How helmet promotion and laws affect cycle use

Almost everywhere that cycle helmets have been promoted, cycle use has fallen. Where promotion has been strong, or the use of helmets made mandatory and the law enforced, falls in cycle use have often been substantial. Taking account of the wider health benefits of cycling, the consequences of deterring people from cycling are far-reaching in a climate where most people lead sedentary lifestyles and illnesses such as obesity are reaching epidemic levels. The people who are likely to suffer most are young people. Teenagers are most easily dissuaded from cycling by cycle helmet promotion.

In several cases falls in cycle use have been greater, in terms of absolute numbers of cyclists, than the increase in helmet use brought about by laws or promotion.

Australia

Helmet laws in Australia have resulted in large reductions in the number of people who cycle:

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>Falls in cycle use</th>
<th>Fall in cycle use</th>
<th>Fall in cycle use 5 times that of increase in helmet use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Capital Territory</td>
<td>33% to 50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New South Wales</td>
<td>44% to 90% for children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Territory</td>
<td>50% commuters</td>
<td></td>
<td>Cycling levels recovered after the law in this territory was effectively revoked.</td>
</tr>
<tr>
<td>Queensland</td>
<td>22% to 30% children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Australia</td>
<td>38% schoolchildren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victoria</td>
<td>36% to 46% children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Australia</td>
<td>26% to 38% overall</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More than 50% children</td>
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</tbody>
</table>

In some localities overall cycling levels recovered after 10 - 12 years, but the profile of cyclists was very different with a greater proportion cycling less regularly, for recreation only. Cycling by children has generally not revived.

Rissel and Wen, 2011 estimated that repealing the law could be expected at least to double cycle use in Sydney. 1 in 5 adults surveyed said they would cycle more if they did not have to wear a helmet. There was found to be an inverse association between riding frequency and support of the helmet legislation, with those not riding in the past year most likely to support helmet legislation, and more frequent riders less likely to support it.

Gillham and Rissel, 2012 showed that on a per capita basis there were 37.5 percent fewer Australians riding bikes in 2011 than in 1985-86. Population growth had been three times that of recent increases in cycling trips. The most likely deterrent to people cycling was helmet legislation.

Canada

Helmet laws in Canada have also led to many people cycling less or no longer at all:

<table>
<thead>
<tr>
<th>Province</th>
<th>Falls in cycle use</th>
<th>Falls in cycle use more than twice increase in helmet use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta</td>
<td>41% to 59% children and teenagers</td>
<td></td>
</tr>
<tr>
<td>British Columbia</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>40% to 60%, greatest reduction among teenagers.</td>
<td></td>
</tr>
</tbody>
</table>

In Ontario it was reported (Macpherson et al, 2002) that cycle use did not fall, based on a study of children in a single community in the City of Toronto. However, it seems that these children were subject to intensive helmet promotion before the law and that this had already suppressed cycling levels (BHRF, 1244). Moreover, the Ontario
helmet law was never enforced and it did not lead to an increase in helmet wearing (Macpherson, Parkin and To, 2001).

**Denmark**

From 1993 to 2000 the number of children cycling to school fell by 30% while the number taken by car doubled. Older children also reduced their level of cycling by 30% on journeys for leisure. Most of this change has been attributed to changed perceptions and attitudes. In particular, there evolved a much less positive attitude towards cycling amongst parents and children. Parents have limited their children's independent mobility in response to increased traffic, road safety campaigns and media influence. The promotion of cycle helmets during the 1990s is thought to have been influential and to have contributed to the shift from cycling to other modes. (Jensen and Hummer, 2002)

**Great Britain**

There are no helmet laws in Great Britain but helmets have been promoted strongly in some areas. A study (Bryan-Brown and Taylor, 1997) found that local authorities that had strongly promoted helmets suffered an average 2.8% decrease in cycle use at a time when other authorities, that did not strongly promote helmets, experienced an average increase of 4.9% in cycle use. Details.

From 1991 to 2000, the fall in cycle use in Great Britain was almost twice the increase in helmet use.

Helmet promotion has adversely affected the promotion of cycling in many places by creating the perception that it is unsafe to cycle without a helmet. The strong stand of Government in promoting helmet use, including a statement in the Highway Code that cyclists 'should' wear helmets and the banning of photos of unhelmeted cyclists in official literature, has played a key part in creating uncertainty about encouraging cycling. As a result some employers and institutions have declined to encourage cycling for fear of liability if people who are encouraged to cycle do not wear helmets; and schools and youth groups have banned cycling without helmets, resulting in reductions in cycling among the young.

Research for Cycling England has shown that 27% of women do not cycle in part because of 'helmet hair' – the effect on the appearance of their hair if they were to wear a helmet. (CycEng, 2008)

**New Zealand**

The New Zealand Travel Survey (LTSA, 1993-7) suggests that cycle use fell by approximately 22% as a result of the country's helmet law. Cycle use by children has especially suffered.

**Sweden**

All bicycle-related injuries to cyclists fell by 48% in helmet promotion areas compared with 32% elsewhere. The most plausible explanation is a substantial fall in cycle use. (Ekman, Schelp, Welander and Svanstrom, 1997)

**References**

BHRF, 1244

Errors and omissions in Canadian research group's bicycle helmet papers...
http://www.cyclehelmets.org/1244.html

Bryan-Brown and Taylor, 1997


Ekman, Schelp, Welander and Svansstrom, 1997
http://dx.doi.org/10.1016/S0001-4575(96)00086-3

Gillham and Rissel, 2012
http://www.eco-logica.co.uk/pdf/wtp18.3.pdf

Jensen and Hummer, 2002
http://www.cyclehelmets.org/1146.html

LTSA, 1993-7
New Zealand Household Travel Survey, Land Transport Safety Authority. External Link

Macpherson et al, 2002
http://www.cyclehelmets.org/1106.html

Macpherson, Parkin and To, 2001
http://www.cyclehelmets.org/1105.html

Rissel and Wen, 2011
http://www.cyclehelmets.org/1104.html

The Bicycle Helmet Research Foundation (BHRF), an incorporated body with an international membership, exists to undertake, encourage and spread the scientific study of the use of bicycle helmets. Also to consider the effect of the promotion and use of helmets on the perception of cycling in terms of risk and the achievement of wider public health and societal goals.

BHRF strives to provide a resource of best-available factual information to assist the understanding of a complex subject, and one where some of the reasoning may conflict with received opinion. In particular BHRF seeks to provide access to a wider range of information than is
commonly made available by those that take a strong helmet promotion stance. It is hoped that this will assist informed judgements about the pros and cons of cycle helmets.

For more information, please visit www.cyclehelmets.org.

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