Chapter 2

Motorised mobility devices and the issue of safety

2.1 The inquiry's terms of reference required that the committee investigate the safety of motorised mobility devices. Specifically, the number of deaths and injuries attributed to accidents involving mobility scooters in Australia (since their introduction). The committee was also asked to investigate the causes of these accidents.

2.2 This chapter provides an overview of the issues raised by submitters and evidence provided by stakeholders regarding the causes of accidents, deaths and injury that are attributed to mobility devices. The chapter also provides an overview of the data that is currently available, and the studies that have been undertaken in relation to accidents involving mobility devices – including mobility scooters and motorised wheelchairs.

2.3 As discussed in the previous chapter, to describe the use of terminology in relation to mobility devices as 'complex' would be an understatement. Submitters to the inquiry used a range of terms when referring to mobility devices, including 'motorised mobility devices', 'motorised scooters', 'buggies', 'gophers', 'scooters', 'motorised wheelchairs', 'motor chairs' or 'power chairs'.

2.4 To provide a level of clarity and consistency, the general term 'motorised mobility device' is used where relevant, and the terms 'motorised scooter' and 'motorised wheelchair' are used where appropriate – in accordance with the diagram on page 6. The committee notes, however, that a number of the submitters who raised concerns about the safety of mobility devices, described them as 'mobility scooters' rather than 'motorised wheelchairs'.

Accidents involving mobility devices

2.5 The committee received a number of submissions which raised concerns about the use of mobility devices and questioned their safety.

2.6 Ms Jacqueline Walling for example, described how her elderly father had – on two separate occasions – been hit from behind while walking on the footpath by "mobility scooters driven by people who haven't taken enough care". Ms Walling advised that on the first occasion her father had received a skin tear on his leg which did not heal well. The injury, because of his age, has become a recurrent problem. On

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1 Various submissions to the inquiry raised concerns about the safety of mobility devices in general. However, a number of submissions which refer to specific accidents, incidents, or near misses (involving themselves or a family member) tend to identify the device involved as a 'mobility scooter'.

2 See, for example, Mr Ian Keith, Submission 6, Dr Colin Sheppard, Submission 8, Dr Trevor Hodson, Submission 15, Mr Frederick Charles, Submission 21, Ms Annette Philpott, Submission 34 and Ms Kathryn and Mr Mark Rorke, Submission 45.

3 Ms Jacqueline Walling, Submission 1, p. 1.
the second occasion, her father suffered a broken ankle. Ms Walling told the committee that the impact of these types of accidents goes beyond the initial pain and suffering of the individual:

In my father's case he was unable to get up the stairs and my parents' only living room became his sick room for weeks which was highly inconvenient. My parents don't drive so transport was required to many hospital appointments – they spent a lot of time waiting around and then there were medical costs – not all covered by the public purse. And, of course the whole family was terrified that (as often happens with the elderly) the injuries caused by his being struck by the mobility scooter would start a downward spiral.4

2.7 Mr Frederick Charles described for the committee a 2017 accident in which his wife was hit from behind by a mobility scooter and knocked to the ground. Mr Charles noted that while his wife was not seriously hurt, she had received severe bruising and grazing to her legs and head. He argued, however, that the situation could have been much worse:

...when my wife was hit she landed on grass beside a concrete path, had she hit the concrete the potential was there for a fatality.5

2.8 Mr Patrick Whitton, the owner of a family business in NSW, told the committee that his mother (employed by the family business) was "the victim of a severe collision with a mobility scooter within a shopping centre" that resulted in her sustaining a significant fracture to the femur.6

2.9 It was submitted that the collision had come about as a direct result of the uncontrolled speed of the mobility scooter in the shopping centre. Mr Whitton argued that due to the lack of regulation in NSW, the operator of the mobility scooter was uninsured, and the shopping centre had no duty of care to safeguard pedestrians against mobility scooters whilst on their premises.7 Mr Whitton advised that, as a direct result of the accident, his mother:

- has had surgery to have a titanium rod and screws inserted in her leg and hip (and has been advised by her surgeon that her prospects for a full recovery are limited);
- is unable to walk or stand properly;
- is unable to work;
- is required to undergo a life-long pain management program;
- has borne significant medical costs; and

4 Ms Jacqueline Walling, Submission 1, p. 1.
5 Mr Frederick Charles, Submission 21, p. 2.
6 Mr Patrick Whitton, Submission 62, p. 1.
7 Mr Patrick Whitton, Submission 62, p. 2.
• has been forced to sell her property.\(^8\)

2.10 Mr Whitton expressed frustration about the situation his mother now finds herself in, noting that she is unlikely to ever fully recover from the collision mentally, or physically. Mr Whitton added that as no one is 'liable' under the current circumstances, the financial impact of the accident has also been "catastrophic".\(^9\)

2.11 Submitter Dr Colin Sheppard called for an examination of the expanding use of mobility scooters and argued that, by definition, the users of mobility scooters frequently suffer from a combination of mental, physical and visual disabilities. Dr Sheppard submitted that:

> These vehicles with a weight of over 200 kg (including driver) can be seen driven erratically or at excessive speeds on footpaths, roads, in shopping centres and through public parks. The risk of death or severe injury to pedestrians of all types, but particularly children, dogs and the elderly are obvious. Anyone who has been confronted by one of these monstrosities hurtling around a blind corner on a footpath in a public park will know what I mean.\(^10\)

2.12 Dr Sheppard argued that given the increasing prevalence of mobility scooters, there is an urgent need for their regulation, and suggested that, at the very least:

• users of mobility scooters should be assessed in relation to their ability to operate the device;
• motor governors should be fitted to mobility scooters to prevent them travelling at more than a safe walking speed – about 5 km/h;
• mobility scooters should be fitted with a warning device such as a horn or a bell;
• mobility scooters should be registered and fitted with licence plates (so that dangerous users can be identified and held responsible for damage to property or persons);
• there should be some form of mandatory insurance for mobility scooters; and
• there may be a need to introduce penalties for people who use a mobility scooter while under the influence of alcohol or other drugs.

2.13 Dr Sheppard's submission reflected the views of a number of other submitters who raised issues such as the lack of a medical assessment for users of mobility scooters, the speed of mobility scooters, the need for licencing, registration and

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8 Mr Patrick Whitton, Submission 62, p. 1.
9 Mr Patrick Whitton, Submission 62, p. 2.
10 Dr Colin Sheppard, Submission 8, p. 1.
insurance and the problems associated with operating a vehicle while under the influence of drugs or alcohol.11

Research undertaken in relation to motorised mobility devices

2.14 The evidence of the ACCC provided valuable background information for the committee's inquiry. The ACCC, which has been involved in a variety of projects relating to the use and safety of motorised mobility devices, furnished relevant historical information and provided context in relation to research that has been undertaken by Australian institutions over recent years.

2.15 In addition, several academic institutions responded to the committee's request for submissions. These institutions, which have undertaken research in relation to the use of motorised mobility devices in recent years, include:

- the Monash University Department of Forensic Medicine (DFM);
- the University of the Sunshine Coast Adolescent Risk Research Unit (ARRU); and
- CQUniversity Australia, School of Medical, Health and Applied Science.

2.16 The submissions provided by these academic institutions included the most current data and expert analysis of injury data (involving motorised mobility devices) which had been taken from a variety of sources.

Australian Competition and Consumer Commission (ACCC)

2.17 The ACCC is Australia's primary competition and consumer protection agency. The ACCC is responsible for administering and enforcing the Competition and Consumer Act 2010, which includes the Australian Consumer Law (ACL). In the majority of situations, motorised mobility devices deemed to be for personal use would be considered 'consumer goods', which means that the consumer guarantees and recall provisions of the ACL apply. The ACCC also plays a role in ensuring products are marketed in a way that is truthful, and encourages the supply of safe consumer products in Australia.12

2.18 As part of its responsibilities, the ACCC may also undertake research or advocacy to:

- gain a better understanding of the nature of product safety issues;
- determine whether it should intervene in the market; or

11 See, for example, Mr Ian Keith, Submission 6, p. 1, Mr Richard Bunting, Submission 9, p. 1, Dr Trevor Hodson, Submission 15, p. 1, Mr Ray and Ms Judy Taylor, Submission 16, p. 1, Mr Nigel Caswell, President, People with Multiple Sclerosis Victoria, Submission 18, p. 2, Ms Annette Philpott, Submission 34, p. 1, Ms Kathryn and Mr Mark Rorke, Submission 45, p.1, Mr Patrick Whitton, Submission 62, [p. 3], Ms Jenny Linton-Webb, Submission 67, p. 1, Ms Nancy Capel, Submission 69, [p. 2], Pedestrian Council of Australia, Submission 115, [p. 2] and Ms Linda McDouall, Submission 119, p. 1.

12 Australian Competition and Consumer Commission, Submission 87, p. 2.
• determine whether it should introduce mandatory safety standards or bans under the ACL.\textsuperscript{13}

2.19 The ACCC has undertaken a variety of work in relation to the safety of motorised mobility devices. From 2009–2013, the ACCC was the lead agency for a reference group of interested parties which was established to identify issues, and take action to address safety concerns, associated with motorised mobility devices. The parties involved in the reference group included injury research organisations, business representatives, representative groups for older consumers as well as federal, state and territory government agencies.

2.20 The ACCC's reference group included three working parties:

- **the People and Users Working Party** – which worked to develop and conduct Australia's first national survey in relation to motorised mobility devices;

- **the Regulators Working Party** – which reviewed laws relating to motorised mobility devices and identified overlaps, inconsistencies and conflicts; and

- **the Equipment Working Party** – which included representatives from industry, and people with technical and standards development backgrounds.\textsuperscript{14}

2.21 Using agreed requirements provided by the Regulators Working Party, the ACCC also surveyed the brands and models of motorised mobility devices available in the Australian marketplace.

2.22 It was noted that the results from the ACCC's survey were provided to Austroads to inform its current project, and that the ACCC's reference group was disbanded in March 2013 (following the commencement of an Austroads project to develop relevant mandatory requirements under the ARRs).\textsuperscript{15}

2.23 Over recent years, the ACCC has also initiated research in relation to user behaviour, undertaken an analysis of injury data and developed a variety of educational and guidance material.

*Study of injury data by Monash University*

2.24 In its role as a consumer product safety regulator, the ACCC commissioned Monash University to undertake a targeted study of injury data to gain a better understanding of the risks and harms associated with motorised mobility devices.

2.25 The study, undertaken by the Monash University DFM, involved consultation with a range of stakeholders, including:

- researchers of motorised mobility devices;

\textsuperscript{13} Australian Competition and Consumer Commission, *Submission 87*, p. 2.

\textsuperscript{14} Australian Competition and Consumer Commission, *Submission 87*, p. 4.

\textsuperscript{15} Australian Competition and Consumer Commission, *Submission 87*, p. 3.
• road safety and transport experts;
• health and ageing professionals and rehabilitation providers;
• suppliers of motorised mobility devices; and
• independent living group members.

2.26 The study, which was published in March 2011, found:

• 442 hospitalisations related to motorised mobility device fall injuries, during the two years between July 2006 and June 2008 (with suggestions that this number would be larger if collision data was included); and
• that the increasing use of motorised mobility devices may see hospitalisations related to motorised mobility devices grow by approximately 250 per cent over the next decade (in Victoria alone).\(^{16}^{17}\)

2.27 The 2011 study also found that from July 2000 to August 2010, there were 62 identified fatalities related to motorised mobility scooters (and another 14 cases were under investigation). The largest proportion of deaths occurred in those aged 80 years and over, and were the result of individuals being struck by a motor vehicle. In contrast, the largest proportion of deaths in those younger than 80 years were as a result of falls.\(^{18}\)

2.28 Importantly, a number of the stakeholders consulted as part of the study reported that there was confusion across all levels of the community about the appropriate use of motorised mobility devices. The study found strong support for a standardised set of regulations which would provide clear and consistent operating rules, and help reduce confusion and conflict between users of motorised mobility devices and other community members.\(^{19}\)

ACCC Survey\(^{20}\)

2.29 Between February and June 2012, the ACCC, the NRMA, CHOICE, EnableNSW, Flinders University and a number of other stakeholders collaborated on Australia's first national survey of motorised mobility device users.

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16 Australian Competition and Consumer Commission, Submission 87, p. 3.
17 The ACCC noted in its submission that it had only received a small number of reports relating to motorised mobility devices since 2010, so it was not possible to provide any updated trend analysis in relation to injuries.
18 Monash University, Department of Forensic Medicine, Targeted Study of Injury Data Involving Motorised Mobility Scooters: A report commissioned by the Australian Competition and Consumer Commission, March 2011, p. 5.
19 Monash University, Department of Forensic Medicine, Targeted Study of Injury Data Involving Motorised Mobility Scooters: A report commissioned by the Australian Competition and Consumer Commission, March 2011, pp 43–44.
20 This section of the report is based on information contained in Mobility scooter usage and safety survey report: A collaborative project involving the Australian Competition and Consumer Commission, NRMA Motoring and Services, CHOICE, EnableNSW and Flinders University, September 2012.
The survey included a randomly selected sample of 2406 people aged over 18 years (who were asked to complete a short version of the survey) and 515 current users of mobility scooters who volunteered to complete an extended survey.

The purpose of the survey was to further develop the work undertaken by DFM in relation to injury data and provide a clearer understanding of the demographics of motorised mobility device users, and patterns of use across the Australian population.

The survey found that over 51 per cent of motorised mobility device users were aged 60 years or less which, it was noted, is inconsistent with the idea of users being older Australians, aged 60 years or over. The survey also revealed that only a small number of users actually received safety training or advice from mobility specialists and that:

- just over half (51 per cent) of mobility scooter users sought advice or assessment from mobility specialists when purchasing a scooter;
- only 25 per cent had safety training or tuition on their current scooter; and
- the key providers of safety training and tuition included occupational therapists or other health professionals, or retailers (sales persons and suppliers).

**Monash University Department of Forensic Medicine**

The Monash University DFM told the committee that "there are few reports in Australia or elsewhere on deaths and injuries associated with motorised mobility scooters". The DFM also acknowledged the difficulty of sourcing accurate data in relation to deaths and injuries (attributed to motorised mobility devices) and noted that its submission was based on the limited data that is currently available in relation to motorised mobility device-related deaths. Specifically, the Monash DFM submission was based on:

- data from the National Coronial Information System (NCIS);
- previous research conducted by the Monash University DFM; and

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21 Those participants aged 18 years and over (who were asked to complete the shorter version of the survey) were weighted by age, gender, location and highest level of schooling completed to represent the Australian adult population.

22 *Mobility scooter usage and safety survey report: A collaborative project involving the Australian Competition and Consumer Commission, NRMA Motoring and Services, CHOICE, EnableNSW and Flinders University*, September 2012, p. 2.

23 Monash University Department of Forensic Medicine, *Submission 92*, p. 1.

24 The data provided by the Monash University Department of Forensic Medicine relates to mobility scooters, or as the Monash DFM refers to them, motorised mobility scooters – abbreviated to MMS. The information provided by the Monash DFM excludes electric wheelchairs.

• a collaborative research proposal submitted to the NHMRC by the University of New South Wales (UNSW) in 2018.  

2.34 It was noted that given the various complexities involved in obtaining data on MMS-related deaths and injuries – including substantial costs and delays – Monash researchers had combined data from a range of time periods to compile the MMS-rider death and serious injury data estimates. The data estimates focused on the 60 years and above age group which, it was argued, encompasses the greatest proportion of deaths and injuries and appears to largely represent frail elderly MMS-users.  

2.35 In summarising the DFM's submission, Professor Joan Ozanne-Smith, Head of Injury Prevention, told the committee that there had been:

132 deaths between 2000 and 2017, which included only three pedestrians or just over two cent. Of the 129 scooter users who died, more than 90 per cent were aged 60 years or over. In addition, we estimate – based on old data; 2006 to 2009 data – that at least 350 older scooter users are admitted to hospital for injuries – serious injuries – each year and there are likely considerably higher incidents in recent years due to the increasing number of motorised scooters.

The medical cause of death was available only for the period 2000 to 2011. Almost 40 per cent of the deaths were due to head injury and another 15 per cent due to multiple injuries, which might have included head injuries. Of the 77 deaths in that period, 39 were due to being struck by a motor vehicle and 29 fell from a motorised scooter. Most deaths were of older people.  

2.36 DFM questioned the results of the ACCC’s national survey regarding the distribution of scooter users by age group, which found that 51 per cent of users were aged less than 60 years and noted that the ACCC's survey was "based on very limited data". At the same time, however, it argued that "in any case, older persons appear to be the most vulnerable users according to the fatal injury data".  

CQUniversity Australia

2.37 CQUniversity Australia indicated that in 2016, its research team had surveyed 67 mobility device users from Victoria and Queensland to gain an understanding of how people use public transport and to determine whether public transport has an influence on their choice of mobility device. The survey found that:

• 42 per cent of respondents used two or more seated mobility devices;
• the most important features when choosing a mobility aid were reliability, turning ability and size; and
• 52 per cent of respondents strongly agreed that public transport is generally accessible.

2.38 Researchers also concluded that motorised mobility device users, vendors and health professionals needed to work together to identify mobility devices that best fulfilled users' needs, and were reliable and safe.

2.39 Following on from the 2016 study, CQUniversity Australia has been working with Public Transport Victoria to investigate the suitability of motorised mobility devices to access, move within and egress public transport – specifically buses. This latest research is being undertaken in direct response to the proposed introduction of Technical Specification DR SA TS 3695.3:2017 CP Requirements for designation of powered wheelchairs and mobility scooters for public transport and/or road-related area use.

NSW Parliament Inquiry

2.40 The committee notes that the increasing use of non-registered vehicles such as electric bicycles, segways, quad bikes and motorised mobility devices prompted a recent inquiry in the Parliament of New South Wales.

2.41 On 14 November 2012, the NSW Standing Committee on Road Safety (Staysafe) resolved to undertake an inquiry into the increasing use of non-registered motor vehicles on public roads, footpaths and public land and their impact on road safety. The Staysafe Committee's inquiry focused on:

• the current status of these vehicles under the road rules;
• road safety problems associated with their use;
• data collection on injury and death rates; and
• vehicle standards (including design, engine capacity, mass and speed controls).32

2.42 In undertaking its inquiry, the Staysafe Committee also assessed the availability of road safety education, the need for skills and competency training for vehicle users, and the insurance implications of injuries and deaths related to their vehicle use.

2.43 The Staysafe Committee's report was tabled in the NSW Parliament in March 2014. The report acknowledged that the trend toward alternative modes of transport has obvious benefits "for groups in the community who for reasons of age or infirmity

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31 For the purposes of its inquiry, the Staysafe Committee defined 'non-registered vehicles' as vehicles which are mechanically powered and which are not required to be registered on NSW roads.

would otherwise be house bound. The report also acknowledged that the use of alternative forms of transport:

…also presents a challenge for road safety practitioners and transport planners, who voice concerns about the potential conflicts and risks these vehicles may pose for riders and other road users.33

2.44 The Staysafe Committee's full report – which can be found on the NSW Parliament's website34 – contains a number of findings which are of particular relevance to the committee's current inquiry into motorised mobility devices. These findings are summarised below:

Data collection35

2.45 A consistent theme running through the inquiry was the lack of data concerning the use of non-registered motorised vehicles and their involvement in accidents. The report noted that the problems associated with lack of data are compounded by the current vehicle coding system, which does not allow precise differentiation between vehicle classes. Under the current system, some registered vehicles generally used on public roads (such as mopeds) are included with non-registered vehicles (including electric bicycles and quad bikes). It was also noted that the classification of mobility scooter users as pedestrians creates another layer of confusion.

2.46 The Staysafe Committee recommended that an interagency working group investigate ways to improve data collection and research on injuries and deaths caused by non-registered motorised vehicles, as well as relevant risk factors.

Road infrastructure

2.47 The report noted that inadequately maintained footpaths and ramps can create safety hazards, particularly for mobility scooter users. These problems often leave users with poor options for route choice, including being forced on to roads, gutters and nature strips. The Staysafe Committee recommended that local and state governments take account of powered mobility device safety when designing and upgrading public infrastructure.

Manufacturers and distributors

2.48 The report considered the role manufacturers can play in vehicle design and safety improvements. A range of views were summarised, including the suggestion


35 This section is based on information contained in Parliament of New South Wales, Joint Standing Committee on Road Safety (Staysafe), Report on Non-Registered Motor Vehicles, Report 3/55, March 2014, pp 98–107.
that manufacturers should provide safety information to consumers, or that they should be required to fit improved safety equipment to devices. Accreditation of suppliers was also supported by some participants. The report included a recommendation that the NSW Government examine the viability of establishing an accreditation system for mobility device retailers to ensure that consumers are provided with material containing safety warnings and user information as part of the sale process.

**Regulatory reform**

2.49 It was noted that a proposal to establish a registration scheme was presented as a potential solution to some of the issues identified throughout the inquiry. In support of this proposition, the case was made that such a scheme would improve safety, enable assessment of the competency of vehicle operators, improve data collection on vehicle use and prevent illegal use of such vehicles. On the other hand, it was also claimed that registration was not required; that it would be costly, as well as difficult to implement and enforce.

2.50 As part of its recommendations, the Staysafe Committee recommended that the NSW Government investigate the feasibility of imposing a requirement for mobility scooters to be fitted with compliance plates or road worthiness certificates, prior to their sale.

**Vehicle insurance**

2.51 The report indicated that while there was some support for mandatory insurance, other evidence suggested that it should not be made mandatory until more evidence was gathered to support the need for such a scheme. The Staysafe Committee made two recommendations in relation to vehicle insurance:

- that Transport for NSW and the Motor Accidents Authority investigate the insurance liability and insurance coverage options for mobility devices; and
- that Transport for NSW undertake a public education campaign to inform the community of the risks of injury associated with the use of non-registered motorised vehicles and of the need for appropriate insurance to cover potential liability.

**Road safety education**

2.52 The report noted that two key strategies to improve road safety awareness were education and training, and the targeted assessment of users' skills and competency to operate their vehicles. The Staysafe Committee made a number of recommendations in relation to road safety education, including:

- that Transport for NSW examine the effectiveness of the scooter education and training pilot implemented in British Columbia, with a view to improving similar training programs delivered in NSW;
- that Transport for NSW and WorkCover NSW design specific road safety campaigns to increase community awareness of the safety risk of
different classes of non-registered motorised vehicles and the importance of skills and competency based training; and

- that Transport for NSW updates relevant road safety publications, such as 'A Guide to using motorised wheelchairs', to make clear that advice on road rules and road safety also applies to mobility scooters.

2.53 The Staysafe Committee acknowledged that at the time its report was being prepared, Austroads was involved in a number of projects in relation to motorised mobility devices. The Staysafe Committee indicated that it was supportive of the projects being undertaken by Austroads – particularly its work toward harmonising separate state and territory policies in relation to motorised mobility devices.

2.54 The NSW Government Response to the report, which was tabled in September 2014, indicated its support for a number of the recommendations, including:

- improved data collection and research on injuries and deaths caused by non-registered motor vehicles, as well as relevant risk factors;
- improved data collection and improvements to coding for non-registered motorised vehicles involved in road accidents;
- work to improve the coding of 'Admitted Patient Data' to differentiate between vehicle types;
- the work being undertaken by Austroads (and other Australian jurisdictions) toward standard Australian Design Rule classifications for non-registered motor vehicles; and
- a public education campaign to inform the community of the risks of injury associated with the use of non-registered motorised vehicles and of the need for appropriate insurance to cover potential liability.\(^\text{36}\)

2.55 The NSW Government provided in-principle support for a number of the report's recommendations, including:

- an investigation of the feasibility of imposing a requirement for mobility scooters to be fitted with compliance plates or road worthiness certificates, prior to their sale;
- an investigation of the insurance liability and insurance coverage options for mobility devices (to be undertaken by Transport for NSW and the Motor Accidents Authority;
- a Transport for NSW examination of the scooter education and training pilot program implemented in British Columbia, with a view to improving similar training programs delivered in NSW; and

\(^{36}\) NSW Government response to recommendations in the Parliament of New South Wales, Joint Standing Committee on Road Safety (Staysafe), Report on Non-Registered Motor Vehicles, 17 September, 2014.
local and state governments taking account of powered mobility device safety when designing or upgrading public infrastructure.\textsuperscript{37}

**Causes of accidents and injury**

2.56 The ACCC's research indicated that the majority of serious injuries and deaths (in relation to mobility devices) were associated with collisions with cars, trucks or trains rather than any specific feature of the devices themselves. Research also determined that a large proportion of deaths occurred when users of motorised mobility devices were crossing a road, attempting to alight from the scooter or when entering or approaching intersections. The ACCC argued that its research had demonstrated that interventions available under consumer law would not solve the key issues relating to user behaviour.\textsuperscript{38}

2.57 The ACCC submitted that, as a result of its earlier work, in 2013 Austroads commenced work toward the development of a national framework to improve the safety of motorised mobility devices. The ACCC noted that the Austroads project, which is ongoing, is being led by the Queensland Department of Transport and Main Roads, and aims to introduce mandatory construction and labelling requirements for motorised mobility devices, that will be included in the ARRs. The project being undertaken by Austroads will be described further, later in this chapter.

**Issues raised by stakeholders**

*The balance between safety and independence*

2.58 The Council on the Ageing Australia (COTA) argued that before any changes were made to policies and regulations as they relate to mobility scooters, consideration needed to be given to the broader policy context – rather than simply safety regulations within the status quo. COTA argued that:

   This should include ensuring that we develop age-friendly cities and develop policies that enhance social inclusion and healthy ageing – that is to say: we urge the committee to ensure its recommendations do not inadvertently inhibit older Australians from moving about freely, including through the use of mobility scooters when they cannot do so without assistance.\textsuperscript{39}

2.59 A number of submitters stressed the positive impacts that mobility scooters and motorised wheelchairs can have on people's lives. It was argued that these devices can provide people with independence and allow them freedom of movement to do their own shopping, undertake recreational activities, attend sporting and cultural

\textsuperscript{37} NSW Government response to recommendations in the Parliament of New South Wales, Joint Standing Committee on Road Safety (Staysafe), *Report on Non-Registered Motor Vehicles*, 17 September, 2014.

\textsuperscript{38} Australian Competition and Consumer Commission, *Submission 87*, p. 1.

\textsuperscript{39} Mr Corey Irlam, Council on the Ageing Australia, *Committee Hansard*, 23 July 2018, p. 10.
events, visit family and friends, attend appointments as well as participate in the workforce.  

2.60 Stakeholders argued that participation in the community is critical to a person's quality of life and mental health. Mr Peter Mitchell, for example, told the committee that he is currently restricted to walking about twenty or thirty metres at a time, so his scooter provides a "lifeline to a normal existence, allowing me to shop, socialise, and attend functions, sporting events, etc".  

2.61 Miss Stacey Christie told the committee that the majority of people who use motorised wheelchairs typically spend the majority of their lives in their wheelchair, and argued that:

> My motorised wheelchair is essentially my legs. Without my wheelchair I would not be able to leave my house or even move around my house. I wouldn't be able to work and have a fulltime job or access my community.  

**Speed**

2.62 A large number of stakeholders raised 'speed' as an issue that required serious consideration.

2.63 COTA told the committee that there was a lack of clarity around the issue of speed limits:

> Speed is a crucial consideration in the safe use of mobility scooters, both for the user and other pedestrians. A 'fast walk' speed limit of 8-10 kph offers a reasonable guide, but it is unclear to COTA whether this is the limit required and enforced in all jurisdictions. The prevalence of mobility scooters in the community able to exceed a limit of 10 kph is also unknown.  

2.64 A number of submitters raised concerns about the safety of current speed limits and pointed to the dangers of increasing the permitted speed limits. Ms Jacqueline Stalling, for example, argued that travelling at walking pace allows the user of a motorised mobility device more time to understand what is happening around them, and allows other footpath users more time to take evasive action, should it be required. Ms Stalling also suggested that halving the speed limit would "reduce the severity of injuries if the scooter hits a person".  

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41 Mr Peter Mitchell, *Submission 13*, p. 2.


43 COTA Australia, *Submission 101*, p. 5.

44 See, for example, Dr Colin Sheppard, *Submission 8* and Mr Paul Brand, *Submission 55*.

45 Ms Jacqueline Stalling, *Submission 1*, p. 2.
2.65 A large number of submitters raised strong objections to the introduction of any regulations which would decrease the permitted maximum speed from 10 km/h. The Youth Disability Advocacy Network told the committee that it had concerns about the safety of reducing the maximum allowable speed, and argued that:

There are many situations where a person has to run quickly to escape danger, just as there are many situations where a powered wheelchair user has to drive quickly to escape danger. Limiting the speed means limiting users' safety, users' ability to cross roads quickly and safely, and the freedom to go at the same speed as other pedestrians.

2.66 There was, however significant consensus for maintaining a 5 km/h minimum speed and a 10 km/h maximum speed. Mr Ray Jordan advised that the safe speed for a motorised mobility device will vary depending on the specific situation, but noted that "there must be a balance between safety and how long it takes to get somewhere". He argued that:

Many of us do not have the luxury of being able to jump in a car and drive to the office, train station, local café or the shopping mall. A mobility scooter or a wheelchair is all we have unless the distance is such that a taxi becomes a viable option. I think the Australian Standard AS3695.3 has the balance about right at 10km/h.

2.67 The committee suggests that this evidence should be taken into consideration by Austroads as part of its future deliberations.

**Weight**

2.68 While the issue of weight was raised during the inquiry, stakeholders did not identify it as a key issue of concern.

2.69 The Darebin Disability Advisory Committee observed that the maximum unladen mass of an average motorised wheelchair generally exceeds 110 kg, and that the road rules, standards and guidelines that impose a 110 kg limit have not kept up with changes to wheelchair weights over the years. It was suggested that if the "federal government does indeed create regulations that enshrine the 110 kg weight limit, most power wheelchairs would become essentially illegal".

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46 See, for example, Ms Judi Potts, Submission 2, Youth Disability Advocacy Network, Submission 7, Mr Arthur Comer, Submission 17, Mr Pete Reed, Submission 32, Mr Ron Henney, Submission 42 and Miss Stacey Christie, Submission 66.


48 See, for example, Mr Peter Mitchell, Submission 13, Dr Colin Sheppard, Submission 8, Dr Trevor Hodson, Submission 15, Ms Judy and Mr Ray Taylor, Submission 16 and Mr Jim Ashenden, Submission 59.

49 Mr Ray Jordan, Submission 23, [p. 3].

50 See, for example, Youth Disability Advocacy Network, Submission 7, Miss Erin Condrin, Submission 52, Mr John Moxon, Submission 56 and Miss Stacey Christie, Submission 66.

51 Darebin Disability Advisory Committee, Submission 102, p. 2.
2.70 The NSW Council of Social Service (NCOSS) noted that the current inquiry represents an opportunity for stakeholders to "explore broader change to improve the lives of people with mobility impairments". It was also suggested that any proposal to restrict the speed and weight of motorised mobility devices would undermine choice and control for many users, and effectively limit their freedom of mobility.

2.71 NCOSS argued that Australia already has tight controls on motorised mobility devices, and pointed to the European standards, which have been adopted by most international manufacturers, and which have:

- no weight restrictions on motorised mobility devices; and
- speed limits dependant on location: typically 12 km per hour with a slow switch to 6 km per hour for high pedestrian traffic areas.

2.72 NCOSS also argued that imposing additional regulations – including speed and weight restrictions – would place Australia out of step with international standards, drive up costs for Australian users, and decrease their choice and control.

**Drugs and alcohol**

2.73 A small number of submitters raised serious concerns about mobility scooter users affected by drugs or alcohol when travelling on roads or road-related areas such as footpaths. Anecdotal evidence suggested that some users of mobility devices deliberately use a scooter to travel to hotels or registered clubs to drink alcohol and travel home on a footpath under the belief that they will not be stopped or breathalysed by police.

**Collection of data**

2.74 Initial searches conducted at the commencement of the inquiry revealed that information and research about the use of mobility devices – including mobility scooters and motorised wheelchairs – is difficult to find. There is a lack of available, up-to-date, factual information about the number of mobility devices in Australia, the different ways these devices are used – both inside and outside the home – their safety, and their compatibility with urban infrastructure.

2.75 In responding to the committee's request for submissions, a number of individuals and various organisations pointed to the fact that there is a limited amount of data available in relation to motorised mobility devices – including mobility scooters and motorised wheelchairs. The Combined Pensioners and Superannuants Association (CPSA) for example, cited a 2016 review of "the extant empirical

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52 NSW Council of Social Service, Submission 78, p. 1.
53 NSW Council of Social Service, Submission 78, p. 2.
54 NSW Council of Social Service, Submission 78, p. 2.
55 NSW Council of Social Service, Submission 78, p. 2.
56 See, for example, Mr Richard Bunting, Submission 9, p. 1, Dr T. Hodson, Supplementary Submission 15, p. 1, Mr Charles Nicholson, Submission 44, p. 5.
research regarding mobility scooters" which had identified that there were as few as 28 studies worldwide.57

2.76 Austroads observed that the registration scheme used by the Queensland Government provides some insight into the prevalence and growth of motorised mobility devices in Australia over recent years. Austroads pointed to figures which show that in 2002, there were a total of 5894 motorised mobility devices registered in Queensland. Since then, there has been a steady annual growth in registrations, and by 2017, the figure had increased to 31 294.58

2.77 Given that Queensland represents approximately 20 per cent of Australia's total population, Austroads speculated that there are currently more than 156 000 motorised mobility devices in use nationally. Austroads argued that Australia's ageing population, and the roll-out of the NDIS means there is likely to be a significant increase in this number over the coming years.59

2.78 Austroads noted, however, that current accident rates for motorised mobility devices are still not well documented in Australia, and the records kept by emergency services and hospitals may not capture the details of accidents or incidents (or the causes of accidents) accurately.60

2.79 The ACCC acknowledged that although incidents (including accidents involving motorised mobility devices and pedestrians) are not regulated by the ACCC, it does receive a small number of reports on these types of incidents. The ACCC submitted that since 2010, it has received 27 reports, from various sources, including mandatory reports from suppliers, and consumer complaints. The majority of these reports relate to incidents involving motorised mobility devices and collisions with motor vehicles. Other reports describe incidents where the rider has fallen from their mobility device, for example, when leaning to pick up an item.61

2.80 Based on the small number of reports it had received, the ACCC submitted that there was no obvious pattern which would indicate that a particular type of device or brand was more susceptible to performance and/or safety issues.62

2.81 The ACCC argued that this is also evidenced in the small number of voluntary recalls notified by suppliers of motorised mobility devices. The ACCC advised that since 2002, suppliers have notified only five voluntary recalls of motorised mobility devices:

58 Austroads Ltd, Submission 64, p. 2.
59 Austroads Ltd, Submission 64, p. 2.
60 Austroads Ltd, Submission 64, p. 3.
61 Australian Competition and Consumer Commission, Submission 87, pp 2–3.
62 Australian Competition and Consumer Commission, Submission 87, p. 3.
Monarch Buzz Mobility Scooter (2014) – the rear and front sections could separate if the scooter was driven over a gutter kerb, an obstacle greater than the scooter's clearance, or dropped from a height.

Breeze C Mobility Scooter (2013) – an internal electric contact could become disconnected due to extensive wear.

Mini Crosser Scooters (2009) – the controller could require adjustment of its settings in order to avoid a potential fire hazard.

Victory Scooters (2004) – there was a remote potential for the electronic power harness connection to short-circuit causing the scooter to stop functioning.

Voyager, Columbus and Traveller 3 and 4 Wheeled Mobility Scooters (2002) – a limited number of these scooters could experience premature failure of the drive mechanism.63

In 2006, the Victorian Injury Surveillance Unit (VISU), a project of the Monash University Accident Research Centre, reported on research it conducted in relation to the use of motorised mobility scooters. The report noted that motorised mobility scooters were "growing in popularity in Australia as older and disabled people strive to maintain active, independent lifestyles".64

The VISU explained that as a result of the increased popularity of motorised mobility devices, it had received numerous requests for data on injuries related to motorised mobility scooters. It was also noted that:

The difficulties we faced identifying these injury cases on fatality and hospital injury surveillance databases provide a good illustration of the shortcoming of available hospital-based injury datasets for the identification of emerging injury issues relating to newer consumer products.65

The VISU also indicated that the only comprehensive source of data on the number of motorised mobility scooters in use in Victoria was that of the 1998 and 2003 ABS Survey of Disability Ageing and Carers. While each of the surveys reported data (regarding scooter use by people with a disability) differently, researchers were able to use the data to conclude that there had been a three-fold increase in the use of mobility scooters by adult Victorians between the 1998 and 2003 surveys.66

A review of the Australian Standards was also referred to in a 2006 article about the project published by the VISU. The article noted that a major revision of

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63 Australian Competition and Consumer Commission, Submission 87, p. 3.
Australian Standards for wheelchairs was being conducted for public comment at the end of 2006, and with a projected release date of mid-2007. The VISU article noted that the new Australian Standards, would be based on the requirements of the European Standards (EN12183:1999 – Part 1 Manual wheelchairs and EN 12184 – Part 2 Electrically powered wheelchairs scooters and their chargers). It was argued at the time that it was unlikely that new Standards would "deal sufficiently with the user-device interface issues identified by our research". Further, the VISU argued that a lead agency needed to be identified to co-ordinate a national approach to deaths and injuries associated with motorised mobility devices.

2.86 It would seem that, as far back as 2006, organisations such as the VISU were drawing attention to the need for a coordinated approach to data collection, as well as the need for improvements to injury surveillance data systems.

Safety

2.87 The DFM pointed to the lack of a coordinated national approach to the safety issues associated with scooters, and described it as a "flaw in the Australian product safety system". The DFM also raised concerns about a situation in which the regulation of new products is considered "only as a reaction to deaths and injuries". It was argued that:

In this case, 12 years after scooter deaths and injuries were first reported and published, we are now considering regulation. This [issue] is compounded for motorised mobility scooters by the multiple jurisdictions involved and the lack of an overarching authority.

2.88 The DFM stressed the importance of protecting the community and recommended that Australia's product safety system adopt a more coordinated and proactive approach to identify unsafe products, preferably prior to them entering the marketplace, and to regulate them accordingly.

2.89 Given the lack of evidence in relation to the safety of motorised mobility devices – including mobility scooters and motorised wheelchairs – a large number of submitters called for a systematic and sustained approach to data collection in this area. It was argued that new research is needed in relation to the design, safety performance, user experience and needs, and the rates and causes of accidents, injuries and deaths involving mobility devices. It was also argued that the areas of road design,
regulatory interventions to improve user safety and user-behavioural risk factors merit further research and analysis.\textsuperscript{72}

**Research required**

2.90 Researchers from the DFM made it clear that a lack of up-to-date data makes it very difficult – if not impossible – to determine exactly what the problems are. The DFM stated that there was an urgent need for further research to include:

- a comprehensive epidemiological study in relation to MMS deaths and serious injuries (to include the use of some new codes that have recently entered some data systems) to specify MMS injuries;
- an in-depth study of fatal and serious head injuries to scooter users to determine the potential for protection by helmets, such as bicycle helmets;
- a systems approach applied to MMS safety relating to the machine, the rider and the environment, including continued development and implementation of user assessment programs and training; and
- ongoing data collected nationally on numbers of MMS and of users, including at least the age and sex of users, to inform monitoring and research and to provide denominator data so researchers can examine the rates of injuries and determine whether trends are changing.\textsuperscript{73}

**Development of a nationally consistent approach to the use of motorised mobility devices**\textsuperscript{74}

2.91 In 2012, Austroads initiated a project to develop a nationally agreed framework for the safe interaction of motorised mobility devices (MMDs)\textsuperscript{75} with other road users (on roads and road-related areas). The Austroads project also aims to improve both the construction and performance requirements for motorised mobility devices.\textsuperscript{76}

2.92 Austroads noted that the objectives of the project are to:

- introduce improved construction and performance requirements for MMDs, so that they are less likely to result in unsafe outcomes when using footpaths and other public infrastructure;

\textsuperscript{72} See, for example, Combined Pensioners and Superannuants Association, *Submission 65*, p. 5, and Monash University Department of Forensic Medicine, *Submission 92*, p. 5.

\textsuperscript{73} Professor Joan Ozanne-Smith, Monash University Department of Forensic Medicine, *Committee Hansard*, 23 July 2018, p. 26.

\textsuperscript{74} This section of the report is based on information provided in Austroads Ltd, *Submission 64* and Mr Nick Koukoulas, Chief Executive, Austroads Ltd, *Committee Hansard*, 23 July 2018, pp 45–57.

\textsuperscript{75} Austroads abbreviates the words 'motorised mobility device' to MMD in its submission.

\textsuperscript{76} Austroads Ltd, *Submission 64*, p. 4.
• encourage designs of MMD that are more harmonious with infrastructure, so as to minimise the consequences of user error or misjudgement;
• address existing inadequacies in the ARRs related to MMDs;
• make it easier to control the importation and sale of non-complying MMDs; and
• make it easier to identify devices that are suitable for conveyance on public transport.77

2.93 A forum, facilitated by Standards Australia, was held in July 2015, to discuss the development of an Australian Standard Technical Specification for Motorised Mobility Devices (ASTS). In late 2016, Standards Australia consulted with key stakeholders and a draft ASTS was prepared.

2.94 Austroads advised that the ASTS is a construction standard based on infrastructure capability, and that where appropriate, the ASTS uses the requirements and test standards contained in AS/NZS 3695.2 Requirements and test methods for electrically powered wheelchairs (including mobility scooters).

2.95 Austroads indicated that motorised mobility devices that meet the technical specification will be issued with a permanent, tamper-proof label that will be affixed to the device. A white label will indicate that the device is suitable for use on public infrastructure such as roads, footpaths and shared paths. Further, it was noted that if a device meets additional requirements, it may be eligible for a blue coloured label. In addition to being able to access public infrastructure, a blue-labelled device may also be suitable to access specific passenger transport conveyances.

2.96 Austroads advised that the ASTS has, as its focus, collision avoidance. It also sets out requirements for both construction and performance, including:
• 170 kg maximum unladen mass for motorised mobility scooters;
• no maximum unladen mass for motorised wheelchairs;
• a maximum laden mass of 300 kg for motorised mobility devices (for a blue label);
• 10 km/h maximum speed;
• for devices capable of exceeding 6 km/h, a low speed switch that will restrict the speed of a device to 5 km/h (a functionality which is common on many European devices);
• other requirements based on Australian and international standards such as stability on slopes, braking performance and electrical safety;
• maximum dimensional limits;

77 Austroads Ltd, Submission 64, p. 4.
• optional requirements for public transport compatibility (stricter limits on width, static and dynamic stability and manoeuvring within an allocated space); and
• a blue or white permanently affixed label that displays key device characteristics including make, model, length, width, unladen mass, maximum safe slope, year of production and a unique identifier.

2.97 The committee was advised that increasing the maximum unladen mass for motorised mobility scooters will allow larger people to purchase a mobility device that is able to support them. In recognition that users of motorised mobility devices have no alternative for mobility on public infrastructure, the maximum unladen mass for traditional motorised wheelchairs has also been removed. It was noted that it would be discriminatory to prevent these users lawful access to paths "where their motorised wheelchair must weigh in excess of 170 kg when fitted with batteries, powerlifts and other equipment essential to the effective use of the wheelchair".  

2.98 The primary safety improvements expected from implementation of the ASTS are that:

• the slow switch will provide a practical mechanism to help ensure users do not accidentally reach unsafe speeds; and
• the improved engineering design of motorised mobility devices used on public infrastructure will make them safer for users as well as other pedestrians.

2.99 Austroads noted that the use of the low speed switch will be encouraged in areas of high pedestrian activity, or other locations where there may be dangers – for example on a train platform. It was also noted that the changes are consistent with the safe systems approach to improve road safety:

Maintaining a maximum speed of 10 km/h, with the addition of a mandatory low speed mode if the device is capable of exceeding 6km/h will help to ensure users travel at safe speeds. Changes such as the requirement for MMDs to be able to negotiate slopes and obstacles also means the safety of these vehicles will be improved.  

2.100 The committee was advised that the Austroads project aims to improve the information available to consumers at the point of sale, to ensure that purchasers of motorised mobility devices are better informed and can purchase a device that is fit for purpose. It was noted that:

Reliance will be placed on industry for manufacturers/suppliers to self-certify MMDs against the ASTS. Compliance with the certification scheme will be attained through control of sales and enforcement of consumers' rights through Australian Consumer Law.  

78 Austroads Ltd, Submission 64, p. 5.
79 Austroads Ltd, Submission 64, p. 5.
80 Austroads Ltd, Submission 64, p. 5.
2.101 The committee was also advised that a comprehensive education program will be implemented, to cover:

- the responsibilities of manufacturers, suppliers and retailers;
- dates from which compliance is required;
- key information for consumers and users;
- recommendations for other infrastructure users; and
- guidelines for passenger transport operators.  

2.102 Following the publication of the ASTS, Austroads is proposing to approach the NTC and seek amendments to the ARRs which recognise the ASTS. This will require the unanimous support of all Australian jurisdictions, and will be subject to a Regulatory Impact Assessment. It is proposed that under the new arrangements it will be an offence to use a non-compliant motorised mobility device on public infrastructure.  

2.103 Austroads noted that if the proposed changes to the ARRs are supported:

- …jurisdictions will then need to make amendments to their local legislation to give legal effect to the model legislation. This will likely take 12 months to two years and industry will also need sufficient time to turnover existing stock and implement the labelling scheme.  

2.104 Austroads also advised that the successful implementation of the changes will:

- provide customers with better information at the point of sale (about the appropriateness of motorised mobility devices for their intended use);
- improve safety for users and other pedestrians (by improving the design of motorised mobility devices being used on public infrastructure); and
- assist users and passenger transport operators to better understand the devices that are likely suitable for conveyance on passenger transport (through the use of the labelling scheme).

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81 Austroads Ltd, Submission 64, p. 6.

82 It is noted that there are, however, provisions to ensure that existing motorised mobility devices, manufactured prior to the introduction of the ASTS certification scheme can continue to be used safely in public areas or on public transport (if DSAPT compliant) and if deemed fit for purpose prior to the implementation of the ASTS.

83 Austroads Ltd, Submission 64, p. 6.