Inquiry into e-mobility safety and use in Queensland

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National Heart Foundation submission to the Queensland Government's Inquiry into e-scooter and e-bike safety

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About the Heart Foundation

The Heart Foundation's 25-year vision, 'Health for Every Heart: A generational vision for heart health in Australia 2025-2050' is that heart health will be achievable by everyone in Australia by 2025.

In 2023, the leading cause of death in Queensland was coronary heart disease.[1] Cardiovascular disease is the cause of one in four of all deaths in Australia, with more than half of the population having three or more key risk factors for cardiovascular disease.[2] Physical inactivity remains is a key modifiable risk factor, and it alone is calculated to cost Australia $2.4 billion each year in additional health costs.[3] Only 56.6% of adults and 46.3% of children meet physical activity guidelines to a basic level, and 62% of Queenslanders are overweight or obese.[4]

The built and natural environments, together with transport mode choice, can play a significant role in helping people engage in regular physical activity, reducing their risk of developing cardiovascular disease. E-mobility options such as e-bikes can extend the distances that users can travel without a car and can be a viable option to replace motorised vehicle use for completing short trips. Short trips currently make up half of all daily trips in Australia.[1] When used to replace motorised vehicles, e-bikes can deliver health and community benefits through increased physical activity, as well as reducing transport emissions.[5]

Encouraging people in Queensland to replace car trips with more active modes of transport, such as e-bikes, has the potential to help people to increase their physical activity levels, and thereby reduce their risk of cardiovascular disease. It also provides potential to reduce the impacts of climate change, and the associated adverse impacts climate change has on cardiovascular health.

The Heart Foundation welcomes the opportunity to respond to the Queensland Government's *Inquiry into e-scooter and e-bike safety*. We will respond to the points below in the terms of reference:

1. Benefits of e-mobility (including both personal mobility devices (PMDs), such as e-scooters and e-skateboards, as well as e-bikes) for Queensland
7. Communication and education about device requirements, rules, and consequences for unsafe use

Summary of recommendations

1. **E-mobility options should be included as part of Queensland's transport mix, reducing car dependency to facilitate increased physical activity and reduce transport emissions – both of which can have a positive impact on heart health.**
2. **Priority should be given to e-mobility options that facilitate active transport, such as e-bikes.**
3. **Increased e-mobility use should be supported by increased infrastructure to maintain the safety of people walking.**
4. **Communication and education should include safety awareness campaigns and information about appropriate behaviour, regulations, and illegal use.**

1. Benefits of e-mobility (including both personal mobility devices (PMDs), such as e-scooters and e-skateboards, as well as e-bikes) for Queensland

Increasing physical activity

E-mobility devices, such as e-bikes, have begun to facilitate a mode shift away from traditional car use,[6] particularly for short trips. This shift is likely to continue. A significant proportion of the adult population in Australia has been reported to already engage in e-bike and e-scooter use, with higher usage among younger individuals aged 18–34 years old.[7] As around 35% of all journeys in Southeast Queensland are less than three kilometres,[8] a substantial opportunity exists for e-mobility to replace car trips – delivering positive community benefits, particularly for cardiovascular health.

High levels of car dependency in Australian urban environments negatively impact levels of physical inactivity – impacting cardiovascular health.[9,10]

The Heart Foundation considers e-bikes to be the preferred e-mobility mode to support physical activity as e-scooters do not provide the same physical activity and health benefits. As a form of entirely motorised transport, e-scooters, while allowing for low cost and more sustainable mobility, do not provide any fitness benefits, especially if they are used as a replacement for walking or bike riding.[10]

Conversely, e-bike use has the potential to assist people to increase their levels of moderate physical activity,[11] helping them to meet recommended daily physical activity levels and maintain a healthy weight. E-bike riding has been shown to elicit moderate levels of physical activity, lower than conventional bike riding, but higher than walking.[12] The moderate level of physical activity required by e-bikes carries its own benefits. This includes encouraging older populations, people who are above a healthy weight, those with health-related limitations, and those who are not currently exercising regularly, to take more active forms of transport than driving, without the full exertion of conventional bike riding.[13] It also helps to overcome some of the barriers associated with conventional bike riding, such as difficulty riding uphill, fear of riding distance, sweating and the need for end of trip facilities.[6] E-bike riding options may also assist in encouraging multi-modal transport options, helping individuals to actively travel the first and last sections of their journeys.[14]

Low physical activity levels and living above a healthy weight are key modifiable risk factors for cardiovascular disease and several other chronic diseases, such as type 2 diabetes and certain cancers.[15] The Heart Foundation considers the promotion of e-bike

use as a viable way to address these key risk factors, while also having the potential to decrease transport disadvantage, improve equity and access, and benefit all people living in Queensland.

Increasing commuting options and reducing transport emissions

Cities are responsible for more than two thirds of the world's carbon emissions,[16] with the primary contributors being transport emissions and energy consumption.[17] Specifically, the transport sector accounted for 19% of all emissions in Australia in 2022.[18] Of these, 60% were derived from passenger cars and light commercial vehicles. With our current trajectory, without intervention the transport sector will become Australia's largest source of emissions by 2030.[18]

Reducing transport emissions is one of the most impactful actions we can take to improve air quality, mitigate climate change, and consequently help to improve the heart health of all people living in Australia.[10,19] In 2019, air pollution (both indoor and outdoor) was responsible for almost seven million deaths worldwide.[20] Air pollution has been cited as the single greatest environmental health risk for cardiovascular conditions.[21] Adopting e-mobility-based modes of transport will reduce transport emissions and help to improve cardiovascular health through better air quality and increased levels of physical activity.[21]

E-mobility devices, such as e-bikes, present a suitable alternative to car trips which can deliver positive community benefits in terms of both reduced emissions and improved cardiovascular health.

Improving infrastructure to support greater uptake of active transport modes

It is vital that any increase in the availability of e-mobility options coincides with increases in infrastructure such as safe bike lanes, bike parking and lighting. This will help to ensure safety – both real and perceived – is not affected as numbers of people using these modes increase in communities across Queensland.

The safety of potential e-bike users is also imperative to encourage more people to choose active transport options over vehicles. Research in Queensland has found that, of survey respondents aged over 15 who had not ridden a bike in the previous year, 40% were interested in doing so, but only off-road (where they are separated and protected from motor vehicles).[22] Overseas, safe cycling infrastructure has been shown to encourage people who may otherwise be disinclined to cycle, such as women.[22]

The Heart Foundation emphasises the need to ensure the safety of people walking as uptake of e-mobility options use increases in Queensland. This can, and must, be achieved through separation of different modes and speed of travel, limiting areas

where e-scooters and e-bikes can be ridden, enforcement of any associated regulations, and community awareness and education campaigns (see below).

7. Communication and education about device requirements, rules, and consequences for unsafe use

Any plans to increase the use of e-mobility options must include communication with users about any relevant restrictions on their use, as well as the health and other community and environmental benefits. Communities should be informed of the locations where e-mobility users are permitted to use footpaths and where they are required to ride on the road or in bike lanes.

Safety awareness campaigns should be developed through an inclusive, community wide approach that encompasses the needs and interests of different user groups while avoiding the creation of an 'us and them' mentality between different road, path user groups.

It is important that traffic regulations for e-mobility use, together with the beneficial health and environmental outcomes, are clearly communicated with users and with the community more broadly. This ensures the safety of all people in the community, particularly those walking and using mobility aids.

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