

# Trend Analysis of Lung Cancer Mortality and Years of Life Lost (YLL) in South of Iran, 2004-2019

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## Abstract

**Background:** We aimed to determine the mortality rate and Years of Life Lost (YLL) due to lung cancer in Fars, Iran, during the period from 2004 to 2019.

**Methods:** All deaths due to lung cancer in Fars Province, Iran from the electronic population-based death registration system (EDRS) were obtained. Crude mortality rate, age-standardized mortality rate, YLL and YLL rate data were calculated and trends examined.

**Results:** During 2004-2019, 3346 deaths occurred due to lung cancer in Fars Province, which was 10.8% (3346/30936) of the total cancer deaths in this period. Crude mortality rate of lung cancer had increased 70% and 53% in male and female respectively from 2004 to 2019. The total YLL of lung cancer during the 16-year study period was 28,094 (0.9 per 1000) in men, 14,174 (0.5 per 1000) in women, and 42,268 (0.8 per 1000) in both sexes (sex ratio male/female=2). According to the join point regression, the 16- year trend of YLL rate due to premature mortality was increasing: APC was 2.5% (95% CI 0.9 to 4.2, P=0.005) for males, 1.4% (95% CI 0.3 to 2.6, P=0.017) for females.

**Conclusion:** The mortality rate and YLL due to lung cancer in Fars Province is increasing, although the standardized mortality has a constant trend. Tobacco control is the most effective and least expensive way to reduce the number of lung cancer patients worldwide. National and local media can also play an important role in informing people about the risk factors.

**Keywords:** Lung cancer; Trend; Years of life lost; Iran