Letter from Glasgow

ROAD TRAFFIC INJURIES

'Why don't you drive in India?', asked my good friend of long-standing. I chose not to say 'Because I'm scared' but rather the more neutral 'Because I don't like it and I don't think I can'. When I visit India, I'm acutely aware of the road traffic—the mixture of slow- and fast-moving vehicles on the road, animals wandering about on roads, pedestrians forced onto the road because the pavements (sidewalks) have been appropriated for other uses, and the amazing ability of road-users to cope with all of this. However, I have never been tempted to drive on my visits and driving in India doesn't feature anywhere soon in my plans. The reason is, I think, that I am haunted by an image from my childhood in Delhi. I was probably 5-year-old and I can still remember the scene of a road traffic accident on the GT Road at Kamla Nagar. I recall a large truck and, nearby, a damaged scooter on its side with a buckled wheel and two bodies lying on the road with a white sheet draped over them.

Flicking through some *NMJI* articles, I came across the excellent review article by Gururaj.[1] I found it informative with good use of epidemiology, rationally argued, and a distillation of recommendations which made sound public health sense. Who could disagree with Gururaj when he states, 'Greater participation from health and other sectors based on an integrated, intersectoral and coordinated approach is essential'. Then consider an article entitled 'Killer roads' in *India Today*,[2] which approached the issue in its usual popular format. To quote from *India Today*, 'India's killer roads account for more deaths than from any other single cause, from terrorism to natural disasters'. Both articles are different but useful in raising the profile of road traffic injuries. However, neither article did little to alleviate my personal misgivings about Indian roads.

Globally, the burden of morbidity and mortality associated with road traffic injuries is enormous with 1.2 million deaths and 20–50 million injuries each year.[3] There is a divide between high-income and low-income countries with many high-income countries seeing a drop in road traffic deaths in recent years. In low- and middle-income countries, 23% of all deaths are due to road traffic injuries,[4] the largest single cause of injury deaths. The WHO Global Status Report[3] also notes that road traffic injuries is ranked 10 in the leading causes of death in 2004. This masks the differences between age-groups with road traffic injuries being the leading cause of death in the 15–29 years age-group, the second most common cause of death in the 5–14 years age-group, and the third most common in the 30–44 years age-group.

In the UK there are concerns about the risks that young, particularly male teenage drivers face, and pose to other road users. In Scotland, it is not an unusual occurrence for reports in the media of 17- or 18-year-old drivers crashing their cars resulting in their death and injury of their teenage passengers and other drivers. And, as with many other health statistics there is a social class gradient for road traffic injuries in the UK with, e.g. children from lower socioeconomic groups being at greater risk.

As a driver and a pedestrian, I see changes happening to make the roads safer for all users. In my neighbourhood in Glasgow, the speed limit for all traffic has been reduced to 20 mph from the previous 30 mph. In addition, there have been changes to the roads, e.g. 'nibbing' or narrowing of the roads at junctions to assist in this speed reduction. In recent years in the UK there has been legislation to outlaw the use of mobile (cell) phones while driving. Hands-free mobile phones are still allowed despite the evidence that it is not just the physical act of holding a phone and speaking that is a risk, it is a fact that drivers are concentrating on two highly complex activities—driving and conducting a phone conversation—which is also a risk. Drink driving laws have been in operation in the UK for several decades and now the debate is whether to lower the alcohol thresholds and how to tackle the issue of taking drugs and driving. All in all, the pattern of controlling traffic injuries have followed the classic strategies of public health of the '3 Es'—education, engineering and enforcement. Examples of these are:

- *Education:* Public campaigns and road traffic education for children and adults, drivers, and motorcyclists; compulsory theory test for learner drivers.
- *Engineering:* Engineering roads to make them safer, e.g. motorways (highways) for fast-moving traffic only and no pedestrians; engineering cars with reinforced car bodies, crumple zones for impact protection, and airbags for car occupant protection in collisions; engineering roads for lower speeds through speed bumps and narrowing roads; and 'engineering' or developing appropriate medical facilities for road traffic injuries.
- *Enforcement* of drink driving, seat-belt wearing and mobile phone laws; of laws to ensure vehicles are roadworthy.

It is important to emphasize the role of good emergency medical care ('shoehorned' into engineering above) both at the site of road traffic injuries to stabilize patients, and the need for rapid access to well-equipped and staffed emergency departments with all the specialties required to deal with major trauma.

In addition to the '3 Es' which highlights improvements in road safety in the UK, I came across the 'WHO 10 Facts about Road Safety' which provide a good summary for any discussion on road safety (available at *http://www.who.int/features/factfiles/roadsafety/01_en.html* accessed on 12 March 2010).

1. More than 1.2 million people die in road traffic crashes every year.
2. As many as 50 million people are injured or disabled by road traffic crashes every year.
3. Half of all crash victims are vulnerable road users such as pedestrians, cyclists and motorcyclists.
4. Road traffic crashes cost countries up to 4% of their Gross National Product.
5. Correctly used seat-belts reduce the risk of death in a crash by 61%.
6. Mandatory use of child restraints can reduce child deaths by 35%.
7. Helmets reduce fatal and serious head injuries by up to 45%.
8. Enforcing a drinking and driving law around the world could reduce alcohol-related crashes by 20%.
9. For every 1 km/hour reduction in average speed, there is a 2% reduction in the number of crashes.
10. Simple low-cost engineering measures are saving thousands of lives.

The burden of road traffic injuries will increase unless action is taken. While high-income countries may be in a better position than low- and middle-income countries to effect change, the challenge remains for all countries to lower road traffic injuries. A starting point may be for all professionals and policy-makers involved in road safety to reflect, and act, on the 'WHO 10 Facts' and consider how the '3 Es' could be further applied within their countries.

REFERENCES

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