Submission 60

Queensland Government

Queensland **Health**

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The Research Director
Transport, Housing and Local Government Committee
Parliament House
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Dear Sir / Madam

Please find attached a submission to the Queensland Parliamentary Inquiry into Cycling Issues from the Department of Health, Queensland.

Cycling has the potential to significantly contribute to increasing physical activity levels in Queensland through active transport and recreational cycling. This brief submission highlights the multiple health benefits that might accrue from cycling – both to the individual and the wider public. The submission also outlines the role of urban design and infrastructure in creating environments that make cycling more convenient, efficient, safe, comfortable and enjoyable. Accordingly, the recommendations from this inquiry should minimise disincentives to cycle and, wherever possible, create incentives to cycle.

Thank you for your time in considering this submission.

Should officers of your Department require further information, Department of Health's contact is Mr Mark West, Director, Preventive Health Unit, Health Service and Clinical Innovation Division on telephone [redacted].

Yours sincerely

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Submission to the Queensland Parliamentary Inquiry into Cycling Issues from the Department of Health, Queensland

Cycling can contribute significantly to increasing physical activity levels in Queensland through active transport and recreational cycling. Recommendations from this inquiry should minimise disincentives to cycle and, wherever possible, create incentives to cycle.

Link between cycling and health

Insufficient physical activity was responsible for 6% of the burden of disease in Queensland in 2007 (Queensland Health, 2012). It is associated with weight gain, type 2 diabetes, some cancers, abnormal glucose metabolism and other cardiovascular disease risk factors (Queensland Health, 2012). In 2012, 56% of Queenslanders aged 18–75 years reported achieving levels of physical activity sufficient for health benefit—at least 150 minutes of moderate intensity physical activity over at least five days each week (Queensland Health, 2012). Eight percent of all hospitalisations were potentially preventable with non-hospital care, and many more could have been prevented with improved protective factors such as physical activity. Chronic conditions caused 52% of potentially preventable hospitalisations, with diabetes complications the largest cause at 29% for all ages (Queensland Health, 2012). Diabetes is strongly linked to obesity and insufficient physical activity.

There are multiple benefits specific to cycling. Cycling is a low impact activity and one of the safest ways to exercise without risk of over-exertion or strain to muscles and joints. For those who may be overweight and/or have joint problems which make it difficult for them to do weight-bearing exercise, cycling is a good fitness option. Anxiety, stress and depression are all alleviated, partly due to the physical activity itself, but also due to the pleasure and satisfaction of riding a bike.

Analysis has compared the cycling-associated risk and benefit, and estimated that the life expectancy gained as a result of increased physical activity was larger (3-14 months) than the lost life expectancy due to increased air pollution (0.8-40 days lost) and increased traffic accidents (5-9 days lost), when shifting from car to cycle commuting in urban settings (Jacobs, Nawrot, de Geus et al, 2010). Benefit-cost analyses suggest that the benefits of increased cycling are worth approximately four to five times the costs of investing in new cycling infrastructure (Cavill, Kahlmeier, Rutter, et al, 2008; Saelensminde, 2004)

Active transport

Cycling can fit more readily into an individual's daily routine as a form of active transport; it can be a time-neutral behaviour. Cycling is convenient for short journeys and is often faster across town than other forms of transport. Cycling offers a cheaper form of transport for those who are socially disadvantaged and who are less likely to have access to a car. Cycling has additional wider public benefits gained as a result of fewer car journeys. These include improving the local environment through reduced congestion and community severance (McClintock 2002).

Encouraging active transport for adults and children is an opportunity to improve the physical activity levels of Queenslanders and reduce their sedentary time. In 2011, Queensland adults who were sufficiently active were more likely to walk or cycle for transport (Queensland Health, 2012).

The proportion of Australian children walking and cycling for transport is relatively low and declining (Gerrard, 2009). In 2011 a quarter of Queensland children included some walking, and 5% some cycling to or from school in a usual week; almost half travelled exclusively by car (Queensland Health, 2011). On average, active commuting took almost two hours for seven school trips each week, or 20 minutes a day, which is about a third of the recommended minimum 60 minutes of daily physical activity. This level is more likely to be achieved by children who actively travel to school each day (Queensland Health, 2012).

Supportive environments for cycling

Encouraging people to cycle or walk more often requires an environment that make this option convenient efficient, safe, comfortable and enjoyable.

Cycling and walking is more likely to occur in environments that include:

- frequented destinations within walking and cycling distance;
- a highly interconnected street network with links between urban areas;
- streets designed to accommodate cyclists and walkers;
- higher density urban areas; and
- quality end of trip facilities such as secure bicycle storage, lockers and showers.

The perceived safety concern is the dominant barrier to cycling, but this perception can be altered by the provision of cycling facilities (Bauman, Titze, Rissel & Oja, 2011). Cyclists are vulnerable road users who are frequently in close proximity to larger and faster motorised vehicles. To maximise the public health benefits of increased cycling rates it is necessary to minimise the risk of cycling injuries and improve people's perception of safety (Mulvaney, Watson, Parkin, et al, 2013).

One key approach to minimise the risk of cycling injuries and improve perception of safety for cyclists is through transport infrastructure, i.e. those physical measures within the built environment which are in place to enable all modes of travel to flow safely. Examples of infrastructure specific to cycling include:

- cycle lanes which manage the road space for shared use by both motor vehicles and cyclists;
- cycle paths which separates cycle traffic from motorized traffic;
- traffic regulations that manage speed and ban certain types of traffic from making particular turns. (Mulvaney, Watson, Parkin, et al, 2013)

The role of infrastructure in improving cyclist's perception of safety is evidenced by research that has found that changes in infrastructure can positively influence cycling rates (Garrard, Rose & Lo, 2008; Winters, Brauer, Setton, et al 2010; Yang, Sahlqvist, McMinn, et al, 2010) with cyclists choosing to use routes serviced by bicycle facilities. In terms of injury prevention, research also indicates that infrastructure is effective at reducing injuries (Rodgers 1997; Moritz, 1998; Lusk, Furth, Morency, et al, 2011).

References

Bauman A, Titze S, Rissel C and Oja P. Changing gears: bicycling as the panacea for physical activity? British Journal of Sports Medicine 2011;45:761-762

Cavill N, Kahlmeier S, Rutter H, Racioppi F, Oja P: Economic analyses of transport infrastructure and policies including health effects related to cycling and walking: A systematic review. Transp Pol 2008, 15:291-304.

Garrard J, Rose G, Lo SK. Promoting transportation cycling for women: the role of bicycle infrastructure. Preventive Medicine 2008;46:55–9.

Gerrard J. Active transport: children and young people. An overview of recent evidence. VicHealth; 2009.

Jacobs L, Nawrot TS, de Geus B, et al. Subclinical responses in healthy cyclists briefly exposed to traffic-related air pollution: an intervention study. Environ Health 2010;9:64.

Lusk AC, Furth PG, Morency P, Miranda-Moreno LF, Willett WC, Dennerlein, JT. Risk of injury for bicycling on cycle tracks versus in the street. *Injury Prevention* 2011;17: 131–5.

McClintock H. (2002) The mainstreaming of cycling policy. In:McClintock H editor(s). *Planning for cycling. Principles, practices and solutions for urban planners*. Cambridge UK: Woodhead Publishing Ltd..

Moritz WE. Adult bicyclists in the United States: characteristics and riding experience in 1996. *Transportation Research Record* 1998;1636:1–7.

Mulvaney CA,WatsonMC, Parkin J, Coupland C, KendrickD,Miller P, Smith S. Cycling infrastructure for reducing cycling injuries in cyclists. *Cochrane Database of Systematic Reviews* 2013, Issue 2.

Queensland Health. Child health status 2011: Queensland report. Queensland Health: Brisbane; 2011.

Queensland Health. Self reported health status 2011. Unpublished regression analysis. Queensland Health: Brisbane; 2012.

Queensland Health. The health of Queenslanders 2012: advancing good health. Fourth report of the Chief Health Officer Queensland. Queensland Health: Brisbane; 2012

Rodgers GB. Factors associated with the crash risk of adult bicyclists. *Journal of Safety Research* 1997;28:233–41.

Saelensminde K: Cost-benefit analyses of walking and cycling track networks taking into account insecurity, health effects and external costs of motorized traffic. Transp Res A-Pol 2004, 38(8):593-606.

Winters M, Brauer M, Setton EM, Teschke K. Built environment influences on healthy transportation choices: bicycling versus driving. Journal of Urban Health: Bulletin of the New York Academy of Medicine 2010;87:969–93.

Yang L, Sahlqvist S. McMinn A. Griffin SJ, Ogilvie D. Interventions to promote cycling: systematic review. BMJ 2010;341:c5293.