

NON-REGISTERED MOTORISED VEHICLES

Organisation: Commission for Children and Young People

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Mr Greg Aplin MP
Chair
Joint Standing Committee on Road Safety
Parliament of New South Wales
Macquarie St
Sydney NSW 2000

Dear Mr Aplin

I write in response to your invitation to make a submission to the Joint Standing Committee on Road Safety's current Inquiry into non-registered motorised vehicles.

The Commission is primarily concerned with the issue of the safety of children and young people who use non-registered, primarily off-road motorised vehicles which falls under the Inquiry's Terms of Reference (ToR) a) and d). As many child injuries happen on private land, such as on private properties and farms, this submission considers safety issues associated with use of these vehicles on both public and private land. It is also the case that it is not always possible to identify where injuries occurred, as discussed below. A number of inadequacies in the data on hospitalised injury in the NSW Admitted Patients Data Collection (APDC) arising from driving/ riding these vehicles are also identified (ToR b).

The primary types of vehicles that the Commission is aware pose risks to children are off-road motorbikes, which may be used on public land including state forests, and quad bikes which are mainly used on private properties and farms. The Commission understands that the latter are unregistered unless they require limited access to the road network, when conditional registration is available, and a Class C driver's licence is required. Safety issues exist for both drivers/ riders and passengers of these vehicles.

Issues associated with use of both types of vehicles are similar. Riders/ drivers are likely to be unlicensed and may be under licensing age, they may not wear appropriate safety devices such as helmets and any seat belts fitted to the vehicle, they may use a vehicle which is not appropriate to their age and size and they may have no education or training in handling the vehicle. They may also ride/ drive the vehicle without adult supervision.

A report recently published by the Commission and the Australian Institute of Health and Welfare, *Serious childhood community injury in NSW 2009-10*, provides data on the number and characteristics of hospitalised injuries of NSW children 0-17 years. Transport related injury resulted in 3,419 hospitalisations over the 2009-10 year. Of these, 82 cases involved an off-road or all-terrain vehicle, with the vast majority of injuries occurring to male children. A significant proportion of injuries occurred on

farms, (28%), however the largest proportion had an unspecified location. Twenty-eight per cent of injuries of this type occurred to children aged 1 to 8 years, 36.5% to children aged 9-14 years and 35.3% to young people aged 15-17 years. This report does not indicate whether these children were riders/ drivers or passengers.

The Commission has undertaken a more detailed analysis of the NSW APDC, a similar data set to that used in the above report, to explore these issues further. This analysis shows that 2036 children aged 0-17 years were admitted to a NSW hospital over the 5 years from 2006-07 to 2010-11 as a result of driving/ riding or being a passenger in motor-vehicles that are primarily non-registered, and most intended for off-road use.

Motor-scooters, mopeds or motorised bicycles (ICD-10 AM codes V20-27.x0) have been included in this category, although they include both vehicles that are required to be registered (mopeds) and are mainly driven on public roads, vehicles that can not be registered (motorised scooters) and can not be ridden on roads or public areas such as footpaths, and vehicles that are not required to be registered (motorised bicycles) and may be used on a public road or related area. The APDC does not allow data for each of these vehicles to be provided separately.

Also included in the above figure are motorcycles designed primarily for off-road use (V20-V27.x2) and special all-terrain or other motor vehicles designed primarily for off-road use (V86). The coding used at hospital admission does not allow for injuries arising from quad bikes to be specifically identified, however it is likely that they are highly represented in V86. This coding system also does not separately identify injuries arising from mini-bikes or motorised skateboards.

Age of children injured, whether rider or passenger and whether traffic or non-traffic incident

Of the 2036 cases of hospitalised injury, 90% of those injured were riders/ drivers and 4.7% were passengers. Of these incidents 93.6% were classified as a non-traffic incident, which means they did not occur on a public road.

Eighteen (18) of the injured passengers were aged 1- 4 years, however injured passengers were most likely to be aged 9-14 years.

Injured drivers were also most likely to be aged 9-14 years (n=877), although 180 were aged 5- 8 years and 25 were aged 1- 4 years. Table 1, attached, provides more information on the number and proportion of children injured and whether they were a driver or passenger.

Age of child injured by type of vehicle

Table 2, (attached) shows the number and proportion of children hospitalised for injury by age and type of vehicle.

The vast majority of these injuries occurred while riding an off-road motor-cycle (1604), 351 while riding a special all-terrain or other motorised vehicle, and 81 while

riding a motor-scooter, moped or motorised bicycle. Most cases of injury while riding an off-road motorcycle (76.2%), arose from a non-collision incident.

However a collision was the cause of injury in 40.7% of cases arising from accidents while riding a motor-scooter, moped or motorised bicycle. A significantly higher proportion of incidents of injury while riding a motor-scooter, moped or motorised bicycle were classified as traffic incidents and occurred on a public road.

Across all vehicle types, children aged 9-14 years were most likely to be injured, followed by 15-17 year olds and 5-8 year olds:

- Ninety-two (92) of those injured occupying a special all-terrain or other off-road motor vehicle were aged 8 years or under,
- Twenty (20) of those injured while riding a motor-scooter, moped or motorised bicycle were 8 years or under and
- One hundred and fifty-six (156) children in this age range were injured riding an off-road motorcycle.

Location of injury

The APDC provides some information about the location of hospitalised injury that occurred while children were riding/ driving these vehicle types, however it is not very specific.

For motor-scooters, mopeds or motorised bicycles, most incidents occurred on a public street or highway, (38.3%), followed by an unspecified place of occurrence (37%) and at home (13.6%).

For off-road motorcycles, the location of most injuries was unspecified (42.5%), followed by a sports and athletics area (21.2%) and a farm (14.8%).

In regard to an all-terrain or other vehicle designed primarily for off-road use, 51.8% of hospitalised injury had an unspecified place of occurrence, followed by the farm (23.65%) and other specified place of occurrence (8%)¹.

Analysis of off-road motor-cycle injury by Victorian Injury Surveillance Unit

The Victorian Injury Surveillance Unit, (VISU), highlights the high and increasing rate of injuries of Victorian children aged 0-14 years from off-road motorcycles in comparison with on-road motorcycles in its publication, *Preventing unintentional injury in Victorian children aged 0-14 years: a call to action*. While any type of motorcycle use is more dangerous than driving a car, off-road motor cycle use results in a much higher rate of injury than on-road motorcycle use. The Victorian child on-road motorcycling hospital admission rate increased from 5.2 per 100,000 children in 1996, to 5.6 per 100,000 in 2005, an overall increase of 2.2%. However the off-road motorcycle injury admission rate increased significantly from 7.1/100,000 in 1996 to 17.6/ 100,000 in 2005, an overall increase of 98%.

¹ Other specified place of occurrence includes locations such as beach, forest and other countryside.

VISU refers to Victorian research of 99 cases of serious injury or death from off-road motorcycle crashes of children and young people aged under 21 years, conducted by the Monash University Accident Research Centre in 1994. This research identified the following risk factors for crashes: young age (rider under licensing age), body weight of rider (weighing less than 50 kg riding a motorcycle with an engine capacity of more than 100cc), lack of formal motorcycle training, lack of familiarity with the motorcycle being ridden and non-wearing of a helmet.

VISU has suggested that age restrictions be introduced for off-road motorcycling, that consideration be given to restriction of riding to approved trails/ sports complexes, and that special licensing and registration for off-road riders aged under 18 years be introduced. They also recommend mandatory training, development of a mentoring scheme for novice riders, mandatory wearing of an approved helmet with eye protection and protective reflective clothing and encouragement of regular maintenance of off-road motorcycles. VISU also call for further research to establish the minimum age at which children have the physical and cognitive skills to safely ride a motor cycle off-road, and the minimum rider: motorcycle weight ratio for safe manipulation of off-road motorcycles marketed to children. The Commission is supportive of these suggestions and would encourage the Committee to consider them as part of this Inquiry.

Data on child deaths from off-road transport incidents from NSW Child Death Review Team

The *2011 Child Death Review Team Annual Report*, indicates that the deaths of 30 children in transport incidents were registered in 2011. Of these, three children, all males, died in incidents involving off-road vehicles: a quad bike, a dirt bike and a dune buggy. The three children were aged 11, 14 and 16 years and two of the children were driving the vehicle and one was a passenger. All three crashes were single-vehicle incidents, without an object of collision, although in one case, mechanical issues contributed to the crash. Two of these incidents occurred on private rural properties and one in a state forest. One child was wearing a helmet, however the other two children were not wearing helmets or the seatbelts fitted in the vehicle.

This report notes that in the 15 years from 1997 to 2011, 33 children, 25 of whom were male, died in incidents involving off-road vehicles; 10 quad bikes, 21 motor or dirt bikes and two other off-road vehicles. While 25 children who died were aged 11 years or older, the remainder were aged under 11 years. The report indicates that deaths from quad bike crashes have increased substantially over the past decade. According to the Queensland Commission for Children and Young People, quad bikes are now the leading cause of death on Australian farms. In 2011, there were 23 quad bike related deaths in Australia, four of which were child deaths

Analysis of child deaths from quad bikes by Queensland Commission for Children and Young People

The Queensland Commission's paper *Child deaths –quad bike deaths in Queensland*, (2012), indicates that in most of these incidents the child was operating the quad bike, while in a minority of incidents the child was a passenger. In most

cases, the power of the bike was too high for the child to operate, taking into account the child's age. Generally, the mechanism of injury involved the bike over-turning, resulting in child entrapment under the bike. This paper refers to the findings of other research that "children under the age of 16 do not have the size, strength, reflexes and sense of balance required to safely operate a quad bike" and that most do not possess the perception required to accurately judge hazards in complex environments and conditions.

The Queensland Commission recommended that quad bikes not be used by children under the age of 12 years (regardless of engine capacity) as operators or passengers, and that young people aged 12-16 years should not ride adult-sized bikes. They also recommended that all young people be formally trained, including specialised training relating to tasks and terrain, and that they should be supervised by an adult (in line of sight) at all times while riding a quad bike. As co-riding quad bikes increases the risk of injury, this was not recommended. The final recommendation is that helmets and personal protective equipment should be worn at all times when operating a bike. The NSW Commission supports these recommendations and suggests that the Committee consider them as part of this Inquiry.

Most of the focus on injury arising from use of off-road vehicles has been on off-road motor-cycles and all-terrain vehicles, primarily quad bikes, no doubt because they account for the largest number of injuries. However motorised foot scooters, miniature motorbikes, motorised skateboards and pedal cycles with engines under 200 watts also fall under the ambit of this Inquiry as they cannot be registered in NSW. Motor assisted pedal cycles can be ridden on a public road, following the same rules for pedal cycles without motors, including wearing a helmet. However motorised foot scooters, mini motorbikes and motorised skateboards can not be used on public roads or other public areas such as footpaths and parks.

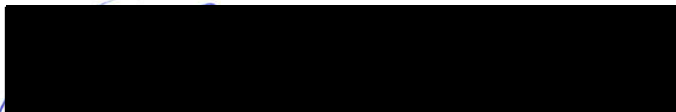
While these types of vehicles result in significantly fewer hospitalised injuries, safety issues pertaining to use of these vehicles should not be overlooked. Children and young people are likely to be highly represented as users of these vehicle types, many of whom will be under licensing age. The increased speed of vehicles fitted with motors is likely to increase the risk of injury to riders, as the link between speed and severity of injury is well established. There are also no safety or minimum age requirements for use of these vehicles, apart from the helmet requirement for motor assisted pedal cycles.

The Inquiry may wish to consider whether the wearing of a helmet should be required for use of all types of motorised non-registered vehicles, (both on and off-road), whether a minimum age should be introduced, and whether training should be required to operate a mini-bike.

As there is no registration or licensing requirement for these vehicles, responsibility for the provision of information about any such requirements may need to rest with the seller, and occur at point of sale. However an effective arrangement for communicating safety requirements for vehicles that are modified after sale to fit a motor (skateboards, pedal cycles) may be difficult to identify.

I trust the information provided is of assistance. For further communications on this matter the contact person is Mr Gregor Macfie, Director Policy and Research, on 9286 7243, or gregor.macfie@kids.nsw.gov.au.

Yours sincerely



Kerry Boland

Children's Guardian and Acting Commissioner for Children and Young People

29 April 2013

Table 1. Hospitalised injuries by occupant and age primarily non-registered off-road vehicles*, 2006/2007 to 2010/2011

Occupant	Age Category									
	1 to 4 yo	5 to 8 yo	9 to 14 yo	15 to 17 yo	Total					
	No.	No.	No.	No.	No.	%	%	%	%	%
Driver	49.02	180	82.95	877	751	93.64	1,833	90.03		
Passenger	18	19	8.76	41	17	2.12	95	4.67		
Person while boarding or alighting	1	0	0.00	1	0	0.00	2	0.10		
Person on outside of vehicle	1	0	0.00	3	2	0.25	6	0.29		
Unspecified occupant	6	18	8.29	44	32	3.99	100	4.91		
Total	51	217	100.00	966	802	100.00	2,036	100.00		

Source: NSW Admitted Patient Data Collection (APDC)

Includes collision and noncollision accidents.

* Also includes mopeds, which are on-road vehicles required to be registered and motorised bicycles, which may be driven on-road but are not required to be registered.

Table 2. Hospitalised injuries by vehicle type and age, 2006/2007 to 2010/2011

Age Category	Vehicle type							
	V20-V28.x0 Motor-scooter, moped or motorised bicycle		V20-V28.x2 Motorcycle designed primarily for off-road use		V86 All-terrain or other MV designed primarily for off-road use		Total	
	No.	%	No.	%	No.	%	No.	%
1 to 4 yo	5	6.17	23	1.43	23	6.55	51	2.50
5 to 8 yo	15	18.52	133	8.29	69	19.66	217	10.66
9 to 14 yo	31	38.27	778	48.50	157	44.73	966	47.45
15 to 17 yo	30	37.04	670	41.77	102	29.06	802	39.39
Total	81	100.00	1,604	100.00	351	100.00	2,036	100.00

Source: NSW Admitted Patient Data Collection (APDC)

includes collision and noncollision accidents