The challenge of drowning prevention

Of the three leading causes of childhood deaths from injuries, drowning ranks second or third in most countries. Much is known about how to prevent traffic injuries for all categories of road users—pedestrians, bicyclists, and passengers. Much is also known about how to prevent burns and scalds. But drowning prevention remains the final frontier; remarkably few preventive programs have been formally evaluated and those that have been evaluated appear to provide little encouragement.

In a previous issue we published an evaluation of a program for teaching young children to swim, the results of which seem to have been mixed. Before and since that publication nothing on drowning has appeared in this journal. In other journals, there have been several useful studies of pool fencing, but the general level of ignorance reflects, no doubt, the challenges inherent in drowning prevention. In this issue, two papers (pp 252 and pp 257) shed further light on this difficult problem.

The paper by Fisher and Balanda (p 257) approaches the drowning issue from an unusual perspective. They address the objection to pool fencing by its opponents that rests on the conviction that caregiver factors, especially supervision, are sufficient to prevent toddler drownings in domestic pools. Specifically, they examine data to see how often such factors are used by pool owners with and without fencing. If it were true that pool owners with young children routinely provided more supervision, then perhaps a case could be made for not bothering about the passive approach fencing represents. It appears, however, that in 1989 in Brisbane, pool owners were less likely to perceive having a childproof fence as important than did those who did not own a pool. Nor, were pool owners more likely to increase their vigilance when children were present. Although this report is described as an 'exploratory analysis' the results are troubling. If replicated, further measures to press for fencing are clearly indicated. In fact, to be honest, even if the data were to show that pool owning parents were more vigilant, I would still harbour doubts about how effective and continuous their supervision could be.

The second is a paper by Celis—our first publication from Latin America. It reminds us that the dangers of drowning, like all other injuries, reflect the culture and setting in which the event occurs. Identifying drowning risks from different bodies of water in New York, Amsterdam, or Cape Town, is certain to produce different results than those from Mexico. Not many New Yorkers need fear the 'alijes' described by Celis, nor would they need to be concerned with skating on canals that are not fully frozen, which is a danger for Dutch children. This is, of course, stating the obvious. But it serves to underscore the ecological limitations of any study.

Most readers understand this and accept these limitations. My concern, however, is that the reverse of the coin is less understood but equally misleading: that many are inclined to exaggerate these limitations, being too quick to reject findings from other cultures. We cannot afford to be dismissive of the results of studies coming from countries other than our own.

Some policy makers, politicians, and program persons carry this to unreasonable extremes, arguing that unless data are 'local' they are not applicable to the communities for which they are responsible. At the national level this sort of reasoning is, to put it bluntly but mildly, foolish. It is little more than parochialism. For, say, Canadian policymakers to argue that the findings of all studies conducted elsewhere must be replicated in Canada before they can be accepted, is nonsense. Few policymakers or program persons are quite so extreme, but such views are irritatingly common.

Replication is of great value in science. Indeed, in many situations it is essential. But we should not dignify the reluctance to accept (with some needed grains of salt) the findings from other countries by this sort of reasoning. The papers from Australia and Guadalajara have important messages for everyone. It only takes a bit of imagination to identify the domestic translation of another's findings. They should not be discounted with a flip, 'Well, of course, Mexico is not England... (or France, Canada, etc)'. At the risk of oversimplifying, any body of water is a risk for drowning. The more plentiful and proximate to where young children live and play, the greater the risk. Mexico must learn from the Australians and New Zealanders that proper fencing is one way to reduce drownings. In spite of obvious political and economic differences between parts of Mexico and the Antipodes, an inexpensive means of fencing these home cisterns should be explored. But, in attempting to accomplish this, the sobering findings reported by Fisher and Balanda, and all other such studies, must be kept in mind.

And lest it appear that this sermon is only aimed at policy makers, etc, I wish to make clear that it applies to scientists as well. Look carefully at the references that follow each
original article. If an American researcher includes work done in Europe, or vice versa, it is often because the reviewers or an editor, after seeing the original submission, have remarked that the authors that this is an international journal. Authors are then urged to be sure to review the literature from other countries and eventually most do. But the tendency to be insular, to neglect the work of colleagues from abroad, is deplorably distressing and reflects poorly on the scientist.

Returning to preventing drowning, these contributions and much of the literature support the belief that the best solution remains some way to physically separate the child from the danger. Other possible solutions require further study; the benefits of teaching swimming skills early, various life saving techniques, the design of small boats and the safety equipment they must provide. All of these make sense but await solid evidence. Until such evidence becomes available, drowning is likely to remain 'the final frontier' of injury prevention.

An exceptionally impressive annual report

I was tempted to title this, 'Gob-smacked by an annual report', but I was persuaded that this was undignified and mysterious. The strange phrase originates in England, where it conveys being surprised or overwhelmed (usually, in a positive way). This was my reaction to reading the 1996 annual report of Monash University's Accident Research Centre (MUARC). I get many such reports and am pleased to have them. I hope others will not feel neglected that I am singing this out for praise. I do so because it is one of the most recent I have read that has elicited such a strong reaction.

Before explaining why I reacted as I did, I should remind readers that MUARC is directed by Peter Vulcan, a member of our editorial board. As we noted earlier, Professor Vulcan recently received two honours from the US: he is the first non-American to receive a Distinguished Career Award from the American Public Health Association as well as a Special Award of Appreciation from the National Highway Safety Administration.

But it is not Vulcan's well deserved recognition that caught my attention. Apart from how well it is written and illustrated, to say nothing of the quality of the paper and binding, two elements are noteworthy: in the section on research, a large chunk is devoted to 'Evaluations'. These include one dealing with airbag effectiveness, another with a 'black spot' program, and a third on new road safety programs. The latter, for example, describes an 11% reduction in casualty crashes after the introduction of mobile radar devices.

In the section entitled 'Longer Term Research', there is a description of a program dealing with consumer product safety; another with young drivers; one describing changes in farm fatalities; and another showing a decline in unintentional home injuries after the introduction of a Safe Community program in La Trobe Valley.

Most impressive was the section 'Translating Research into Action'. Ranging from simple measures to prevent finger jams from doors, attempts to reduce child poisoning, using an informative brochure, to more complex road safety measures, these are the sort of responses we all hope for from our research. Whether they are effective is the subject of still further research. But the examples are a large step in the right direction.

What does all this cost? To be precise, $A466 500 shared by RACV Ltd, the Transport Accident Commission, and VicRoads—wise, cost effective investments. Is MUARC better than its many counterparts in the UK, the US, and elsewhere? Perhaps not, but that is not the issue. They deserve this recognition for this compelling report and for the wise mix of basic and applied research. (Now all that is needed is to persuade them to substitute 'injury' for 'accident' in their title!)

Great expectations

The appointment in the UK of a Minister of Public Health is to be applauded. It is especially welcome because from statements Tessa Jowell has made, it seems likely that injury prevention will be high on her agenda. If it is not, it most certainly should be. She has made a clear commitment to reducing inequalities between rich and poor and there are few areas where these inequalities are more apparent than injury mortality. She states that social factors 'have for too long been regarded as peripheral to health policy' and adds, 'Public health has been marginalized, and its laws and structures have been neglected'. Although neither the word 'accident' or 'injury' appears in this report, my reaction to the tone of her comments is, 'What a welcome breath of fresh air!'

As far as I know, few countries have created a comparably senior public health position. In the US, the Surgeon General has some responsibilities in this domain, and during the days when Everett Koop held this position, child injury prevention gained considerable prominence. The existence of the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention is also important, and although not 'public health' in the strict sense, it serves as a high profile, non-standard bearer. In Canada, the deputy minister responsible for the Laboratory Center for Disease Control is involved in some aspects of injury prevention, but does not have responsibilities equivalent to Jowell's. I don't know what the situation is in other countries, but I suspect that few have a Minister for Public Health but I believe that most should, providing, of course, that the minister understands that injuries are a public health problem of major significance.

Similarly, the appointment in the UK of Glenda Jackson as Transport Minister, is also encouraging. Press reports suggest that she recognizes that her portfolio involves more than simply moving more cars, more quickly. She is concerned about the environment, and alternatives to cars. 'I used to ride to school, but, since