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What course did the coronavirus pandemic take in Poland and what factors could have influenced it?

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More than 3 years after the outbreak of the COVID-19 pandemic, the time has come to evaluate its effects in order to plan and take appropriate preventive measures for the future. Such actions have been taken by among others Norway and the United Kingdom [1, 2]. At the beginning of the pandemic, the World Health Organization recommended that data on the number of COVID-19 cases and deaths should be published daily, but obtaining good quality data turned out to be difficult, and in Poland it was impossible. In 2020, the data reported by Poland's state administration did not reflect the actual course of the pandemic and was totally unreliable, proving insufficient for a reliable epidemiological assessment of COVID-19 morbidity and mortality. It was due to, among other factors, too few tests being performed, the approach to testing being opportunistic or, as medics have indicated, no post-mortem confirmatory tests being conducted, etc. [3]. Excess deaths (difference between the total number of deaths in a given period and the average number of deaths in previous years before the pandemic) were found to be the only objective way to measure the course of the pandemic and estimate its damage, as well as compare this with other countries. A number of epidemiological analyses indicated that in many countries the official data regarding COVID-19 mortality was significantly understated. In Poland, there was a particularly large, almost twofold difference between excess deaths and the official data on deaths due to COVID-19, while in some countries (e.g. France, Italy and Norway) this difference was significantly lower [4, 5]. A comparison of mortality rates between different countries in 2020 showed that Poland was a country with one of the highest increases in excess deaths in the world (a 14.4% increase in mortality) [6]. Analysing the trend of excess deaths in different countries, using Poland, Norway and Italy as examples, it can be seen that the course of the pandemic differed significantly.

Factors leading to these differences in excess mortality between countries include for example the type of health care measures introduced and the timing thereof, the provision and mobilization of health care personnel, the use of technology and data, the speed of vaccination programs being introduced, the type and extent of vaccinations, the kind of treatment undertaken, and such public behaviour as adherence to guidelines, etc. In addition, the most important factors influencing the course of the coronavirus pandemic included the demographic structure of the population, reduced immunity, population density, gender, and various cultural factors. These differences were caused by a number of complex and interrelated factors, including so-called pre-pandemic factors (the general health of the population, with particular emphasis on the degree of comorbidities [coexisting conditions], such as cardiovascular diseases, diabetes, chronic obstructive pulmonary disease, lung cancer, alcoholic liver cirrhosis etc., as well as such risk factors as cigarette smoking, alcohol consumption, unbalanced diet and obesity, air pollution (especially in winter), lack of physical activity, etc.) [7-11].

Poland is a good example of how the introduction of restrictions by the state administration, as well as compliance with the same, can have a decisive impact on the number of infections and deaths related to COVID-19, especially in that phase when vaccinations were as yet unavailable [12]. However, further in-depth research on the course of the pandemic and the factors influencing its course in different countries will be necessary in order to develop effective preventive measures in the event of further epidemic threats.

DISCLOSURE

The authors report no conflict of interest.

References

1. UK Covid-19 Inquiry. Available from: <https://covid19.public-inquiry.uk/> (accessed: 16 November 2023).
2. National Programme of Knowledge about Covid-19. Available from: <https://www.fhi.no/ss/korona/kunnskapsprogrammet-for-covid-19/> (accessed: 16 November 2023).
3. Janik-Koncewicz K, Basiak-Rasała A, Zatońska K, Karczewski M, Zatoński WA. Considerations on mortality in 2020 in Poland in the context of the coronavirus pandemic. *J Health Inequal* 2022; 8(2): 98-107.
4. Kobak D. Excess mortality reveals Covid's true toll in Russia. *Significance* 2021. Available from: <https://doi.org/10.1111/1740-9713.01486> (accessed: 15 June 2022).
5. OECD. Health at a Glance. Europe 2022. Available from: <https://www.oecd.org/health/health-at-a-glance-europe/> (accessed: 4 November 2023).
6. Parildar U, Perara R, Oke J. Excess mortality across countries in 2020. Available from: <https://www.cebm.net/covid-19/excess-mortality-across-countries-in-2020/> (accessed: 11 March 2021).
7. Office for National Statistics, UK. International comparisons of possible factors affecting excess mortality. Available from: <http://ons.gov.uk> (accessed: 27 May 2023).
8. Zatoński WA, Janik-Koncewicz K, Zatoński M. Role of primary prevention in lung cancer control in Poland. *J Thorac Oncol* 2021; 16(10): e93-e94.
9. Zatoński WA, Zatoński MZ, Janik-Koncewicz K, McKee M. Alcohol-related liver cirrhosis in Poland: the reservoir effect. *Lancet Gastroenterol Hepatol* 2020; 5(12): 1035.
10. Samet J, Buran M. The burden of avoidable disease from air pollution: implications for prevention. *J Health Inequal* 2020; 6 (1): 2-6.
11. Zatoński WA, Zatoński M, Janik-Koncewicz K, Wojtyła A. Alcohol-related deaths in Poland during a period of weakening alcohol control measures. *JAMA* 2021; 325(11): 1108-1109.
12. Gruszczyński L, Zatoński M, McKee M. Do regulations matter in fighting the COVID-19 pandemic? Lessons from Poland. *Eur J Risk Regul* 2021; 12: 739-757.