

Mortality Rate and Years of Life Lost Due to Road Traffic Accidents in Fars Province, 2004–2019

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Abstract

Background: Traffic accidents are one of the most critical health problems and the ninth leading cause of death globally. We aimed to determine the Mortality rate and the number of Years of Life Lost (YLL) due to road traffic accidents.

Methods: In this retrospective cohort study, mortality rate and YLL due to road traffic accidents were examined in Fars province, central Iran during the years 2004–2019. Mortality statistics were collected through death registration of ministry of health and medical education for Fars Province. Age Standardized mortality Rate (ASR) was calculated and join point regression analysis carried out to examine the trend of YLL rate. Data were analyzed using Excel spreadsheet version 2016 and Join point Regression Program 4.9.0.0.

Results: During the 16-year study period, 25,858 deaths due to road traffic accidents occurred in the province. 79.2% (20483 cases) were in men, and 33.7% (8703 cases) were aged 15–29 years. Total YLL during the 16-year study period were 458,975 (14.6 per 1000 people) in men, 117,999 (3.8 per 1000 people) in women. According to the join point regression, the 16- year trend of YLL rate due to premature mortality was decreasing: AAPC was -4.9% (95% CI: -8.8 to -0.9 ; $P=0.018$) for male, and -3.5% (95% CI: -6.3 to -0.5 ; $P=0.011$) for female.

Conclusion: Considering that the number of deaths, mortality rate and YLL has decreased in Fars province during the 16 years under study. Therefore, because the mortality rate due to road traffic accidents in Iran is higher than the global average, the need for training programs for drivers, compliance with standards and retrofitting of vehicles, road safety, driving supervision and the use of seat belts are essential.

Keywords: Road traffic accidents, Join point regression, Years of Life Lost, Mortality Rate, Iran