

Country Factsheet Series

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

Belgium

Key messages

National mortality rates for cancer during 2015–2019* in Belgium were below the European average for both sexes. Cancer mortality rates were higher in men than in women. A social gradient was observed for both sexes and all cancer types, with a progressive increase in mortality rates as educational levels decreased. In Belgium, the compulsory health insurance system ensures largely equitable access to health care including cancer care. Several efforts have been made to educate the public, reduce risk factors and screen and treat different cancers. Nevertheless, socio-economic inequalities in cancer mortality persist. Belgium's policy priorities for 2024–2028 highlight the need to invest in increasing awareness on cancer risk particularly smoking and alcohol use, early detection, reduce inequalities in access to prevention and care services, particularly for the socio-economically disadvantaged.

Educational inequalities in total cancer mortality

In Belgium, total cancer** mortality rates in 2015–2019 were 403 per 100,000 among men and 258 per 100,000 among women. Rates varied greatly across educational levels and with a social gradient that was more pronounced in men than in women. Cancer mortality rates for men with primary education were approximately 55% higher than men with tertiary education (484 vs 311 per 100,000). Similarly, cancer

mortality rates among women with primary education were about 30% higher than those with tertiary education (288 vs 221 per 100,000).

The inequality gap (i.e., the difference in rates between primary and tertiary education) in Belgium was lower than the European average***, but higher compared to other countries in the same region, like the Netherlands and Germany.

* In Belgium, estimates were obtained using the method for group A 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

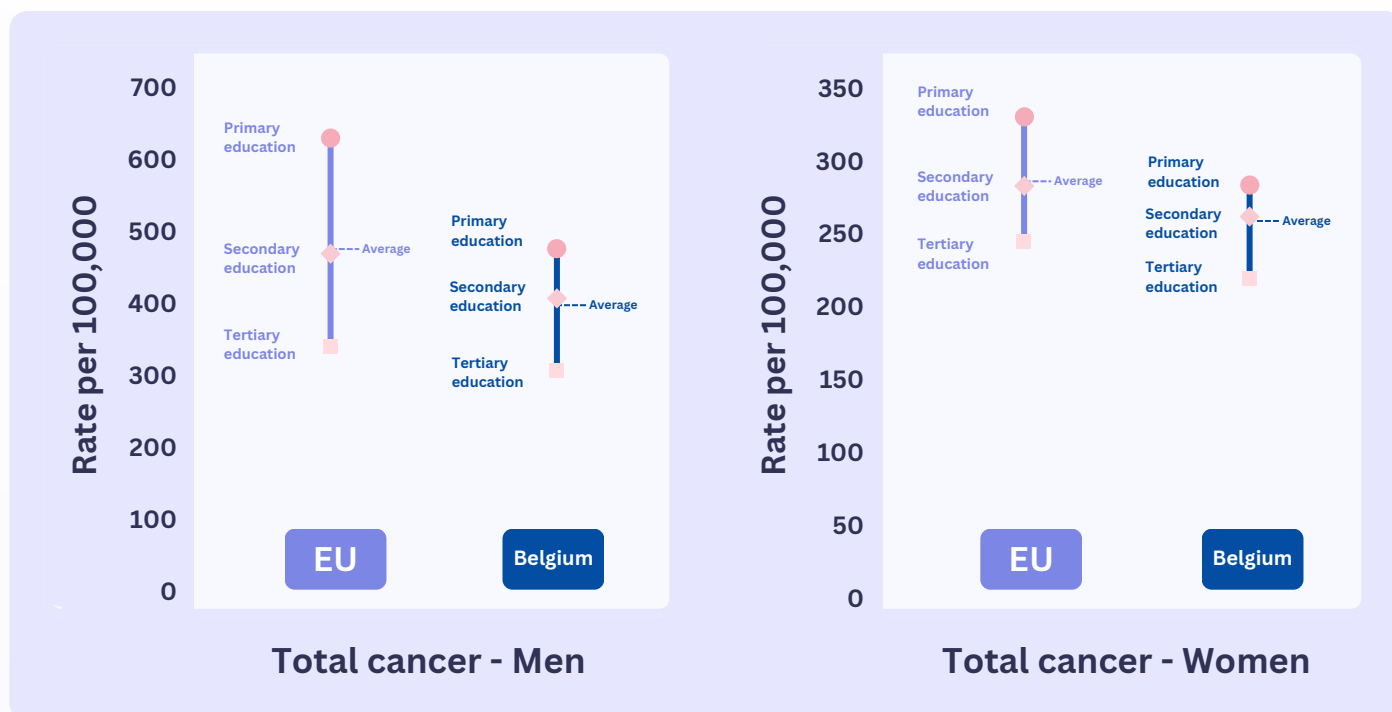


Figure 1. Total cancer mortality by sex and education level

Educational inequalities in mortality by cancer site



Lung cancer

Lung cancer mortality rates in men were over two times higher than those in women, although in both sexes they were similar to the corresponding European average. There was a clear social gradient in both sexes with individuals with low educational attainment bearing the highest mortality rates. These differences in lung cancer mortality across sex and socio-economic position may be explained by differences in tobacco smoking patterns across these groups over the past decades. In 1997, the prevalence of daily smoking in Belgium was still 25% of the population, with smoking rates higher among men, compared to women, and among people with low, compared to high, educational attainment [1].

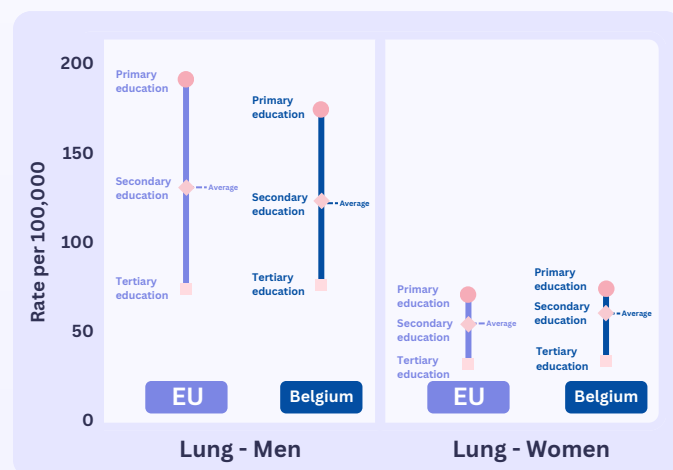


Figure 2.a. Cancer-specific mortality by sex and education level: lung



Colorectal and stomach cancers

Colorectal and stomach cancer mortality rates in Belgium were below the European average in both sexes, and higher in men compared to women.

A social gradient was found for colorectal and stomach cancers in both sexes, with increasing mortality rates as education levels decreased. Inequalities in the exposure to risk factors like alcohol consumption, smoking, poor diet, obesity [2, 3] and to helicobacter pylori infection (for stomach cancer) over time and across socio-economic groups and sexes [4] may, at least partly, explain the inequalities. The uptake of colorectal cancer screening in people with lower educational attainment was only slightly lower than that for other educational groups: in 2019, 57% of individuals with primary education reported to have never had a colorectal cancer screening test compared to 54% with secondary and tertiary education [5].

Breast cancer

Breast cancer contributed to the second highest mortality rates among women, after lung cancer. Compared to the European average, the national mortality rate was slightly higher. A mild social gradient was observed for the disease, with women with primary and secondary education showing slightly higher death rates compared to their counterparts with tertiary education. This weak social gradient could be due to an unfavorable balancing of breast cancer risk factors, early diagnosis and screening, and treatment options for low socio-economic groups. In 2019, screening uptake was higher among those with tertiary compared to primary education [3].

Prostate cancer

Prostate cancer was a large contributor to total cancer mortality among men, after lung and colorectal cancers. The national average mortality rate was lower than the European average. There was a social gradient with mortality rates decreasing as educational levels increased. These inequalities could partly be explained by differences in the stage at diagnosis and disparities in access to treatment across educational groups [6].

Cervical cancer

Mortality rates for cervical cancer in Belgium were the lowest among all cancer types assessed, and lower than the European average. However, a social gradient was observed with higher mortality rates recorded for women with primary education

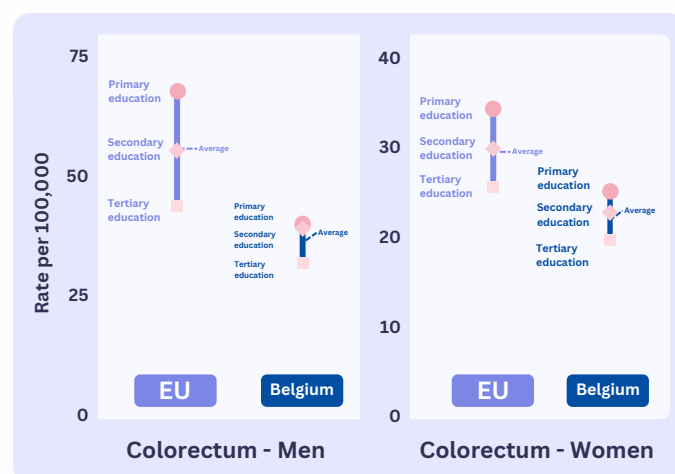


Figure 2.b. Cancer-specific mortality by sex and education level: colorectum

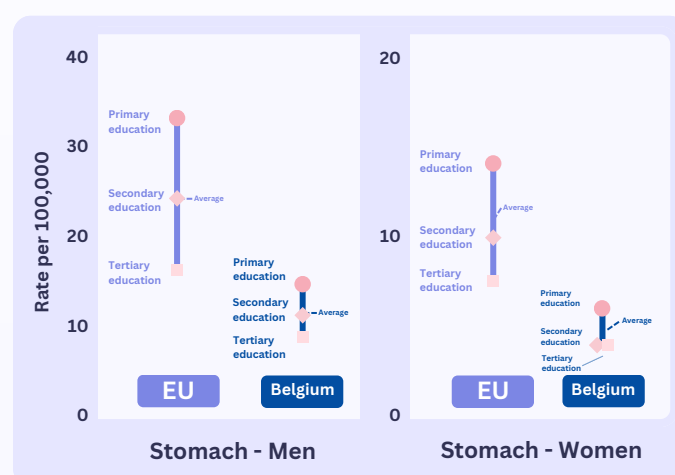


Figure 2.c. Cancer-specific mortality by sex and education level: stomach

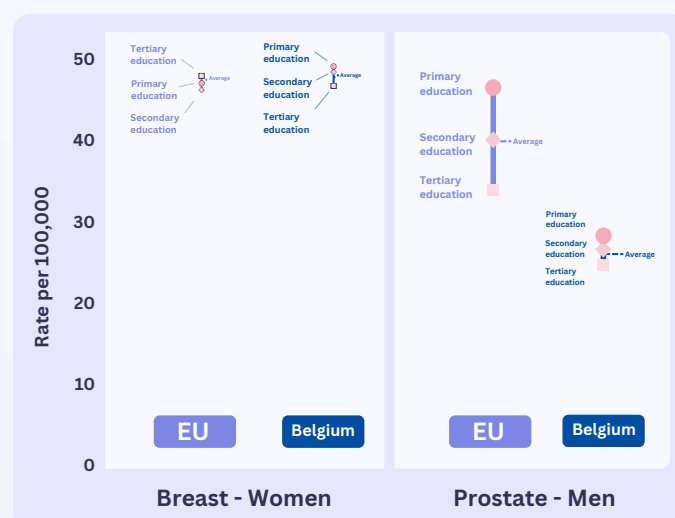


Figure 2.d. Cancer-specific mortality by sex and education level: breast (left), prostate (right)

compared to those with secondary and tertiary education. Although cervical cancer screening participation rates in Belgium are among the highest in the EU, educational inequalities persist. In 2019, more women with primary education (28%) reported never taking a cervical smear test compared to women with secondary (25%) and tertiary education (12%) [7] which may explain the differences in cervical cancer mortality across educational groups. Human papillomavirus (HPV) vaccination and HPV-based screening, if equitably implemented, could potentially further decrease the disease burden and reduce associated socio-economic disparities.

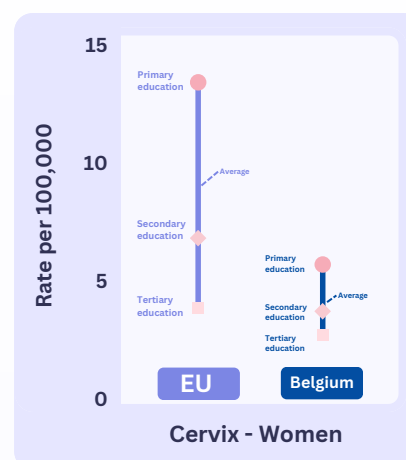


Figure 2.e.
Cancer-specific mortality by education level: cervix

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;

- **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.

In Belgium, the method for group A countries was used.

Contact information

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