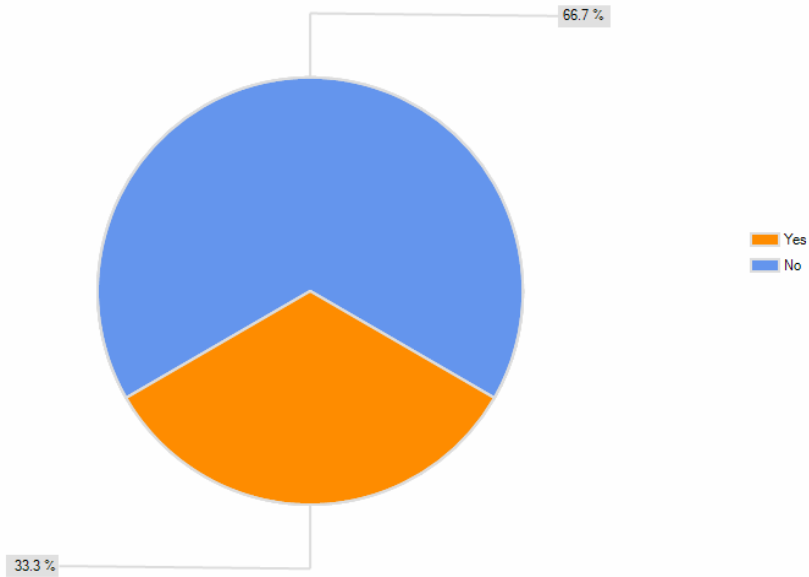
What happened subsequent to these accident/s? Please select as many of the most relevant outcomes as necessary for each accident



Question 25 (open response question): If you did not report the accident to the police, why was this?

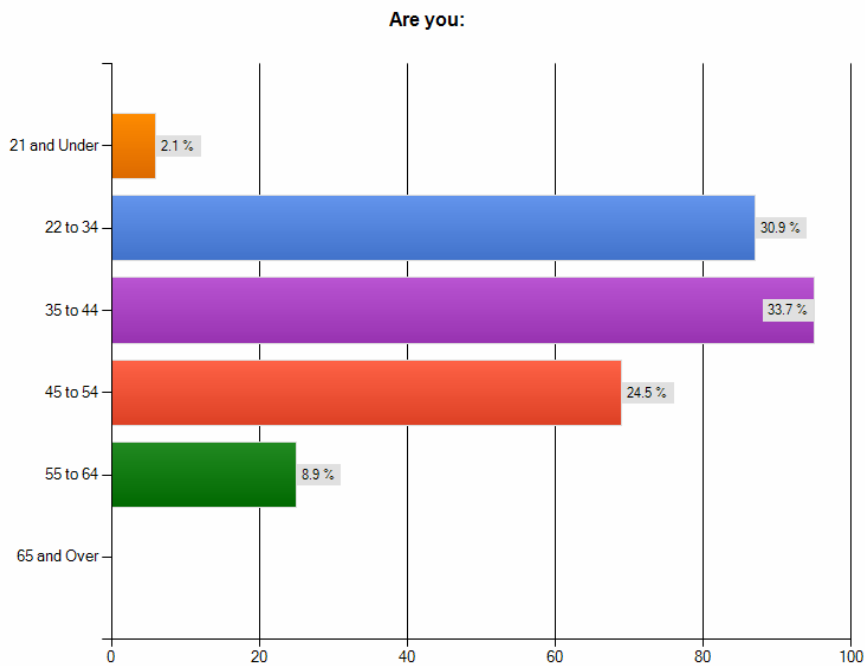
Question 26

If you did report the accident to the Police did you feel the matter was resolved satisfactorily?



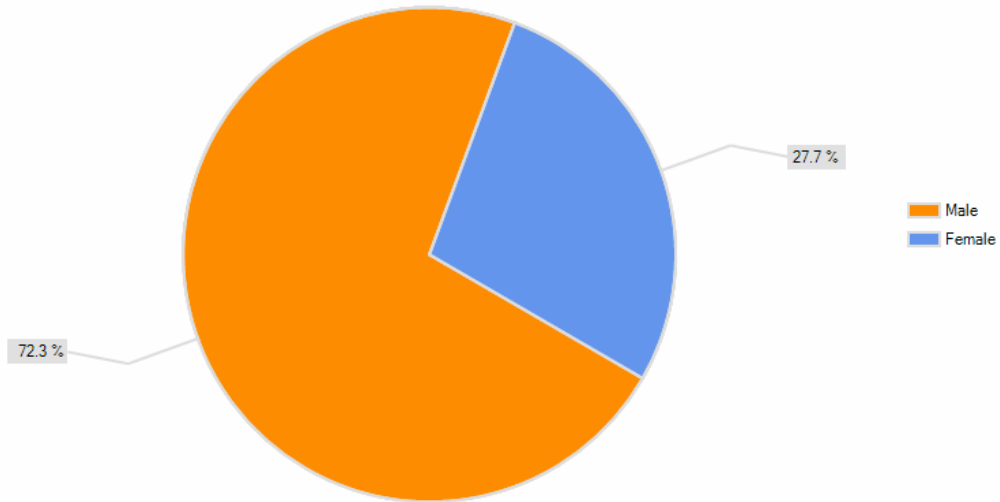
Question 27 (open response question): Overall what improvements would you suggest making so that you feel safer whilst cycling in Sydney?

Question 28



Question 22

Are you:





Bike Sydney Advocacy Ltd
ABN 95939852367

PO Box M59 | Missenden Rd
Camperdown NSW 2050

Phone +61 (0)2 8213 2437

cityride@bikesydney.org
www.bikesydney.org

Contact: Elaena Gardner