Childhood injury prevention

Dr. I. Barry Pless examines how injury prevention among children and adolescents is (or is not) addressed by our federal government in the article "Childhood injury prevention: time for tougher measures" (*Can Med Assoc J* 1996;155:1429-31). He advocates that we establish a national centre for injury prevention and control and "provide it with strong teeth," plus, of course, money. Is that what we need?

An unpublished statistical profile of child health was released in British Columbia in 1979. The Child Health Profile showed that, in 1961, the social causes of child and adolescent mortality in the province began to outstrip the traditional medical or biologic causes. Among adolescents, 85% of deaths were due to injury. This report caused a great stir in the province and influenced subsequent provincial injury-prevention strategies. Indeed, the rates of injury-related hospital admission and mortality for children and youth in British Columbia have shown important improvements since then.

I believe that this experience speaks to the importance of regionally and provincially based strategies and suggests that a national centre may not be the wisest or most effective approach.

Pless is correct in stating that the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) is a world-renowned statistical base on childhood injury. But is it effectively used or adequately plugged in at the local, regional or provincial level? I suggest not, and I propose that such systems be encouraged to be more locally relevant before new, national centres are advocated. Without a locally or provincially based system to pressure them, the "sporadic nature of the interest of professional bodies" will continue. Our federal system and the geographic size of our country dictate the need for a strong regional approach if we are to respond rapidly enough to safety issues such as drawstring-related strangulations. After all, Ms. Jackie Petruk and associates' article "Fatal asphyxiations in children involving drawstrings on clothing" (*Can Med Assoc J* 1996; 155:1417-9) emerged from such a strong, provincially based injury-prevention program.

Pless' editorial makes many important points. He is correct in stating the need for a national child and adolescent injury-prevention program but incorrect in emphasizing it without having adequately addressed the need for tougher measures at the regional and provincial levels, which must form the foundation of a national program.

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[The author responds:]

Although Dr. Tonkin and I agree on many points — perhaps many more than he realizes — his fundamental criticism is that government action is needed at the local (presumably, provincial) level, not at the national one. To buttress this argument he cites the landmark BC Child Health Profile that showed the importance of injuries, especially among adolescents in British Columbia, and the provincial government action that followed. He also notes that the injury statistics subsequently improved. Although I do not want to rain on his parade, so did the injury statistics for almost every other province, with or without provincial action. Having said this, I hasten to add that I firmly believe that what British Columbia has done in this field is exemplary and that all provinces should quickly follow its example.

The central issue, however, is not regional or provincial versus national, as Tonkin suggests. I am sure he would agree that it is both. Where we disagree, I suspect, is over which should come first. Perhaps Tonkin thinks that the provinces really can do it alone. If so, let us examine some of the examples he gives. The first is CHIRPP, which he believes is not "effectively used or adequately plugged in" locally. The system was not designed primarily with local needs in mind. However, many researchers have made excellent use of local CHIRPP data for several important projects. Nevertheless, I agree that this system, or any other like it, should be made more locally relevant, but not necessarily before a national centre is advocated. What Tonkin must acknowledge is that there is immense symbolic significance in having a national focus, especially when the issue is universal. If all provincial health ministries took on this issue with the same commitment as some have shown, it would be reasonable to argue that a federal role was less important. But most provincial governments do not view injuries as a health problem, and many of the most important powers to control and prevent injuries lie with national bodies such as the federal departments of transport and justice.

Concerning the drawstring-related strangulations highlighted in the article by Petruk and associates, it is true that the findings emerged from a commendably strong provincial program; regrettably, neither this program nor the provincial government has the power to regulate the indus-

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try responsible for the problem. That power remains in Ottawa with the Product Safety Bureau of Health Canada. Unless and until there is a national centre breathing down the neck of this branch, or similar pressure from many of the provinces, it will continue to pussy-foot around this problem and others like it.

Although Tonkin is correct in bringing me to task for not emphasizing the need for tougher measures at the provincial level, he is wrong in implying that I failed to do so because I think the federal government holds all the answers. The reality is that the power to take the tougher measures needed resides for the most part in Ottawa, not Victoria. If, and when, the provincial governments take this problem seriously and place it within the public health area, where it belongs, then there may be less need for a national centre of the kind I propose. However, in light of the US experience, there will always be a critical role, if only that of a standard-bearer, for the federal government.

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Any of us who work in trauma treatment inevitably react emotionally to the issue of prevention of needless injuries. As Dr. Pless so clearly states in his editorial, a central structure is required if effective measures are to be taken in a way that affects all types of injuries.

Injury prevention provides an interesting paradox, because it is an area in which grassroots support is necessary. For example, the use of seatbelts and child seats in cars would have gone nowhere without social awareness, education in schools and the central prescription of standards requiring the use of seatbelts. The legislative change has been made on a province-by-province basis because motor-vehicle legislation is a provincial area. None the less, standards for seatbelts are mandated federally. Finally, the circle is closed by a high rate of compliance with legislation, which has been encouraged by the grassroots approach.

The BC Injury Prevention Centre was started in 1987 as the Spinal Cord Injury Prevention Program because of our concern about the avoidable spinal-cord injuries we treated. The centre's strategies for prevention include research, education, legislation and enforcement. Legislation needs to be at the federal and provincial level. However, the field of injury prevention has been burgeoning in popularity and needs a measure of coalition and confederation. The multiplicity of injury-prevention bodies reflects an interest at the grassroots level that may not result in enhanced effectiveness.

We therefore suggest that a federal agency be responsible for ensuring standards, as Pless outlines in his editorial. National organizations such as the Smart Risk Foundation (formerly the Canadian Injury Prevention Foundation) may be best employed in providing common curricula and materials that can be used in all of the provinces. Provincial government agencies such as the BC Committee for Injury Prevention may be best suited to linking the legislation and enforcement at a provincial level with the implementation groups. Groups such as ours are best able to support local bodies such as schools or organizers of events that need presentation materials and supportive speakers. We can also monitor injury trends because we work within a major trauma centre, and we may therefore be the best group to prepare public service announcements to enhance social awareness of the need for injury prevention.

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[One of the authors responds:]

I agree with Dr. Pless' editorial wholeheartedly, but I am confused by the letter from Dr. Wing and Ms. Lower.

The field of injury prevention is anemic, and this anemia is chronic. To be effective, practitioners of injury prevention must join the mainstream and become part of a true injury-control system. Injury control encompasses injury prevention, emergency medical services, acute care (trauma) and injury rehabilitation, all working together. Obviously, we must try to prevent the injury in the first place, but if we cannot, then we need a proper emergency-medical-services system that can respond rapidly and that has appropriately trained providers who can treat children as well as adults. Patients whose injuries threaten life or limb need to be taken to a facility that can deal with trauma, and these patients need rehabilitation from the moment they are injured. The system must include the ability to collect injury data and analyse it to better develop programs to prevent future injuries and to improve the outcomes for those injured.

As it stands, anyone can say he or she is an injury-control specialist, injury-prevention expert or injury consultant, and no one can dispute such a claim. The injury-control field needs accredited practitioners, leadership at the federal and provincial levels and appropriate resources to match the billions of dollars spent on injuries each year.

What we do not need is yet an-

other task force to tell us that we have a problem. The numbers are obvious. Who is going to lead us out of this sad situation? There is no existing foundation or organization that has the credibility or support to provide national leadership. The public, unfortunately, does not believe that injuries are a problem until they or their loved ones have been injured. We are all but a telephone call away from the devastating news that our son, daughter, mother, father, spouse or friend has been injured or killed. However, by then it is too late. Unlike the networking and cause development concerning chronic diseases, there is a lack of community-based advocacy groups for injury prevention, because injuries occur suddenly and in isolation.

So what needs to be done?

Actually, it is quite simple.

The federal minister of health should call Pless and ask him what needs to be done, what resources are required and what results we can expect. I cannot think of anyone more qualified and respected to lead us out of the quagmire in which we have stagnated for the last 20 years.

As Pless says, "Let's get on with it."

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Care without barriers

I am pleased that *CMAJ* published the article "Impact on health care adds to the social cost of homelessness, MDs say" (*Can Med Assoc J* 1996;155:1737-9), by Fran Lowry, on health care and the homeless. As a physician who works regularly in Canada's largest hostel for men, I can confirm the challenges of providing adequate care for a high-risk population that has significant needs.

However, it is unfortunate that the article did not suggest action on the unacceptable barriers to health care facing the homeless, which appear to be in direct violation of the Canada Health Act (CHA). As the writer states, severe psychiatric illness or the lack of an address means that homeless people may not have a health insurance card and may face the refusal of care. This outrage occurs daily. At the same time, the population at large is faced with the risks and inconvenience posed by untreated mental illness and infectious disease.

The CMA and the provincial and territorial medical associations should indicate to governments, both federal and provincial, that barriers to care are contrary to the CHA and insist that fiscal penalties be imposed until the problem is solved. All Canadian citizens, regardless of residence or health status, are entitled to care without barriers.

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Bovine spongiform encephalopathy

In regard to the article "Bovine spongiform encephalopathy and Creutzfeldt–Jakob disease: implications for physicians" (*Can Med Assoc J* 1996;155:529–36), by Drs. Chris MacKnight and Kenneth Rockwood, I have several questions. What of the beef handlers and especially meatcutters working in the United Kingdom since 1985? With their frequent skin cuts, incurred while dressing beef, have they had neurologic changes? It has been at least 11 years now that they would have been exposed to bovine spongiform encephalopathy (BSE).

And what of brain eaters living in the United Kingdom?

Also, what of the meat-processing plants that have processed the cattle that are carriers? If we are to destroy surgical instruments because of the lack of knowledge concerning proper sterilization techniques, what has been done with the machinery and instruments that have processed these cattle in the past?

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[The authors respond:]

Dr. Mallek asks several relevant questions. If BSE and the new variant of Creutzfeldt–Jakob disease (CJD) are related, should there not be an increased risk among abattoir workers? Similarly, should consumers of beef brains in the United Kingdom not be at a higher risk of CJD than those outside the United Kingdom?

The peripheral route of inoculation, as opposed to inoculation into the central nervous system, is a relatively inefficient method of transmission. Sporadic CJD has not been identified in abattoir workers; however, in addition to reports of cases in farmers,[1] a case has been reported in a handler of animal feed.[2] Among the cases of the new variant of CJD, 1 patient had worked as a butcher and 1 had visited an abattoir.[3] None of the variant cases had a history of brain consumption. This background suggests that the pathogenesis of these diseases is more complex than a simple dose–response relation.

Stronger evidence that BSE and the new variant of CJD are linked has come from molecular analysis of the prion protein.[4] Western blot analysis of prion protein from BSE transmitted to laboratory animals and from variant CJD has shown that the 2 are similar, suggesting that they share the same source.

Canada has initiated several programs to investigate CJD and the risk of its transmission through blood