

SOCIOECONOMIC INEQUALITIES IN CANCER MORTALITY BETWEEN AND WITHIN COUNTRIES IN EUROPE

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INTRODUCTION

Reducing socioeconomic inequalities in cancer is a priority for the public health agenda.

A systematic assessment and benchmarking of socioeconomic inequalities in cancer across many countries and over time in Europe is not yet available and is necessary to quantify and understand such inequalities and cancer mortality trends associated with them.

Moreover, within the diverse health landscape of Europe, it is essential to recognize vulnerable populations, including migrants, who often encounter healthcare access barriers, and reside in low to very low socioeconomic conditions and constitute a distinct subset of the population.

Therefore, this research is integral for revealing and understanding the social gradient associated with cancer mortality and informing tailored public health policies to address health inequalities in cancer care.

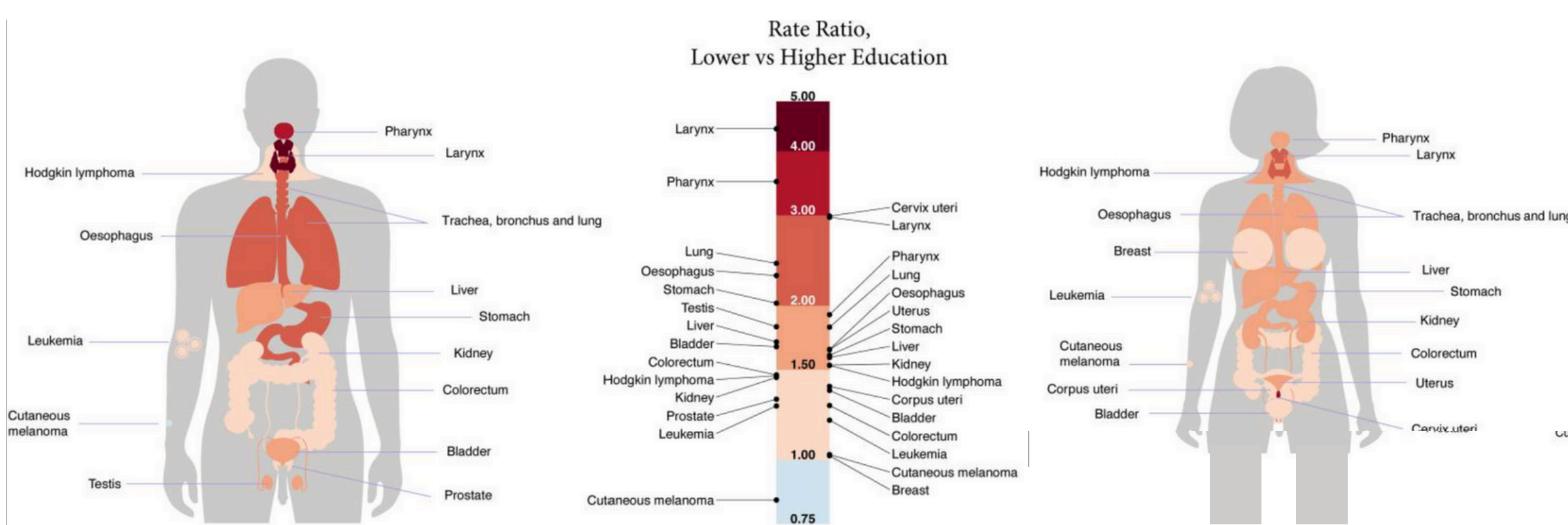
OBJECTIVE

To conduct a comprehensive and systematic assessment of socioeconomic inequalities in cancer across multiple European countries and over a specified time period, aiming to quantify the extent of inequalities in cancer mortality rates based on socioeconomic levels. The overarching objective is to provide evidence-based insights that can inform targeted public health interventions and policy measures to reduce and address socioeconomic inequalities in cancer across Europe.

METHODS

Census-linked, whole-of-population cancer-specific mortality data by socioeconomic position, as measured by education level, and sex were collected, harmonized, analysed, and compared across 18 countries during 1990–2015, in adults aged 40–79. We computed absolute and relative educational inequalities; temporal trends using estimated-annual-percentage-changes; the share of cancer mortality linked to educational inequalities.

RESULTS



1

Everywhere in Europe, lower-educated individuals have higher mortality rates for nearly all cancer-types relative to their more highly-educated counterparts, particularly for tobacco/infection-related cancers [relative risk of lung cancer mortality for lower- versus higher-educated = 2.4 (95% confidence intervals: 2.1–2.8) among men; = 1.8 (95% confidence intervals: 1.5–2.1) among women].)

2

The magnitude of inequalities varies greatly by country and over time, predominantly due to differences in cancer mortality among lower-educated groups, as for many cancer-types higher-educated have more similar (and lower) rates, irrespective of the country. Inequalities were generally greater in Baltic/Central/East-Europe and smaller in South-Europe, although among women large and rising inequalities were found in North-Europe (relative risk of all cancer mortality for lower- versus higher-educated ≥ 1.4 in Denmark, Norway, Sweden, Finland and the England/Wales). Among men, rate differences (per 100,000 person-years) in total-cancer mortality for lower-vs-higher-educated groups ranged from 110 (Sweden) to 559 (Czech Republic); among women from approximately null (Slovenia, Italy, Spain) to 176 (Denmark).

3

Lung cancer was the largest contributor to inequalities in total-cancer mortality (between-country range: men, 29–61%; women, 10–56%). 32% of cancer deaths in men and 16% in women (but up to 46% and 24%, respectively in Baltic/Central/East-Europe) were associated with educational inequalities.

CONCLUSION

Cancer mortality in Europe is largely driven by levels and trends of cancer mortality rates in lower-education groups. Even Nordic-countries, with a long-established tradition of equitable welfare and social justice policies, witness increases in cancer inequalities among women.

These results call for a systematic measurement, monitoring and action upon the remarkable socioeconomic inequalities in cancer existing in Europe, and targeted public health policies addressing health inequalities in cancer care.