Guest editorials

Following in father’s footsteps: a commentary on ‘Theory and methods of epidemiologic study of home accidents’

I have spent a number of years following in my father’s footsteps as an epidemiologist. When I began my professional career, I didn’t really plan to become involved in injury research. Therefore discovering this particular article (reproduced on p 55) did not direct me in any specific way toward the study of injuries. My interest in this ‘classic’ was in its application of epidemiologic methods and the example it provided of a cross classification scheme. These demonstrated the creative use that can be made of data when there is an underlying principle to the analysis.

I am not even certain that most injury epidemiologists have seen this article with the certain exception of Julian Waller. In any case, my pleasure with the decision to republish this work is twofold. It provides an organizing framework for analyzing data obtained in epidemiologic studies, but also focuses the attention on analyses useful for the development of prevention efforts. These efforts extended well beyond the normal analysis of descriptive epidemiologic studies. Further, this publication provides a definition of injury that is more specific than the definition commonly used at the time — that proposed in the United States Public Health Service publication *Uniform Definitions of Home Accidents*.

Epidemiology has many strengths and many weaknesses, as the paper points out. Its strengths are derived from the method, the theory, and the application of a systemic approach to understanding causes of disease. Ironically, perhaps, its weaknesses clearly stem from many of the same areas. Sampling of certain injuries from the entire spectrum of injuries continues to provide researchers with a dilemma. The desire to understand the entire spectrum (from near misses to fatalities) is hampered by our ability to consistently and reliably identify all injuries that fall into the categories of interest.

Critics of the epidemiologic method abound, and those of us who are epidemiologists are often too timid in our defense of the discipline because, we too, are aware of its methodological pitfalls. From where I sit, I find it is often easier to criticize than create. And yet, it is through creative application of established methods that we have made such great strides in the protection of children from harm, including the reduction of injuries.

Another issue this paper raises that may be worth discussion is that of classification of injuries. We have developed a number of surveillance systems that focus on causes (firearms), specific types of injuries (head injuries), or the nature of the injury (burns) and yet, by doing this we are fragmenting other aspects of the injury as presented in this paper.

For example, head injuries occur as the result of recreation, motor vehicle crashes, and suicide attempts. When designing prevention programs for head injuries, the ability to define the population at high risk of head injury is important, and yet the prevention program design becomes extremely difficult because each of the events may require a totally different approach. Therefore, we often hamper our ability to ‘permit the development of programs’ for prevention that are scientifically sound, administratively feasible, and capable of evaluation’. We must continue to develop new and creative ways to assess injuries so as to provide the best information that will lead to prevention programs.

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Tractors, motorcycles, ATVs: inconsistencies in legislation for child safety. Examples from New Zealand

Recent research in New Zealand has drawn attention to an unacceptable number of child fatalities and injuries due to tractor, motorcycle, and all terrain vehicle (ATV) off-road crashes, especially on farms. Inconsistencies in legislation aimed at protecting children from harm from using these vehicles are identified, and approaches to addressing these discussed. Although the examples given in this editorial are taken from experience in New Zealand, I suspect they apply to many other countries as well.

**Fatalities and injury due to tractors, motorcycles, and ATVs**

In the 1980s there were, on average, two children (<15 years of age) killed and 24 hospitalised each year as a result of tractor crashes on New Zealand farms. Reliable information on the number of children who were driving tractors at the time they were injured was not available. During this period there were also, on average, 100 children hospitalised each year as a result of off-road motorcycle/ATV crashes. In 1991 there were 79 children hospitalised each year as a result of motorcycle/ATV crashes, and 37 children hospitalised each year as a result of tractor crashes.