

Reconceptualizing the Epidemiological Transition: Unmasking the Unseen Disease Burdens in Public Health Paradigms

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Abstract. The epidemiological transition, characterized by shifts from infectious to chronic diseases, has long influenced public health strategies. However, emerging data from global health assessments indicate a resurgence of neglected diseases, exacerbated by socio-economic disparities and climate change. This study employs a mixed-methods approach, integrating quantitative health metrics and qualitative case studies to elucidate the complexities of current disease burdens. We argue for a critical re-evaluation of public health priorities to effectively address these re-emerging threats, suggesting a paradigm shift towards integrating non-communicable disease management within traditional infectious disease frameworks. The findings underscore the necessity for adaptive health policies that address the multifaceted nature of contemporary health challenges. Our conclusions advocate for a holistic public health approach to optimize resource allocation and enhance health outcomes across diverse populations.

Keywords: Epidemiological Transition, Public Health Paradigms, Neglected Diseases, Chronic Illnesses, Global Health Disparities, Mixed-Methods Research, Infectious Diseases, Health Equity, Disease Burden

Introduction

The global health landscape is undergoing a paradigm shift, influenced by various factors including socio-economic changes, environmental challenges, and evolving disease patterns. The traditional epidemiological transition model, which describes the shift from infectious diseases to chronic illnesses as countries develop, is being critically re-evaluated in light of new evidence that illustrates the persistence and resurgence of infectious diseases even in higher-income nations. This resurgence is not merely a relic of past public health failures; rather, it is exacerbated by globalization, climate change, and increasing inequities in health access. As we approach the mid-2020s, the relevance of understanding this dual burden—where both communicable and non-communicable diseases coexist and impact populations—is more essential than ever. The World Health Organization's reports underscore that more than 70% of global deaths are attributable to chronic diseases, yet infectious diseases, including those not seen as endemic, present a significant challenge in various contexts. This paper aims to unpack these complexities by adopting a mixed-methods research design to assess the current state of public health policies and their effectiveness in dealing with these overlapping health issues. We will first analyze statistical data on disease incidence and mortality, followed by a qualitative examination of how healthcare systems are adapting to these challenges. Through this comprehensive approach, we strive to highlight the urgent need for a re-conceptualization of public health strategies that recognize and address the intricate interplay of disease types in the contemporary health ecosystem. The structure of the paper will be as follows: we will begin with an overview of the historical context of the epidemiological transition, followed by a detailed analysis of the data, and conclude with actionable recommendations for policymakers and public health practitioners.

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References

1. Badyin, I., & Khomutets, V. (2025). The effectiveness of different massage techniques in the rehabilitation of patients with low back pain. *Journal of Education, Health and Sport*, 84, 65612-65612.