

Longitudinal Analysis of Health System Resilience to Epidemics: An African Case Study of Egypt, 2004

A, m, i, r, a, E, l, -, S, a, y, e, d, ,, K, a, r, i, m, H, a, s, s, a, n

| Abstract

Background: A significant gap exists in understanding the longitudinal dynamics of health system resilience to epidemics within African contexts. This study addresses that gap by examining the Egyptian health system's

capacity to absorb, adapt, and transform in the face of epidemic pressures during 2004. Purpose and objectives: The purpose was to analyse the determinants of resilience within a single-country African case study across 2004. The objectives were to identify key structural constraints and adaptive responses, and to assess the system's performance over this defined period. Methodology: A longitudinal, mixed-methods design was employed. Quantitative data from a national health facility survey were integrated with qualitative data from semi-structured interviews with health managers and practitioners. All data were collected within the 2004 calendar year. Findings: The findings reveal persistent structural constraints, including fragmented surveillance and resource limitations, which strained the system's absorptive capacity. Concurrently, emergent local innovations in coordination and service delivery demonstrated adaptive potential. The evidence of resilience, however, was uneven across different governorates and health sectors. Conclusion: The study concludes that health system resilience in Egypt during 2004 was contingent and variable. It underscores the necessity for context-specific analytical frameworks that account for both systemic vulnerabilities and local adaptive practices. Recommendations: Policymakers should invest in strengthening core public health capacities and formalising mechanisms for integrating local innovations. Future research must prioritise the development of robust, longitudinal indicators for resilience specific to low-resource settings. Key words: Health system resilience, epidemics, Egypt, Africa, longitudinal study, health systems research Contribution statement: This study provides an empirical, longitudinal analysis of health

system resilience within an African context, offering a detailed assessment of constraints and adaptations during a discrete period of epidemic pressure.
