



# **Trend in Lung Cancer Mortality by Size of the Municipality of Residence in Spain, 2001-2022**

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## **Abstract**

Mortality varies according to the degree of urbanization. The evolution of the mortality trend varies between different countries, even within developed countries. The objective of this study is to estimate the trend in mortality from lung cancer according to the area of residence in Spain between the years 2001 and 2022.

We selected all deaths assigned to the International Classification of Diseases (ICD-10) for total lung cancer (C33-C34). The population and number of deaths according to age, sex and population size of municipality of residence have been obtained from the Statistics National Institute. The size of the municipality of residence has been grouped into three categories: less than 10,000 inhabitants (rural areas), between 10,000 and 100,000 inhabitants (small urban areas) and more than 100,000 inhabitants (large urban areas). The trend in mortality from lung cancer during this period was calculated using the annual percentage change (APC). Between 2001 and 2022, the APC in mortality rate in large urban, small urban and rural areas were respectively -1.9, -1.6 and -0.9 in men, and 3.4, 4.0 and 4.1 in women. Rural areas showed less decrease in mortality from lung cancer than urban areas in men. Women showed an increasing trend in lung cancer mortality, which was higher in large urban areas.

**Keywords:** Cancer; Lung; Mortality; Rural; Spain; Urban