

*Short report*

Trends in socioeconomic inequalities in cancer incidence in Germany between 2007 and 2018

Lina Jansen¹ • Lars Schwettmann² • Christian Behr³ • Andrea Eberle⁴ • Bernd Holleczek⁵ • Christina Justenhoven³ • Hiltraud Kajüter⁶ • Kirsi Manz⁷ • Frederik Peters⁸ • Ron Pritzkuleit⁹ • Andrea Schmidt-Pokrzywniak¹⁰ • Eunice Sirri¹¹ • Fabian Tetzlaff¹² • Sven Voigtländer¹³ • Volker Arndt¹

¹ Epidemiological Cancer Registry Baden-Württemberg, German Cancer Research Center (DKFZ), Heidelberg, Germany

² Division for Health Economics, Department of Health Services Research, School of Medicine and Health Sciences, Carl von Ossietzky University Oldenburg, Oldenburg, Germany

³ Cancer Registry Rheinland-Palatinate gGmbH, Mainz, Germany

⁴ Bremen Cancer Registry, Leibniz-Institute for Prevention Research and Epidemiology: BIPS, Bremen, Germany

⁵ Cancer Registry Saarland, Saarbrücken, Germany

⁶ Cancer Registry of North Rhine-Westphalia, Bochum, Germany

⁷ Cancer Registry Mecklenburg-Western Pomerania, Institute for Community Medicine, University Medicine Greifswald, Greifswald, Germany

⁸ Cancer Registry Hamburg, Hamburg, Germany

⁹ Institute for Cancer Epidemiology, University Lübeck, Cancer Registry Schleswig-Holstein, Lübeck, Germany

¹⁰ Clinical Cancer Registry Sachsen-Anhalt gGmbH, Halle, Germany

¹¹ Epidemiological Cancer Registry Lower Saxony, Registerstelle, Oldenburg, Germany

¹² Division of Social Determinants of Health, Robert Koch-Institute, Berlin, Germany

¹³ Bavarian Cancer Registry, Bavarian Health and Food Safety Authority, Nürnberg, Germany

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Abstract

Background

In recent years, the age-standardized cancer incidence in Germany has decreased for many types of cancer. To which extent this development has differed between socio-economically unequal populations is unknown.

Methods

Using cancer data for 48 million inhabitants in Germany, the development of the age-standardized cancer incidence (total cancer, colorectal, lung, prostate and breast cancer) was investigated in the period 2007-2018, stratified by a deprivation index at district level (aggregated to quintiles). The incidence in the most and least deprived districts was compared using Poisson models. Average annual percentage changes (AAPCs) and the differences in AAPCs between the deprivation quintiles were assessed using joinpoint regression analyses.

Corresponding author: Dr. Lina Jansen

Epidemiological Cancer Registry Baden-Württemberg | German Cancer Research Center (DKFZ)

Im Neuenheimer Feld 280 – 69120 Heidelberg – E-Mail: l.jansen@dkfz-heidelberg.de





Results

In all deprivation quintiles, the age-standardized incidence decreased between 2007 and 2018 for total cancer and for all types of cancer (except for lung cancer in women). However, differences in the extent of the decline between the deprivation quintiles led to increasing inequalities over time for total cancer, colorectal cancer, and lung cancer. While in 2007 the cancer incidence for men and women in the districts with the highest deprivation was 7% higher than in the districts with the lowest deprivation, this difference increased to 23% (men) and 20% (women) in 2018. Strongest inequalities were observed for lung cancer, with 82% (men) and 88% (women) higher incidence in the most compared to the least deprived districts in 2018.

Conclusion

The observed increase in inequalities in cancer incidence is in line with trends in the prevalence of risk factors and in the use of screening services. Intervention programs, especially in populations in socio-economically disadvantaged populations, are urgently needed.

Keywords

cancer, deprivation, Germany, incidence, trends

Citation

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