



## Understanding Malnutrition in Iraqi Children: Key Insights on Prevalence, Causes, and Solutions

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### *Dear Editor-in-Chief,*

The prevalence of malnutrition among children aged 0-6 years in Iraq is a significant public health concern, with various studies highlighting different aspects of this issue (1). The prevalence rates vary across regions and are influenced by socio-economic and environmental factors (2). In Baghdad, the prevalence of malnutrition among preschool children was found to be 18.2%, with environmental factors such as unstable security situations playing a significant role (3). A national survey indicated that 27% of children under five in Iraq suffer from chronic malnutrition, despite extensive food aid efforts (4).

Recent data indicates that Iraq is making significant strides in addressing malnutrition. The prevalence of stunting among children under five years is reported at 12.6%, which is notably lower than the regional average of 21.8% (5). Additionally, the prevalence of wasting has decreased to 3%, also below the regional average (6). However, challenges persist, particularly in southern Iraq, where stunting affects 21% of children and wasting is reported at 10.8% (7). At present, malnutrition among children in Iraq remains a significant public health concern, shaped by socio-economic, environmental, and political factors (8). The following presents a brief analysis based on the latest data:

**Key Words:** Children, Iraq, Malnutrition, Prevalence.

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## 1. Prevalence Rates and Trends

### 1-1. Chronic Malnutrition

- **Overall Prevalence:** Nearly 30% of Iraqi children suffer from malnutrition, with one in eight experiencing significant nutritional challenges before their fifth birthday due to inadequate nutrition and unhealthy environments (9, 10).
- **Chronic Malnutrition:** A national survey revealed that 27% of children under five suffer from chronic malnutrition, despite ongoing food aid efforts (11).

### 1-2. Stunting (Low Height for Age)

- **National Trends:** The prevalence of stunting in Iraq has significantly declined from 28.4% in 2000 to 12.6% in 2022, which is notably lower than the regional average of 21.8% (10, 12).
- **Regional Disparities:** Stunting rates demonstrate considerable variation across different regions of Iraq. For example, the Halabja governorate reports a relatively low stunting prevalence of 7.9% among preschool children (3), while some southern regions experience higher rates, highlighting the significant regional nutritional inequalities (13, 14).

### 1-3. Wasting (Low Weight for Height)

- **National Progress:** The prevalence of wasting in Iraq has decreased from 6.6% in 2000 to 3% in 2022, which is significantly lower than the regional average of 8.9% (12, 15).
- **Localized Challenges:** Despite national progress, some regions, particularly southern Iraq, continue to report higher wasting rates at 10.8%, indicating persistent localized nutritional challenges (16, 17).

### 1-4. Underweight (Low Weight for Age)

- **Underweight Status:** The prevalence of underweight children in Iraq is approximately 14.3%, with severe cases of wasting and stunting recorded at 1.3% and 5.2%, respectively (5, 18).

## 2. Regional Disparities

- **Baghdad:** The malnutrition rate among preschool children in Baghdad is reported at 18.2%, heavily influenced by environmental instability and challenging socio-economic conditions (16, 19).
- **Southern Governorates:** While specific data on a 60% malnutrition rate in hospital-treated children could not be verified, southern regions continue to face significant nutritional challenges. Factors such as poverty, infrastructure limitations, and historical conflict contribute to higher malnutrition risks (20).
- **Halabja Governorate:** Halabja governorate demonstrates notable improvements in child nutrition, with stunting rates reported at 7.9% - significantly lower than national and regional averages (21). This highlights the substantial regional variations in nutritional outcomes across Iraq.

## 3. Contributing Factors

### 3-1. Socio-Economic Challenges:

- **Poverty and Healthcare Access:** Poverty, limited healthcare infrastructure, and poor sanitation remain significant contributors to malnutrition in Iraq. These systemic challenges disproportionately impact children's nutritional status and overall health outcomes (12, 22).
- **Water Access:** Approximately 25% of Iraqi children lack consistent access to safe drinking water, significantly increasing their vulnerability to

malnutrition and related health complications (23).

- **Maternal Education and Nutrition:** Research in regions like Kalar demonstrates a strong correlation between maternal education and child nutritional status. Studies indicate that children of less educated mothers experience higher rates of stunting, highlighting the critical role of maternal knowledge in child nutrition (24).

### **3-2. Inadequate Breastfeeding Practices:**

- **Exclusive Breastfeeding Rates:** In Iraq, only 25.8% of infants are exclusively breastfed during the first six months, indicating significant challenges in promoting optimal infant feeding practices (15).
- **Regional Comparative Data:** A study in Erbil city found the prevalence of exclusive breastfeeding at 26.5%, closely mirroring the national average (25).

### **3-3. Micronutrient Deficiencies:**

- **Prevalence of Deficiencies:** Micronutrient deficiencies in Iraq remain a significant public health challenge, with notable prevalence of vitamin A deficiency (15% in children 12–59 months) and inadequate iodine intake (median urinary iodine 84 µg/L in school children). These nutritional gaps significantly impact children's health, increasing their susceptibility to infections and compromising overall developmental outcomes (26, 27).
- **Iron Deficiency Anemia:** Iron deficiency anemia (IDA) is a critical nutritional problem in Iraq, reflecting global trends of micronutrient malnutrition. Over one-third of the population in the Middle East region experiences iron deficiency, with children and women of reproductive age being most vulnerable (16).

## **4. Geopolitical Instability**

- **Impact of Ongoing Conflict:** The prolonged conflict since 2003 has profoundly disrupted Iraq's healthcare systems and food security infrastructure, with rural areas experiencing the most severe consequences. Multidimensional poverty affects approximately 60.6% of children, creating significant nutritional vulnerabilities (28, 29).
- **Healthcare and Food Security Challenges:** Ongoing geopolitical instability has severely compromised access to essential services, with many families struggling to secure adequate nutrition and healthcare. The deteriorating infrastructure has created systemic barriers to basic health and nutritional needs (30, 31).
- **Rural Regions and Food Insecurity:** In rural areas, the intersection of armed conflict and persistent poverty has generated critical malnutrition risks. Families face substantial challenges in accessing safe water and nutritionally adequate food, further exacerbating child health vulnerabilities (32).

## **5. Climate Change and Water Scarcity:**

- **Severe Water Scarcity:** Central and southern Iraq are experiencing critical water challenges, with significant portions of the population facing severe water scarcity. By 2025, the country is expected to reach a water "scarcity level" of 4.6 out of 5, with substantial environmental and health implications (33).
- **Impact of Drought:** Climate projections indicate increasing drought severity in Iraq. Severe three-year droughts are now expected to occur at least once every decade, with significant portions of the country potentially facing total drought conditions along the Euphrates River by 2025 (34, 35).

- **Health and Environmental Risks:** Water scarcity poses profound health and nutritional risks. In 2023, over 73,272 people were displaced due to water shortages, high salinity, and poor water quality. The country is experiencing a staggering loss of 8-12 million cubic meters of surface water annually, threatening both human health and agricultural sustainability (35, 36).

## 6. Health System Challenges

- **Gaps in Child Health Services:** The HeRAMS Iraq Baseline Report (2023) reveals significant challenges in child health service delivery. Screening for acute malnutrition remains insufficient at community levels, with limited growth monitoring programs available at primary care facilities (37).
- **Uneven Distribution of Health Services:** Health services in Iraq demonstrate substantial geographical disparities. Rural areas experience more significant barriers to accessing essential nutrition services, disproportionately impacting vulnerable children's nutritional status (38, 39).

## CONCLUSION

Iraq has made significant progress in reducing stunting and wasting rates over recent decades. However, chronic malnutrition remains a critical public health challenge driven by complex, interconnected factors including regional disparities, inadequate breastfeeding practices, micronutrient deficiencies, and persistent socio-economic challenges. Addressing the complex challenges of child malnutrition requires a comprehensive, multi-dimensional approach focusing on several critical intervention areas:

- **Healthcare System Strengthening:** Develop comprehensive strategies to ensure equitable nutrition service access

across all governorates, with a focus on rural and marginalized regions (40, 41).

- **Maternal Education and Nutrition:** Implement targeted programs to enhance maternal nutrition knowledge and promote optimal breastfeeding practices, directly improving infant and child health outcomes (24).
- **Targeted Regional Interventions:** Design geographically-specific nutrition interventions that address unique regional malnutrition challenges and underlying socio-economic factors (42).
- **Climate Resilience and Water Management:** Develop sustainable water management strategies and climate adaptation programs to mitigate environmental risks affecting child nutrition (43).

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