



Global Strategies for Building Public Health: Strategies to Combat Emerging Diseases: A Systematic Review

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ABSTRACT

Introduction: The term refers to illnesses caused by either previously unknown infectious agents or known agents that have spread geographically or developed drug resistance, leading to an increase in prevalence. In recent years, Iran has witnessed a rise in various new infections across multiple regions. Given that these diseases are novel and potentially recurrent, it is essential to identify suspicious cases and understand how to manage patients, the modes of transmission, and the necessary infection control recommendations. Key public health priorities include preparedness, early detection, and timely responses to emerging diseases and outbreaks. This study explored global strategies for enhancing public health and combating emerging diseases.

Search Strategy: In this review article, the search process was performed in the English and Persian scientific databases of PubMed, Scopus, Google Scholar, Magiran, Irandoc, and SID using the main keywords "emerging diseases" and "policymaking" from 2010 to 2024. In the initial search, 270 articles were found, of which 15 were included in the study.

Results: The latest list published by the World Health Organization of significant newly emerging diseases prioritized for development and research includes Congo, Ebola, and Lassa. Two critical diseases caused by the coronavirus are respiratory disease and severe acute respiratory syndrome. Other notable diseases include typhoid fever and valley fever. The causes of emerging and re-emerging diseases include the following: population growth, the rapid increase in international travel, high population density in urban areas lacking adequate environmental improvements, changes in trade practices, and significant financial investments. Additionally, increased human exposure to and contact with disease carriers and reservoirs in nature contribute to the emergence of these diseases. A common factor among all emerging diseases is that human activities often play a crucial role in their occurrence. The most effective strategies for addressing emerging diseases include strengthening the active surveillance system for infectious diseases, enhancing diagnostic abilities to identify pathogenic agents, promoting ongoing antimicrobial susceptibility testing, advocating for the responsible use of antimicrobial drugs within the media community, supporting applied research, and ensuring accurate and timely disease reporting at both national and international levels.

Conclusion and Discussion: While emerging diseases are unpredictable, they can be controlled through effective monitoring, early diagnosis, and a quick response to outbreaks. This necessitates sound policymaking, strategic planning, comprehensive training, adequate support, and responsible actions from both countries and health systems. Additionally, it is crucial to maintain a continuous health system that is flexible and intelligent enough to address any public health event.

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