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Editorial

Life Expectancy in Iraq (2000–2022): A Trigger to the Revamp Health System and Public Health Policies

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Abstract:

Life expectancy at birth is one of the most critical indicators of a population's health, reflecting the cumulative effects of healthcare access, lifestyle, socioeconomic factors, and public health strategies (1). Between 2000 and 2022, life expectancy trends in Iraq were shaped by political instability, conflicts, economic sanctions, and evolving risk factors such as lifestyle-related diseases, environmental hazards, and fragmented health services. This article explores these trends, focuses on statistical data and regional comparisons, and recommends actions to address Iraq's public health challenges.

Keywords: Health Services; Iraq; Life Expectancy; Public Health; Risk Factors.

Introduction

Over two decades, between 2000 and 2022, Iraq's life expectancy reported a modest increase from 66.8 to 71.3 years for a population of 40 million (2). However, Healthy Life Expectancy (HALE)—which accounts for the years lived in good health—provides a more nuanced picture of the quality of life and the disease burden (2). In Iraq, HALE remains significantly lower than overall life expectancy. In 2021, HALE was estimated at 60.2 years, indicating that Iraqis, on average, spend an estimated 11.1 years of their lives in poor health due to non-communicable diseases (NCDs), injuries, and the aftermath of conflict (2,3). This disparity highlights the pressing need for targeted health interventions to address preventable diseases, risk factors, and inequities in healthcare access.

Life Expectancy (LE) and HALE Trends in Iraq:
When we look at the data from 2000–2006, LE decreased from 66.8 to 63.6 67.5, and HALE decreased from 59.4 to 57.71, reflecting a conflict and stagnation status (2, 3). During this period, the gap between LE and HALE stood at over 10 years, driven by high rates of infectious diseases, malnutrition, and injuries caused by conflict. Poor water quality and inadequate healthcare access further exacerbated the burden of disease (4).
Between 2006–2010 the gap continued to reflect the profound political, social, and economic instability in Iraq, a country with a population of less than 30 million at that time. In 2010, LE was 67.1 years, and HALE was 60 years (3). The prolonged Iraq conflict increased the burden of physical and mental health issues, including post-traumatic stress disorder (PTSD). Communicable diseases such as Modest recovery was reported between *2011 and*

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cholera outbreaks and a lack of chronic disease management widened the gap between life expectancy and HALE.
2023, but health gaps persisted. LE was 71.3 years, and HALE was 60.2 years (2022). The post-2011 stabilisation brought improvements in healthcare delivery and reductions in infant and maternal mortality despite ISIS atrocities in western, northern, and central Iraq in 2014. However, the burden of NCDs and the long-term impacts of conflict left the HALE gap unchanged, reflecting ongoing challenges in quality of life despite extended longevity.

Key Determinants of HALE in Iraq:
To understand the causes of such disparities, looking at the key determinants of health (and HALE) may provide some clues. The key determinants of health include socioeconomic status, environment, health behaviours, access to healthcare, and genetic factors (5). Hence, NCDs are the primary contributors to the gap between LE and HALE. In 2021, NCDs in Iraq accounted for 62.3% of total deaths and 76.6% of years lived with disability (YLDs). Cardiovascular diseases accounted for 37.6% of total deaths and 17.9% of disability-adjusted life years (DALYs), with hypertension and diabetes poorly controlled (3). These numbers show the failure of primary care services and the fragmentation of health services. With limited access to screening and early treatment, lung cancer, breast cancer, prostate cancer, and colorectal cancers dominate the map of cancer prevalence. A rising number of cases of arthritis and chronic back pain contribute to functional impairments, especially in older adults.
Many risk factors, from behavioural to environmental, are prominent in Iraq and on the rise, reflecting a profound lack and failure of public

health strategies and actions. In 2021, the leading causes of DALYs in Iraq were high blood pressure, high fasting plasma glucose, high body mass index, and ambient particulate matter (3).

Overweight and obesity rates soared from 24.5% in 2000 to 38.2% in 2021, increasing the prevalence of diabetes, joint disorders, and cardiovascular diseases. Among women in 2021, obesity rates are exceptionally high at 39%, compared to 37% in men. Direct and indirect smoking contributes significantly to Iraq's overall cancer rates and chronic obstructive pulmonary disease (COPD) burden. Male smoking prevalence rose to 36.3% in 2021, while the adoption of smoking and vaping among younger populations poses a growing public health concern. Mental health disorders are worth specific attention in Iraq. The prevalence of PTSD, depression, and anxiety disorders remains high, particularly among conflict-affected populations. A severe lack of mental health services and stigma surrounding mental illness contribute to years of poor mental health (6).

When we look at environmental risks and occupational hazards, urban centres like Baghdad and Basra experience dangerously high levels of air pollution, contributing to respiratory diseases and cardiovascular conditions. The problem of reliable and clean water sources across Iraq is well documented and a source of major current and future problems. Scarcity and neglect lead to contaminated water sources, causing recurrent diarrheal diseases, particularly among children, impacting HALE, especially in rural regions. Furthermore, unsafe working conditions, particularly in industries like construction and oil production, contribute to a significant burden of occupational hazards, injuries and disabilities.

Regional Comparisons: Life Expectancy and HALE:
To understand fully the impact of wars and social and economic instability affecting Iraq, we have to look at neighbouring Arab countries. Jordan, with a population of less than seven million in 2021, has an LE of 74.3 years and a HALE of 65.1 years. Jordan's narrower gap between life expectancy and HALE (9.2 years) reflects a stronger public health system, and early disease detection, although they need more effective management of chronic conditions. Saudi Arabia (2021), with a LE of 76.9 years and a HALE of 63.1 years (a 13-year gap), reflects that investments are needed in preventive healthcare, coupled with lifestyle interventions targeting obesity and diabetes, that will result in a smaller HALE gap (3). Similarly, in the UAE, LE has improved to 78.3 (2021) with a HALE gap of 11 years, which is high considering the wide availability of screening programmes and preventative health models, a surprising result that reflects the complex needs of its diverse population.

Additionally, Syria's health outcomes have been similarly affected by conflict, with a wide HALE gap of 11.2 years (LE 72.1 years and HALE 60.9) (3). Despite this, strong local health networks in some regions have mitigated preventable diseases.

What should Iraq do?
Careful planning in addressing these challenges requires extensive real-time data and careful analysis. To do so, we need expertise that may not be available in the country due to the wars, conflicts, and brain drain. Building the leadership and technical capacity of the health system in Iraq is a mandatory first step. The second step is developing a clear and costed plan for the 'health of the nation'. Such a public health strategy should also address workforce needs at all levels and govern the work of human health resources. To achieve the UN SDG target of Universal Health Coverage (UHC), primary care through community-based family medicine is the only road to comprehensive services for all (100% registration and gatekeeping functions). The duality of health system provision must be addressed. Turkey successfully separated the duality of work while strengthening the integration of health service provision based on prevention (7). Professionals and healthcare providers must be regulated and periodically assessed independently. This will strengthen health system governance, which is currently lacking. Such measures will enhance the health infrastructure, ensuring better access and readiness to respond to local and national emergencies. Digital health, including Electronic Health Records (EHRs), comprehensive data management, and utilisation of Artificial Intelligence (AI) and other solutions with an algorithmovigilant approach within agile frameworks. This will help address all aspects of health, especially in NCDs, environmental risks, doctor-patient relationships (8) and improving universal access to physical and mental health services for all. Promoting healthy lifestyles (physical activity, nutrition, restorative sleep, mental health, interacting with nature, social relationships, and avoidance of addictive substances) is a priority for all highly performing health systems around the globe. Holistic approaches are welcome through a combination of wearable health devices, AI Public Health Surveillance, and country-wide Genomics programs to create optimal and bespoke life plans. Better health will ultimately reduce unit costs in tackling ill health and deviation from optimality (9).

Conclusion
While Iraq and other Arab countries have improved life expectancy, the persistent gap with HALE underscores the urgent need to address preventable diseases, risk factors, and systemic inequities in healthcare delivery. A holistic approach that combines strengthened healthcare infrastructure, robust public health policies, workforce

development, and targeted interventions for NCDs and mental health will improve life expectancy and quality of life. By learning from regional successes, leveraging international support, and fostering collaboration across government and civil society, Iraq can accelerate progress and ensure a healthier, more resilient population for the future.

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