

Injury burden in individuals aged 50 years or older in the Eastern Mediterranean region, 1990–2019: a systematic analysis from the Global Burden of Disease Study 2019

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Summary

Background Injury poses a major threat to health and longevity in adults aged 50 years or older. The increased life expectancy in the Eastern Mediterranean region warrants a further understanding of the ageing population's inevitable changing health demands and challenges. We aimed to examine injury-related morbidity and mortality among adults aged 50 years or older in 22 Eastern Mediterranean countries.

Methods Drawing on data from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2019, we categorised the population into adults aged 50–69 years and adults aged 70 years and older. We examined estimates for transport injuries, self-harm injuries, and unintentional injuries for both age groups, with sex differences reported, and analysed the percentage changes from 1990 to 2019. We reported injury-related mortality rates and disability-adjusted life-years (DALYs). The Socio-demographic Index (SDI) and the Healthcare Access and Quality (HAQ) Index were used to better understand the association of socioeconomic factors and health-care system performance, respectively, with injuries and health status in older people. Healthy life expectancy (HALE) was compared with injury-related deaths and DALYs and to the SDI and HAQ Index to understand the effect of injuries on healthy ageing. Finally, risk factors for injury deaths between 1990 and 2019 were assessed. 95% uncertainty intervals (UIs) are given for all estimates.

Findings Estimated injury mortality rates in the Eastern Mediterranean region exceeded the global rates in 2019, with higher injury mortality rates in males than in females for both age groups. Transport injuries were the leading cause of deaths in adults aged 50–69 years (43·0 [95% UI 31·0–51·8] per 100 000 population) and in adults aged 70 years or older (66·2 [52·5–75·5] per 100 000 population), closely followed by conflict and terrorism for both age groups (10·2 [9·3–11·3] deaths per 100 000 population for 50–69 years and 45·7 [41·5–50·3] deaths per 100 000 population for ≥70 years). The highest annual percentage change in mortality rates due to injury was observed in Afghanistan among people aged 70 years or older (400·4% increase; mortality rate 1109·7 [1017·7–1214·7] per 100 000 population). The leading cause of DALYs was transport injuries for people aged 50–69 years (1798·8 [1394·1–2116·0] per 100 000 population) and unintentional injuries for those aged 70 years or older (2013·2 [1682·2–2408·7] per 100 000 population). The estimates for HALE at 50 years and at 70 years in the Eastern Mediterranean region were lower than global estimates. Eastern Mediterranean countries with the lowest SDIs and HAQ Index values had high prevalence of injury DALYs and ranked the lowest for HALE at 50 years of age and HALE at 70 years. The leading injury mortality risk factors were occupational exposure in people aged 50–69 years and low bone mineral density in those aged 70 years or older.

Interpretation Injuries still pose a real threat to people aged 50 years or older living in the Eastern Mediterranean region, mainly due to transport and violence-related injuries. Dedicated efforts should be implemented to devise injury prevention strategies that are appropriate for older adults and cost-effective injury programmes tailored to the needs and resources of local health-care systems, and to curtail injury-associated risk and promote healthy ageing.

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Introduction

Injuries account for a significant portion of the global burden of disease and for more than 10% of all disability-adjusted life-years (DALYs).¹ Known globally for being the leading cause of death among younger age groups, injuries represent one of the primary causes of death and disability among the older adult population.^{2,3} As adults aged 50 years and older survive longer, their proportion

in the population is projected to grow globally from 9% in 2016 to 15% in 2030.^{4,5} Injury remains a threat to the wellbeing of people in this age group, and a public health concern that substantially drains health-care systems. Due to higher levels of frailty and the prevalence of comorbid non-communicable diseases,⁶ the ageing population has a higher risk of injuries, especially fractures and traumatic brain injuries resulting from

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