

International Agency for Research on Cancer





Country Factsheet Series

Socio-economic inequalities in cancer mortality across the EU27, Norway and Iceland

France

Key messages

In France, total cancer mortality rates from 2015 to 2019* were below the European average in both sexes but higher in men compared to women. There was a strong social gradient, with increasing cancer mortality rates as educational levels decreased. The social gradient was more pronounced in men than in women. With respect to specific cancer types, mortality rates were highest for lung cancer in men and for breast cancer in women. A clear social gradient was observed for all six cancer sites assessed, except for

lung and breast cancer. France is characterized by limited financial barriers to cancer care, having the lowest share of out-of-pocket payments for health among all EU countries and with cancer patients benefiting from coverage of health costs. Nevertheless, inequalities in cancer mortality persist.

Educational inequalities in total cancer mortality

In France, national mortality rates for total cancer** in 2015-2019 were 425 per 100,000 among men and 238 per 100,000 among women, but varied greatly across educational levels. A progressive increase in mortality was observed as educational levels decreased, especially for men. Men with primary education had approximately 90% higher mortality rates compared to men with tertiary education (530 vs 273 per 100,000). The social gradient in women was less pronounced, with about 10% higher

mortality rates in women with primary education compared to those with tertiary education (252 vs 228 per 100,000).

The inequality gap (i.e., the difference in rates between primary and tertiary education) was smaller than the European average*** for both sexes and, among women, among the smallest in the Western/Southern European region. In contrast, among men, the inequality gap was the highest in the region.

^{*} In France, the estimates were based on the method used for group C countries. See methodological notes at the end and the Methodological report for more information.

All cancers combined.

^{**} European average is calculated considering 27 EU Member states + Norway and Iceland.



Figure 1. Total cancer mortality by sex and education level

Educational inequalities in mortality by cancer site

🚺 Lung cancer

Mortality rates for lung cancer were almost three times higher in men compared to women but in both sexes were lower than the European average. A social gradient, with progressive increase in mortality as educational levels decreased, was observed only for men. In women, there was no clear social gradient although women with tertiary education had the lowest mortality rates. Inequalities in the exposure to tobacco-smoking and consumption across educational levels in the past decades have likely played an important role in the currently observed social gradient. In 1990, the prevalence of smoking among people aged 20-44 years was 48%, and twice as high in men with low educational attainment compared to the more educated men [1]. Recent smoking prevalence in France was amongst the highest in the EU [2], with a social gradient in smoking patterns and higher rates among men.





Colorectal and stomach cancers

both sexes were lower than the European average. Men showed higher mortality rates compared to women, but a clear social gradient was observed for both sexes (though it was more evident in men) and for both cancer sites. Inequalities in the past exposure to risk factors by sex and educational level such as smoking, alcohol consumption, poor diet, physical inactivity [2, 3] and Helicobacter pylori infection (for stomach cancer only) at younger ages [4] could explain observed inequalities in mortality for both stomach and colorectal cancers. Recent alcohol consumption in France was 6% higher than the EU average, with more hazardous alcohol consumption among men compared to women [2]. Also, differences in colorectal cancer screening participation could contribute to the observed inequalities in mortality. In 2019, 48% of people with primary education reported never having a colorectal screening test, compared to 45% with secondary education and 44% with tertiary education [5].

Breast cancer

Breast cancer was the highest contributor to cancer mortality among women, with national rates comparable to the European average. There was no clear social gradient, and women with tertiary education had the highest death rates compared to women with primary and secondary education. Despite the availability of a national breast cancer screening programme with largely equitable access and high screening participation rates (70% vs 66% European average in 2019) [2], differences in the uptake of diagnosis and treatment services may differ across social groups.

Prostate cancer

Mortality rates for prostate cancer were lower than the European average. There was a clear social gradient with mortality rates decreasing as educational levels increased. This gradient could be possibly due to inequalities in the stage at diagnosis, and disparities in the access to treatment or treatment options [6].

🚺 Cervical cancer

Mortality rates for cervical cancer were the lowest among all cancer types assessed and lower than the European average. Nevertheless, there was a social



Figure 2.b. Cancer-specific mortality by sex and education level: colorectum



Figure 2.c. Cancer-specific mortality by sex and education level: stomach



Figure 2.d. Cancer-specific mortality by sex and education level: breast (left), prostate (right)

gradient with higher mortality rates recorded for women with primary education compared to those with tertiary education. The differences across educational groups may largely be related to variations in the uptake of cervical cancer screening. The overall participation to cervical cancer screening is 62%, but screening uptake differs across educational groups. In 2019, about 50% of women with low educational levels had taken a smear test in the last three years compared to 80% of women with high education levels [2]. Human papillomavirus (HPV) vaccination and HPV-based screening, if equitably implemented, may further decrease the disease burden and reduce associated socioeconomic disparities.

Methodological notes:

Findings are based on the ERAINHE dataset, which includes mortality data by educational attainment, age group, sex, period, country and cause of death. For most countries, the data are derived from individually-linked records, collected and harmonized in different periods in different projects (for the full description see the Methodological report). Geographical and temporal gaps in the ERAINHE dataset were addressed using complementary data sources and appropriate estimation methodologies tailored to the availability of the data. Age-standardised (European Standard Population) mortality rates by educational level for individuals aged 40–79 years were thus estimated for 2015– 2019, using four different methods:

 Method for group A countries, for countries with at least 3 recorded observations over different periods of time: actual observed data for 2015-2019 (when available) or projections based on linear regression models;



Figure 2.e. Cancer-specific mortality by education level: cervix

- Method for group B countries, for countries with 1 or 2 recorded observations only: incomplete data combined with trends from other databases;
- Method for group C countries, for countries with no observations for certain cancer sites: integration of data from different databases with information from countries in the same geographical area;
- "Back-calculation" method, for countries without available data in the ERAINHE dataset: combination of population a mortality data from different databases with information on educational inequalities in cancer from countries in the same geographical area.

For France, the method for group C was used. **Disclaimer:** As for certain cancer types this method integrates information from countries within the same geographical area, the degree of uncertainty associated with the estimates is higher compared to estimates based solely on national data.

Contact information

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