

In summary, opponents of helmet legislation speculate that helmet legislation leads to increased cardiovascular deaths by discouraging exercise. First, is there clear evidence that the introduction of helmet legislation is followed by reduced cycling? Although our study cannot be used to address this question, the Australian study shows reduced cycling following legislation. However, the Canadian study indicates cycling continued to increase after the introduction of legislation. Second, do cyclists who oppose legislation and decide to stop become inactive and obese, or do they substitute other physical activity? No empirical evidence exists to respond to this question scientifically. Policy debate concerning the benefits and risks of helmet legislation must be rooted in evidence, not in speculation or strongly held views that ignore evidence to the contrary.

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#### References

1. Chipman ML. Hats off (or not?) to helmet legislation [editorial]. *CMAJ* 2002;166(5):602.
2. LeBlanc JC, Beattie TL, Culligan C. Effect of legislation on the use of bicycle helmets. *CMAJ* 2002;166(5):592-5.
3. Robinson DL. Head injuries and bicycle helmet laws. *Acid Anal Prev* 1996;28(4):463-75.
4. Macpherson AK, Parkin PC, To TM. Mandatory helmet legislation and children's exposure to cycling. *Inj Prev* 2001;7(3):228-30.
5. Thompson DC, Rivara FP, Thompson R. Helmets for preventing head and facial injuries in bicyclists. *Cochrane Database Syst Rev* 2000;(2):CD001855.
6. Keatinge R, Thompson DC, Thompson R, Rivara FP. Helmets for preventing head and facial injuries in bicyclists. Comments. *Cochrane Database Syst Rev* 2000;(2):CD001855.

#### [The author of the commentary responds:]

John LeBlanc<sup>1</sup> actually reinforces my concern that the number of cyclists has decreased after bicycle helmet legislation.<sup>2</sup> His study was designed to maximize the number of cyclists observed in a fixed time interval, and he chose sites

and circumstances accordingly. However, despite this effort to observe more cyclists, he actually observed fewer after legislation, so I am quite convinced that the number of cyclists has been dropping. I noted in my commentary that part of the explanation might be variation in sites and weather, and I thank LeBlanc for confirming this.

I am chided for not quoting from an article by my Toronto colleagues.<sup>3</sup> To the best of my knowledge, my copy of the journal in which the article was published arrived after I had written and submitted the commentary. Now that I have had a chance to include this material, I note that the major component of the increased use that impressed LeBlanc was off-street cycling in schoolyards and parks, where rates of use more than doubled to over 10 cyclists per hour. Rates on streets and at major intersections either remained the same or increased in this interval to 5.4 per hour. Changing where children cycle is one response to the increasing concern about road safety; however, such an option may not be available for the many adult cyclists who commute.

LeBlanc claims that his results cannot be used as evidence that cycling decreased after legislation was introduced. I agree that the results cannot

explain why the number of cyclists was lower at the 2 observation times after legislation. However, his data do indicate that the numbers dropped quite dramatically. This is consistent with an unfortunate and unintended side-effect of legislation, but may be only part of the explanation.

DeMarco looks at the longer-term consequences of having fewer cyclists on the roads, both in the cardiovascular health of cyclists and the risk of injury. With a decrease in cyclists on the roads, he foresees greater risk of heart disease and increased risk of injury if the environment becomes increasingly hostile to isolated cyclists. With such a short interval of observation, LeBlanc and colleagues can neither confirm nor deny such hypotheses.

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#### References

1. LeBlanc JC, Beattie TL, Culligan C. Effect of legislation on the use of bicycle helmets. *CMAJ* 2002;166(5):592-5.
2. Chipman ML. Hats off (or not?) to helmet legislation [editorial]. *CMAJ* 2002;166(5):602.
3. Macpherson AK, Parkin PC, To TM. Mandatory helmet legislation and children's exposure to cycling. *Inj Prev* 2001;7(3):228-30.

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