

Document No.	Title
BWP004	Bike Winnipeg Position Statement – Mandatory Adult Bicycle Helmet Law
Revision 0.0	Effective Date

As of May 1, 2013 it became compulsory in Manitoba for those under the age of 18 to wear a helmet when riding on or riding in something that is attached to a bicycle. The province also encourages those over 18 to wear a helmet to reduce their chances of head injury while riding a bicycle and to set a good example for those under 18.

In June 2016, the Standing Policy Committee on Protection, Community Services and Parks sent a request to the City of Winnipeg administration to prepare a report on ways to mandate helmets for all ages. The report will also consider bicycle lights (which are already mandated by the Highway Traffic Act), bells and bike safety training courses. The report was originally expected to be ready in the fall of 2016, but is now expected by March of 2017.

Position:

Bike Winnipeg accepts the mandatory bike helmet law for children. Bike Winnipeg does not support the introduction of a mandatory helmet law for adults. We have serious concerns that a mandatory law would reduce the number of adults riding bicycles in Winnipeg and therefore reduce the safety of all bicyclists as well as the health benefits lost by a population riding their bicycles less often, outweighing any potential benefit gained from a reduction in head injuries gained from increased helmet usage.

We recognize that while helmets may provide benefits in falls (they are certified to reduce impact on a five-foot fall), they only can only provide limited protection for the head and cannot adequately protect a person being struck or run over by a motorized vehicle. Helmets would also do little to prevent other catastrophic injuries to the body should there be a collision between a person on a bicycle and a motor vehicle. We feel that it would be far more effective to build infrastructure that would protect people on bikes from collisions with motor vehicles than to introduce mandatory helmet laws for adults in Manitoba.

Bike Winnipeg encourages people of all ages who ride bicycles to wear helmets so as to reduce their chances of head injury while riding a bicycle. Bike Winnipeg also encourages the city, the provincial and the federal governments to invest in infrastructure that will better protect people who currently use bikes and encourage those who don't yet to try cycling.

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Rationale:

Bicycle helmets are only designed to protect cyclists' heads when they are in low-speed collisions. "Helmets are useful as safety gear to prevent injuries in an uncontrolled environment. If you can't prevent a crash or impact, but you know it will occur, a helmet can prevent or minimize injury to the head and brain." (BHSI, 2017). However the Bicycle Helmet Safety Institute goes on to say, "No helmet can protect against all possible impacts, and the impact may exceed the helmet's protection. No helmet protects any part of the body that it does not cover..."

After researching multiple sources on the effects of mandatory bicycle helmet laws in other jurisdictions, we have concluded that mandatory bicycle helmet laws may be effective for younger riders (under the age of 18), but it is unclear whether mandatory laws have a positive or negative effect on the overall health of those over the age of 18. It is clear that wearing helmets voluntarily has positive effects on riders' health; however there is sufficient evidence that demonstrates that mandatory helmet laws decrease ridership which then makes it less safe for those who continue to ride and makes those who are discouraged from riding less healthy.

A number of studies found that mandatory helmet laws decrease the number of people who use bicycles as a mode of transportation. Piet de Jong analyzed data from a number of studies conducted on mandatory helmet laws and found that the "data suggests that the effect of legislation is to reduce bicycle riding by 20% to 40%. The permanence of any reductions is subject to debate. An eventual return to previous levels begs the question of what cycling levels would have been in the absence of the law" (de Jong, 2012).

A study by D.L. Robinson analyzed the data after a new mandatory helmet law was passed in New South Wales in 1991. The author found that there was a significant reduction in cyclists after the law was passed. They found that there were "42% fewer child cyclists and 29% fewer adult cyclists" (D. L. Robinson, 2006) after the mandatory helmet law came into effect.

A study conducted in Canada between 2006 and 2011 found that "there was an average of 3690 hospitalisations per year and an estimated 593 million annual trips by bicycle among people 12 years of age and older, for a cycling hospitalisation rate of 622 per 100 million trips" (Teschke K, Koehoorn M, Shen H, et al., 2015). After analyzing the data, the authors

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concluded that “helmet legislation was not associated with reduced hospitalisation rates for brain, head, scalp, skull or face injuries, indicating that factors other than helmet laws have more influence on injury rates” (Teschke K, Koehoorn M, Shen H, et al., 2015). They also concluded, “that hospitalisation rates for traffic-related injuries were lower with higher cycling mode shares, a “safety-in-numbers” association consistent with results elsewhere and for other modes of travel” (Teschke K, Koehoorn M, Shen H, et al., 2015).

A comprehensive study done by Public Health Ontario reported that “almost all studies reporting on injuries before and after helmet legislation reported decreases in the burden of cycling-related injury in terms of number of head injuries” (Public Health Ontario, 2015); however they also found that “in most studies, injury or death rates were not adjusted for cycling exposure (e.g., number of people cycling, cycling trips, cycling distances travelled, or time spent cycling) and therefore we cannot infer or draw conclusions about changes in cycling risk from the results provided” (Public Health Ontario, 2015).

Peter Jacobsen set out to “examine the relationship between the numbers of people walking or bicycling and the frequency of collisions between motorists and walkers or bicyclists” (Jacobsen, 2003). He analyzed 8 datasets to compare the number of collisions with vulnerable road users to the amount of walking and cycling done in a community. Mr. Jacobsen concluded “the likelihood that a given person walking or bicycling will be struck by a motorist varies inversely with the amount of walking or bicycling. This pattern is consistent across communities of varying size, from specific intersections to cities and countries, and across time periods” (Jacobsen, 2003).

In other words, as Jacobsen’s and other studies have found, a vehicle driver is less likely to collide with a person walking or bicycling if more people walk or bicycle. “Policies that increase the number of people walking and bicycling appear to be an effective route to improving the safety of people walking and bicycling.”

The introduction of mandatory helmet legislation for adults discourages people from riding their bicycles, not only increasing risk to remaining bicyclists but, equally of concern, eliminating the well-understood health benefits gained by riding a bicycle (including reduced rates of obesity, diabetes, heart & stroke disease, hypertension, and depression). It is widely acknowledged that the health benefits gained by riding a bicycle greatly outweigh any increased risk posed from bicycling-related injury (see

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<http://www.cyclehelmets.org/1015.html> for a compilation of research on health benefit vs. injury risk ratios).

Conclusion:

With the current evidence regarding the impact of mandatory bike helmet laws, it appears that the effect of an adult bicycle helmet law would be marginal at best in improving the safety of people who use bicycles in Winnipeg. We found that there is evidence that mandatory helmet laws have a negative impact on cycling's mode share which could make those who continue to cycle less safe due to the reduced numbers of riders on the road. In addition, the health of those who are discouraged from bicycling may be negatively impacted by the loss of healthy activity. We also feel that it is obvious that helmets are only designed to protect heads in the event of a low speed impact and that a helmet would do little to protect the rest of a cyclist's body in the event of an impact with a motor vehicle. It is our position that all levels of government commit to building safe cycling infrastructure that will encourage more bicycle riding and truly improve the health and road safety of those who use a bicycle as a mode of transportation.

References:

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Revision History:

Revision	Date	Description of Changes	Revised By	Approved By
0.0	Jan. 18, 2017	Initial Version	I. Walker	