Synthēsis
Peer-reviewed, diamond open-access journal for concise, transparent and reproducible evidence synthesis across medicine

Vol. 1 · No. 1 · 2025
Diamond Open Access · CC BY 4.0
ISSN: in application

SHORT META-ANALYSIS · Peer-reviewed · Published

Identifying a New Typology of European Health Systems

Poe Hnin Phyu, Mahmood Ahmad, Laiba Khan, Maham Khan, Nijat Rizayev, Manpreet Kour, Touqeer Rana, Andrew Woo & Parichatra Homhuan

Short Meta-Analysis · Cardiology
Published 2025-11-21 · Diamond open access · CC BY 4.0
Article 8 · Cardiology · Published 2025-11-21 · DOI: not assigned

KEY WORDS Health Systems Cluster Analysis Europe Public Health Healthcare Workforce Catastrophic Health Expenditure Machine Learning

Abstract

Traditional health system classifications may not accurately reflect the complex realities of modern European nations. This study takes a data-driven approach to create a new classification. We used WHO data and applied a K-Means clustering algorithm to 52 European countries, focusing on recent figures for doctor density, nurse density, and catastrophic health spending.

The analysis revealed three clear clusters: "High-Resource, Low-Burden" systems (n=14), "Physician-Centric, High-Burden" systems (n=18), and "Lower-Resource" systems (n=20). This classification offers a detailed way to understand current health system structures and to inform policy decisions across Europe.

HOW TO CITE

Poe Hnin Phyu, Mahmood Ahmad, Laiba Khan, Maham Khan, Nijat Rizayev, Manpreet Kour, Touqeer Rana, Andrew Woo & Parichatra Homhuan. Identifying a New Typology of European Health Systems. Synthēsis. 2025;1(1). Article 8. Available at https://synthesis-medicine.org/index.php/journal/article/view/8. Licensed under CC BY 4.0. DOI: not assigned.

Source record. This article was typeset from the journal's published metadata record (OAI-PMH Dublin Core) at synthesis-medicine.org. Title, authors, abstract, keywords, issue and licence are reproduced verbatim from that record; no figures, references, affiliations or identifiers were added beyond what the record provides.

Published in Synthēsis · synthesis-medicine.org