

# **RESILIENCE OF EUROPEAN HEALTHCARE SYSTEMS DURING THE PANDEMIC: LESSONS AND PERSPECTIVES FOR HEALTHCARE MANAGEMENT**

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## **Abstract**

The COVID-19 pandemic has severely tested the resilience of European healthcare systems, exposing vulnerabilities but also generating valuable lessons for future health management. This study analyses the evolution of infections, deaths, and fatality rates in 46 European countries between 2020 and 2024, using data from the World Health Organization and Our World in Data. Employing quantitative methods and statistical models (linear, quadratic, and power regression), the research explores the relationship between confirmed cases and mortality, assessing the extent to which resilience mechanisms influenced outcomes. Results show that while mortality increased with the number of infections, resilience measures significantly reduced fatality rates over time. The power model best explained the case-death relationship, highlighting sub-proportional growth of mortality in relation to infections, a sign of adaptive system capacity. Findings demonstrate that resilience is not an abstract concept but a measurable determinant of health outcomes, directly linked to preparedness, adaptability, and equity. The study concludes with three key lessons for future healthcare management: institutionalizing resilience, strengthening adaptability, and investing in equity and prevention. These elements are crucial to ensure that European health systems can effectively respond to future crises and safeguard population health.

## **Keywords**

Management, Resilience, Health system, Pandemic, Covid-19, Health management and planning

## **JEL Classification**

H12, H51, H84, I18

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