

REGIONAL REPORTS

Educating tomorrow's doctors in injury prevention

Those of us who teach undergraduate medical students are well aware of the innate resistance of most embryonic doctors to anything that seems "irrelevant" to clinical practice. Overcoming this resistance has long pre-occupied public health teachers throughout the world yet few have managed to come up with a sure fire method. The result has been a continuation of the relative neglect of preventive medicine training in many parts of the world, especially in the older established, traditional medical schools. Is it possible that this is one reason for the scandalous indifference of most medical practitioners and researchers to injury prevention?

In the UK, the General Medical Council (GMC), which has a statutory responsibility for medical education, acknowledged the lowly status of public health and in 1993 called for a major realignment of the undergraduate medical curriculum.¹ In its report *Tomorrow's Doctors*, the GMC's Education Committee proposed a greatly increased role for public health in the curriculum in a manner consistent with the underlying aim of interdisciplinary integration in teaching. This has presented British public health educators with a golden opportunity to raise the profile of the subject, although it remains unclear how many have seized it.

In Glasgow, we have been experimenting with an innovative attempt to integrate the teaching of two disciplines—public health and paediatrics—within the eight week clinical attachment of senior medical students to the Royal Hospital for Sick Children, Yorkhill. This comprises a "clinical epidemiology ward round" that involves the illustration of the application of public health (especially epidemiological) principles and knowledge to clinical paediatric practice.² The response of the students has been a mixture of bemusement and approval but our evaluation concluded that the experiment had succeeded. We are currently exploring ways of extending the idea into other clinical areas.

Injury prevention should be an ideal candidate for this type of integrated educational approach. Rather than presenting and constantly reiterating its somewhat dry theoretical basis, we could consider incorporating strong preventive elements into teaching being delivered in appropriate clinical settings. Among these are accident and emergency departments, fracture clinics, neuro-surgical units, burns treatment centres, and intensive care wards. One potential obstacle is a mismatch between the orientation of the teacher and the location of the teaching. An orthopaedic surgeon, for example, may have little interest in prevention while a public health physician may not have ready access to a clinical facility. This can perhaps be overcome either through a highly selective recruitment of highly motivated and informed clinical teachers for this purpose or by organising joint teaching by clinical and public health staff.

Before taking the plunge into unfamiliar waters, I would be interested to hear of the experiences of colleagues in experimenting with such an approach to injury prevention education. If you have tried teaching medical students about injury prevention in a clinical setting, what did you do and how well do you think you succeeded?

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- 1 General Medical Council. *Tomorrow's doctors: recommendations on undergraduate medical education*. London: GMC, 1993.
- 2 Stone DH. The clinical epidemiology ward round: can we teach public health medicine at the bedside? *J Public Health Med* 1998;20:377-81.

News from India

Course on road safety

An international short course on the prevention and control of traffic accidents and injuries was organised by the Transportation Research and Injury Prevention Programme of the Indian Institute of Technology, Delhi. The course was organised in collaboration with INRETS of France and sponsored by the World Health Organisation and the Association of Indian Automobile Manufacturers. The course was attended by 22 participants from 11 countries; it was accompanied by three parallel workshops. The workshop on mobility and safety for bicyclists and pedestrians was one of the preconference workshops held in Asia in preparation for Velo Mondiale 2000 to be held in Amsterdam in June 2000. The objective of the workshop was to focus on issues concerning mobility and safety for bicyclists and pedestrians in the Asian region. One of the major issues identified was that road and infrastructure designs for safety and convenience are not always available for the traffic mix present in Asian countries. Most of the designs developed in highly industrialised countries do not account for the presence of a high proportion of motorised two wheelers and the other non-motorised vehicles like hand carts and cycle rickshaws that are present on streets of many Asian and African cities. International cooperation for developing such designs would help in developing appropriate guidelines.

The second workshop on pre-hospital care of trauma victims focused on the latest international research findings in design of effective emergency care systems for trauma. The major concern expressed by the participants was that there is a tendency to promote high cost emergency care systems, which are not very effective even in high income countries. There is an urgent need to develop the minimum specifications for trauma care systems that are supported by the latest scientific data so that professionals in low income countries are not led to believe that only high technologies and expensive drug systems are necessary for effective emergency care systems.

The third workshop was on motor vehicles and road safety. Participants from low income countries were concerned that bus and truck designs that would be safer for vulnerable road users are not available today. It appears



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that international vehicle manufacturers are also not planning to do work on such issues. This in spite of the fact that buses and trucks are involved in a significant proportion in crashes with vulnerable road users in low income countries.

The overall impression of participants and the faculty involved with the workshops and the course seems to be that much more work needs to be done to evolve road safety policies and designs that suit low income countries where crash patterns are very different from those in high income countries.

Children's safety and the journey to school

In many countries of the region a large number of children travel to school by bus. Every time a child is killed or seriously injured in a bus crash it becomes a major cause of concern and also the media plays up these events. Hardly any studies exist in the region that document the epidemiology of injuries sustained by children in the journey to school. It is possible that most of the deaths and injuries are among children who walk to school, but in the absence of such data those getting hurt in bus accidents get much more attention than the others. In such a situation the parents, the press, and the civic authorities focus on issues like overloading of buses and other vehicles as the main problem, though there are no studies showing that buses and other vehicles carrying a larger number of children have more accidents than those which carry fewer children. The issue becomes more complicated because if they carry fewer children in each bus and other vehicles then the cost of the journey becomes higher and some parents may opt to have their children walk to school or transport them on two wheelers. In such a situation the total number of injuries and deaths may be increase rather than decrease. It would be very useful if professionals around the world could send us their experience in similar situations.

5th World Conference on Injury Prevention and Control, 5-8 March 2000

We are glad to inform all of you that the organisation of the 5th World Conference on Injury Prevention and Control is progressing as scheduled. Eighteen well known professionals from around the world have already agreed to give plenary and state of the art lectures. Over 200 professionals have already indicated their commitment to attend this conference. Eleven satellite meetings/workshops have been confirmed of which nine will be held before the conference and two after the conference. The organisers would like the participation of the widest representation of professionals in planning this conference. We already have about 100

professionals as members of the various committees. We would like to invite suggestions for making the conference more interesting from anyone who is planning to be in Delhi in March 2000. The second announcement and call for papers has been mailed out (web site: www.ciionline.org/fiwoco/).

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Child deaths in prams in Australasia

Australasia has had a small but distressing number of cases of child death associated with prams that are raising questions about design and resulting in changes in manufacture and standards.

The first and most important point to note is that child death associated with prams is relatively rare. The most common form of injury is a fall, usually associated with not using the safety harness (or less frequently, problems with the way the harness is used); loss of control on steps or escalators; tip-overs caused by overloading with shopping; collapse of the product because of poor locking; tip-overs caused by inadequate brakes or brake failure; and inadequate supervision.

With simple precautions prams and strollers are, generally speaking, robust and safe products.

In a number of cases babies died in prams when it appears they were able to move backwards exposing some design features that placed them at risk. In some cases the baby moved into a pocket of material, in the latest case the movement caused the pram to tip over, trapping the baby.

The latter case occurred in Melbourne in October 1997 and involved a 7 month old baby on a visit to her grandparent's home. The baby was fed and put down in a pramette in a quiet room. After two hours the mother passed the door and saw that the pram had tipped over on its end, only the baby's legs could be seen and she could not be revived. A coroner found that the harness in the pram was not used and that a flap at the head of the pramette was probably undone or loose enabling the baby to move far enough to tip the pram over. The pram was bought new two and half years before (for an older child) and conformed to the Australian Standard, with a harness and an instruction booklet warning that the harness should be used, that the harness should be firmly fitted, and that children should not be left unattended.

The coroner found that the baby would not have died if the harness had been used and the flap at the back of the pramette had been done up. Among other things the coroner recommended that: all manufacturers, importers, and retailers be advised of the details of this case and the findings; the Australian Standard be made mandatory; and that the stability tests in the standard be reviewed.

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LETTER TO THE EDITOR

From theory to practice

EDITOR,—The methodologic article by Runyan, adding a third element to the Haddon matrix, which was published recently, deserves some comments.¹ This article, in essence, adds practicality to what most beginners of injury control consider the theory behind injury intervention. More of such practical applications of established concepts and theories about injury intervention are needed to guide young researchers in injury control. Applying the third dimension elicited by Runyan means, for example, that in an injury control class exercise on the application of the Haddon matrix, emphasis should be placed on interventions that are known to be effective, affordable (less costly), and feasible for a particular injury problem. Likewise, adaptation of an injury intervention in a setting other than that for which the intervention was largely developed need not be based solely on the Haddon matrix, but has to take cognizance of the cultural sensitivities of the particular intervention in the new setting, along with its relative rating or importance in terms of efficacy, affordability, feasibility, and sustainability²—all elements of this third dimension.

Runyan deserves to be congratulated for her deep thoughts on hands-on practical issues for injury control.

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- 1 Runyan CW. Using the Haddon matrix: introducing the third dimension. *Inj Prev* 1998;4:302-7.
- 2 Forjuoh SN, Li G. A review of successful transport and home injury interventions to guide developing countries. *Soc Sci Med* 1996;43: 1551-60.

BOOK REVIEWS

Injury Prevention: An International Perspective. Epidemiology, Surveillance and Policy. By Peter Barss, Gordon Smith, Susan Baker, and Dinesh Mohan. (£42.50 hardback.) Open University Press, 1998. ISBN 0-19-511982-7.

Injury Prevention: An International Perspective sets out to provide, "a resource for injury prevention that will be helpful around the world". Although citing many examples from industrialised and high income countries, the book places much greater emphasis on the special needs of low income countries and

remote and indigenous populations. The authors have the credentials and experience to allow them to accomplish such a task. Peter Barss, the first author, has worked in remote communities in eastern Canada and the other three authors have worked in a variety of low and high income countries.

The adoption of an international perspective to injury prevention and control is to be warmly welcomed. Injury is a highly significant global problem and in recent years, as infectious diseases have become better controlled, the importance of injuries as a cause of death has grown in lower income countries and indigenous communities within "developed" countries. The problem of rapid motorisation can only exacerbate the problem of injuries in the future. The problem of injuries is even more striking in indigenous communities in high income countries than in lower income countries: the stress of loss of traditional life styles, physical hazards such as the introduction of new equipment, and aggressive marketing of alcohol have had a cumulative effect. Indeed for the indigenous population of Canada, injuries are the leading cause of death in all age groups from 1 to 64 years.

The book divides into three groups of chapters. The first group considers the scale of the problem of injury, the epidemiological basis for prevention, mortality, morbidity, costs, and the determinants of injury. The second documents different injury types. More emphasis has been given to traffic injuries, but it also looks at drownings, falls, burns, poisoning, occupational injuries, and intentional injuries. The final section looks at injury treatment and rehabilitation, the development of prevention programmes and a conclusion, pulling together the different strands. The book spans all age groups and seven specific categories of childhood injuries are included.

The major strengths of *Injury Prevention: An International Perspective* are in the wealth of examples covered from a range of contrasting environments that are often neglected in high income countries. We learn, for example, that the most common non-crash bicycling injury in parts of India is the amputation of the right toe by an unguarded cycle chain. In China, public policy has prioritised the use of bicycles and motorcycle use has been restricted by high registration fees. However there is little discussion about the process of changing public policies in different contexts.

There are a number of useful illustrations of how simple epidemiological data can be used for planning local injury prevention particularly where data collection is rudimentary. Barss' work in Papua New Guinea demonstrated how useful information for prevention could be gleaned about severe fall injuries from trees. To learn more about injury deaths in remote rural areas, staff in health centres were asked to question long term residents about the deaths from injuries that had occurred in recent years. Using such enhanced data collection methods, the types of trees and activities implicated in the most serious falls and the populations at most risk could be identified. This information was then disseminated widely by radio broadcasts and talks by village health educators. Perhaps such use of local data and networks could be explored within local contexts in higher income countries.

My main criticism is that *Injury Prevention: An International Perspective* underplays the role of underlying factors that shape the pat-

tern of injury: factors such as poverty and culture are implicit rather than explicit. Poverty gets only three entries in the index, socioeconomic status gets five. Comments such as “poverty is often the underlying factor for many injury hazards” (p95) or “reducing poverty and socioeconomic gradients and improving education requires greater commitment from government and society” or “it must not be forgotten that for injuries, as for many diseases, poverty is often an underlying determinant” (p327) seem somewhat half hearted in view of the scale of the problem.

In the chapter on the choice and development of injury prevention programmes, social and political considerations are discussed. We are informed that the discussion of the importance of sociopolitical factors has been scarce in the literature on injury in the United States. “This is understandable, since the fundamental changes implicit in such interventions would be politically unacceptable and even unthinkable to many national policy and decision makers” (p287). This seems to run counter to the spirit of William Foege’s foreword, which opens with, “designing the ‘unacceptable’ is the challenge and burden of public health”. Perhaps a book such as this should not be so understanding of the views of national policy decision makers, but instead challenge them to do more about problems such as poverty both between and within countries.

The reference to the World Health Organisation’s 1990–91 budget for injury prevention and control for the 34 centres of the Western Pacific of a paltry \$5000, is not accompanied by outrage or indignation. It is merely reported. Such indifference to a major world problem by the WHO needs to be questioned and challenged. Foege’s foreword says that this is a book about social justice but we are given no guidance on how social justice can be achieved at a local, national, or international level.

At the time of writing this review the problem of injuries from disasters was particularly topical, with reports of Hurricane Mitch’s devastation in Central America. The chapter on “Injuries from Disasters” points out the role that human activities have in contributing to or exacerbating the effect of these injuries. But it does not discuss the role of high income countries in contributing to the land use patterns, deforestation, or soil erosion of low income countries, or the debt burden of low income countries locked into international banking systems. The Nobel Prize for economics, recently awarded to Amartya Sen for his contribution to welfare economics and the complexities that underlie poverty, dramatically illustrates the effects of disasters on poorer economies. In addition to such macro level activity, the book also fails to point out the role of advocacy at a local level, and the power of local voices in affecting policy.

One of the most striking aspects of this book is the number, range, and breadth of the quotations intended to illustrate different aspects of injury prevention and control. The quotes span time, space, and discipline and include the words of Francis Bacon, Rabindranath Tagore, Aristotle, Anais Nin, Henrik Ibsen, and Vaclav Havel. But for me these

quotations definitely did not work. I do not think the words of Horatio Nelson at the battle of Copenhagen, “I have only one eye, I have a right to be blind sometimes . . . I really do not see the signal”, illustrate the importance of eye injuries. Nor do George Orwell’s writings from Animal Farm “All animals are equal, but some animals are more equal than others” shed any light on “social and political considerations”.

On balance however, *Injury Prevention: An International Perspective* is a useful addition to the literature, providing a wealth of examples for parts of the world all too often forgotten by high income countries. The need to develop acceptable and practical interventions based on local knowledge and tailored to the needs of local communities, is as applicable to communities in high income countries as it is to many of the examples provided in this book. The social and political underpinnings of the patterns of injuries and their solutions are not, however, covered explicitly—the book has no radical subtext. Could this perhaps provide the basis of an accompanying volume?

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For the Safety of Canadian Children and Youth. From Injury Data to Preventive Measures. Produced by Health Canada. (Pp 291.) Minister of Public Works and Government Services, Canada, 1997. Available from Canadian Government Publishing-PWGSC, Ottawa, Ontario, Canada K1A 0S9 (<http://publications.pwgsc.gc.ca>). ISBN 0-660-17066-3.

This publication from Health Canada is both a reference volume and a guide for research, policy and practice, written by an expert panel under the direction of Ginette Beaulne from the Direction de la sante publique de Montreal-Centre, Quebec. The intended audience for this volume is “professionals working in injury prevention, especially those working in public health”.

The data on injury among children and youth derive from two important sources: death data come from the vital statistics files and hospitalization data come from a registry of all hospitalizations in Canadian hospitals (90% of injury hospitalizations are E coded) collected by the national statistical agency, Statistics Canada. Data on childhood consultations in emergency rooms derive from the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP), with injury reports on all emergency room visits coming from 16 hospitals in Canada. Some limitations of the collection and classification of the data are carefully documented and discussed.

The chapters of this volume are organized by category of injury, chosen on the basis of external causes. In addition to the standard classifications, there are chapters on farm related injury, work related injury, and overviews of motor vehicle, sports and recreation, and residential environmental injuries. Each thematic chapter is organized into three sections: (1) a profile of deaths and hospitalizations, based on the data from the

national sources, including charts, figures, and background data; (2) an overview of the circumstances surrounding the injuries in the Canadian context, based on emergency room consultation data drawn from CHIRPP; and (3) opportunities for action including research priorities and preventive measures, again in the Canadian context.

The presentations of the data in this chart book are comprehensive and careful, with figures supported by background numbers and definitions. In relation to many injuries, historical trends are shown. The limitations of the data, particularly problems of definitions and coding inconsistencies are carefully documented.

The volume is encyclopedic and colorfully presented. Nearly every page is busy with data, figures, text, and footnotes. The recommendations are detailed and comprehensive, but not ranked by priority. While this volume is not easy reading, it provides superb reference material and important comparative data. For researchers and policymakers in the United States this chart book provides a comprehensive data set, which should be compared with the Injury Chart book from the National Center for Health Statistics.¹ Get a copy, in either English or French, for your reference shelf.

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¹ Fingerhut LA, Warner M. *Injury chartbook. Health, United States, 1996-97*. Hyattsville, MD: National Center for Health Statistics, 1997.

CALENDAR

15–17 September 1999, Helsinki, Finland. Safety '99—European Symposium on Safety in Modern Society. *Further information:* Ms Kristiina Kulha, Topeliuksenkatu 41 a A, FIN-00250 Helsinki, Finland (e-mail: kristiina.kulha@occuphealth.fi).

26 September–2 October, Savannah, Georgia, USA. Association of State and Territorial Health Officials (ASTHO) Annual Meeting. *Further information:* 1275 K Street NW, Suite 800, Washington, DC 20005, USA (URL: <http://www.astho.org/>).

4–5 October 1999 (new dates), Austria, Vienna. The Eighth International Safe Communities Conference—Safe Comm8, Networking for Safe Communities: The First European Region Safe Communities Conference. *Further information:* Manuela Kis (e-mail: manuela.kis@kfv.or.at).

7–9 October 1999 (new dates), Prague, Czech Republic. Seminar: A Manual for Cost Calculation in Safety Promotion—Theory and Practice. *Further information:* Michael Grivna (e-mail: michalgrivna@hotmail.com) or Bengt Springfeldt (e-mail: bengt.springfeldt@phs.ki.se).