Resilience of Health Systems in Sri Lanka: A Comprehensive Assessment and Implications for Future Preparedness

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Abstract

Background: The COVID-19 pandemic underscored the critical importance of resilient health systems capable of withstanding and responding to crises. Despite the unprecedented challenges faced globally, Sri Lanka's health system emerged as a success story, maintaining routine healthcare services amidst the pandemic while demonstrating resilience in the face of past crises such as civil war and natural disasters.

Objective: To assess the current level of health system resilience and identify gaps for improvement.

Methods: Using a customized evaluation tool from the World Health Organization, data was collected through literature review, questionnaires, and expert discussions.

Results: The assessment focused on four dimensions: Leadership and Governance, Financing, Resources, and Service Delivery. Results revealed commendable resilience levels across these dimensions, with an overall score of 70%. Critical gaps were identified, including legislative shortcomings, information sharing deficiencies, and disparities in resource distribution.

Conclusion: Despite its achievements, Sri Lanka's health system can further enhance resilience by addressing these gaps and pursuing continuous improvement.

By prioritizing Universal Health Coverage and Sustainable Development Goals, Sri Lanka can solidify its position as a leader in healthcare resilience, ensuring the health and well-being of its population in the face of future challenges.

Keywords: Health System, Resilience, Crisis, Preparedness, Sri Lanka

Introduction

Health system resilience is crucial for ensuring the continuity and effectiveness of healthcare services, particularly in times of hardship. It encompasses not only the ability to withstand sudden shocks but also the capacity to adapt and innovate in the face of ongoing challenges [1]. A resilient health system is characterized by robust leadership and governance structures that facilitate coordinated responses, efficient allocation of resources, and effective decision-making processes [2].

Financial stability and flexibility are essential components, enabling timely investments in preparedness and response measures. Moreover, resilience entails having sufficient human and physical resources, as well as resilient infrastructure, to support uninterrupted service delivery [3]. Building and maintaining health system resilience is an ongoing process that requires continuous resilient health systems are better equipped to protect the health and well-being of individuals and communities, even in the face of unexpected events [3, 5].

The global COVID-19 pandemic has underscored the critical need for resilient health systems capable of withstanding and effectively responding to crises [3, 4]. This article presents a comprehensive assessment of the resilience of the health system in Sri Lanka, exploring its ability to navigate through the challenges posed by the pandemic while maintaining routine healthcare services and addressing gaps highlighted by recent crises, such as civil war and Tsunami [4]. The study aims to identify the current level of health system resilience and associated gaps, using a customized evaluation tool based on the World Health Organization's (WHO) framework [5].

Objective

To assess the current level of health system resilience and identify gaps for improvement.

Methodology

To comprehensively assess the resilience of Sri Lanka's health system, a structured approach was employed, focusing on four critical dimensions integral to a robust healthcare framework: Leadership and Governance, Financing, Resources, and Service Delivery [5].

Leadership and Governance

The dimension of Leadership and Governance was meticulously assessed using a set of 25 questions, each designed to gauge various aspects of leadership effectiveness, decision-making processes, and governance structures. A total of 125 marks were allocated to this dimension, with each question contributing proportionately to the overall score.

Financing

The Financing dimension was evaluated through a targeted set of 16 questions, covering aspects such as budgetary considerations, financial stability, and resource allocation. A total of 80 marks were assigned to this dimension, reflecting the importance of financial resilience in sustaining healthcare services during crises.

Resources

The Resource dimension underwent assessment using a set of 13 questions, designed to explore the adequacy and distribution of resources within the health system. A total of 65 marks were allocated to this dimension, acknowledging the significance of a well-managed and equitably distributed pool of resources for system resilience.

Service Delivery

Service Delivery, as a frontline dimension, was scrutinized through a set of 5 questions, focusing on the adaptability and effectiveness of healthcare service delivery mechanisms. A total of 25 marks were designated to this dimension, emphasizing the pivotal role of service delivery in maintaining essential healthcare services during crises.

Scoring System

A Likert scale with five levels was employed for each question in all dimensions, ranging from highly unsatisfactory to highly satisfactory, allowing for nuanced responses. Marks were allocated based on the degree of satisfaction or alignment with resilience indicators.

Data Collection

The study methodology involved an extensive literature survey, during which an Evaluation Tool provided by the World Health Organization (WHO) was customized by a panel of experts to suit the Sri Lankan context. A convenient sample of medical administrators was selected as study participants and they were administered a structured interviewer questionnaire. Additionally, focal group discussions with experts were conducted to gain deeper insights.

Data Analysis

Quantitative data obtained from the questionnaires were subjected to statistical analysis to determine the resilience levels in each dimension. The Likert scale responses were converted into numerical values, and the scores were aggregated to calculate the overall resilience level for each dimension. Qualitative insights from expert discussions were used to contextualize and enrich the quantitative findings.

The combination of quantitative and qualitative data aimed to capture the intricacies of each dimension, contributing to a robust evaluation of the health system's overall resilience.

Results and discussion

Leadership plays a pivotal role in steering a health system through crises. Sri Lanka's health system demonstrated strong leadership and governance, with a resilience level of 72.8% (91/125). This high score reflects effective decision-making, clear communication, and strategic planning observed during the COVID-19 pandemic. Lessons learned from past crises, such as the civil war, contributed to the establishment of resilient governance structures [4].

Financial resilience is essential for maintaining healthcare services during crises. The financing dimension showcased a resilience level of 62.5% (50/80), indicating a relatively stable financial foundation. However, challenges such as budgetary constraints and disparities in resource allocation were identified. Future efforts should focus on enhancing financial mechanisms to ensure sustained support for the health system.

A resilient health system requires an adequate and well-distributed pool of resources. The resource dimension displayed a resilience level of 70.7% (46/65), reflecting a commendable level of resource management. However, disparities in the geographical distribution of health expenditure and resources were highlighted. Addressing these gaps is crucial for ensuring equitable access to healthcare services across regions.

Service delivery is the frontline of healthcare resilience. The Service Delivery dimension exhibited an impressive resilience level of 80% (20/25), indicating the system's ability to adapt and maintain essential services during crises. Innovative approaches, such as telemedicine and community engagement, played a significant role in ensuring uninterrupted healthcare delivery.

The overall resilience of the Sri Lankan health system was determined to be at a good level, with an average score of 70% (207/295). This positive assessment underscores the system's capacity to face challenges, learn from experiences, and implement effective strategies for crisis response.

Despite the overall resilience, the assessment identified critical gaps in the health system: [8, 9]

1. Legislative Gaps

The study highlighted legislative shortcomings that could hinder the system's adaptability to emerging challenges. Strengthening healthcare-related legislation is crucial to empower the system with legal frameworks that support quick and effective decision-making.

2. Information Sharing

Effective information sharing is vital for coordinated crisis response. The assessment revealed gaps in information sharing mechanisms within the health system. Investing in robust information systems and promoting a culture of data transparency can bridge these gaps.

3. Equitable Geographical Distribution

Disparities in the geographical distribution of health expenditure and resources were identified. To achieve healthcare equity, strategies must be devised to ensure that resources are distributed based on need, addressing regional variations in healthcare demands.

4. Information Management on Public Financial Management

The study highlighted deficiencies in information management related to public financial management. Strengthening financial reporting mechanisms and enhancing transparency in financial processes are critical steps to address these gaps.

Conclusion

In conclusion, Sri Lanka's health system has exhibited commendable resilience, withstanding various crises, including the formidable challenge posed by the COVID-19 pandemic. The identified gaps, while signalling areas for improvement, also serve as opportunities for strategic interventions. Strengthening legislative frameworks, enhancing information systems, addressing geographical disparities, and improving financial management will further solidify Sri Lanka's position in healthcare resilience.

The commitment to continuous improvement and addressing identified gaps aligns with the broader goals of Universal Health Coverage and Sustainable Health Development. By learning from past experiences, leveraging successes, and embracing innovative solutions, Sri Lanka can ensure the health and well-being of its population, setting an example for resilient healthcare systems globally. This study serves as a foundation for ongoing discussions, policy revisions, and collaborative efforts to build a healthcare system that can effectively navigate the uncertainties of the future.

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