Rapid nutritional assessment of under five years old children in internally displaced families in Al-Anbar Governorate 2016
Introduction

Internal displacement monitoring center estimates that at least 3,276,000 Iraqis were internally displaced as of 15 January 2015 and its figures were based on estimates published by the United Nation agencies, including Office for the Coordination of Humanitarian Affairs (OCHA), United Nations High Commissioner for Refugees (UNHCR), the United Nation Assistance Mission for Iraq (UNAMI), as well as data published by International Organization for Migration (IOM) and national and local authorities. In almost all emergencies, nutrition is in danger, as people flee their homes, crops are destroyed, communication and transport become difficult, and the social structure of society is altered. To estimate the need for increased food supplied, the nutritional status of the affected population is important information, Hence, A series of rapid nutritional assessments planned and will be part of the internally displaced people (IDPs) nutritional surveillance system in children 6-59 months of age.

Aims of the study

To assess nutritional status of children under five years of age (6-59 months) in internal displacement families in Al-Anbar governorate (Khalidiyah and Almadinah Alsiyahiya camps).
Materials and methods:

Sampling and Design and training activity

The study was conducted in Al-Anbar governorate for the period from April 2\textsuperscript{nd} to 6\textsuperscript{th} 2016 by health staffs (six teams, two surveyors per team and two local supervisors) from Al-Anbar health directorate/Nutrition section, with the support of Nutrition Research Institute (NRI) and United Nations Children's Fund (UNICEF). The sample comprised of 2218 children selected inclusively in this cross-section study, one day training course was conducted before starting the field work.

Data Collection

The study included collecting data related to demographic and anthropometric indicators through direct interview.

Anthropometric measurements

Body physical measurements used for all participants (children aged 6-59 months), weight was measured using a standard weighing scale (uniscale). Height was measured using a standard measurement board and in a standard position and length was taken for children less than 2 years old. Calculated Z-scores for height-for-age, weight-for-height, weight-for-age and BMI-for-age. A cut-off of less than minus two standard deviations (-2SD) was used to define stunting (length/height-for-age Z-score), wasting (weight-for-length/height Z-score), and underweight (weight-for-age and BMI-for-age Z-scores) and a cut-off of above +2 Z-score was used to define overweight (weight-for-length/height and BMI-for-age Z-scores). All children were checked for the presence of bilateral leg edema.
Data computerization and Analysis

Data entry was done using MS Excel based program and analyzed with SPSS. The nutrition part was analyzed by WHO Anthro software based on 2005 World Health Organization (WHO) standards.
Results and discussion

The overall grand number of children aged 6-59 months enrolled in the study comprised of 2218 children that were almost equally distributed according to their genders.

The table below summarizes the results of anthropometric measurements (wasting, stunting, underweight for WHO standards), as shown in the mentioned table, most of the malnutrition rates are considered to be low according to the malnutrition rates categories by WHO (wasting rates below 5%; stunting rates below 20% and underweight rates below 10%) , about 5% of children were underweight (Indicated by weight-for-age lower than –2 SD of the median WHO standard), while 19.1% of children were suffered from stunting (length/height -for-age below –2 SD of the median WHO standard) and 1.4% of children were wasting (the prevalence of weight-for-length/height below –2 SD of the median WHO standard) , only 0.4% of children were severely acute malnourish (the prevalence of weight-for-length/height below –3 SD of the median WHO standard) and also there was 6.5% of children had overweight (BMI-for-age above +2 SD).

**Growth indicators of children under 5 years, by WHO standards (2005)**

<table>
<thead>
<tr>
<th>Obesity</th>
<th>Overweight</th>
<th>Severe underweight</th>
<th>Under weight</th>
<th>Severe wasting</th>
<th>Wasting</th>
<th>Severe stunting</th>
<th>Stunting</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>7.9</td>
<td>1.4</td>
<td>5.9</td>
<td>0.5</td>
<td>1.7</td>
<td>5.2</td>
<td>18.9</td>
<td>1108</td>
</tr>
<tr>
<td>1.2</td>
<td>5.2</td>
<td>1.6</td>
<td>4.1</td>
<td>0.4</td>
<td>1</td>
<td>4.6</td>
<td>19.3</td>
<td>1110</td>
</tr>
<tr>
<td>1.6</td>
<td>6.5</td>
<td>1.5</td>
<td>5</td>
<td>0.4</td>
<td>1.4</td>
<td>4.9</td>
<td>19.1</td>
<td>2218</td>
</tr>
</tbody>
</table>
As shown in the figure below, children (6-11 months of age) had higher rates of underweight and wasting than others and those aged 24-35 months had higher stunting rates and no statistically significant difference in the prevalence of wasting and underweight among some age groups, although the results showed roughly the same level for both indicators.

**Distribution of children by their nutritional status and age categories**
Conclusions

The prevalence of malnutrition rates (underweight and wasting) of children included in the study were in the low category of severity.
Recommendations

1- Protection, promotion and support of breastfeeding and timely introduced, safe and appropriate complementary feeding as core interventions for prevention and management of severe malnutrition.

2- Promotion of healthy diet which is an essential factor to maintain a healthy body weight.

3- Conduct further nutritional assessment on regular basis in order to monitor the nutritional status of under five years children.
ملحق: استمارة التقييم التغذوي السريع للأطفال دون سن الخامسة من العمر في الظروف الطارئة

Q1: المحافظة: .............................................................
Q2: رقم الاستمارة: ..........................................................
Q3: الاسم: ..................................................................
Q4: الجنس: (1- ذكر 2- أنثى)
Q5: تاريخ الزيارة: ....................................................../........................................ 2015
Q6: تاريخ الميلاد: ....................................................../........................................
Q7: العمر: ................................................................. سنة
Q8: الوزن: ................................................................. كغم
Q9: الطول: ................................................................. سم
Q10: الوذمة: ............................................................ نعم لا

اسم وتوقيع الشخص الأول

اسم وتوقيع الشخص الثاني