Lauterbach's findings on Germany's lack of performance in terms of life expectancy

German life expectancy disadvantage is growing

Die beiden Kölner Professoren Dr. Stephan Baldus (Direktor der Klinik III für Innere Medizin der Universitätsklinik Köln) und Dr. Karl Lauterbach (1997 zum Professor für Gesundheitsökonomie und Klinische Epidemiologie an die Universität zu Köln berufen, doch seit 2005 als Abgeordneter nach § 5 des Abgeordnetengesetzes beurlaubt und aktuell Bundesgesundheitsminister (20. Legislaturperiode 2021–2025)) haben ein gemeinsames, wenn auch kurzes Papier geschrieben. Es nennt sich „Präventionsorientierte Gesundheitsversorgung in Deutschland – eine Nation, die eine Trendwende braucht" und ist in englischer Sprache am 31. Juli dieses Jahres im Open-Access-Journal „European Journal of Epidemiology" (Springer) erschienen.

>> In this article (1), the duo of authors caution that the decline in mortality in industrialised countries has slowed recently, despite substantial increases in health care spending, and that there is also solid evidence from European countries that the overall gain in lifespan appears to be dearly bought by an increase in years with disability. The two authors quote here the team of authors around Jasilionis (10), who drew „a gloomy picture of the development of life expectancy in Germany", since by means of comparative analyses of life expectancy on the basis of mortality tables of the Human Mortality Database and subsequent age- and cause-specific decomposition, valid evidence was provided that „Germany is currently underperforming" in the increase of life expectancy compared to other developed countries.

The two authors describe the data presented by Jasilionis et al. for Germany as „alarming", but there is also „reason for encouragement". Germany has a highly developed and easily accessible health care system, and the country is known for its macroeconomic performance. Baldus and Lauterbach therefore hope that „a strong and nationwide primary prevention initiative should be possible". Such a programme, according to the author duo, „would have the potential to be highly effective in terms of both mortality reduction and health care cost reduction". For example, other sources cited in their article state that „the number of tests required to prevent a death when screening for dyslipidaemia or hypertension are about ten times lower than for cancer or hepatitis programmes, respectively - and thus highly cost-effective". In their opinion, „improving primary prevention for cardiovascular disease could ultimately reduce health care spending".

In their conclusion, they write that a reduction of cardiovascular mortality in Germany is urgently needed and that joint efforts of primary and tertiary care providers, researchers and politicians are required. Baldus/ Lauterbach: „Initiatives must be taken to help change dietary behaviour at the public and individual level, implement powerful screening programmes, improve adherence to guidelines in primary care, and develop new treatment strategies based on digitisation and adequate allocation of research funds." More aggressive action against tobacco use must also be considered, he said, which would ultimately help to increase not only numerical life expectancy overall, but also the number of years without disability - which is the „most important goal of chronic disease prevention and early detection". If this succeeds, Germany could go from being the Saul to the Paul of cardiovascular prevention and become „a model for a modern nationwide prevention-centred health concept with a focus on cardiovascular diseases".

The article by Baldus and Lauterbach is a continuation, annotated and enriched by the two, of the article „The insufficient life expectancy in Germany" (2) by Dr. Domantas Jasilionis, also published in the Springer journal „European Journal of Epidemiology" on 25 April 2023. In their study, the researcher at the Max Planck Institute for Demographic Research in Rostock and his three co-authors Alyson A. van Raalte (also Max Planck, Rostock) and Sebastian Klüsener and Pavel Grigoriev (Federal Institute for Population Research, Wiesbaden) use demographic methods and a cause-of-death analysis to examine long-term German life expectancy in comparison to six equally high-income countries. These are:

- Switzerland (consistently leading in male life expectancy) ,

- France (known for a particularly low mortality rate at older ages)
- Japan (has had the highest life expectancy for women for several decades)
- Spain (which will overtake Japan as the next leader in life expectancy)
- United Kingdom and USA (have recently experienced a well-documented slowdown in mortality) .

With the study objective of finding out whether Germany has „embarked on its own unconvincing path of life expectancy" despite maintaining higher health spending, the quartet of authors come up with interesting findings when they disaggregate life expectancy by age. They detect increased mortality among men aged 65 and older in this country, with this being „consistently the largest contributor" to the life expectancy gap between Germany and Japan, Switzerland, France and the UK. The second largest contributor to the gap was excess mortality at ages 50-64 (except in comparison with France).

For women, however, the pattern is different: Here, higher mortality at ages 65 to 79 contributed „significantly to the life expectancy gap". But unlike for men, for women the contribution of higher mortality at age 80+ years is decisive for the longevity gap between Germany and the four leading countries, especially in the most recent period.

The decomposition also shows differences in the age structure of mortality between Germany and the UK and the USA. For example, Germany has lower mortality at most ages, but higher mortality at ages 80 and older. In addition, the dispersion of age at death is lower in Germany than in the other bottom countries in terms of life expectancy, such as the United Kingdom and the USA. According to the authors, their findings confirm that

(a) the slower progress in life expectancy in Germany is not caused by increasing heterogeneity in the health status of the population due to working-age deaths; and
(b) mainly the mortality disadvantage among people of older age, especially

those close to the modal (most typical) age of death, was the trigger.

The team of authors also investigated whether Germany's poor performance in life expectancy could, as often assumed, be mainly attributed to

1) cardiovascular diseases and an
2) insufficient treatment of chronic and age-related diseases.

In fact, according to Jasilionis et al, a cause-specific decomposition of life expectancy compared to the best-performing countries - including Japan, Switzerland and Spain - shows that diseases of the cardiovascular system (CVD) are indeed the main culprits for this disadvantage. This large group of causes of death was the most prevalent in all study periods, although overall progress had been made in reducing CVD mortality in Germany. However, over the study period, the proportion of the life expectancy gap attributable to excess CVD mortality in Germany remained high or even increased further.

According to the quartet of authors, Germany's growing life expectancy disadvantage compared to the best-performing countries is also evident when looking at recent annual trends in standardised mortality rates due to cardiovascular disease at ages 50-64 and 65+. For example, Germany began the 21st century with higher rates of cardiovascular disease than the leading countries, but then saw slower progress or even signs of stagnation in the decline of CVD mortality after 2010. However, a particularly „worrying trend" during the study period was the systematically higher premature CVD mortality in the 50-64 age group in Germany, with German men and women dying at twice the rate of the leading group of leading countries, with the exception of the US and the UK.

In their conclusion, the authors write that Germany's performance in terms of life expectancy at age 65 is even worse, because for this indicator for men, Germany even lags behind the USA, a „well-known underperformer" in the group of countries under consideration. As far as longevity is concerned, Germany and the USA are clearly below average, although their health expenditure is similar to or much higher than in many countries that belong to the longevity pioneers. According to the authors, the observed discrepancies between investments in health care and the health outcomes of the population should be understood as „a warning signal for the sustainability of the entire health care system in Germany", as the demand for health care services will continue to increase in the near future due to population ageing.

Limiting their output, Jasilionis' team of authors admits that their findings on the potential determinants of the German disadvantage in life expectancy were largely based on aggregate survey-based and routinely collected statistical data on socioeconomic health-related behaviour. Although these data would reveal some statistical correlations, they cannot make causal statements. <<

by: MVF Editor-in-Chief Peter Stegmaier

1: https://doi.org/10.1007/s10654-023-01030-3
2: https://doi.org/10.1007/s10654-023-00995-5

Citation

Stegmaier, P: „German life expectancy disadvantage is growing", in „Monitor Versorgungsforschung" (05/23), pp. 40–41. http://doi.org/10.24945/MVF.05.23.1866-0533.2545

Natural Language Processing

>> Around 150 million doctor's letters are written in Germany every year. This costs time that is lacking elsewhere. The „doctor's letter generator", a combination of algorithms and artificial intelligence used in so-called Natural Language Processing (NLP), could provide a remedy. Information is extracted from texts and made available in a structured form, enabling processes such as quality assurance, the creation of statistics, clinical decision support and billing to be carried out easily and quickly, and new texts such as doctor's letters to be generated. A prototype of the doctor's letter generator is already to be tested next year at the University Medical Centre Essen in the course of the KI.NRW-Flagship-Projekts SmartHospital.NRW . In the new white paper „Natural Language Processing in Medicine" (1), scientists at the Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS have summarised what other possibilities NLP opens up for the medical field. <<

1: https://t1p.de/kb0ky

Cancer incidence without deprivation

>> „Trends in cancer incidence by socioeconomic deprivation in Germany from 2007 to 2018" is the name given to their register-based study by a team of authors led by Dr. Lina Jansen from the Baden-Württemberg Cancer Registry. With this study, the authors want to find out whether the age-standardised cancer incidence, which has declined in recent years for many types of cancer, has led to a reduction or increase in socioeconomic inequalities in cancer incidence. According to their findings, age-standardised incidence declined sharply between 2007 and 2018 for cancer overall and all cancers (except lung cancer in women), but regardless of the level of deprivation. However, differences in the magnitude of trends between deprivation quintiles would lead to increasing inequalities over time for cancer overall, but also colorectal cancer and lung cancer. Intervention programmes for socioeconomically disadvantaged and urban regions are urgently needed, he said. <<

1: https://doi.org/10.1002/ijc.34662