

Health system in Iraq: a known problem and deferred reform

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Abstract

The health system in Iraq is a complex framework impacted by historical, political, and socio-economic factors. Over the past few decades, Iraq's healthcare infrastructure has faced significant challenges due to wars, sanctions, and internal strife. These events have resulted in a gradual decline of a once-advanced healthcare system. This review aims to provide an in-depth analysis of Iraq's current health system, identifying prevalent issues and highlighting necessary deferred reforms for improvement. Historically, Iraq's healthcare system was highly regarded in the Middle East before the 1990s. However, the Gulf War in 1991 and subsequent United Nations sanctions led to severe deterioration. The 2003 invasion further exacerbated the situation, resulting in the destruction of facilities, displacement of professionals, and a breakdown in public health services. Currently, Iraq's health system comprises public and private sectors, with the Ministry of Health (MoH) as the primary provider. Despite some rebuilding efforts, challenges like infrastructure deficits, resource shortages, human resource gaps, governance issues, and inequitable access persist. Key recommendations include strengthening infrastructure, enhancing human resources, improving governance, ensuring equitable access, addressing public health challenges, and building resilience. International cooperation, community engagement, and investment in research and innovation are also crucial. These reforms are essential for transforming Iraq's health system and improving health outcomes for its population.

Keywords: Health System, Reform, Case-mix, DRGs, Health Financing, Transformation in Health, Iraq

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This review aims to provide a comprehensive overview of the current state of Iraq's health system, highlight the known problems, and discuss the deferred reforms that are crucial for its improvement.

Historical Context and Current Structure Pre-2003 Era

Before the 1990s, Iraq boasted one of the most advanced healthcare systems in the Middle East. The country had a well-established network of hospitals and clinics, staffed by well-trained healthcare professionals [1]. However, the Gulf War in 1991 and the subsequent United Nations sanctions led to a severe deterioration of the health system. The sanctions, in particular, crippled Iraq's economy, limiting the availability of essential medicines, medical supplies, and the maintenance of healthcare infrastructure [1,2].

Post-2003 Developments

The 2003 invasion of Iraq by the United States and its allies marked a new chapter in the country's history, with significant implications for the healthcare system. The conflict resulted in the destruction of many healthcare facilities, the displacement of healthcare professionals, and a general breakdown in public health services [3]. Post-2003, efforts to rebuild the health system have been hampered by ongoing violence, political instability, and corruption [4].

Current Healthcare Structure

Today, Iraq's health system is a mix of public and private providers. The Ministry of Health (MoH) is the main public sector provider, responsible for managing hospitals, clinics, and health centers across the country [5]. Private healthcare facilities have also proliferated, although access to these is limited to those who can afford to pay for services out of pocket. Additionally, international organizations and non-government organizations (NGOs) play a critical role in providing healthcare services, particularly in conflict-affected areas [6].

Background

The health system in Iraq is a complex tapestry woven with historical, political, and socio-economic threads. Over the past few decades, Iraq has experienced significant turmoil, including wars, sanctions, and internal strife, all of which have profoundly impacted its healthcare infrastructure. Despite these challenges, there have been efforts to reform and improve the health system, although progress has often been slow and sporadic.

Known Problems in the Health System

Infrastructure and Resources

One of the most pressing issues facing Iraq's health system is the dilapidated state of its infrastructure. Many hospitals and clinics are in dire need of repair and modernization. The lack of medical equipment and supplies further exacerbates the situation, making it difficult to provide even basic healthcare services. For instance, there are frequent shortages of essential medicines, and diagnostic equipment such as magnetic resonance image (MRI) machines, computed tomography (CT) scanners and A positron emission tomography (PET) scan are scarce [7].

Human Resources

The health system is also plagued by a shortage of qualified healthcare professionals. Many doctors, nurses, and other healthcare workers have left the country due to security concerns, low salaries, and poor working conditions. This brain drain has left a significant gap in the health workforce, leading to increased workloads for the remaining staff and impacting the quality of care [8].

Governance and Corruption

Governance issues and corruption are significant barriers to the effective functioning of the health system. Corruption is pervasive, affecting procurement processes, allocation of resources, and the delivery of services. This has led to inefficiencies and a lack of trust in the health system among the population. Additionally, the health sector suffers from weak regulatory frameworks and inadequate oversight, further complicating efforts to improve service delivery [9].

Access and Equity

Access to healthcare services is highly uneven across Iraq. Rural and conflict-affected areas are particularly underserved, with limited availability of health facilities and healthcare professionals. This disparity is also evident in the distribution of resources, with urban centers receiving the bulk of investment while rural areas are neglected. Furthermore, marginalized groups, including internally displaced persons (IDPs) and refugees, face significant barriers in accessing healthcare services [10].

Public Health Challenges

Iraq faces several public health challenges, including communicable diseases, non-communicable diseases (NCDs), drug abuse and mental health issues [11,12,13]. The breakdown of public health infrastructure has led to the re-emergence of diseases such as cholera and measles [14,15]. At the same time, lifestyle changes and urbanization have contributed to a rise in NCDs like diabetes, hypertension, and cardiovascular diseases. Mental health is another critical area, with high rates of trauma and psychological disorders resulting from prolonged conflict and instability [16].

Health system reform in Iraq: a strategic path forward

An overview

Iraq's health system has faced immense challenges over the past few decades, with prolonged conflict, political instability, and economic difficulties contributing to a significant decline in

healthcare quality and accessibility. However, there is a pressing need and a unique opportunity to reform and rebuild the health system to better serve the Iraqi population. This strategic plan outlines a comprehensive approach to health system reform in Iraq over the next decade, divided into three key phases: reviewing the current health system, capacity building, and introducing universal health coverage (UHC).

1. Reviewing the Current Health System (2-3 Years)

Objectives and Rationale

The initial phase of reform involves a thorough review and assessment of the current health system. This review is crucial for identifying existing gaps, inefficiencies, and areas requiring immediate attention. The primary objective is to build a solid foundation for future strategies under the umbrella of "Transformation in Health" [17].

Steps and Actions

1.1. Comprehensive Health System Assessment

Conducting a detailed assessment of the health system is the first step. This includes evaluating healthcare infrastructure, human resources, governance structures, service delivery mechanisms, and health outcomes [18].

Data collection will involve:

- Surveys and interviews with healthcare providers and patients.
- Analysis of existing health records and databases.
- Field visits to healthcare facilities across urban and rural areas.

1.2. Stakeholder Engagement

Engaging stakeholders, including government officials, healthcare professionals, patients, NGOs, and international partners, is essential. Workshops and forums will be organized to gather insights, discuss challenges, and build consensus on priority areas for reform [19].

1.3. Identification of Key Issues

Based on the assessment, key issues will be identified. These might include infrastructure deficiencies, shortages of medical supplies, inadequate training for healthcare workers, governance and corruption problems, and inequitable access to services [5].

1.4. Development of Strategic Framework

A strategic framework will be developed to guide the transformation process. This framework will outline the vision, goals, and objectives of the health system reform. It will also define the roles and responsibilities of various stakeholders and set clear timelines and milestones [20].

Expected Outcomes

- A detailed report on the current state of the health system.
- Identification of priority areas for intervention.
- A strategic framework for health system transformation.
- Increased stakeholder engagement and collaboration.

2. Capacity Building (3-4 Years)

Objectives and Rationale

Building capacity is a critical phase aimed at preparing the health system to adopt advanced health management and financing

methods [21]. This involves enhancing the skills and capabilities of healthcare professionals and implementing standardized classification systems such as the International Classification of Diseases (ICD), Diagnosis-Related Groups (DRGs), and casemix grouping programs [22].

Steps and Actions

2.1. Training and Education

A comprehensive training program will be launched to educate healthcare professionals on patient classification systems and their application in clinical practice and health management [21, 23].

This will include:

- Workshops and seminars on ICD, DRGs, and casemix grouping.
- Online courses and certification programs.
- Practical training sessions in hospitals and clinics.

2.2. Infrastructure and Technology Upgrades

Upgrading healthcare infrastructure and technology is essential for implementing classification systems.

This includes:

- Installing and maintaining electronic health records (EHR) systems.
- Ensuring access to updated medical software and tools.
- Establishing data management and analysis capabilities.

2.3. Pilot Programs

Pilot programs will be conducted in select hospitals to test the implementation of classification systems. These programs will help identify challenges and best practices, which can be scaled up across the country.

The pilot phase will include:

- Selection of pilot sites.
- Training and support for pilot site staff.
- Monitoring and evaluation of pilot program outcomes.

2.4. Integration with Health Financing

Integrating classification systems with health financing methods is a crucial step [22].

This involves:

- Developing a framework for using DRGs and casemix groupings in budgeting and funding allocations.
- Training healthcare administrators and policymakers on the financial implications and benefits.
- Establishing monitoring and evaluation mechanisms to ensure proper implementation and adjustment.

Expected Outcomes

- Enhanced capacity of healthcare professionals to use patient classification systems.
- Upgraded healthcare infrastructure and technology.
- Successful implementation of pilot programs.
- Integrated health financing methods utilizing DRGs and casemix groupings.

3. Introducing Universal Health Coverage (2-3 Years) Objectives and Rationale

The final phase focuses on introducing Universal Health Coverage (UHC) to ensure that all Iraqis have access to quality healthcare services without suffering financial hardship. UHC aims to provide equitable access to healthcare, improve health outcomes, and enhance financial protection for the population [24].

Steps and Actions

3.1. Policy Development

Developing policies and frameworks to support UHC is the first step.

This involves:

- Formulating policies that define the scope and benefits of UHC.
- Establishing legal and regulatory frameworks to support UHC implementation.
- Ensuring alignment with international standards and best practices.

3.2. Financing Mechanisms

Sustainable financing is crucial for UHC [21,22].

This includes:

- Identifying and mobilizing domestic and international funding sources.
- Developing health insurance schemes to pool risks and resources.
- Implementing cost-sharing mechanisms that ensure affordability while preventing catastrophic health expenditures.

3.3. Strengthening Primary Health Care

Primary healthcare (PHC) serves as the foundation of UHC [5].

Strengthening PHC involves:

- Expanding and improving primary health centers and services.
- Training and deploying community health workers to enhance outreach and accessibility.
- Integrating preventive, promotive, curative, and rehabilitative services within PHC.

3.4. Monitoring and Evaluation

Establishing robust monitoring and evaluation systems to track progress and ensure accountability is essential [18,25].

This includes:

- Developing indicators and benchmarks to measure UHC progress.
- Conducting regular assessments and audits of UHC implementation.
- Engaging communities and stakeholders in monitoring processes.

Expected Outcomes

- Established policies and frameworks supporting UHC.
- Sustainable and equitable health financing mechanisms.
- Strengthened primary health care system.
- Improved access to quality healthcare services for all Iraqis.
- Enhanced financial protection and reduced out-of-pocket expenses.

Deferred Reforms and Recommendations

Strengthening Infrastructure

Rebuilding and modernizing Iraq's healthcare infrastructure is a fundamental step towards improving the health system. This requires substantial investment in renovating existing facilities and constructing new ones, particularly in underserved areas. Ensuring the availability of essential medical equipment and supplies is also crucial. International aid and partnerships can play a pivotal role in mobilizing resources for these efforts.

Enhancing Human Resources

Addressing the shortage of healthcare professionals involves both short-term and long-term strategies. In the short term, incentives such as better salaries, improved working conditions, and security guarantees can help retain existing staff and attract those who have left the country. In the long term, expanding medical education and training programs is essential to build a robust health workforce. Additionally, providing opportunities for continuous professional development can enhance the skills and competencies of healthcare workers.

Improving Governance and Combating Corruption

Tackling corruption and improving governance is vital for the efficient functioning of the health system. This requires the implementation of transparent procurement processes, robust regulatory frameworks, and effective oversight mechanisms. Strengthening institutions and promoting accountability can help reduce corruption and ensure that resources are used effectively. Encouraging community participation and fostering partnerships with civil society organizations can also enhance governance and accountability.

Ensuring Equitable Access

Improving access to healthcare services for all segments of the population is a critical goal. This involves expanding healthcare infrastructure in rural and conflict-affected areas and ensuring the equitable distribution of resources. Mobile health clinics and telemedicine can be effective in reaching remote and underserved populations. Additionally, integrating health services for marginalized groups, such as IDPs and refugees, into the national health system can help address their specific needs.

Addressing Public Health Challenges

Strengthening public health infrastructure and programs is essential to address the diverse health challenges facing Iraq. This includes enhancing disease surveillance and response systems to prevent and control outbreaks of communicable diseases. Promoting healthy lifestyles and implementing prevention programs can help combat the rising burden of NCDs. Mental health services need to be integrated into primary healthcare, with a focus on providing psychosocial support and trauma counseling.

Building Resilience and Preparedness

Given Iraq's history of conflict and instability, building a resilient health system that can withstand shocks is crucial. This involves developing emergency preparedness and response plans, strengthening health information systems, and ensuring the availability of essential medicines and supplies during crises.

Enhancing the capacity of healthcare facilities and workers to respond to emergencies is also important.

International Cooperation and Support

International cooperation and support are vital for the successful reform of Iraq's health system. This includes financial aid, technical assistance, and capacity-building support from international organizations, donor countries, and NGOs. Collaborative efforts can help mobilize resources, share best practices, and provide expertise in various areas of healthcare. However, it is important that international support is aligned with national priorities and strategies to ensure sustainability and effectiveness.

Community Engagement and Health Education

Engaging communities in health promotion and education is essential for improving health outcomes. Community health workers can play a key role in raising awareness about health issues, promoting preventive measures, and facilitating access to healthcare services. Health education campaigns can address misconceptions and promote healthy behaviors. Empowering communities to take an active role in their health can lead to more sustainable and effective health interventions.

Research and Innovation

Investing in health research and innovation is critical for the continuous improvement of the health system. Research can provide valuable insights into the health needs and challenges of the population, inform policy decisions, and guide the development of effective interventions. Encouraging innovation in healthcare delivery, such as the use of digital health technologies, can enhance the efficiency and accessibility of services.

Conclusion

Reforming Iraq's health system is a complex but achievable goal that requires a phased and strategic approach. By reviewing the current health system, building capacity, and introducing universal health coverage, Iraq can create a resilient and equitable health system that meets the needs of its population. The success of these reforms hinges on the commitment and collaboration of all stakeholders, including the government, healthcare professionals, international partners, and the community. Through sustained efforts and strategic investments, Iraq can pave the way for a healthier and more prosperous future for all its citizens.

Abbreviation

NGOs: Non-Government Organizations; UHC: Universal Health Coverage; NCDs: Non-Communicable Diseases; WHO: World Health Organization; ICD: International Classification of Diseases; DRGs: Diagnosis-Related Groups; IDPs: Internally Displaced Persons; MRI: Magnetic Resonance Image; CT: Computed Tomography; PET: Positron Emission Tomography

Declaration

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Availability of data and materials

Data will be available by emailing saadalezzi@uodiyala.edu.iq

Authors' contributions

Saad Ahmed Ali Jadoo (SAAJ) conceived and designed the study, analyzed and interpreted the data; drafted the manuscript; and revised the manuscript. SAAJ read and approved the final manuscript.

Ethics approval and consent to participate

The author has conducted the research following the declaration of Helsinki. However, review article needs no ethical committee approval.

Consent for publication

Not applicable

Competing interest

The authors declare that they have no competing interests.

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