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ScienceDirect
Health Policy 89 (2009) 1–13
HEALTH POLICY
www.elsevier.com/locate/healthpol

Review

The increasing burden of injuries in Eastern Europe and Eurasia: Making the case for safety investments

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Abstract

Injuries are one of the leading causes of death and disability in Europe. Within Europe, death rates due to injuries are 60% higher in Eastern compared to Western Europe. This is especially due to unintentional injuries such as road traffic injuries, which is the 2nd leading cause of death in those 5–29 years. The cost of injuries is estimated at 1–2% of GNP. Compared to the burden, the number and types of programs are limited in the Eastern European region. However, the literature reveals the existence of cost-effective interventions for regional and national policy consideration. This is a need to appreciate this problem and promote investments to prevent the high economic and societal costs due to injuries. Results from selected injury prevention programs have shown considerable success and these, if effectively adopted in this region, will make a significant difference in reducing the heavy toll of injuries on lives of people. This paper calls on aid donor agencies and governments to plan and implement injury prevention programs as part of their portfolio of investments, in the Eastern European region.

Keywords: Road traffic injuries; Eastern Europe; Violence; Alcohol; Injury prevention; Road safety

Contents

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doi:10.1016/j.healthpol.2008.05.001

1. Introduction

Morbidity and mortality, due to injuries, is being recognized as a major public health and development problem. It ranks among the leading causes of death and occurs in all regions, affecting people in all age and income groups. It represents 12% of the global burden of disease, as measured by disability-adjusted life years (DALYs). It is the third most important cause of overall mortality, and the main cause of death among 1–40 year olds [1]. Injuries killed over 5 million people globally in 2000 with many more being disabled, resulting in a heavy disease burden [2]. Injuries account for one in seven healthy life years lost worldwide; and by 2020 they will account for one in five, with low and middle-income countries bearing the brunt of this increase [3]. Injuries contribute 4198 DALYs per 100,000 people in low and middle-income countries compared to high-income countries with 1403 DALY per 100,000 people; this three times difference is worth noting.[1] The economic and societal cost of injuries is already staggeringly high, and is growing each year.

Of all injury-related causes of deaths, road traffic injuries and violence are universal challenges [4,5]. Every year, over 1.5 million people die of preventable acts of violence including 800,000 suicides and 500,000 homicides [5,6]. The first WHO World Report on Violence and Health was released in 2001 with a call by Nelson Mandela to place injuries in the forefront of public health efforts [7]. Road traffic injury is another growing public health issue, which is disproportionately affecting vulnerable groups, including the poor. More than half the people killed in traffic crashes are young adults aged between 15 and 44 years—often the breadwinners of the family [4,8]. In economic terms, the direct annual cost of global road crashes has been estimated at US $518 billion. The cost in low- and middle-income countries is estimated at US $65 billion, which is 1–2% of their Gross National Product (GNP) and is more than the total development aid received by these countries [9]. Road traffic injury ranks 2nd in terms of leading causes of burden of diseases among males of age group 5–44 years in low- and middle-income countries [2–4].

Injuries are leading causes of morbidity and mortality in Europe and are responsible for a sizeable economic drain on the countries in this region. Of the 5 million deaths from injury worldwide in 2002, 790 000 were in the WHO European Region (EURO) [10–12]. Every day, injuries kill over 2000 people, put 60,000 in hospitals, and necessitate outpatient emergency treatment for 600,000 in this region [13]. Overall injuries cause 9% of deaths and 14% of ill health in EURO [11,13]. The annual health care cost of treating patients of injuries who subsequently die is estimated at about $1.3–7.6 billion USD and that of non-fatal injuries is about $101–368 billion USD [13,14].

Once thought to be an issue among higher income countries, injuries are exacting an ever-greater toll on middle-income and poor countries, creating an added burden on impoverished families, already overstretched health care systems, and robbing people of active and productive years. A recent paper points out that this is the case in the European Region as well, where most of the burden falls on low- and middle-income countries, which have undergone great changes brought about by transition to market style economies since the 1990s [11,15]. These developments have been associated with increases in violence and unintentional injuries [16]. However, the scale and extent of this problem has not been appreciated in Eastern European and Eurasian countries. This paper makes the case that there is a high burden of injuries in the region, and while many pilot programs have been conducted these have not been scaled up or replicated to be effective

[1] The reader is cautioned that the underlying assumptions of generating DALYs may be different due to factors such as age weighting and therefore, DALYs from different sources may vary. Despite this limitation, DALYs are compared in this paper.