LETTER TO THE EDITOR

Children and bicycles

EDITOR,—May I offer congratulations to the authors of the paper on children and bicycles in your June issue.¹ This can justifiably be described as a valuable piece of classical descriptive epidemiology which sets the problem in perspective, brings out all the issues, and offers some possible solutions most notably the need for children to wear helmets at all times while cycling.

The paper highlights beyond any doubt the great importance of head injuries to child cyclists (83.7% of the fatalities, 31.3% (as head or face) of the injuries presenting to hospital emergency departments). It also brings out very well the fact that nearly all of the fatalities (96.7%) involved a vehicle on the road while only 50.4% of the injuries presenting to emergency departments occurred on the road (of those where the site was known).

There are a few questions that I feel have not been answered and which may possibly give even greater emphasis to the importance of head and face protection (compulsory or otherwise). The questions are:

- (1) What is the percentage of all deaths due to unintentional injury in 0–14 year old children which are due to cycle injury (5, 10, 15%)?
- (2) What is the rank order of cycling as a cause of death compared with other causes of unintentional injury (3rd after drowning, pedestrians)?
- (3) What is the percentage of deaths due to unintentional injury in 0–14 year old children which are due to head injury (50, 60, 70%)?
- (4) What is the percentage (and rank order) of cyclists in the deaths due to head injuries (15, 20, 25%; 2nd, 3rd)?

These same questions could also be asked of the non-fatal injuries where the proportion of cyclists involved will no doubt be smaller adding even more evidence to the case for helmets.

I have to admit that I am not at all keen to go down the road of American football type head protection for cyclists nor for that matter to advocate full face helmets. Some of the modern designs of conventional cycle helmet are really very comfortable but any additions would be very restrictive in what is after all a physically demanding activity. Nevertheless the paper does present a strong case for face protection.

Finally, the paper has not made any comment on exposure — probably because of the usual difficulties in measuring it. There is at least one study that shows that when this is taken into account girls have nearly similar injury rates to boys.²

The epidemiological case for helmet wearing is now really so strong that cyclists are defying logic by not wearing them.³

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¹ Acton CHC, Thomas T, Nixon JW, Clark R, Pitt RW, Battistutta D. Children and bicycles: what is really happening? Studies of fatal and non-fatal bicycle injury. *Injury Prevention* 1995; 1: 86–91.

² Towner EML, Jarvis SN, Walsh SSM, Aynsley-Green A. Measuring exposure to injury risk in schoolchildren aged 11–14. *BMJ* 1994; 308: 449–52.

³ Cameron MH, Vulcan P, Finch CF, Newstead SV. Mandatory bicycle helmet use following a decade of helmet promotion in Victoria Australia — an evaluation. *Accid Anal Prev* 1994; 26: 325–37.

Dr Nixon and coauthors comment:

We have addressed the points made by Dr Avery and thank him for his letter. The purpose of this paper was to highlight bicycle related trauma rather than to place them in the broad perspective of all injuries. However, we have available preliminary data from a postmortem study of injury deaths of children 14 years of age and less in Queensland, which answers the questions of Dr Avery. Bicycle related deaths comprise 7.6% of all child injury deaths. This ranks below deaths by drowning (25%) motor vehicle passengers (20.9%), and pedestrians (15.9%). Drownings could be further subdivided into deaths at sites other than swimming pools, (14%) and drowning in swimming pools (11.6%) in which case cyclist deaths would rank fifth.

Head injury is a main cause of death in 35% of deaths in Queensland children. Motor vehicle passengers account for 35% of all head injury deaths, pedestrians for 29%, and bicycle related deaths 13%. If a child is fatally injured as a motor vehicle passenger, a pedestrian or a cyclist, he or she has between 80% and 90% chance of death being due to a head injury.

Definitive studies of the protective of cycle helmet wearing have not yet been undertaken. Case-control studies are highly suggestive that helmets offer some degree of protection. There is no question that child cyclists need head protection. As more detailed data become available it may be that helmets need to be modified to offer greater protection to heads or faces. Your reluctance to go down the 'American football type head protection road' is understandable but any move in that direction should be based on data and firm understanding of the degree of protection expected of a cycle helmet.

CALENDAR AND NOTICES

A conference on Managed Care: Impact on Injury Control, will be held 14–16 September 1995, at the Charleston Marriott Hotel, Charleston, West Virginia. The goal is to examine current issues in injury control/prevention and managed care, and their interdependency. Part of the rationale is the high cost of injury and the need for improved data collection and interpretation. The general objective is 'to promote alliance among injury control disciplines and to enhance professional skills in injury prevention...'. The invited feature speaker is Mark Rosenberg, MD, MPP, Director, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

The Annual Conference of the Association for the Advancement of Automotive Medicine will be held in Chicago, IL, 16–18 October 1995.

The Second National Conference on Children and Violence will be held in Houston, Texas 9–11 November 1995. The conference is designed for an interdisciplinary group of professionals including those working in the social services, juvenile justice system, correction, probation law, enforcement, and education.

The Third International Conference on Injury Prevention and Control will be held in Melbourne, Australia, February 18–22, 1996. Strategies for injury prevention as they relate to different sociocultural settings, to differing national priority levels and differing emerging consensus levels, will be addressed. This conference promises to be at least as rewarding as its predecessors in Stockholm and Atlanta (see inside back cover for details).

The next European Consumer Safety Association (ECOSA) conference is being held in Canberra, ACT, Australia on 15–16 February 1996 in conjunction with the Third World Conference. For further information contact Willem van Weperen, ECOSA, PO Box 75169, 1070 AD Amsterdam, The Netherlands.

The 6th Travelling Seminar on Safe Communities: How can the Swedish Safe Community Program be adopted in the Eastern/Central European Countries? 23 October–10 November 1995, Sweden. For further information contact: Moa Sundström, WHO Collaborating Centre, on Community Safety Promotion, Department of Social Medicine, S-172 83 Sundbyberg, Sweden. Tel: +46 8 629 05 08; fax: +46 8 98 63 67.)

The 8th Travelling Seminar on Safe Communities: 14 February–1 March 1996, Australia. Includes the Third International Conference on Injury Prevention and Control, Safe Comm 5, and site visits are Noarlunga, North Sydney, Illawarra, and Parkers injury prevention programs. (For further information contact: Jenny Alcock, Health Promotion, NSAHS Level 1, Vindin House, RNSH, St Leonard's NSW 2065, Australia. Tel: +61 2 926 7332; fax: +61 2 906 6174.)

Safe Comm 5: the 5th International Conference on Safe Communities, 22–26 February 1996, Cities of Hume and La Trobe, Victoria, Australia. (For further information contact: Safe Comm 5 Conference Secretariat Convention Network, 224 Rouse Street, Port Melbourne, Victoria 3207, Australia. Tel: +61 3 96 46 41 22; fax: +61 3 96 46 77 37.)

XIVth World Congress of Occupational Safety and Health: 22–26 April 1996, Spain. (For further information contact: Congress Secretariat, Siasa Viajes, Paseo de la Habana, 134, 28036 Madrid, Spain Tel: +34 1 4574891; fax: +34 1 4581088.)

The European Conference on Safety Labelling will be held in Paris on 9–10 November 1995. (For further information contact: ECOSA Conference Secretariat, PO Box 75169, 1010 AD Amsterdam, The Netherlands.)