



Fact Sheet EURO/03/04  
Copenhagen, Rome, 6 April 2004

## **Road traffic injuries in the WHO European Region: the population groups and countries most affected**

Owing to their vulnerability, children and elderly people are more likely to die from road traffic injuries, says a new study from the WHO Regional Office for Europe: *Preventing road traffic injury: a public health perspective for Europe*.<sup>1</sup> The study examines the main health risks from traffic and tracks how they affect different countries and population groups in the WHO European Region. It shows that about 34 000 of the people involved in road traffic crashes are aged 0–14 years or over 60. Pedestrians and cyclists have a high risk of being hit by motor vehicles: they represent 33% of victims of road crashes, which lead to about 40 000 deaths per year. Tourists, professional drivers and commuters are also vulnerable to risks from traffic, particularly in the European Union (EU).

### **Children**

Road traffic injuries are the leading cause of death among children aged 5–14 years. They represent about 5% (about 5000) of the total estimated deaths from road traffic injuries per year. Children are particularly vulnerable until the age of 9–10, owing to their weak capacity to concentrate attention on traffic. They are considered to be especially vulnerable when motorized traffic is heavy or fast, visibility is limited or drivers' attention is diverted. In the European Region, mortality rates from road traffic injuries among children are highest in Latvia, the Republic of Moldova, Romania and the Russian Federation.

### **Elderly people**

People over 60 years old are vulnerable to road traffic injuries because of physical fragility and a declining ability to cope with difficult traffic. In the European Region, more than 27 000 traffic deaths per year occur among elderly people. For example, older people account for nearly half of all fatalities in pedestrians in the European member states of the Organisation for Economic Co-operation and Development (OECD).<sup>2</sup> Since elderly people are expected to comprise one fourth of the population of all these countries by 2030, identifying new strategies that address their mobility and safety needs is essential. These strategies should include assessment of road infrastructure and its maintenance, public transport options, new technology, vehicle design and regulations.

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<sup>1</sup> Racioppi F et al. Copenhagen, WHO Regional Office for Europe, 2004; available in hard copy and online ([WEB to give URL](#)) on 7 April 2004.

<sup>2</sup> Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Sweden, Switzerland, Turkey and the United Kingdom.

### **Pedestrians, cyclists and motorcyclists**

Pedestrians, cyclists and motorcyclists usually suffer the most severe injuries as a result of road traffic collisions, and report more continuing health problems that require more assistance.

On average, pedestrians and cyclists account for about 20% of those involved in serious accidents in the WHO European Region, but they are at disproportionate risk of death or injury compared with car users. In 1997, pedestrians and cyclists represented only 22% of the people involved in serious car crashes, but 33% of those killed. Risk analysis for the EU shows that the fatality risk for people using motorized two-wheeled vehicles is the highest of all modes of transport: on average, 20 times that of car occupants.

Nevertheless, where effective action has been taken to improve safety for cyclists and pedestrians, injuries and deaths have decreased. The city of Baden, Austria, for example, has applied a transport strategy that pays great attention to vulnerable road users and includes traffic restraint measures. About 75% of the city's road network is a zone permitting speeds of 30 km/h or less. This led to a 60% reduction in casualties from road accidents between 1986 and 1999. Today, the roads in Baden are some of the safest in Austria.

### **Tourists**

In the EU, road traffic crashes appear to be the leading cause of death among tourists, accounting for more than 50% of all fatalities, 20% of hospital admissions and 30% of visits to emergency departments as a result of road traffic injuries.

### **Workers**

Road traffic injuries are also an important cause of death not only to professional drivers but also to commuters. For example, road traffic crashes accounted for about 41% of all workplace fatalities reported in the EU in 1999.

### **Other forms of harm**

In addition to causing death and injury, road traffic crashes increase the burden on countries' social and health care systems in other ways.

In the EU alone, an estimated 200 000 families per year suffer from the death or lifelong disability of at least one family member.

Hazardous conditions restrict citizens' mobility and opportunities to lead a physically active life through cycling, walking and playing outdoors. The lack of physical activity has been identified as a major risk to health. Physical inactivity is estimated to account for 500 000–1 000 000 deaths per year, corresponding to 5–10% of total deaths in the European Region.

Nearly one fifth of the people injured in the road traffic crashes examined in one study developed an acute stress reaction, and one quarter displayed mental problems within the first year afterwards. Long-term mental disorders consisted mainly of mood disorder (in about 10% of cases), phobic anxiety about travel (20%) and post-traumatic stress disorder (11%).

In addition, even high-income countries have steep social-class gradients in pedestrians' injury rates, and the relationship between lower social class and more injuries among child pedestrians is well established. Children belonging to ethnic minorities have an increased risk of such injury.

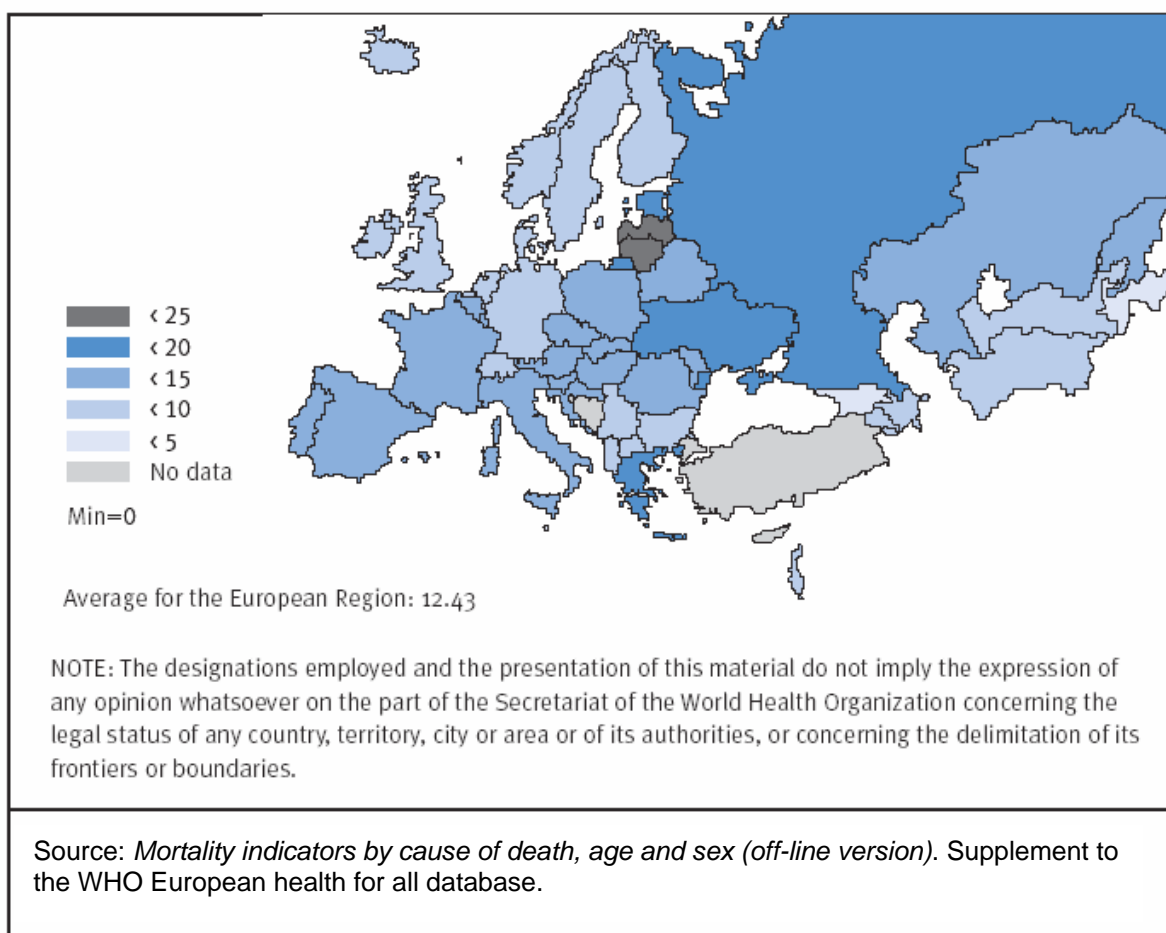
### Road traffic injuries in the WHO European Region

In the European Region, mortality from road traffic injuries is up to 11 times greater in the countries with the highest rates than in those with the lowest. Greece, Latvia, Lithuania and the Russian Federation report the highest such rates, but the very low rates reported by some countries in south-eastern Europe and central Asia are more likely to reflect inadequate data quality than high levels of safety. The enlargement of the EU in 2004 may increase the large differences in mortality if appropriate policies do not accompany the expected increases in traffic volume.

In 2001, the EU had an estimated 40 000 road deaths and about a four-fold difference between the countries with the lowest and highest death rates per 100 000 population. In the EU, road crashes account for 97% of all transport-related deaths and more than 93% of all transport-related crash costs and are the leading cause of death and hospital admissions for people aged under 50 years.

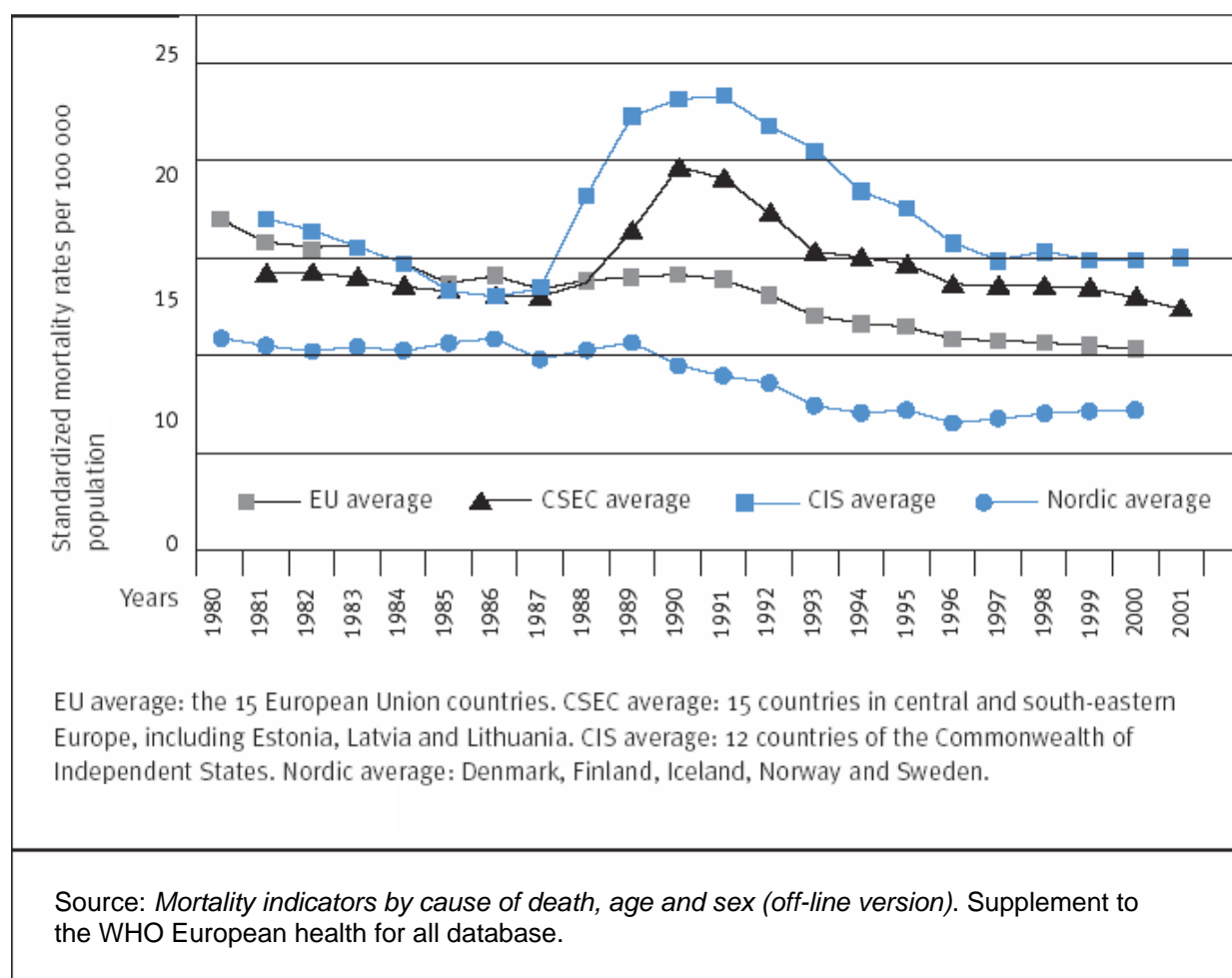
The average mortality rates from road traffic injury in the Commonwealth of Independent States are almost three times those of the Nordic countries (Fig. 1). These differences have not changed much since the mid- to late 1990s.

**Fig. 1. Standardized mortality rates from road traffic injuries per 100 000 population in the WHO European Region, 2002 or last year available**



Despite the differences between countries, deaths from road traffic injury have declined overall (Fig. 2). After a sharp increase in the eastern half of the Region in the early 1990s, related to the sudden growth in motorized transport, the decline in mortality in the mid-1990s seems to have been associated with a reduction of transport activities for both goods and passengers, rather than the implementation of comprehensive road safety policies. In the western half of the Region, although road traffic-related mortality has continued to decline, progress seems to have slowed in the past few years, even in the countries that have historically performed very well. The apparent difficulty in further reducing the number of deaths could indicate the need to develop and implement new preventive strategies.

**Fig. 2. Mortality from road traffic injuries in the WHO European Region and various subregions, 1980–2001**



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