The National Nutrition Strategy

Iraq

2012-2021
Acknowledgments

This document was developed in partnership between the Ministry of Health (MoH), led by the Nutrition Research Institute (NRI) and other line Ministries with the support of the World Health Organization (WHO), United Nations Children’s Fund (UNICEF) and other agencies involved in the nutrition sector.

Thanks are extended to all distinguished members of the National Food and Nutrition committee who adopted this strategy.

Acknowledgement also goes to Dr. Ayoub Al-Jawaldeh, WHO regional nutrition advisor for his valuable guidance and role in facilitating the work.

Deep gratitude goes to WHO-Iraq office for their continuous sincere efforts in providing full support throughout the process.

The Ministry of Health wishes also to express sincere appreciation for the support provided by UNICEF-Iraq office as part of the joint programme of cooperation between the Ministry of Health and UNICEF.

©2011-2012

Ministry of Health

Public Health Directorate

Nutrition Research Institute
**List of Acronyms**

BFHI  Baby Friendly Hospitals Initiatives
DPAS  Diet and Physical Activity Strategy
FAO   Food and Agriculture Organization
MoA   Ministry of Agriculture
MoE   Ministry of Education
MoF   Ministry of Finance
MoH   Ministry of Health
MoHE  Ministry of Higher Education
MoI   Ministry of Industry
MoLSA Ministry of Labour and Social Affairs
MoM   Ministry of Municipality
MoP   Ministry of Planning
MoT   Ministry of Trade
NGOs  Non-Governmental Organizations
NRI   Nutrition Research Institute
PDS   Public Distribution System
PHCCs Primary Health Care Centres
UNICEF United Nations Children’s Fund
WFP   World Food Programme
WHO   World Health Organization
## Contents

Acknowledgments .................................................................................................................. 1  
List of Acronyms .................................................................................................................. 2  
Contents .................................................................................................................................. 3  
Executive Summary ................................................................................................................ 4  
Introduction ............................................................................................................................ 5  
Situation Analysis .................................................................................................................... 7  
Methodology .......................................................................................................................... 10  
Goal ........................................................................................................................................ 11  
Objectives ............................................................................................................................. 11  
Strategic interventions and activities ...................................................................................... 14  
Implementation mechanism 2011-2012 .............................................................................. 22  
Monitoring, Evaluation and Nutritional Surveillance .............................................................. 23  
Coordination mechanisms and resource mobilization ............................................................ 24  
Recommendations .................................................................................................................. 25  
Annexes ................................................................................................................................. 26  
References .............................................................................................................................. 31
Executive Summary

Prior to 1990, Iraq was ranked among the group of middle-income countries. Malnutrition was virtually not seen, as households had easy and affordable access to a balanced diet. Health care services were guaranteed by an extensive network of well-equipped, well-supplied and well-staffed health facilities. Since the 1991 war, damaged infrastructure, food shortages, poor environmental sanitation and non-functioning social and economic sectors have resulted in the deterioration of the overall health conditions of the population.

The nutritional situation in Iraq revealed moderate levels of malnutrition, emerging overweight, obesity and widespread micronutrient deficiencies among certain population subgroups. In order to combat iron deficiency anaemia and folate deficiency, a wheat fortification programme was introduced in August 2006. Since the 1990s, vitamin A supplements became available at primary health care centres and a salt iodization programme has been put in place.

The National Nutrition Strategy in Iraq for 2012-2021 was developed by the Ministry of Health, the Nutrition Research Institute with the support of the World Health Organization (WHO) and the United Nations Children’s Fund (UNICEF) in collaboration with different partners in the line ministries. This strategy document serves as the point of reference in providing a sound foundation for the planning, organization and management of the overall sectors involved in nutrition.

The overall purpose of the strategy is to define a framework through which available technical, human, and financial resources may be mobilized in order to ensure the health and nutrition status of the Iraqi population is significantly improved.

The document addresses a series of nutrition outcomes, indicators and required activities at various areas and levels, organized into a framework of plan of action, and outlined the monitoring mechanism and inter-sectoral collaboration.
Introduction

Iraq covers a geographic area of 435,052 km. It is bordered by Turkey in the North; Iran in the East; Syria, Jordan and Saudi Arabia in the West; and Kuwait and Saudi Arabia and the Gulf in the South. Iraq is comprised of four major physiographic regions: mountain (21% of total), alluvial plain (30%), desert plateau (39%) and the upper plains/foot-hills (10%). Climatic variation ranges from cool to cold winters, and hot to extremely hot, dry summers. Regional differences are such that Baghdad is fairly dry; the South is very humid; the North is cool all year round, with very cold winters. Of the total land area of Iraq, only 25% is arable. The rainfall pattern is one of great irregularity and ranges from under 100mm to about 1,000mm/year. The main administrative structure of Iraq country is 18 governorates and each is divided into districts and sub districts. The population of Iraq is estimated to be 29.6 million [July 2007]. The average population density is estimated at 61/km2, ranging from 9/km2 in Anbar governorate in the western desert to more than 1,490/km2 in Baghdad governorate. While average population growth before the sanctions was estimated at 3.6 percent, this rate has been greatly reduced by emigration, severe economic hardship and lower fertility rate, reaching a low of 2.76 percent in 2003 (1).

Nutrition by its nature is a cross-cutting issue where many sectors are involved in planning and implementation. Improved nutrition should not be seen as a single sector activity but on the contrary it should be an important objective of all health and development programmes activities. Malnutrition manifests itself at individual levels, but its causes may be found at many levels from household and community to the national or international levels. Mothers and children are the primary victims of malnutrition because of the great magnitude of malnutrition and its impact on children and maternal survival, where malnutrition and death of children and women are the results of a long sequence of interlinked events (2). Food intake is only one contributing factor to malnutrition; the immediate causes of malnutrition relate to food intake and infectious diseases, while the underlying causes include: household food security, access to health services and the healthy environment, and factors related to the social and care environment (1).

Health, nutrition and population policy play a pivotal role in economic and human development and in poverty alleviation. According to the World Bank, improved economic growth has enabled improvements in health outcomes. Nutrition will remain a key element in ensuring security: adequate food is literally vital in keeping people alive as a basic need and human right; however, evidence is increasingly showing that increased wealth does not automatically lead to alleviation of hunger and child undernutrition, or to the reduction of micronutrient deficiencies. Undernutrition coexists with high rates of overweight, obesity, diabetes, cardiovascular diseases and some types of cancer (3). Two principles guided the development of the strategy; it should be
grounded on the best available scientific and epidemiological evidence, and it should be as participatory as possible (4).

For Iraq, though a high committee for food and nutrition was established since the end of the 1970s, no national nutrition strategy was available. Instead, a number of nutrition policies and action plans were adopted, in addition to the Public Health Law No. 89 issued in 1981 that underlined the responsibility of the Ministry of Health in drawing the nutritional policies in collaboration with stakeholder ministries.
Situation Analysis

The problems of malnutrition began to appear in Iraq in the early nineties as a result of years of socio-economic slowdown in the after-effects of wars, economic sanctions and other facts, that collectively, led to the circumstances the country had been through (war, sanction, other factors...etc.) that collectively led to many health and nutritional problems. Of these, the most prevalent was malnutrition and micronutrient deficiencies such as anaemia. Though the Iraqi government at that time, in an attempt to reduce the burden of economic sanctions imposed on the country, relied on the distribution of the food basket ration which assured that every citizen received a monthly ration of legumes, rice, milk (for adults), infant formula, grains, cooking oil, sugar and finally, tea. In spite of that, surveys executed in the nineties revealed an increase in the frequency of malnutrition amongst children under five years of age.

a) **Malnutrition**: A survey carried out in 1996 by the Central Statistical Organization and the United Nations Children’s Fund (UNICEF) in collaboration with other organizations (5), showed that 11% of children under five years of age had suffered from acute malnutrition (wasting), which is a measurement of a decrease in weight in relation to length / height, and that 23% were suffering from underweight (a measurement of reduction in weight in relation to age), while stunting (a measurement of reduction in length / height in relation to age) among those children, was at an average of 32%. A subsequent survey conducted in 2006, revealed an extreme reduction in these figures as acute malnutrition (wasting) dropped to 4.8% and underweight declined to 7.6% and chronic malnutrition (stunting) dropped to 21.4%. Exclusive breastfeeding during the first six months of an infant’s life and the initiation of timely complementary feeding have a great impact on the nutritional status of the child, the same survey showed that the rate of exclusive breast feeding was 25.1% (41%)\(^1\), timely initiation of breast feeding 30.6%, timely complementary feeding rate was 51% and that of low birth weight 14.8% (10.2%)\(^2\)(6).

b) **Micronutrients**: No national data is available on micronutrient deficiencies, however according to MoH data, the prevalence of anaemia among women in reproductive age (15-49 years) was 35.5%, and that for pregnant women was 37.9% and 25.8% for lactating women (7). As for children, a small study was carried out in three governorates (Basrah, Babil and Nineveh) in 2010 showed that the prevalence of anaemia among children under five years of age

\(^1\)Ministry of Health annual report 2010
\(^2\)Ministry of Health annual report 2010
visiting primary health care centres was 26.2% (8). The prevalence of vitamin A deficiency among pre-school age children was 13.8% with serum retinol levels below 0.70 μmol/l (9). Iodine deficiency was recognized as a significant public health problem in three governorates (Basrah, Baghdad and Nineveh) based on the results of a study implemented in 2010 which showed that the overall sample median urinary iodine concentration was 58.7 μg/l, and that 64.7% of women in Ninevah had moderate iodine deficiency, followed by Basrah at 24.7% and Baghdad at 24.6% (10).

c) **Obesity and non-communicable diseases:** The risk factors for non-communicable diseases such as cardiovascular disease, diabetes and cancer are closely related to food consumption, dietary patterns, nutrition and life styles. In Iraq, among the population aged 25-65 years, the prevalence of hyperglycemia was estimated to be 10.4%, hypercholesterolemia 37.5%, hypertension 40.4%, overweight at 37.4% and 31.4% among males and females respectively, while obesity being higher among females (38.2%) as compared to males (26.2%). Additionally, 56.7% were physically inactive (11).

d) **Food security:** In 2003, the first food security baseline Survey revealed that 11 % of the population in Iraq, or roughly 2.6 million people, were found to be extremely poor and vulnerable to food insecurity. An additional 3.6 million people would also face a high probability of becoming food insecure, if the Public Distribution System (PDS) were to be discontinued. The report of a follow-up survey (published in 2006) concluded that just over four million people (15.4% of the population) were food insecure and in dire need of humanitarian assistance - including food - in spite of the PDS rations that they were receiving. The survey also indicated that a further 8.3 million people (31.8% of the surveyed population) would be rendered food insecure if they were not provided with a PDS ration. The most recent food security survey (launched in 2008) found that an estimated 930,000 people were food insecure, representing 3 % of the total population. An additional 6.4 million, almost 22 % of the population, were extremely dependent on the PDS food rations, without which they could become food insecure (1).

E) **Food safety:** Iraq has a multiagency food safety system, where the Ministry of Health is the leading ministry of a national food expert committee which also includes members from food safety related ministries. In 2004, WHO supported the Ministry of Health (MoH) in organizing a national workshop on Food Safety Programme in Iraq which was attended by all main food safety stakeholders. During the workshop, a draft food strategy and plan of
action was developed. WHO has been assisting the MoH to implement some of these actions but much remain to be done, particularly in regard to the following long term objectives which are:

- Development and enforcement of laws and regulations.
- Promotion of food safety quality assurance principles.
- Adoption of the principles of Good Manufacturing Practices (GMP) and Hazard Analysis Control Critical Point (HACCP) in the food industry.
- Development of human resources required for implementation of food safety programmes at central and regional levels.
- Promotion of food safety researches and development.
Methodology

On 7 December 2009, the Ministry of Health sent an official letter to the World Health Organization (WHO) and UNICEF requesting technical support to develop the National Nutrition Strategy based on the decision of the National Food and Nutrition Committee in its meeting of 18 November 2009. The meeting was attended by representatives of the Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Education (MoE), Ministry of Planning (MoP), Ministry of Trade (MoT), Ministry of Labour and Social Affairs (MoLSA).

Consequently, a three day workshop held in Erbil for the period 24-26 July 2011, supported by UNICEF and attended by 38 senior staff from MoH and other line ministries (Education, Trade, Higher Education, Industry, Agriculture), as well as, World Food Programme (WFP) and Food and Agriculture Organization (FAO). The workshop was facilitated by Dr. AyoubAl-Jawaldeh, WHO regional nutrition advisor, and UNICEF’s health and nutrition officers, in addition to staff of the Nutrition Research Institute (NRI). The discussions and group works were very professional, focused, and participatory, guided by the WHO Regional Nutrition Strategy 2011-2019 and in line with the National Development Plan and the National Poverty Reduction Strategy. By the end of the third day, the zero draft of the Iraqi National Nutrition Strategy 2012-2021 was developed. The drafted strategy document reviewed the situation of the nutritional status and existing programmes in Iraq, based on which, the strategic areas of interventions were identified and prioritized; the vision of Government of Iraq for the coming 10 years (2012-2021) was positioned; and the strategic plan of action (using the Result Based Management) was developed focusing on the issues of gender, Health Regulations, Emergency Preparedness and Response Plan (EPRP) and vulnerable groups.

The Ministry of Health shared the first draft of the strategy with related ministries and agencies. A task force has been identified to review and finalize the draft during a two day meeting that was conducted in Erbil for the period 16-17 November 2011. A final revision was done on a meeting was held in MoH on 13 December 2011. The strategy document was endorsed by the Secretariat of the Ministers Council on 1st of April 2012.
Goal

The overall goal of the nutrition strategy for Iraq is to improve the nutritional status of the Iraqi population throughout the life cycle from 2012 to 2021.

Objectives

1. Political commitment and inter-sectoral collaboration increased in line with the National Developmental Plan.

   Indicators:


   • National plan of action budgeted by the Government by 2013.


   Indicators:

   • Number of existing policies, strategies, laws and legislations reviewed and new policies, laws and legislations adopted in line with the national nutrition strategy by 2021.

   • Number of international nutrition related treaties and conventions reviewed and endorsed by the Government.


   Indicators:

   • Number of nutritionists graduated

4. Prevalence of wasting and stunting reduced among children under five years of age.

   Indicators:

   • Prevalence of stunting among children under five years of age reduced from 21.4% to less than 10% by 2021.

   • Prevalence of low birth weight reduced from 14.8% to less than 7% by 2016.
• Prevalence of underweight among children under five years of age reduced (nationally) and in high risk districts, from 7.6% to less than 5% by 2015.

• Prevalence of wasting among children under five years of age reduced nationally and in high risk districts from 4.8% to less than 3% by 2016.

• Percentage of exclusive breast feeding increased from 25.1% to 40% by 2016.

• Percentage of timely complementary feeding increased from 51% to 65% by 2016.

5. Prevalence of overweight and obesity reduced among all age groups.

Indicators:

Prevalence of overweight and obesity reduced among:

• Children under five years of age from 13.4% to less than 10% by 2021.
• School age children from 26% to less than 15% by 2021.
• Adolescents by 30% of baseline data by 2021.
• Adults (25 years and above) from 66% to less than 50% by 2021.

6. Nutritional health promotion and counselling provided to people at all level.

Indicators:

• Number of nutritional counselling guidelines developed and distributed.
• Number of IEC materials developed and distributed.

7. Prevalence of micronutrient deficiencies reduced.

Indicators:

• Prevalence of anaemia reduced among:
  a. Women of reproductive age from 35% to less than 20% by 2021.
  b. Children under five years of age from 26% to less than 20% by 2021.
c. School age children by 30% of baseline data by 2021.

- Prevalence of Vitamin A deficiency reduced among:
  a. Preschool age children from 13% to less than 10% by 2016.
  b. Women of reproductive age reduced by 50% of baseline data by 2021.

- Prevalence of Iodine Deficiency Disorders (IDD) among women of reproductive age and school age children reduced by 50% of baseline data by 2021.

- Neural tube defects reduced by 50% of baseline data by 2021.

- Vitamin D deficiency among women of reproductive age and children under five years of age reduced by 50% of baseline data by 2021.

8. **Safe food availability assured for all age groups at any time.**

*Indicators:*

- Reduce incidence of food borne illnesses by 50% (baseline from CDC) by 2021.

9. **Adequate food available, accessible and utilized for all age groups at any time.**

- Contingency preparedness and response plan on nutrition and food security reviewed annually by 2012.
- National school feeding programme developed.

10. **Monitoring, evaluation and surveillance plan and response developed and adopted.**

*Indicators:*

- Nutritional surveillance system operationalized and expanded at all levels by 2016.

- Regular reporting on the progress of the national nutrition strategy at all levels.

- Number of nutritional related researches, surveys, and studies conducted.
Strategic interventions and activities

Objective (1): Political commitment and inter-sectoral collaboration increased in line with the National Developmental Plan.

- Establishing inter-sectoral coordination and collaboration mechanism at all levels.
- Advocating political commitment to national nutrition programmes.
- Adequate budget for national nutrition programmes available by 2013.
- Adopting the recommendations of the regional nutrition strategy and the Infant and maternal nutrition resolution No. World Health Assembly-55.23.

Objective (2): National polices/strategies/legislations reviewed and updated.

- Strengthening technical and managerial capacities for nutrition programmes staff at all levels.
- Reviewing the national food and nutrition related policies, laws, legislations, regulations and guidelines.
- Reviewing, updating and implementing national food specifications to meet with the international food safety standards of the Codex Alimentarius.
- Endorsing and implementing the international code for marketing breast milk substitutes.
- Advocacy for nutrition-friendly schools.

Objective (3): Nutrition professional education specialty established in universities by 2016.

- Reviewing and updating the nutrition curriculums.

Objective (4): Prevalence of wasting and stunting reduced among children under five years of age.

- Promoting and supporting appropriate infant and young child feeding practices at health facilities and community levels.
- Strengthening and expanding the Baby Friendly Hospitals Initiatives (BFHI) and Baby Friendly Primary Health Care Centres Initiatives.
• Ensuring proper growth monitoring and nutritional assessment for children under five years of age in Primary Health Care Centres (PHCCs) and applying WHO Anthro programme to the centres.

• Conducting researches, studies and surveys to assess the nutritional status of children and women of reproductive age.

• Strengthening and expanding the Nutritional Units at Primary Health Care Centres (PHCCs) and Nutrition Rehabilitation Centres services at hospitals.

• Ensuring appropriate maternal nutritional health services throughout the reproductive age.

Objective (5): Prevalence of overweight and obesity reduced among all age groups.

• Developing and implementing of national food-based dietary and physical activity guidelines.
• Encouraging schools to adopt healthy diet and physical activities in line with the national Diet and Physical Activity Strategy (DPAS).
• Advocating for nutrition friendly school, promoting education in nutrition and promoting healthy options in canteens.
• Integrating Diet and Physical Activity Strategy (DPAS) into the functioning primary care health services.

Objective (6): Nutritional health promotion and counselling provided to people at all level.

• Establishing baseline data on overweight and obesity among population.
• Conducting KAP studies on dietary habits and healthy life style.
• Capacity building of health staff and social workers on nutritional counselling.
• Developing and distributing IEC materials.
• Capacity building of health staff on nutritional counselling for inpatient and outpatient.

Objective (7): Prevalence of micronutrient deficiencies reduced.

• Promoting consumption of micronutrient-rich foods for all age groups.
• Scaling up fortification of basic foods with additional micronutrients.
• Strengthening micronutrients supplementation programmes for targeted groups.
• Establishing national data base on micronutrients consumption patterns and micronutrient deficiencies status.

• Reviewing and developing guidelines/ regulations for micronutrients marketing and advertising.

Objective (8): Safe food availability assured for all age groups at any time.

• Reviewing food safety laws, regulation and legislation.

• Building institutional capacities.

• Providing education to improve the use of safe food and promote hygienic practices.

Objective (9): Adequate food available, accessible and utilized for all age groups at any time.

• Reviewing / reforming the contents of the food subsidy programmes (PDS).

• Distributing food basket to vulnerable groups.

• Scaling up school feeding programme.

• Strengthening and improving the nutritional response to different kinds of emergency situations.

Objective (10): Monitoring, evaluation and surveillance plan and response developed and adopted.

• Regular reviewing and reporting on the progress of implementation the national nutrition strategy plan of action.

• Strengthening and expanding the nutritional surveillance system.

• Conducting nutritional related researches, surveys and studies.
Goal: **To improve the nutritional status of the Iraqi population throughout the life cycle from 2012 to 2021**

<table>
<thead>
<tr>
<th>Key health and nutrition priority areas</th>
<th>Strategic objectives (outcomes)</th>
<th>Outcome indicators</th>
<th>Outputs / Activities</th>
<th>Mean of verification</th>
<th>Focal point</th>
<th>Other partners</th>
<th>Budget</th>
<th>Remarks</th>
</tr>
</thead>
</table>
- National plan of action budgeted by the Government by 2013. | 1. Establishing inter-sectoral coordination and collaboration mechanism at all levels.  
2. Advocating political commitment to national nutrition programmes.  
4. Adopting the recommendations of the regional nutrition strategy and the Infant and maternal nutrition resolution number World Health Assembly -55.23. | MoH and other line ministries reports  
UN agencies progress reports | MoH | Iraqi parliament, Ministerial Council, MoA, MoF, MoP, MoT, MoL,MoJ,UN agencies, NGOs, Governorates councils Private sectors. | |
| | 2. National polices/strategies/legislations reviewed and updated. | - Number of existing policies, strategies, laws and legislations reviewed and new policies, laws and legislations adopted in line with the national nutrition strategy by 2021.  
- Number of international nutrition related treaties and conventions reviewed and endorsed by the Government. | 1. Strengthening technical and managerial capacities for nutrition programmes staff at all levels.  
2. Reviewing the national food and nutrition related policies, laws, legislations, regulations and guidelines.  
3. Reviewing, updating and implementing national food specifications to meet with the international food safety standards of the Codex Alimentarius.  
4. Endorsing and implementing the international code for marketing breast milk substitutes.  
5. Advocating for nutrition friendly schools. | MoH and other line ministries reports  
UN agencies progress reports | MoH and other line ministries | Iraqi parliament, Ministerial Council Other line ministries, MoJ, MoT, MoI, MoP  
UN agencies, NGOs, Governorates councils Private sectors. | |
<table>
<thead>
<tr>
<th>Key health and nutrition priority areas</th>
<th>Strategic objectives (outcomes)</th>
<th>Outcome indicators</th>
<th>Outputs / Activities</th>
<th>Mean of verification</th>
<th>Focal point</th>
<th>Other partners</th>
<th>Budget</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| Undernutrition                         | 4. Prevalence of wasting and stunting reduced among children under five years of age. | - Prevalence of stunting among children under five years of age reduced from 21.4% to less than 10% by 2021.  
- Prevalence of low birth weight reduced from 14.8% to less than 7% by 2016.  
- Prevalence of underweight among children under five years of age reduced (nationally) and in high risk districts, from 7.6% to less than 5% by 2015.  
- Prevalence of wasting among children under five years of age reduced nationally and in high risk districts from 4.8% to less than 3% by 2016.  
- Percentage of exclusive breast feeding increased from 25.1% to 40% by 2016.  
- Percentage of timely complementary feeding increased from 51% to 65% by 2016. | 1. Promoting and supporting appropriate infant and young child feeding practices at health facilities and community levels.  
2. Strengthening and expanding the Baby Friendly Hospitals Initiatives (BFHI) and Primary Health Care Centres Initiatives.  
3. Ensuring proper growth monitoring and nutritional assessment for children under five years of age in Primary Health Care Centres (PHCCs) and applying WHO Anthro programme at the centres.  
4. Conducting researches, studies and surveys to assess the nutritional status of children and women of reproductive age.  
5. Strengthening and expanding the Nutritional Units at PHCCs and Nutrition Rehabilitation Centres services at hospitals.  
6. Ensuring appropriate maternal nutritional health services throughout the reproductive age. | Regular programmes monitoring and data studies/ national surveys UN agencies progress reports | MoH, MoF, MoP, MoM, MoHE, MoM, MoT United Nation agencies NGOs Private sector |
<table>
<thead>
<tr>
<th>Key health and nutrition priority areas</th>
<th>Strategic objectives (outcomes)</th>
<th>Outcome indicators</th>
<th>Outputs / Activities</th>
<th>Mean of verification</th>
<th>Focal point</th>
<th>Other partners</th>
<th>Budget</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity control</td>
<td>5. Prevalence of overweight and obesity reduced among all age groups.</td>
<td>Prevalence of overweight and obesity reduced among:  - Children under five years of age from 13.4% to less than 10% by 2021.  - School age children from 26% to less than 15% by 2021.  - Adolescents by 30% of baseline data by 2021.  - Adults (25 years and above) reduced from 66% to less than 50% by 2021.</td>
<td>1. Developing and implementing of national food-based dietary and physical activity guidelines.  2. Encouraging schools to adopt healthy diet and physical activities in line with the national Diet and Physical Activity Strategy (DPAS).  3. Advocating for nutrition friendly school, promoting education in nutrition and promoting healthy options in canteens.  4. Integrating Diet and Physical Activity Strategy (DPAS) into the functioning primary care health services.</td>
<td>National surveys  Studies  Regular programme monitoring reports and data  UN agencies progress reports</td>
<td>MoH</td>
<td>MoHE, MoF, MoP, MoA, MoI, MoYS, MoT, MoM, UN Agencies, NGOs, Media, Civil Society, Private sector, CDC-Atlanta.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Nutrition health promotion and counselling provided to people at all levels.</td>
<td>- Number of nutritional counselling guidelines developed and distributed.  - Number of IEC materials developed and distributed.</td>
<td>1. Establishing baseline data on overweight and obesity among population.  2. Conducting KAP studies on dietary habits and healthy life style.  3. Capacity building of health staff and social workers on nutritional counselling.  4. Developing and distributing IEC materials.  5. Capacity building of health staff on nutritional counselling for inpatient and outpatient.</td>
<td>National surveys  Studies  Regular Programme monitoring reports and data  UN agencies progress reports</td>
<td>MoH</td>
<td>MoHE, MoF, MoP, MoYS, MoT, UN Agencies, NGOs, Media, Civil Society, Private sector.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micronutrient Deficiencies</td>
<td>7. Prevalence of micronutrient deficiencies reduced.</td>
<td>- Prevalence of anaemia reduced among:  1. Women of reproductive age from 35% to less than 20% by 2021.  2. Children under five years age from 26% to less than 20% by 2021.</td>
<td>1. Promoting consumption of micronutrient-rich foods for all age groups.  2. Scaling up fortification of basic foods with additional micronutrients.  3. Strengthening micronutrients supplementation programmes for targeted groups.  4. Establishing national data base on</td>
<td>National surveys  Studies  Regular Programme monitoring reports and data  UN agencies progress reports</td>
<td>MoH, MoI, MoT, MoA</td>
<td>MoHE, MoF, MoP, MoA, UN Agencies, NGOs, Media, Civil Society, Private sector, CDC-Atlanta.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key health and nutrition priority areas</td>
<td>Strategic objectives (outcomes)</td>
<td>Outcome indicators</td>
<td>Outputs / Activities</td>
<td>Mean of verification</td>
<td>Focal point</td>
<td>Other partners</td>
<td>Budget</td>
<td>Remarks</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--------------------------------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>------------</td>
<td>----------------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>3. School age children by 30% of baseline data by 2021.</td>
<td></td>
<td></td>
<td>micronutrients consumption patterns and micronutrient deficiencies status.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Prevalence of Vitamin A deficiency reduced among:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Preschool age children from 13% to less than 10% by 2016.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Women of reproductive age reduced by 50% of baseline data by 2021.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Prevalence of Iodine Deficiency Disorders (IDD) among women of reproductive age and school age children reduced by 50% of baseline data by 2021.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Neural tube defects reduced by 50% of baseline data by 2021.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Vitamin D deficiency among women of reproductive age and children under five years of age reduced by 50% of baseline data by 2021.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Reviewing and developing guidelines/ regulations for micronutrients marketing and advertising.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key health and nutrition priority areas</td>
<td>Strategic objectives (outcomes)</td>
<td>Outcome indicators</td>
<td>Outputs / Activities</td>
<td>Mean of verification</td>
<td>Focal point</td>
<td>Other partners</td>
<td>Budget</td>
<td>Remarks</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>----------------</td>
<td>--------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| **Food safety**                      | 8. Safe food availability assured for all age groups at any time. | - Reduce incidence of food borne illnesses by 50% (baseline from CDC) by 2021. | 1. Reviewing food safety laws, regulations and legislations.  
2. Building institutional capacities.  
3. Providing education to improve the use of safe food and promote hygienic practices. | National surveys  
Studies  
Regular Programme monitoring reports and data  
| **Food security**                    | 9. Adequate food available, accessible and utilized for all age groups at any time. | - Contingency preparedness and response plan on nutrition and food security reviewed annually by 2012.  
- National school feeding programme developed. | 1. Reviewing/reforming the contents of the food subsidy programmes (PDS).  
2. Distributing food basket to vulnerable groups.  
3. Scaling up school feeding programme.  
4. Strengthening and improving the nutritional response to different kinds of emergency situations. | National surveys  
Studies  
Regular Programme monitoring reports and data  
UN agencies progress reports | MoH | MoT, MoA, MoP, MoE, MoF, MoLSA, UN Agencies, NGOs, Media, Civil Society, Private sector | | |
| **Monitoring, evaluation and surveillance** | 10. Monitoring, evaluation and surveillance plan and response developed and adopted. | - Nutritional surveillance system operationalized and expanded at all levels by 2016.  
- Regular reporting on the progress of the national nutrition strategy at all levels.  
- Number of nutritional related researches, surveys, and studies conducted. | 1. Regular reviewing and reporting on the progress of implementing the national nutrition strategy plan of action.  
2. Strengthening and expanding the nutritional surveillance system.  
3. Conducting nutritional related researches, surveys and studies. | National surveys  
Studies  
Regular Programme monitoring reports and data  
UN agencies progress reports | MoH | MoT, MoA, MoP, MoE, MoF, MoHE, MoLSA, UN Agencies. | | |
### Implementation mechanism 2011-2012

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Presenting the National Nutrition Strategy draft by the participants to the concerned ministry officials and identifying the end of August for receiving the responses from these ministries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sending the draft officially to authorities and relevant ministries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Review and finalize the draft strategy document based on the comments from concerned ministries and other partners (member of the technical committee, WHO and UNICEF).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sharing the final draft version of the strategy document with other partners (WHO and UNICEF regional offices).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Overture Secretariat of the Ministers Council on the final version of the strategy for approval at January 2012.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Adoption of final amendments to the terms of the strategy received from the Secretariat of the Ministers Council and preparing the final version.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Endorsement and launching of the National Nutrition Strategy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Monitoring, Evaluation and Nutritional Surveillance

A nutrition monitoring system provides periodic relevant information on the nutritional situation and trends of nutrition problems to enable decision makers to take appropriate actions. An ideal monitoring system should include a list of indicators capable of addressing events of major interest such as; birth weight distribution, prevalence of protein energy malnutrition, micronutrient deficiencies, overweight, breast feeding and complementary feeding practices. Evaluation should be developed after analysis of the existing data; the new information must be integrated within the monitoring system and should not develop a separate, parallel system. Feedback reports should be distributed among all areas to improve the monitoring system (2).

Surveillance data are often especially useful to answer public health or nutrition questions. Planning a surveillance system that can assure constant availability of nationally representative data would be able to serve and target the aims of short term nutritional assessment (nutritional emergency), malnutrition trends assessment and adverse nutritional effects of affluence over time, (overweight/obesity) (12).

In Iraq, the monitoring system includes monthly collection of nutritional information through statistical forms, supervisory local and central visits and nutritional surveillance activities. Since 2010, the nutritional surveillance system has been established by the Nutrition Research Institute (NRI) with consultation provided by WHO-Eastern Mediterranean Regional Office (EMRO) and the support of UNICEF, in response to the recommendations of the regional technical consultation meeting on nutritional surveillance system with focus on micronutrient deficiencies held in Damascus, Syrian Arab Republic, 2009. The surveillance system is a sentinel one, includes three primary health care centres in selected vulnerable districts based on the results of the Comprehensive Food Security and Vulnerability Analysis survey of 2008 (1). The target groups are women of reproductive age (15-49 years), children under five years of age and preschool age children. It includes collecting, processing and analyzing data on anthropometric measurements, anaemia, serum retinol and urinary iodine as well. Also conducting special assessment studies such as rapid nutritional assessment in drought most affected districts.
Coordination mechanisms and resource mobilization

The multi-sectoral nature of the malnutrition problems become obvious when looking at the underlying causes and, in most cases malnutrition is the combined result of inadequate dietary intake and disease. Dietary inadequacies might be caused by a wide vacuity of causes; insufficient household food security, inadequate maternal and child care. Similarly, death from diseases may result from any one or a combination of causes, such as the lack of or low utilization of health services, inadequate water supply and sanitation facilities, poor food hygiene or inadequate child care. Inter-sectoral collaboration is therefore crucial since many of the principal determinants of healthy food and nutrition are not always under the direct control of the health sector (2, 13).

In Iraq the coordination takes different aspects through collaboration with legislative authorities, food standards organizations, encourages commitment of the concerned government sectors, shares experiences, information and technical assistance with other sectors, promotes collaboration and coordination of non-communicable diseases prevention and control activities, coordinate with other health programmes, coordinate with WHO, UNICEF and other concerned international agencies to provide assistance in combating all aspect of micronutrient deficiencies, research, capacity building, monitoring and surveillance.

Adequate resources, human and financial will have to be identified and allocated to ensure the plan timely successful implementation (4). For Iraq, since the nineties the international agencies such as UNICEF, WFP and WHO played an important role in providing technical and financial support to implement various nutritional programmes; wheat flour fortification, salt iodization, maternal and child nutrition, school feeding, capacity building, conducting nutritional surveys and management of severe malnutrition, in the late years, the government (ministries) allocated the necessary budget to implement most of nutritional programmes, as a results to NRI movements to advocate for nutrition issues and the efforts of the international agencies at different levels of the decision makers.
Recommendations

1. Increase political commitment to prevention and reduction of malnutrition in all its forms.
2. Allocate adequate human and financial resources to address the double burden of malnutrition.
3. Scale up interventions to improve the nutritional status among all age groups, especially infants, children, and women in an integrated manner. This includes the protection, promotion and support of breast feeding and timely, safe and appropriate complementary feeding as core interventions for the prevention and management of severe malnutrition and control of vitamin and mineral deficiencies.
4. Strengthen nutritional surveillance systems and improve use and reporting of the agreed indicators in order to monitor progress towards the achievement of the Millennium Development Goals.
5. Improve water and sanitation systems and hygiene practices to protect children against communicable diseases and infections.
6. Regular monitoring, review and reporting on the national nutrition strategy progress.
## Annexes

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Coverage rate</th>
<th>Budgets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Targeted nutrition programme</strong></td>
<td></td>
<td>MoH budget</td>
</tr>
<tr>
<td>• Nutrition unit in PHCCs</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>• Nutrition Rehabilitation Centres</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>• Salt Iodization</td>
<td>23%</td>
<td>850,000$</td>
</tr>
<tr>
<td>• Wheat Flour Fortification</td>
<td>100%</td>
<td>2,000,000$</td>
</tr>
<tr>
<td>• Vitamin A deficiency control</td>
<td>50%</td>
<td>500,000$</td>
</tr>
<tr>
<td>• Iron and folic acid supplementation</td>
<td>65%</td>
<td>2,000,000$</td>
</tr>
<tr>
<td>• Public distribution system</td>
<td>100%</td>
<td>6,000,000,000$</td>
</tr>
<tr>
<td>• Food safety programme</td>
<td>70%</td>
<td>6,000,000$</td>
</tr>
<tr>
<td>Indicator</td>
<td>Data</td>
<td>Sources</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Health indicators</td>
<td>Breast feeding</td>
<td>Percentage of exclusive breast feeding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine data, Surveys and studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MoH / breast feeding programme</td>
</tr>
<tr>
<td></td>
<td>number of hospitals get certificate Baby Friendly Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Integrated Management of Childhood Illness (IMCI)</td>
<td>number of PHCCs applied IMCI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MoH / IMCI programme</td>
</tr>
<tr>
<td></td>
<td>Expanded Polio Immunization (EPI)</td>
<td>Coverage rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine data, MoH reports</td>
</tr>
<tr>
<td></td>
<td>New born care</td>
<td>Neonatal death, Coverage rate of infant care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine data, Annual report MoH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surveys and studies</td>
</tr>
<tr>
<td></td>
<td>Antenatal Care</td>
<td>Coverage rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MoH</td>
</tr>
<tr>
<td>Indicators</td>
<td>Data</td>
<td>Source of data</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Registration</td>
<td>from nutrition section in Directorates of Health</td>
</tr>
<tr>
<td></td>
<td>Local studies</td>
<td>NRI, nutrition sections</td>
</tr>
<tr>
<td></td>
<td>Surveillance system</td>
<td>PHCCs, sectors, sections</td>
</tr>
<tr>
<td></td>
<td>National surveys</td>
<td>NRI</td>
</tr>
<tr>
<td></td>
<td>MICS</td>
<td>MoP-Central Organization of Statistics, MoH-NRI</td>
</tr>
<tr>
<td></td>
<td>CFSVA</td>
<td>United Nation agencies</td>
</tr>
<tr>
<td></td>
<td>IFHS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drought survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MNAR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other research and studies in other ministries</td>
<td>Responsible ministry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health worker assessment</td>
<td>MoH-NRI+ nutrition section Directorates of Health</td>
</tr>
<tr>
<td></td>
<td>UN reports and studies and surveys</td>
<td>United Nation agencies</td>
</tr>
</tbody>
</table>

(28)
<table>
<thead>
<tr>
<th>Health indicators</th>
<th>Field assessment visits</th>
<th>Periodic meeting and symposiums and conferences</th>
<th>Other information sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low birth weight</td>
<td>MoH-NRI, nutrition section DoHs</td>
<td>MoH-NRI+ DoHs</td>
<td>Ministries, NGOs, others</td>
</tr>
<tr>
<td>Neonatal MR</td>
<td></td>
<td>Periodic, depends</td>
<td>Not specified</td>
</tr>
<tr>
<td>Still birth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 5 Mortality Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal Mortality Ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MoH-Maternal and Child Health statistics’ National surveys</td>
<td>Monthly registration depends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFSVA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFHS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drought survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MNAR</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(29)
<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Data Source</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-communicable disease statistics</td>
<td>Immunization coverage rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food security</td>
<td>Unsecure food percentage</td>
<td>MoP/MoH/MoH/MoP others</td>
<td>Periodic</td>
</tr>
<tr>
<td></td>
<td>Prices of food</td>
<td>National surveys</td>
<td>depends</td>
</tr>
<tr>
<td></td>
<td>Wealth index</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safe water</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food pattern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food safety</td>
<td>Safe water</td>
<td>MoH/MoM/MoP others</td>
<td>Not specific</td>
</tr>
<tr>
<td></td>
<td>Sewage disposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health inspection</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Legislations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socioeconomic</td>
<td>Housing</td>
<td>MoP/MoH</td>
<td>Not specific</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td>National surveys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possessions</td>
<td>CFSVA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infrastructures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References


