Preventing the leading cause of death in young people in Europe

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Road traffic injuries are a leading cause of death worldwide, accounting for 1.2 million deaths annually. In 2002, road traffic accidents were responsible for 127 000 deaths in the WHO European Region.¹ Recently, there have been calls for global action to reduce this public health threat, and the First United Nations Global Road Safety Week was held on 23–29 April 2007.² Activities during the week focused specifically on preventing road traffic injuries in young people under the age of 25 years. The WHO European Region faces substantial challenges in this respect, as each year 32 000 young people aged under 25 are killed in road traffic accidents in Europe.³

Road traffic injuries are the leading cause of death in the 5–24 years age group.³ However, deaths are only the tip of the iceberg, and it is estimated that, for every death, 20 people are hospitalised and another 70 require outpatient medical treatment.^{4,5} Although data on non-fatal outcomes and costs are incomplete, the available evidence suggests that the health care and societal costs are enormous, with the latter estimated at 2% of gross domestic product for most countries in the region.^{1,6}

The nature of the risk and exposure changes with age: among European children under 15 years, pedestrians account for the majority of fatalities, whereas in the 15–24 years age group most road death victims are car occupants (59%) or motorcyclists (19%).³ Programmes aimed at reducing road traffic deaths should take into consideration the different needs of groups at different stages of development from infancy to adulthood. Children lack the cognitive and physical skills to deal with complex traffic environments. Furthermore, young people are more susceptible to risk factors such as alcohol and speeding and do not have the experience to handle hazardous situations.^{1,3} For example, male drivers aged 21–24 years with a blood alcohol concentration of 0.04–0.05 g/dl are nearly twice as likely to crash as men aged 35–49 years with the same blood alcohol concentration.^{6,7} Drivers aged 17–25 years have a

twofold increased risk of being involved in a fatal crash as a result of speeding compared with older drivers.⁷

There is a high between-country variation in deaths from this cause in Europe, with an eightfold difference between the countries with the highest and lowest mortality rates. Mortality rates from traffic accidents among young people are highest in the Russian Federation, Lithuania, Latvia, Portugal and Greece. Countries with lower death rates, such as Sweden, the United Kingdom and the Netherlands, have historically addressed areas such as road infrastructure, legislation and enforcement, and access to emergency medical services.^{3,6} Transition countries, such as the Russian Federation, Lithuania and Latvia, have recently seen a rapid increase in the number of vehicles on their roads but have not implemented adequate regulatory controls for driver licensing, alcohol, speed and the enforcement of seat belt, car restraint and helmet use. As a result crash and fatality rates are high.^{3,5,6} Countries facing an expansion of motorisation may want to take heed and implement safer policies and programmes to prevent an epidemic of road deaths. Despite progress made in some areas, European Union countries agreed in 2001 to set a target of halving road traffic mortality rates from 50 000 deaths to 25 000 by 2010.⁸ The Transport White Paper called for stakeholders to share responsibility, with an emphasis on improved vehicle and road design and better legislation and regulatory frameworks for drivers, including measures to tackle drink driving. A mid-term review has shown that progress needs to be faster in many Member States, and better enforcement has been called for; particularly alarming is the fact that relatively little progress has been made in reducing pedestrian, cyclist and motorcyclist deaths.^{8,9} To address this, there needs to be shift in the research emphasis from car occupants to vulnerable road users, focusing on exposures, risks and transferable good practice.^{3,10}

In most high-income countries death rates from road traffic injury are low or

falling. However, closer analysis of this trend shows a wide social class divide in these countries, with the majority of the reduction occurring among the better-off.^{3,11} Recent results from the United Kingdom show that, among pedestrians and cyclists under 15 years, those from the most deprived backgrounds have a 20-fold increased risk of death compared with children from privileged backgrounds.¹¹ Their risk is increased because they are more likely to live in neighbourhoods with unsafe road design, where speeding and dense traffic are common, and with fewer safe areas to play or fenced driveways.¹² In spite of the fact that inequities in young people's health are an important area of social justice in Europe, few countries have examined this issue in any detail.^{11,13} There is strong evidence that modification of the road environment and exposures reduces crashes.^{1,3} Measures such as area-wide traffic calming and safer road design, such as upgraded pedestrian crossings, pedestrian bridges or underpasses, guard rails and street lighting, are cost-effective and equitable, making environments inherently safer. Other factors to be considered are the affordability and use of safety equipment such as car child restraints and crash helmets; subsidised safety equipment combined with community educational programmes are effective in improving uptake and correct use. Affordability is a critical factor in middle-income countries such as Albania, where, relative to the average wage, car restraints and cycle helmets are more than 10 times as expensive as in the United Kingdom.¹⁴ Equitable access to high-quality trauma care for young people is essential to improving outcomes across society.

Although this paper has argued that road safety for young people in the WHO European Region needs to be improved, it is also important to remember that road traffic injuries are only one of the health effects of transport policies that depend heavily on motorised road transport.^{3,6} There are other health-related costs which are borne by the health sector and society at large and which warrant further consideration. Amongst these, traffic-related air pollution has become a major health problem in most countries, causing the same number of deaths as road traffic injuries. The situation is expected to worsen without further action; for example, transport-related gas emissions are predicted to increase by 30% by 2010 in Europe, contributing to climate change.^{6,15} A reliance on cars, instead of cycling or walking, is associated with physical inactivity, which can in turn lead to obesity, cardiovascular

disease and diabetes. Taken together, the health care burden associated with these transport-related health effects adds to the already high burden of road traffic injuries. In this context, improving road safety for pedestrians and cyclists would not only reduce road traffic injuries but would also support the development of a sustainable transport policy, which would lead to other health benefits by providing enabling conditions for promoting physical activity.⁶

In conclusion, children and young people have a right to safety and high-quality services designed for their specific needs.^{16 17} As they do not have a voice or are not heard, they need advocates to safeguard these rights.¹⁷ The First United Nations Road Safety Week has presented an opportunity to prioritise this important public health problem across a broad range of social policy. There are many cost-effective interventions that can be used to ensure the safety of young people in the WHO European Region, which have been summarised elsewhere.^{1 3-6} These involve multisectoral approaches and can overcome this challenge. Health practitioners are called upon to advocate prevention at the policy, community and individual level.

AUTHOR CONTRIBUTIONS

All authors actively contributed to the writing of the paper and have seen and approved the final version. The idea for the paper was conceived by DS and RB. DS is the guarantor of the paper.

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APHORISM OF THE MONTH

Effective partnership working involves the limitation of damage and the enhancement of collateral benefit, encompassing untoward impacts beyond the main focus of the intervention.

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