Death by fire and smoke

A 2 week old boy died in an apartment fire that broke out in the baby’s bedroom shortly after the family finished dinner. The apartment quickly filled with smoke so that the father was prevented from re-entering by firefighters. Typically, this sad story makes no mention of the presence of a smoke detector (K Wilton, The Gazette, 30 August 1995). A later report adds that the child’s two older brothers also subsequently died of smoke inhalation. In the follow up article the reporter notes: ‘The Montreal fire department issued a statement yesterday urging the public to install smoke detectors in houses and apartments, something that is required by law in Quebec’. (K Wilton, The Gazette, 31 August 1995). (Editor’s note: my question is, why urge? why not enforce?)

And again . . .

A 20 year old woman and her 2 month old infant were killed by a fire in a home where it was known that there was a faulty furnace, poor wiring, and no smoke detectors. ‘Fire officials would not say whether the house had been checked for code violations or whether it had working smoke detectors’.

Children and lighters

It is estimated that every year in Canada, on average, about eight people are killed and more are injured in fires started by children under the age of 10 playing with lighters. (There have been 10 reported fatalities in the past eight months). In addition, these fires account for about eight million dollars in property losses and another million in health care costs.

It expected that child resistant lighters will save six lives and prevent 15 serious injuries each year in addition to reducing health care costs and property fire losses.

Disposable lighters fail safety tests

Ottawa — The Health Protection Branch (HPB) of Health Canada is warning consumers not to use three brands of disposable child resistant cigarette lighters (COMET, KING, and TAIYO) recently imported into Canada that do not meet safety regulations. HPB advises consumers to stop using them immediately and dispose of them in accordance with local laws. The importers of these products are cooperating with Health Canada and have voluntarily initiated recalls. No injuries have been reported to Health Canada.

However, reminded that child resistant lighters are not child proof. To avoid tragedy, lighters and matches must be kept out of sight and out of reach of young children.

Hot water heaters

The information is distributed by Consumer’s Gas:

- Hot water can cause severe burns instantly with the danger being much higher for temperatures above 54°C (130°F)
- Children, the disabled, and the elderly are most at risk
- For your safety, set your water at 54°C to minimize the danger of burns from higher water temperatures while ensuring sufficiently hot water for hygiene purposes
- To adjust your water temperature (refer to manufacturer’s literature or follow these steps):
  - Check the water when it has not been used for a period of time (for example first thing in the morning)
  - Run the hot water from a tap closest to the water heater for about three minutes
  - Fill a cup with hot water and insert a cooking thermometer. If sure the thermometer can measure up to 71°C (160°F). Be careful — this is hot water.
  - If the temperature of the water is above 54°C, find the temperature control knob, and set it to the lower setting. Check the temperature again the next day.

Water heaters

Scald burns in children due to hot tap water can occur very quickly. A third degree burn can result from water set at 60 or 66°C in 2–6 seconds and at 54°C the same burn occurs in 30 seconds.

Add-on devices can prevent tap water scald burns. In most single family homes, simply lowering the temperature setting on the water heater works best. The use of a temperature regulating device, either in the water heater itself or at the ‘use site’ is an alternative. The in-line control of temperature by a valve eliminates any intervention. Once the valve is set to deliver water at a given temperature, the setting of the water heater is of minimum concern. Temperature controlling shower and bathtub valves can be placed in areas where a scald risk may exist and are essential where children or elderly persons live. A pressure balancing valve costs approximately $200; a blender valve for a whole building costs between $700–$1200 (from CCSN BBS*).

School bus safety

Instead of agreeing to repeated requests for bus monitors who accompany children across roads, or to requiring the use of flat nosed buses that permit drivers to see children crossing in front of them, several school boards have purchased a costly new radar detector system (FOREWARN) that is supposed to help drivers detect movement in front of or on the curb side of bus. More sensibly, and in sharp contrast, another school board had budgeted $1.3 million to pay for 119 adult monitors. Yet another has committed itself to the eventual conversion of its entire fleet to flat nosed designs (K Seidman, A Carroll, The Gazette, 23 November 1995).

School bus safety — again

Louise Hanvey, a stalwart injury prevention campaigner in Quebec, continues to search for evidence to assist her cause. A new plan to make flat nose buses replace the trunk front buses that are still popular in some parts of the world. She is also trying to persuade the school board to use adult monitors. The school’s only response to date has been to issue glossy pamphlet, basically telling her and her daughter ‘to be more careful’.

Passage of a tough gun control law

Much to its advocates’ surprise and relief, a new, tough gun control law was finally approved recently by the Conservative dominated Senate in Canada. It requires registration of all weapons and will impose much stricter penalties. The Prime Minister describes it as ‘the toughest gun law in the western world’. This law was formally enacted one day before the 10th anniversary of the Montreal massacre — the killing of 14 women at the Universite de Montreal by machine gun fire.

Drawstring warning

Despite repeated ‘requests’ from Canada’s Health Department drawstrings still appear on children’s clothing. Unlike Britain, where a ban took effect in the 1970s and there have been no deaths since from this cause, no such action has been taken in Canada in part because the standard must be North American. (Instead of being sensible, the joint government-industry committee is haggling over what is a ‘safe length.’) Typically, the Canadian response so far is to urge all parents to cut the drawstrings themselves and to watch out for their kids. Meanwhile, Expresso manufacturers are penalized in the market place where those who are less caring continue to profit (M Orton, The Gazette, 12 November 1995).

Clothing safety

As stated above, Britain long ago legislated that manufacturer’s not use drawstrings in children’s clothing. However, it is the size of the garment that is used to determine whether
population there seems some merit to call for a moratorium on passenger side airbags until the problem is resolved by the introduction of automatic sensors or 'smart' airbags that are able to sense rear facing child restraints or out of position occupants. In the US, NHTSA now allows passenger vehicles with only two seats to be fitted with a manual airbag cut off switch and this option is also accepted in Canada.

We are urging everyone to do all they can to try to stop people putting their rear facing child restraints in seats with passenger airbags and to seek legislative actions to solve this problem sooner rather than later.

As part of efforts to improve airbags in our cars that work well for the 'restrained' population, support for attempts to raise the airbag deployment threshold is also being sought.

Another view on airbag warnings

A paramedic writes: 'It's interesting that rapidly inflating airbags seem to be the focus of several reports. I would suggest that if these children were not wearing seatbelts, and were in vehicles that did not have airbags, they would have sustained serious head and/or neck injuries.

Dr Martinez is quoted as saying that some fatal crashes occurred at speeds of less than 32 km/hour. Serious injury at slow speeds in unbelted occupants is not uncommon but death is. This prompts the questions: what speed were these vehicles actually travelling at? Were there other vehicles involved, and at what speed were they travelling?

I assert that the issue is not the danger of airbags but the danger of not wearing a seatbelt. Conversely, it has been well documented that a child in a backward facing child safety seat in the front of a car with passenger side airbags is at greater risk of sustaining serious injury compared with a child who sits facing forward. This is because the child safety seat rests close to the dashboard and receives the brunt of the rapidly deployed airbag (Robert R Theriault, CCSN BBS).

A step in the right direction — evaluating 'Give Your Child a Safe Start'

Lydia Kemeny, the Director of Safe Start in Vancouver, BC — a prevention programme aimed at high risk and minority group parents — wisely commissioned a formal evaluation of a resource package developed for these families. The package includes a video, complementary booklet, growth chart, and supplementary information for program deliverers. Remarkably, the package is available in English, Punjabi, Cantonese, Vietnamese, and Spanish, and is designed for use by trained community based facilitators in a group or individual setting. The external consultant hired specializes in social services evaluation and, for a modest sum, produced what seems to me to be a solid report.

It is limited, however, in that is based largely on a 'process' or 'formative' approach — that is, how many saw the package; liked it; etc. The results were generally positive despite a number of logistical difficulties confronning both the evaluators and the programme personnel. Specifically, the package was judged to be well designed and accurately aimed; it 'enjoys the strong support of the great majority'; and is 'true for each of its components. Future steps will need to address problems in its distribution and examine whether the original data is retained, and if so, how it is modified behaviour.

And another — an evaluation of National SAFE Kids Week 1995

A similar evaluation was conducted by the National SAFE Kids Campaign in the US. During the week of May 6 SAFE Kids Check / America was the safety message intended to reach millions of households. The programme evaluation of the overall event and a striking degree of success: the family safety check reached over 20 million; more than a million attended coalition events (an increase of 235% over the previous year); there were 2700 school activities; 600 organizations that took part; 200 retailers were involved; bike helmets (28,000), First Alert smoke detectors (3000), and safety seats (900) were distributed free or at nominal cost. Not surprisingly, there was excellent media coverage (over 500 TV stories), many public service announcements, a special episode of Rescue 911, a popular TV show, and over 1200 newspaper placements. This is all tremendously encouraging; all that remains is to facilitate studies to show how much of this translates into positive changes in safety behaviours.

Safety by design

Is your car safe? Car safety is not simply a matter of seat restraints and air cushions. Other aspects of design may be of even greater importance. A special issue of Status Reports, from the US Insurance Institute for Highway Safety (IIHS) highlights death rates by vehicle make and series. The results are based on driver death rates, but I assume the same findings would apply to child and adolescent passengers. So those with a Volvo 240 or Saab 9000 are 32 times safer in the event of a crash than those in a Geo Tracker or Corvette. The latter has had a perennially bad record; the former is included for the first time this year. The detailed tables reports relative driver death rates for 1990-4 for similar classes of cars — two door,station wagons and passenger vans, luxury cars, etc and also notes the restraint system each car features (Editor's note: Liss is so fascinated by the fact that Sweden, a country that has achieved so much for child safety, appears to have incorporated safety as a social norm which has also affected manufacturer's attitudes. If they can do so well, why not others?)

Computerise emergency medical services?

An EMS director writes: 'The future of Emergency Medical Service [EMS] systems depends upon the willingness to utilize computer technology'. As an example he lists 'data-based ambulance call reports, designed to efficiently handle the vast amount of detail and data generated'. It appears that one county's EMS links field paramedics with the training, training procedures, protocol, computer aided dispatch, and electronic mail (Joe Lord, Director, Cleveland County EMS, Shelby, NC; July-August 1995 Street Skills Magazine).

Kidstrians Program

The Kidstrians Program has not as yet been evaluated but it is an attempt to enhance child pedestrian safety. It has some intriguing elements, and others that I suspect have been discredited. What is interesting, perhaps, is that it was developed by volunteers in one community in Ontario, aided by the regional police and the Canadian Tire Association. The latter includes funding provided by the Canadian Tire Child Protection Foundation, and a notforprofit association created in 1993 (Lise J Racicot, CCSN BBS).
Warning issued for two pacifiers

Ottawa — Health Canada is warning consumers that two models of Mayee pacifiers fail to meet required mechanical or structural tests and could be dangerous to small children. A one piece model is transparent yellow, orthodontically shaped, and packaged in a blister card. A four piece model has a hinged handle and a cherry shaped nipple secured to the guard by a plug. The one piece unit might become lodged in a child's throat, while the four piece model might come apart. People are urged to discard these models. Packaging indicates the pacifiers are made in Hong Kong (Canadian Press).

Bic fire video

Bic is a major manufacturer of lighters and has a fire safety education program called PLAY SAFE! BE SAFE! This program was produced in conjunction with a group called Fireproof Children in the US. The kit includes a video with four segments: My Friend the Firefighter, Stop Drop and Roll, Crawl Low Under Smoke, and Safe for Play! Keep Away!, as well as other teaching materials and a resource book. The program targets children 3–5 years of age. Bic has begun promoting the kit through fire departments in various cities. For more information on the kits and how to order contact Ann Santa Rosa or Debbie Sheffield at Bic + 1 416 742–9173.

Stop — traffic drill can kill children

An article in the New Scientist draws attention to the view that child pedestrians are often in danger "because they misunderstand the safety rules they have been taught. The result is that even children who have had lots of training in the classroom end up in traffic accidents". It goes on to suggest that "practical training" can increase a child's understanding of the rules of the road. As many others have noted, street crossing is highly complex, but in this article it is claimed that "psychologists know that children as young as six possess the cognitive skills needed to find safe crossing places, make excellent judgements about vehicle speed, and walk quickly enough to get to the other side". They then wonder why some still get hurt. In my view part of the answer is that not all psychologists agree with the basic premise stated above. They may well be more likely to agree with the subsequent observation that "even when they do something dangerous, children are often trying to obey the rules they have been given". This is attributed to James Thomson, a psychologist at the University of Strathclyde, who found that a child's idea of a safe place to cross is often a spot where the view of traffic is blocked by parked cars, hedges, and other obstacles. When asked why this area is safe, the child will say: "Because I don't see any traffic coming". From this point on I find myself in general agreement: "The problem is that the rules children are given are full of complex concepts. For example, what makes a place "safe to cross"? And what should a child look for when told to "look both ways"? Children are expected to understand these instructions without any actual experience of crossing a road". 'Nobody would expect you to learn to play soccer by just looking at a ball' said David Lee, from the University of Edinburgh. Lee and Thomson believe kids should have practical traffic training. The New Scientist adds, 'Lee's team trained children to cross a "pretend" road, a patch of pavement as wide as a real road and running parallel to one. Children were told to cross the pretend road when they thought there was enough time between vehicles on the real road. At first, many of the children stepped into pretend traffic. But after only six sessions, they performed as well or nearly as well as adults.'

To test how easily such ideas can realistically be put into practice, Thomson's group introduced practical training in Glasgow, an area that has six times the UK national average of child traffic accidents. Volunteer parents proved to be as effective as psychologists at training children, but whether the training will have a long term effect on reducing injuries or fatalities remains to be seen. The results so far have, nevertheless, drawn attention and the Department of Transport is funding an instruction manual for others who want to set up similar programs (Phillip Cohen, New Scientist, 23 September 1995).

The RCMP may yet get their 'man'

The Alberta Safe Kids programme has persuaded the local RCMP to issue tickets to drivers of vehicles on Alberta highways that contain children 16 years and younger who are not properly restrained. 'The driver is legally responsible to ensure the proper restraint of children' says an RCMP spokesperson. This is a step in the right direction, but typical of attitudes towards enforcement elsewhere, the programme calls for the ticket to be withdrawn if the driver attends an educational program that will be organized for the period of the pilot campaign. Safe Kids Alberta is to be congratulated for taking this long overdue step in the right direction. I trust that it is successful they will share the findings with us, and press for ticketing to continue year round.

Restraint use rates . . . how many are correct?

In 1995 Alberta Safe Kids, with the cooperation of other groups, organized drive through car seat clinics to educate the public and public health nurses and to gain media attention. Of the 311 car seats inspected only 23% were properly installed!

Happy landings!

A 13 year old equestrian was injured, but not as severely as she might have been, when her horse stumbled at a jump. Despite loss of consciousness, seizures, and bleeding, resulting in an admission to intensive care, she is now well. She was wearing an American Society of Testing Materials certified helmet. Imagine the result if she had failed to do so.

One province takes injury prevention seriously

British Columbia is developing an injury prevention strategic plan for children and youth. It has formed a multisectoral task group, chaired by Dr Shaun Peck, Deputy Provincial Health Officer. Dr Peck has posted a note on the Injury Listserver asking for advice or copies of any similar plan. Are you able to help?

Paramedics lead to patients

Some excerpts from an article on the CCSN website 'A call goes out on emergency radio. Someone needs help along a busy route in downtown Troy, Ohio. Immediately, two men on bicycles head for the scene. No, they do not have a package to deliver: they are a paramedic patrol'. This idea is now being implemented at festivals and other events involving large crowds or restricted road access. The Troy bike medic program is modelled after one used in British Columbia. It estimates for starting a top-of-the-line unit with new equipment ranged around $3800. Because this was not feasible, the department improvised: paramedics brought in their own bikes, used reserve equipment, and bought their own shirts. A patrol consists of two paramedics who work in tandem and who are then equipped to handle any first aid, breathing, or heart problems. One bike carries a heart monitor, defibrillator paddles, and a cardiac drug bag. The other bike carries first aid supplies and oxygen (Alan McMahan, Marion Co. FD #1, Troy Daily News, 18 June 1995).

How much transport time is really saved with lights and sirens?

An article in the Annals of Emergency Medicine (April 1995) presents some interesting data that many of us have wondered about from time to time. The report summarizes results from 50 prehospital transports in which lights and sirens were used. The authors then performed 53 simulated non-lights and sirens transports, over identical routes, at the same times of day and compared the transport times of the two groups. It turned out that lights and sirens transport times averaged only 43-5 seconds faster than the non-lights and sirens simulated transports!! Although there are obvious design limitations, acknowledged by the authors, the data seems sufficiently convincing to raise the question: does such a small reduction in the time warrant risk of lights and sirens? In other words, even if the difference is statistically significant, is it clinically significant? The authors view is that there are probably very few situations in which an added 45 seconds would affect the outcome, except perhaps in a pediatric airway obstruction assumption the obstruction is relieved within
43-5 seconds of the child’s arrival at the emergency department’. A five minute savings might make a difference in a rare case, such as a gunshot wound to the heart or a malfunction of a defibrillator.

The risks of lights and sirens? ‘It has been estimated that as many as 12,000 emergency medical vehicle crashes occur each year as a result of lights and sirens use. In addition, because of the “wake effect” of emergency vehicles confusing and startling other drivers, up to five times as many accidents are caused by units responding with lights and sirens that do not physically involve the emergency vehicle itself’. The point is that emergency vehicles can and do crash, and that injuries from such crashes are more common when lights and sirens are used (CCSN BBS).

More on lights and sirens
A contributor to CCSN BBS writes: ‘In the area in northwestern Oregon where I am a firefighter/paramedic we have a device that is called an Opticom from 3M. This device is basically a strobe light incorporated into our light bars. It changes the lights to red all around, except from the direction of our travel. This serves two functions: first, it decreases the danger of going through an intersection, and second, it changes our direction of travel to green to decrease travel time.

Lights and sirens also allow us freedom to move on the street to avoid road conditions that would give a less than desirable ride for our partners and more importantly our patients. I agree, however, that the use of lights and sirens must be used with care and prudence to protect everyone concerned’ (Brian Baker, Keizer Fire District).

Scalds prevention manual
Available from the NSW (Australia) Department of Public Health is a manual describing the principal methods of preventing hot water tap scalds in the home. It is aimed at the building industry and building owners. The cost is $40. Contact Michael Otes, c/o State Projects, GPO Box 5280, Sydney, NSW 2001.

Other valuable statistical information about scald prevention is provided in the August 1995 issue of Injury Issues Monitor, the publication of the National Injury Surveillance Unit of the Australian Institute of Health and Welfare.

Flammable fabric alert
Health Canada has alerted the public to the sale of ‘dangerously flammable’ clothing mostly made in India. Of special concern is the sale of pyjamas for children, made in Lithuania, of 100% cotton (Ottawa, Canadian Press, La Presse 9 July 1995). (Editor’s note: I don’t understand. I thought this problem in Canada had been solved by tough regulations.

Helmet laws for bicyclists
The Province of Ontario, under its previous government approved legislation making bicycle helmet use mandatory. The law was to come into effect in mid-September, but after an election the new party in power has made it clear it has little intention of enforcing this law, even though it is not likely that it will be repealed... at least not in the immediate future. ‘Police in Toronto have said they won’t begin enforcing the law yet, because there aren’t any regulations, such as fines, in place’. Other Canadian provinces with legislation in place, or pending, include Newfoundland, New Brunswick, Manitoba, and British Columbia (Andrew Flynn, Canadian Press, 28 September 1995).

... and for in-line skaters and roller bladers
As more and more reports emerge describing head injuries to children involved in these ‘new’ sports, several communities are not waiting for national or provincial/state action but are, instead, passing local bylaws to require children to wear helmets. One such is the community of Côte St Luc in Montreal. Fines for non-use range from $20 to $500. This seems a move in the right direction despite the objections of some that the law may be impossible to enforce. I never understand this point: can someone explain why some laws are enforceable and others not?

Welcome to the club, New York
A snippet in the 1 December issue of the New York Times announces that ‘Children under age 14 will be required to wear safety helmets while in-line skating starting in January’. This makes New York the first state to adopt such a law, which also requires skate manufacturers to put warning labels on skates urging their users to wear protective gear. I don’t know how much good that will do, but I do like the other part of the law which requires manufacturers to equip skates with a stopping device. (Have you ever tried stopping on these inferior devices?)

One step forward — one step back
The federal government in the US, bowing to pressure from various groups, will no longer require the states to maintain a 55 mph limit in exchange for federal support. The repeal is being hailed as a blow for freedom and an opportunity for the police to be freed to catch ‘real criminals’, not just speeders.

Consumer Product Safety Commission (CSPC)
In the first half of 1995 the CPSC dealt with bean bags, movable soccer goals,安全 toys, window covering pull cords, child resistant packaging, gas water heaters, and a national survey of bike helmet use among children 8–13 years.

Child safety seats
The crash of a jetliner in the US in which a 9 month old baby died with massive head injuries has rekindled debate about the use of child safety seats on planes. The argument is made that if more people are forced to buy seats for children, they will choose to drive instead, and that because driving is more hazardous this will offset any safety gains related to compulsory seat use. It is an interesting argument that has pitted the National Transportation Safety Board against the Federal Aviation Administration (ML Wald, New York Times, 6 April 1995). (Editor’s note: my own survey suggests that most aircrew support the safety board’s position, as do I. What is your view?)