injury PREVENTION

Journal of the International Society for Child and Adolescent Injury Prevention

Editorials

Difficult choices

Two related themes appear in this issue. One is the relative merits of targeted, or high risk, versus population approaches in injury prevention. This topic is addressed in the paper by Kendrick and Marsh (p 170), and commented upon by Ward (p 160) and Moller (p 162) in their respective Opinion and Dissent columns. The second arises from the reports of the regional editors highlighting the large, and perhaps growing, disparities in injury rates between the rich and the poor, both within and across countries. The essay by Moller elegantly links these ideas.

The connection is epitomized by the question: Are the preventive needs of those at greater risk because of poverty best served by a targeted approach, or will they do as well or better when a population approach is adopted?

I had originally intended to use this space to write about tertiary prevention, a topic that does not often appear in the journal. I wanted to examine the widely held assumption that it is tertiary prevention that is largely responsible for the amazing fall in death rates for injuries seen over the past few decades in most countries. For those not familiar with the jargon, this level of prevention begins after the injury has occurred and concerns itself with saving life and limb (literally). It involves a range of technologies, including emergency medical services, transport, resuscitation, trauma care, etc.

With the emergence of the above topics, however, I decided to set aside the examination of tertiary care alone. Instead, I expanded my thoughts to include the classic paradigm of primary, secondary, and tertiary prevention with a view to reminding readers of the prospects and challenges each poses. My hope is to prompt readers to re-examine old assumptions about prevention strategies at each level.

The power of the message from the regional editors raises many questions. One is deciding the sort of preventive strategy that works best for children who are poor. Another is determining whether the injury death rate differences between rich and poor, or between high income countries and low income countries, are due mostly to failures to deliver proven tertiary care technologies or whether other factors are involved. If, as seems certain, it is more than not just having helicopter transport and the like available — that, indeed, other factors come into play — what should we do? What level of prevention is conceivable under such circumstances?

Finally, in light of Moller's arguments, we need to ask if it is possible that unless prevention programs target the poor (or other high risk groups), the differences in death rates between children in rich and poor families, communities, or countries, will increase? These differences are already appallingly great; the idea that something we do might exaggerate them is deeply disturbing.

For some while I have been persuaded by the reasoning of the late Geoffrey Rose in support of a universal, or population approach, to most public health problems.[1] In a nutshell, Rose's view is that if an intervention succeeds in shifting the mean in the desired direction, everyone, including those in the high risk end of a distribution, will benefit equally. This reasoning is persuasive but fails to address the powerful dissenting view put forward by Moller.

He suggests that the growing tendency towards population based interventions is partly responsible for the persistent socioeconomic scale differentials so frequently found in injury statistics. Another possibility is that the poor lack sufficient influence to be the recipient of any preventive programs, targeted or otherwise. Finally, we need to accept that the socioeconomic factors driving the differentials in the first place are themselves widening — that the gap between the rich and the poor is greater in some countries, not less. No matter which way the problem is viewed, it poses a hugh challenge for everyone involved in injury prevention, including its theoreticians and researchers.

If we were to consider the challenge in the context of primary prevention our goal must be to reduce economic differences — to minimize the number of children living in poverty. At a minimum, we would need to better understand why children who are poor (because they live in low income countries or in low income neighbourhoods) have higher rates of injuries.

The answers are not as simple as we might assume. As I have written before, I am convinced it is foolish (and offensive) to suggest, as some do, that parents of poor children care less about their children or supervise them less carefully. Poor parents tend to have large families and certainly have many other demands on their time and attention. Thus, they undoubtedly find it more difficult to

provide supervision of the same quality and quantity as the rich. But this is not something that can be easily remedied through a behaviourally oriented preventive program. It can do little good to harp on the need for closer supervision, when families are already overwhelmed with trying to survive. Instead, the emphasis must be on trying to make it easier for these parents to protect their children using other strategies. Whether these strategies are population based or targeted is the only issue; the fact that special efforts are needed cannot be denied.

But, to repeat, if we were to approach this problem as a challenge for primary prevention, the obvious solution is to diminish the proportion of poor children. Although some countries have gone much further in this direction than others, all should do so and not simply for the sake of preventing injuries. There are many other more persuasive reasons why any civilized country should want to reduce poverty, especially as it affects children.

Steps, such as those taken in parts of the Netherlands recently, to reduce unemployment and thus, poverty, through encouraging a four day work week, deserve wide consideration. Countries with a high proportion of poor children should re-examine the economic and political wisdom of following this example. The merits, or otherwise, of other economic approaches, including income redistribution and taxation policies, are beyond my ability to comment on wisely. But there can be no escape from the fact that until we find effective preventive strategies, targeted or otherwise, poor children will continue to have higher injury rates. The primary prevention solution is to make these families less poor and to have fewer of them.

It is at the secondary prevention level where the argument between targeted versus population strategies hits home. Assuming that poverty is going to be with us, which approach is most likely to benefit most or is less likely to prove harmful in reducing the toll of injuries or their immediate consequences?

As stated earlier, I long believed that Geoffrey Rose was right, but the arguments put forward in this issue are cause for further reflection. It would be important to know what others think about this critically important issue.

The best case scenario is to suggest that both population and high risk approaches could coexist. If it were not a choice between using limited resources for either one, it would be interesting to consider these alongside one another. So, for example, one could imagine a nationwide campaign to reduce speeds, which, if successful would benefit everyone, alongside more vigorous enforcement of reduced speed limits in poor areas. Similarly, if parental accompaniment is the key to the safety of child pedestrians under the age of 10, and this is so difficult for poor parents to provide, society has an obligation to take other steps. Programs to find others to accompany children on trips to and from school may be one answer. Another is to ensure that traffic is less dangerous, either by slowing it or re-routing it.

I have a hunch that one reason why children in poor areas have higher injury rates is that enforcement of existing laws and regulations is less evident in those areas. For example, if speed limits are not obeyed in low income neighbourhoods, or in poor countries, there is less time or energy or clout available to the poor to complain as effectively as the rich. This is, of course, a hypothesis, but it should be possible to prove, and if proven, would point to a generalizable solution.

Finally, at the level of tertiary prevention, there are certain to be disparities in the manner in which these post-injury services are provided, if indeed, they are available at all. Despite not knowing much about what it is about tertiary care that has accounted for the remarkable decline in death rates, doubtlessly those living in more affluent areas are the main beneficiaries of this technology. This disparity can, and should, be remedied world wide. The World Health Organisation, a major player in low income countries with a growing commitment to injury prevention, must move more forcefully to achieve this goal as well as those at the primary and secondary levels. The UN Development Program intends that the findings of this year's report be used by the world's rich nations to set the goal of eradicating world poverty within the next 15–20 years. Although this timetable is too leisurely for my liking, it confirms that the objective is realistic.

1 Rose G. *The strategy of preventive medicine*. Oxford: Oxford University Press, 1992.

★ ★ ★ ★ ★

A poignant example

Just before completing the preceding editorial, a 6 year old child was killed while skate-boarding in a Montreal suburb. In itself, this event is all too common to merit comment. But this case embodies several elements that illustrate some of the dilemmas described in the preceding section.

The child, who was not wearing a helmet, was hit by a car. At the time of writing, it has not been possible to confirm the details but, apparently, the driver was elderly and had previously struck a child; he was regarded in the neighbourhood as a dangerous driver. While that characterization may be disputed, his age is a matter of public record. So is the province's attitude towards the re-examination and licensing of elderly drivers.

The fact that the child was a resident of a municipality that is one of many that do not require helmets to be used by roller-bladers, skate-boarders, let alone bicyclists, is also noteworthy, and a matter of record.

And, finally, when the case was presented to the Trauma Committee of our hospital, there was a great deal of critical self examination and soul searching regarding the procedures following the child's arrival in the hospital. Was the team properly organized? Was the necessary equipment available? Was it just a matter of good luck that an anaesthetist happened to be at hand when a craniotomy was required? These, and many more questions, were raised with a view to improving the care provided for the next such victim. (If only the same attitude applied to the town council's position on helmets and that of the province on licensing!)

Typically, there was little time during the Trauma Committee's meeting to discuss the preventive issues, and in the end the coordinator of the Head and Spinal Cord Trauma Program and I were left to agonize about what to do. Should we publicize this tragedy, with a view to drawing attention again to the need for helmet legislation, which may have reduced the severity of the injury (secondary prevention)? Or, indeed, should we draw attention to the need for stricter regulation of older drivers, to say nothing of those regarded as dangerous (primary prevention)?