Strengthening Health Systems in Conflict: Evidence-Based Policies for Quality Care in Yemen

Ammar Ali Alraimi* and Abhijeet Shelke

Management Science, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India

ABSTRACT

Yemen’s health system has faced formidable obstacles due to the enduring conflict since 2014, resulting in compromised infrastructure, disrupted services, and exacerbated vulnerabilities. This discourse meticulously analyzes the primary health system challenges in Yemen within the framework of the World Health Organization’s six pillars. It subsequently presents evidence-based policy recommendations to enhance Yemen’s health system and ensure the provision of high-quality and equitable care. In terms of service delivery, it suggests augmenting the presence of community health workers, leveraging mobile health technology, rehabilitating facilities, and improving emergency obstetric care. Regarding the health workforce, it advocates for cultivating equitable and high-quality health systems in Yemen assumes paramount importance. Consequently, the development of robust, equitable, and high-quality health systems in Yemen assumes paramount importance. The World Health Organization (WHO) underscores six fundamental pillars for a resilient health system: service delivery, health workforce, health information systems, access to essential medicines, financing, and governance. This necessitates comprehensive health system assessments, effective policy formulation and planning, and sustained investments with a focused emphasis on equity and community engagement. Practical approaches encompass expanding community health worker programs, implementing performance-based financing, harnessing the potential of mobile health technologies, and engaging local stakeholders in health system decision-making.

Keywords: Health Systems, Conflict, Quality Care, Yemen

Introduction

Yemen’s health system grapples with formidable challenges. The enduring conflict since 2014 has inflicted extensive damage on health infrastructure and disrupted vital health services, leaving a mere 51% of health facilities fully operational [1]. This has further exacerbated the fragility of the already strained health system, characterized by inadequate access to healthcare, subpar health outcomes, and glaring health inequities [2]. Notably, Yemen has the highest maternal mortality rate in the Arabian Peninsula, with 365 deaths per 100,000 live births [3]. Consequently, the development of robust, equitable, and high-quality health systems in Yemen assumes paramount importance. The World Health Organization (WHO) underscores six fundamental pillars for a resilient health system: service delivery, health workforce, health information systems, access to essential medicines, financing, and governance [4]. Recent research confirms that progress across all these pillars is indispensable for enhancing health system performance and population health [5]. For instance, enhancing service delivery by bolstering the availability of skilled birth attendants and emergency obstetric care yields significant reductions in maternal mortality [6]. To cultivate quality health systems in Yemen, both during and after the conflict, policymakers and stakeholders must prioritize a combination of short-term humanitarian responses and long-term health system strengthening across the six pillars. This necessitates comprehensive health system assessments, effective policy formulation and planning, and sustained investments with a focused emphasis on equity and community engagement. [7,8]. Practical approaches encompass expanding community health worker programs, implementing performance-based financing, harnessing the potential of mobile health technologies, and engaging local stakeholders in health system decision-making [9-11]. This article meticulously examines Yemen’s profound health system challenges and presents evidence-based policies for cultivating equitable and high-quality health systems in fragile and conflict-affected contexts. It puts forth pragmatic recommendations for fortifying health service delivery, the health workforce, information systems, essential medicines, financing, and governance in Yemen.

Health System Challenges in Yemen

Yemen’s healthcare system faces formidable challenges across all six pillars of the World Health Organization’s healthcare system. These pillars serve as crucial foundations for a strong and resilient healthcare system.

Keywords: Health Systems, Conflict, Quality Care, Yemen

Received: February 24, 2024; Accepted: March 02, 2024; Published: March 11, 2024

The six pillars of the World Health Organization’s healthcare system

**Service Delivery**
It is worth highlighting that a mere 50% of health facilities remain operational, as airstrikes have caused damage or destruction to over 500 facilities [12]. Moreover, there is a shortage or complete absence of vital medical equipment [13]. The conflict has also resulted in disruptions to vaccination programs, leading to a surge in measles cases [14]. Access to primary care and hospitals offering essential services such as emergency obstetric care is severely limited, leaving many Yemenis without the necessary care [15].

**Health Workforce**
It is crucial to emphasize that the healthcare workforce has been reduced by 50% since 2015, with over 50% of physicians and nurses abandoning their posts due to the nonpayment of salaries [16]. Additionally, primary healthcare centers in remote areas frequently lack permanent medical staff, posing challenges to delivering consistent care to surrounding communities [17]. The absence of health workers significantly hampers service delivery.

**Health Information Systems**
Yemen lacks robust health information systems and comprehensive data [18]. The insufficient availability of essential population health data hinders health planning and monitoring efforts [19,20].

**Essential Medicines**
It is important to note that essential medicines are not readily accessible in Yemen, particularly medications for chronic illnesses [21]. Shortages encompass critical medicines. Private pharmacies provide limited access for those who can afford it [21]. Medicine supply chains are hampered by funding shortfalls, port restrictions, and infrastructure damage.

**Health Financing**
Health spending as a percentage of GDP has significantly increased from 0.8% between 2004 and 2015 to an average of 2.9–4.1% [22]. Additionally, government investment in health has experienced a marked rise from 0.8% of GDP to an average of 7.1–12.2% [22]. However, out-of-pocket payments constitute over three-quarters of total health expenditures [15]. The conflict has further exacerbated funding shortfalls, with external aid accounting for one-third of the funds [23]. Nevertheless, reliance on aid poses a threat to sustainability.

**Governance**
It is significant to acknowledge that fragmented governance across Houthi-controlled northern Yemen and the internationally recognized government in the south complicates coordination and coherence in policies [24]. Bureaucracy and top-down management hinder agile decision-making [25]. Recommendations for Enhancing the Health System’s Capacity
Given the multitude of challenges faced by Yemen’s health system, it is imperative to fortify it through evidence-based measures across all pillars of the esteemed World Health Organization.

**Service Delivery**
To enhance access to primary care, it is recommended to expand community health worker programs [26]. Leveraging mobile technology can effectively connect these workers with the broader health system [27]. Priority should be given to the reconstruction of damaged health facilities, ensuring adequate staffing, equipment, and supplies [28]. Furthermore, improving accessibility to emergency obstetric care can be achieved through the utilization of mobile clinics, community midwives, and maternity waiting homes [29].

**Health Workforce**
Facilitating the financing of health worker salaries can be accomplished through voucher programs, payment guarantees, or donor-funded allowances [30]. In low-income countries, alternative payment schemes can significantly impact the performance of health workers, considering that salaries serve as their primary means of remuneration [31]. Task shifting is a viable strategy to expand the roles of community health workers and nurses [32]. Additionally, initiating telemedicine networks can provide remote specialist consultations to underserved areas [33]. Establishing partnerships with universities can help incentivize medical studies and retention [34].

**Health Information Systems**
Strengthening facility reporting can be achieved through simplified forms, phone reporting, and data use feedback [35]. It is strongly recommended to establish a comprehensive national population health survey system [36]. Leveraging mobile phones for community surveys can enhance data collection efforts [37]. Investment in district health information software and training workers in data use are crucial steps toward improving health information systems [38].

**Essential Medicines**
Policy reform is warranted to simplify the selection, procurement, storage, and distribution of essential medicines [39]. Exploring contracting with international agencies for procurement support can prove beneficial [40]. Subsidizing local private-sector drug supplies and supplementing them with quality imports is advisable [41].
Health Financing
Advocacy for increased domestic budget allocation to health is necessary to ensure sustainable financing [42]. Expanding user fee exemptions and implementing health equity funds for the poor are commendable actions [43]. Exploring performance-based financing linked to service quality and access can also be beneficial [44]. Transitioning from short-term humanitarian aid to aligned development assistance is essential for the long-term stability of health financing [45].

Governance
Establishing a robust coordination mechanism between northern and southern health authorities is critical for effective governance [46]. Urgent attention should be given to developing an efficient coordination mechanism between various tiers of the health structure [46]. Engaging professional associations and communities in policymaking is advisable to foster inclusivity and effectiveness [47]. Furthermore, strengthening management capacity at decentralized levels is vital for efficient and responsive governance [48].

By implementing these evidence-based recommendations, Yemen’s health system can strive toward resilience, equity, and excellence, even amidst the formidable challenges it faces.

Conclusion
The Yemeni health system necessitates significant enhancement in all aspects to furnish quality and impartial healthcare. Given the prolonged conflict, it is crucial to implement practical policies for strengthening the health system that can enhance service delivery, workforce availability, information systems, access to indispensable medications, health financing, and governance. While long-range reconstruction will demand consistent resources and political dedication, targeted interventions can achieve gradual enhancements in the populace’s health and well-being. Robust local, national, and international partnerships that concentrate on bolstering the health system will be pivotal in fulfilling the aspiration of delivering quality healthcare to all in Yemen.

Declarations
Funding: None.
Conflict of Interest: The authors declare no conflicts of interest.
Author Contributions: The authors contributed equally to this work
Ethics Approval and Consent to Participate: Not applicable
Availability of Data: Not applicable

References


