

Gender and Road Traffic Injuries

in the Eastern Mediterranean Region

Worldwide, road traffic injuries caused more than 1.2 million deaths in 2002, and were the second leading cause of death among those aged 15 – 44 years. Eighty per cent (80%) of these deaths occurred in low- and middle-income countries, in which the majority of casualties were pedestrians, cyclists and motorcyclists. In the Eastern Mediterranean Region, the mortality rate from road traffic accidents was 26.4 deaths per 100 000 population in 2002, the second highest rate in the world after the African Region.

What we know

Gender roles and higher road traffic fatality in males
In places where women's mobility is traditionally restricted, men may spend substantially more time in moving vehicles than women, and among all groups other than among the small economic elite, men are more likely to own cars than women. Men are also more likely to be employed as drivers and mechanics in cars and trucks, including drivers of long-haul vehicles which may mean spending several days and nights in the vehicle. Males, therefore, have a higher exposure to the risk of traffic injuries. Among men aged 15–44, road traffic injuries are the leading cause of trauma-related deaths, whereas suicide is the leading cause of trauma-related death among women [1].

In the Region, road traffic accidents are responsible for a far higher rate of injury and death among men, by a ratio of about 4:1. In 2002, 73% of the road traffic accident fatalities were male and 27% were female [2]. A study in Pakistan completed in 2004 found that there were 22.4 male road traffic accidents per 1000 population as opposed to 6.9 female road traffic accidents per 1000 population [3]. In Teheran, a hospital-based study of road traffic accident victims found the male/female ratio for car accident victims was 4.2:1 [4], while a survey of road traffic injury victims treated in a hospital in Saudi Arabia showed a male to female ratio of 9:1 [5]. On average, males have a death rate 2.5

times higher than females (37.4 males per 100 000 population versus 14.7 females per 100 000 population) [2]. The male fatality rate in low-income countries in the Region is 2.5 times higher than the female rate, while the male fatality rate for high-income countries is 3.3 times higher than the female rate. The highest risk groups are adult males in low-income and middle-income countries of the Region, as well as younger males in high-income countries. The road traffic fatality rate for males in lower/middle-income countries in the Region is also more than double to comparable rates in the rest of the world (117 compared to 53.3) [2]. In 2002, road traffic accident fatalities amongst all age groups in the Region ranked sixth as the cause of death for men and eleventh for women. In relation to the burden of disease measured in disability adjusted life years (DALYS), road traffic injuries of men ranked fifth while road traffic injuries of women ranked eighth [2].

Special risks among vulnerable populations
Children and youth: Among child pedestrians suffering road traffic injuries, boys are usually involved in more accidents than girls. This may be as a result of less supervision of boys than of girls, governed by greater social permissibility of male mobility as opposed to female mobility.



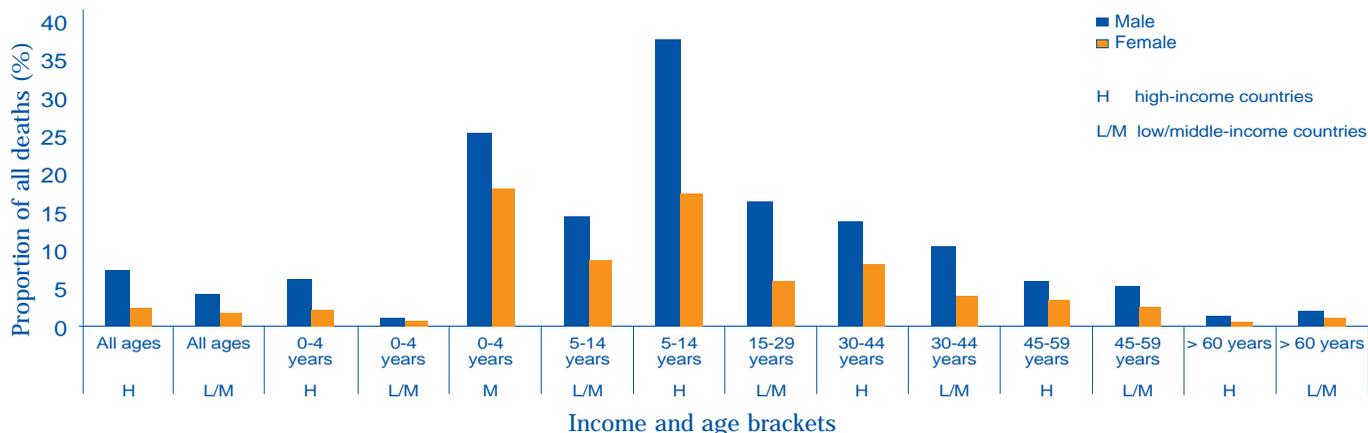


Figure 1. Road traffic fatalities as a percentage of total mortality in the Region, 2002

Source: *World report on road traffic injury prevention*. Geneva, World Health Organization and the World Bank, 2004

The fatality rates for traffic collisions involving children on bicycles are twice as high for boys as for girls. All deaths involved moving vehicles, and most of these collisions have been attributed to unsafe cycling behaviour by children. In a study conducted in the Islamic Republic of Iran, it was found that a greater number of cycling accidents occurred among boys than girls as boys were allowed to go out cycling more commonly than girls [6]. No cycling injuries were reported among school-age girls as cycling is not considered socially acceptable for girls. Of the cycling injuries reported for girls, all were for preschool girls, who were still at an age where cycling is socially acceptable. Of 1079 cycling injuries reported in the study, 79% were reported for boys and 21% were reported for girls [6]. None of the victims wore a helmet and more than half of the injuries reported were head injuries. Comparable rates of mortality from road traffic accidents for males and females are shown in Figure 1.

Risk of road traffic accidents among the elderly: For pedestrians, as well as vehicle occupants, the risk of being involved in a collision and suffering from consequential mortality or disability increases with age. In the Region, the risk for women in road traffic accidents increases with age, with the highest rates recorded for women aged 60 and over. In fact, the road traffic fatality rate for women over the age of 60 is 2.5 times higher than

comparable rates in the rest of the world [2]. Fatality rates for elderly men from road traffic injuries also dramatically increase after the age of 60 (see Figure 2). In Qatar, for men over the age of 60 the road traffic fatality rate was more than twice that for men aged 15–29 years, while in the United Arab Emirates the road traffic accident fatality rate for those aged 60+ was 91 per 100 000 population, as opposed to 29 per 100 000 population for those aged 15–44 years [2].

Risky driving

Higher male risk of road traffic injuries and fatality is associated to a significant extent with greater exposure to driving, in addition to patterns of high-risk behaviour among males when driving. Gender role socialization and the association of masculinity with risk-taking behaviour, a greater acceptance of risk and a disregard of pain and injury may be factors leading to hazardous actions on the part of men. A study of hospitalized road traffic accident victims in Teheran found that the highest male/female ratio for accidents was 16:1 for men in motorcycle accidents. Only 6% of male motorcyclists used helmets, and only 3% of male drivers used seat belts [4].

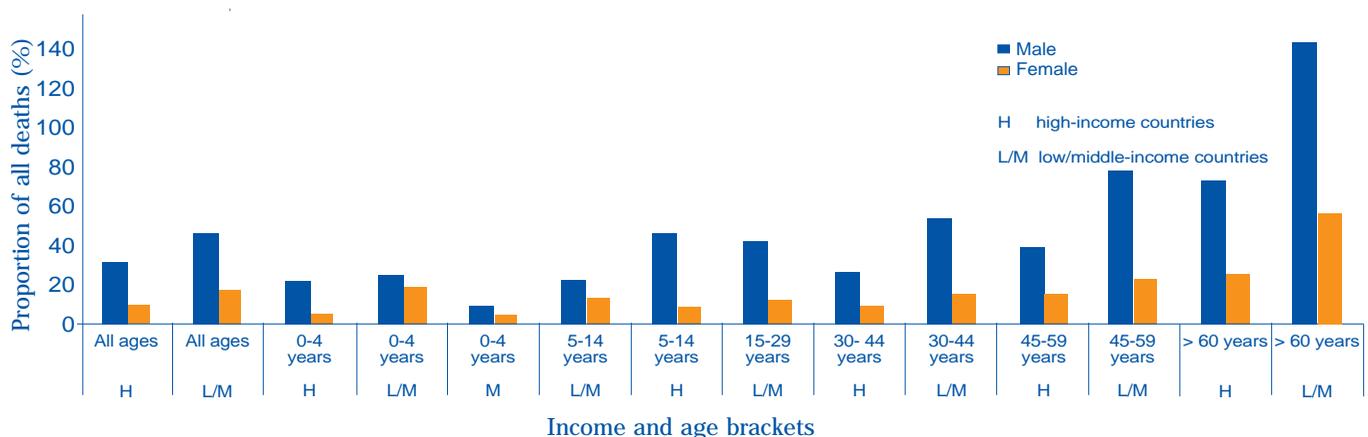


Figure 2. Mortality by road traffic injury per 100 000 population in the Region, 2002

Source: *World report on road traffic injury prevention*. Geneva, World Health Organization and the World Bank, 2004

Similarly, a study of road traffic accidents in three regions of Jordan showed that road traffic accident rates were significantly higher for men than for women. Differences in the rate of accidents between men and women were attributed to a lack of attention and impatience among male drivers [7].

Pedestrian vulnerabilities

In low- and middle-income countries, the elderly and child pedestrians, cyclists and motorcyclists have been found to be most at risk of road traffic accidents [1]. Patient logs for the two largest government hospitals in Karachi, December 1993–February 1994, found that 86% of 727 road traffic accident victims were men and that pedestrians and cyclists were the most common victims [8]. A study in Teheran, Islamic Republic of Iran, however, found in a survey of hospitalized pedestrian accident victims, 66% were women and 44% were men [4].

Gender consequences of disability due to road traffic accidents

There are likely to be gender differences in the social and economic consequences of temporary and/or permanent disability resulting from injury. Women may typically not be in jobs that have adequate insurance coverage or that allow for long duration of absence from work. They may not be able to pay for home-based nursing care, or for childcare or paid domestic help that may be needed because of their temporary or permanent impairment. On the other hand, because men are often the sole income earners in many households, male injury and its consequences may adversely affect the household economy as a whole. Inadequate social and family support, financial difficulties and uncertainties related to employment are known to be significantly associated with high levels of psychological distress and long-term stress following traumatic injury.

Need for research and implications

- National injury surveillance systems need to be created in which age and sex-specific data on causes of road traffic injuries could be provided.
- Standardization and sex disaggregation of existing data

sets on traffic injuries needs to be established. The analysis of these data sets would help to identify country-specific issues, monitor time trends and evaluate existing interventions.

- An examination of the potential benefits of gender and age-differentiated policies for issuance of driving licenses and related issues should be considered. Countries may examine the feasibility and effectiveness in terms of injury prevention, of legislative measures for graduated licensing and a higher age for licensing. More stringent driving license regulations, in addition to mechanisms to monitor and hold drivers accountable for driving under the influence of alcohol or drugs is needed in the Region.
- Further investigation of the basis for excessive male risk taking and also on gender-related risk behaviour is needed. Evidence of social effects (whether alone or in combination with biological factors), may provide a rationale for political or voluntary restrictions of the media or other structures which reinforce risky gender stereotypes. Interventions which challenge gender role stereotyping of men as high risk takers and foster safe health practices can also subsequently be designed and tested in a variety of settings.
- Research on road traffic accident vulnerability of different sectors: pedestrians, cyclists, motorcyclists, etc. and related gender issues is needed. Policy measures and interventions with a specific focus on vulnerable road users in low- and middle-income countries need to be developed and piloted. Regulations on the rights of pedestrians should also help to prevent pedestrian injuries.
- Research is also needed on gender differentials in access to health care and social support services by victims of road traffic accidents, and the long-term social and economic consequences to their lives. Strategies for financing and organizing the delivery of injury and trauma services need to take into account gender differences in ability to access and to pay for health services for acute care, as well as for rehabilitation. In addition, gender differences in the social and economic consequences of temporary and/or permanent disability resulting from injury have to be taken into account when planning rehabilitation services.

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