A review of risk factors for child pedestrian injuries: are they modifiable?

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CHILDREN AND FAMILIES

Child safety on farms in Northern Ireland

Farm related accidents are the third greatest cause of child accident fatalities in Northern Ireland after road traffic accidents and house fires, which is not surprising given the rural nature of the province. The Rural Development Council for Northern Ireland provided the Child Accident Prevention Trust with funding to examine some issues regarding children’s safety on farms. Through focus groups and a series of questionnaires with children, parents and some professional workers, we built up a fairly comprehensive picture of hazards in the rural environment.

Aspects of local farms which parents felt posed particular problems included open slurry pits and lagoons, keys being left in tractors, heavy goods vehicles in farmyards which have poor view at ground level, children’s access to machinery, silo pits, and derelict buildings. However, for all the parents, general road safety issues in the countryside caused more concern than the possibility of an injury on their own farm.

Only 7.8% of the children (33 out of 423) recalled having had an accident on the farm with half of these children resident on farms. Although injuries recalled were slightly higher in the girls than to boys (54% and 42% respectively), boys were much more likely to have an injury which involved the use of tractors and machinery. Children consistently mentioned heavy machinery, bulls, slurry pits, and lagoons as the main causes of farm injuries, followed closely by classes in school time, and parents setting bad examples. A comprehensive checklist was produced as part of the study which farmer’s wives felt would be a new and useful way to educate farming families about potential hazards on their farms. This will require modification in order to make it more suitable for specific types of farming, as a generic checklist will have items not appropriate to all farms.

An overwhelming majority (94%) of the children (33 out of 423) said they would do jobs which are really too difficult. As children will continue to undertake tasks on the family farm, further work in risk assessment is needed if we are to be able to advise on appropriateness of tasks.

The first detailed study on the cost of injury within Australia has been carried out by researchers at the Monash University Accident Research Centre. The study, supported by the Department of Health, was made for the State of Victoria and was directed at broadly describing the epidemiology of injury at all levels of severity and to provide an estimate of the total lifetime cost of injury to the Victorian community for injury cases occurring in 1993/94.

The study was carried out, nevertheless the report has interest for those with a specific interest in child injury.

For children under 5 years the direct cost of treatment was found to constitute 60% of the lifetime cost of injury, the morbidity cost 30%, and the mortality cost 11% while for children aged 5 to 14 years they were 46%, 45%, and 10%, respectively.

The direct per injury cost is about 20% less for children aged 5 to 14 years than for those aged under 5, the morbidity and mortality costs are substantially higher (55% and 75%), because the differences in cost are significant, especially in relation to death. This suggests that the fact that the rate of injury is higher for the younger age group and the total cost of injury for the older age group is double that for the younger ($160m compared with $77m).

There is also a gender difference in costs. Girls have a slightly higher average cost of death (10%) than boys, the average morbidity costs are broadly similar, and boys have a slightly higher average cost of direct treatment than girls. However, the higher average cost of treating boys for injury combined with a substantially higher rate of injury result in the total cost of injury for boys being 40% above that for girls in children under 5 and 66% higher than that of girls aged 5 to 14 years.

For specific causes of injury and death the top five most costly among children under 5 were: falls ($22m); poisoning ($12m); fire, flames, and burns ($8m); hit, struck, or crushed injury ($7m); and motor vehicle traffic ($8m). For children aged 5 to 14 years the top five most costly causes of injury and death were: falls ($66m); hit, struck, crushed ($18m); motor vehicle traffic ($18m); other transport ($17m); and cutting, piercing injury ($8m).

The discussion on the implications of the distribution of costs, particularly in priorities for prevention and the detailed tables concerning the incidence and pattern of injury and of costs are likely to be of wide interest.

LETTER TO THE EDITOR

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Editor—My attention has been drawn to above article by Wazana et al.1 I was disappointed to find that only the MEDLINE database had been searched for what was effectively an area of transport related accident research. Though I note that the authors acknowledged this limitation and sought to augment their search by searching through the references of retrieved articles, I believe many relevant articles were probably not retrieved that would have been one of the most relevant databases for the subject area, namely the International Road Research Documentation (IRRD) database. A search by one of the Transport Research Laboratory (TRL) information scientists retrieved some 140 references from a similar 10 year section of the English language part of the IRRD database. Further references in French or German could have been retrieved from the publicly available versions of IRRD (online via the STN host or as part of the SilverPlatter Transport CD-ROM).

I hope other researchers in this field will take note and utilise the massive information resource that IRRD comprises (as well as abstracts of published information, summaries of ongoing research are also included). IRRD centres throughout the world such as TRL in the UK will be pleased to assist researchers by either carrying out searches of IRRD for them or helping them to access the online or CD-ROM versions of the database.

For further information of services TRL can provide see our web site at http://www.trl.co.uk and for information about the online version of the IRRD database see http://www.fiz-ku.de or for information about the Transport CD-ROM see http://www.silverplatter.com

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