

## Research on preventing road traffic injuries in developing countries is needed



MARK HENLEY/PANOS

EDITOR—The dedication of the World Health Organization's World Health Day 2004 to road safety is recognition of the global threat of road traffic injuries. Increasing population size, vehicle ownership, road infrastructure, and transnational transportation have created a substantial public health burden. However, little epidemiological research has been conducted into preventing road traffic injuries in developing countries. Currently global research and development funding per disability adjusted life year for HIV, asthma, and blindness are \$26.2, \$10.8, and \$5.4, respectively, while only \$0.40 for road traffic injuries.<sup>1</sup>

Epidemiological studies of successful interventions preventing road traffic injuries have been conducted in developed countries.<sup>2</sup> But to assume the same effectiveness in developing countries is inappropriate because of behavioural, vehicular, and environmental differences.

A pooled analysis of street lighting intervention data from developed countries shows a protective effect,<sup>3</sup> particularly in pedestrian injury (relative risk 0.56), the most common road traffic injuries in developing countries.

Annually, 1.2 million deaths are attributed to road traffic crashes, 85% occurring in developing countries.<sup>4</sup> If an intervention such as street lighting could reduce deaths by as much as 30%, there is a potential to save thousands of lives.

Various international aid agencies are investing in road infrastructure development. These initiatives could be coupled with the need to develop concrete epidemiological data. Innovative strategies, such as step wedge study design,<sup>5</sup> could lead to the evolution of an evidence based public health approach to this problem.

**Pablo Perel** *MSc epidemiology student*  
**Megan McGuire** *MSc epidemiology student*  
megan.mcguire@lshtm.ac.uk

**Koshy Eapen** *MSc epidemiology student*  
**Alexandre Ferraro** *MSc epidemiology student*  
MSc Epidemiology Unit, London School of Hygiene and Tropical Medicine, London WC1E 7HT

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## Alcohol limit for drink driving should be much lower

EDITOR—For more than a century alcohol has been recognised as one of the principal risk factors for motor vehicle crashes.<sup>1</sup> Nearly half of the roughly 35 000 fatal motor vehicle crashes in the United States each year are alcohol related, meaning that someone in the crash, usually a driver, is intoxicated.

Currently, a blood alcohol concentration ranging from 0.08 to 0.10 mg per 100 ml constitutes prima facie evidence in most countries for driving under the influence of alcohol. In the United Kingdom, United States, Canada, South Africa, and Sri Lanka the legal limit is 0.08 mg per 100 ml, which is too high as driving skills deteriorate and the risk of becoming involved in a crash risk increases from a concentration of 0.02 mg per 100 ml. In their comprehensive review Zador et al estimated that a driver's risk of being in a fatal crash increased significantly from 0.02 mg per 100 ml.<sup>2</sup> Scientific data

provide clear evidence that important driving skills are impaired at very low blood alcohol concentrations.

Because the legal blood alcohol concentration in most countries is so high, people often mistakenly believe that they may drive up to a blood alcohol concentration of 0.8 mg per 100 ml, overlooking the fact that driving is impaired at lower concentrations. To set a blood alcohol limit so high that a 72 kg man can drink four bottles of beer and still be under the legal limit has consequences. It may adversely influence people's estimates of their relative risk of injury or death while driving. Drinking and driving policies and decisions about enforcement need to be hinged on the scientific evidence.<sup>3</sup>

**Ediriweera B R Desapriya** *research associate,*  
*department of paediatrics*  
Centre for Community Child Health Research,  
4480 Oak Street, Vancouver, BC, Canada V6H 3V4  
edesap@cwbc.ca

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## Lithium and motor vehicle crashes

### Perhaps bipolar disorder is the risk, not its treatment

EDITOR—Etminan et al found that elderly people taking lithium had approximately double the rate of motor vehicle crashes compared with controls.<sup>1</sup> They imply that lithium is responsible and say that patients must be told of the increased risk. However, both the inference and the advice are unwarranted and unhelpful since lithium is simply a proxy for having bipolar disorder.

As no information is given about the relative risk of having a crash in the presence of bipolar disorder, it cannot be justified to warn patients against taking lithium if they have this condition. It is quite possible—indeed clinical judgment would suggest—that a patient with bipolar disorder may be a much safer driver when taking a mood stabilising agent than when he or she is not.

The authors include a comparison with carbamazepine, presumably to show that the increased risk is restricted to lithium. This

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