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The Australian Medical Association of New South Wales (AMA (NSW)) provides its submission to the NSW Parliament Joint Standing Committee on Road Safety, Inquiry into religious exemptions for the wearing of helmets.

AMA (NSW) is a medico-political organisation that represents more than 8,000 doctors-in-training, career medical officers, staff specialists, visiting medical officers, specialists, and general practitioners in private practice. AMA (NSW) is the registered industrial body representing Visiting Medical Officers in NSW. AMA (NSW) is dedicated to providing members with representation on a variety of medical issues, professional services and commercial benefits.

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Executive Summary

This submission advocates for the implementation of mandatory helmet laws for motorcyclists, e-scooter users, and bike riders. Research consistently shows that helmet use significantly reduces the risk of head injuries and fatalities. With rising usage of these forms of transport, it is crucial to recognise the public health implications of helmet use. Enforcing mandatory helmet laws reduces injury rates, alleviates healthcare costs, and improves community health outcomes.

Appendix 1 is a summary of available scientific evidence regarding injury profiles associated with the absence of helmet use, in partnership with Dr Michael Dinh and Dr Michele Fiorentino at RPA Green Light Institute for Emergency Care at Sydney Local Health District.

Introduction

1. Globally, as in Australia, the prevalence of motorcyclists, e-scooter riders, and cyclists has surged over recent years. AMA (NSW) understands that cycling in NSW has increased in popularity, especially among recreational and commuter rides, as well as food delivery riders across metropolitan areas.
2. While these modes of transportation provide numerous benefits, they also come with increased risks. According to the World Health Organization, road traffic injuries claimed 1.19 million lives in 2021, with a significant portion attributable to head injuries from non-helmet use (1).
3. This submission highlights the necessity of mandatory helmet laws through the lens of; injury prevention, healthcare costs and public health outcomes.

Injury Prevention

4. Someone is killed or hospitalised every 50 minutes as a result of a crash on NSW roads. In New South Wales, to date 275 people this year have lost their lives and 10793 have obtained serious injuries as a result of a road crash on NSW roads (2). Vulnerable road users such as motorcyclists and cyclist have a much higher risk of being killed or seriously injured given their lack of protection in the event of a crash. International research shows that motorcycle riders are about 34 times more likely to be killed in a crash than other road users (3). Cyclists make up 18 per cent of serious injuries on NSW roads (4). In NSW there has been a 15 per cent increase in serious injuries (resulting in hospitalisation) for motorcyclists and a 9 per cent increase for cyclists this year compared to 2023 (5).
5. Studies have shown that helmets reduce the risk of serious injury by approximately 60 per cent and in the case of death, by 74 per cent (6). Helmet wearers admitted to hospital represent a national health resource burden which is less than half of that of non-helmet wearers. In jurisdictions where helmet laws are in place, there has been a notable decrease in both fatal and non-fatal injuries among motorcyclists and cyclists.

Healthcare Cost Implications and public health impact

6. In 2020-21, head injuries resulted in 406,000 ED visits, 142,000 hospitalisations and 2,4000 deaths in Australia (7). The impact of a head injury may extend beyond the individual, through to family and support networks, alongside an increased burden on the health system. The economic burden of road traffic injuries on the healthcare system is staggering. Mandatory helmet laws can lead to fewer injuries, thus reducing hospital admissions and long-term healthcare needs, ultimately relieving pressure on healthcare resources. Traumatic brain injuries alone are estimated to have a lifetime costs of between \$2.5 million to \$4.8 million per individual (7).
7. The economic burden of road traffic injuries on the healthcare system is staggering. Mandatory helmet laws reduces the risk of serious injury, thus reducing hospital admissions and long-term healthcare needs, ultimately relieving pressure on healthcare resources.
8. Mandatory helmet use not only prevents injuries but also contributes to improved public health outcomes. By lowering injury rates, communities can expect reduced healthcare costs, fewer hospitalisations, and better quality of life. Enhanced helmet usage fosters a culture of safety and responsibility among road users.

Conclusion

9. Mandatory helmet use is a critical public health measure that can significantly reduce head injuries and fatalities among motorcyclists, e-scooter users, and cyclists. By implementing these laws, we can protect vulnerable road users, alleviate healthcare costs, and improve community health outcomes. The AMA supports a range of preventative measures, such as random breath and drug tests, seat belts and child restraints, along with mandatory helmet wearing – as they substantially reduce road trauma in Australia.

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Parliamentary Inquiry into religious exemptions for the wearing of helmets

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The following is a brief summary of available scientific evidence regarding injury profiles associated with the absence of helmet use amongst motorcycle, bicycle and electric scooter riders.

Much of the available recent evidence of injuries with absence of helmet use is amongst e-scooter riders, who are generally younger, less likely to wear helmets and more likely to be intoxicated¹. Head injury rates are similar amongst e-scooters and bicycles, but e-scooter riders more often experience concussion with loss of consciousness, and this is correlated with their reduced use of helmets². A significantly higher proportion of e-scooter riders suffer severe traumatic brain injuries than motorcycles and bicycle riders, who are more likely to wear helmets.³.

Helmet use significantly decreases the odds of head injuries, serious head injuries, facial injuries, and fatal head injuries⁴. Head and neck injuries are more prevalent amongst bicyclists and moped riders than in motorcycles, likely due to lower helmet use⁵. Non-helmeted ATV riders have higher rates of head, neck and soft tissue injuries, including concussions and skull fractures when compared to helmeted ATV riders⁶.

Helmeted riders and passengers experience significantly fewer head injuries compared to non-helmeted individuals⁷. For head injury survivors, those who were not wearing helmets experience a significantly higher loss of quality-adjusted life years compared to the helmeted survivors⁸. In summary, the evidence is clear that wearing helmets reduces the incidence of head injuries and the morbidity and mortality associated with those head injuries.

Michael Dinh was the Clinical Director of the NSW Institute of Trauma and Injury Management, Agency for Clinical Innovation 2016-23 and the RPA Co-Director of Trauma Services 2007-2019.

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