

# Rapid nutritional assessment of under five years old children in internally displaced families in Al-Anbar Governorate 18<sup>th</sup>-25<sup>th</sup> June 2016

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## ***Introduction***

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The latest International Organization for Migration (IOM) Iraq Displacement Tracking Matrix (DTM) identified 3,418,332 internally displaced Iraqis (569,722 families) from 1 January 2014 through 31 March 2016.

Between 2 and 31 March 2016, an increase in displacement was recorded in the governorate of Al-Anbar (48,378 individuals) due to ongoing military operations.

A total of 553,104 individuals are reported to have returned to their location of origin across Iraq. Salah Al-Din governorate has experienced the highest number of returns, with 262,074 individuals. Ninewa and Diyala also reported a high number of returnees (respectively 131,766 and 118,404), mainly due to improved security conditions. (*International Organization for Migration-Iraq Mission*).

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 IDP nutritional surveillance system in children (6-59) months of age.

Child nutrition is a sensitive indicator for child wellbeing as it's directly affected by food availability/security and child illness. Any rapid change in food/nutrition availability or any acute illness will have immediate impact on child nutritional status.

## ***Aims of the study***

To assess nutritional status of children under five years of age in internal displacement families in Amyreat AL-Fallujah / Al-Anbar governorate.

## ***Materials and methods:***

### ***Sampling and design and training activity***

The study was conducted in Amyreat AL-Fallujah ,Al-Anbar governorate for the period from 18<sup>th</sup> – 25<sup>th</sup> of June 2016 by health staffs from Al-Anbar health directorate/Nutrition section (one supervisor and five team, each team comprised of two members) with the support of Nutrition Research Institute and United Nations Children's Fund (UNICEF). The sample comprised of 2301 children aged from 6 month to 59 weeks, selected inclusively in this cross-section study.

### ***Data Collection***

The study includes collecting data related to personal information (name, age, gender) through direct interview using a pre-made questionnaire form, and anthropometric measurements were obtained for children and bilateral oedema was also examined for both feet to detect children with severe acute malnutrition.

### ***Anthropometric measurements***

Body physical measurements used for all participants; Weight was recorded using a weighing scale. Height was measured in a standard position (for children 2 years old and above) and length was taken for children less than 2 years old. Calculated Z-scores for length/height-for-age, weight-for-length/height, weight-for-age and body mass (BMI)-for-age. A cut-off of less than minus two standard deviations (-2SD) was used to define stunt (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).

### *Data computerization and Analysis*

Data entry was done using MS-Excel based programme and coded and analyzed with SPSS. The nutrition part was analyzed by WHO Anthro software v3.2.2 based on 2005 World Health Organization (WHO) standards and results were categorized by the WHO classification for assessing severity of malnutrition by prevalence ranges.

## *Results and discussion*

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The overall grand number of children enrolled in the study comprised of 2301 children equally distributed according to their genders.

Anthropometric measurement, weights and height of all children under five years old were measured during the assessment using the standard uniscale for measuring the weight and the standard length/height measuring board.

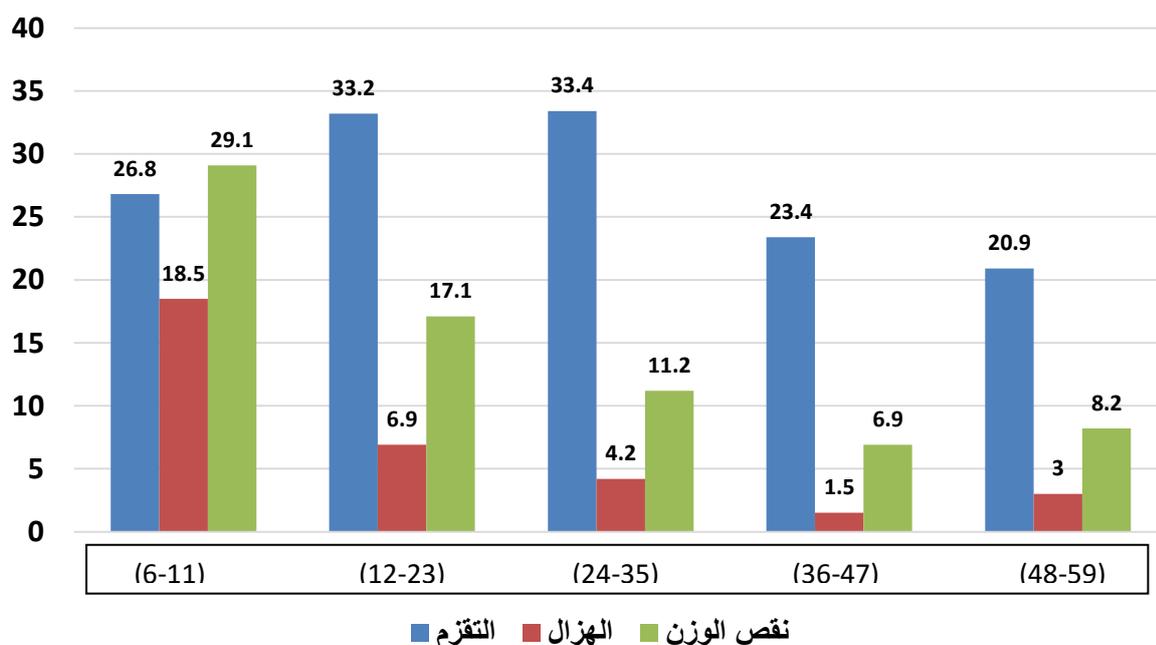
The table below summarizes the results for wasting, stunting and underweight for WHO standards, about 13.6% of children were underweight (Indicated by weight-for-age lower than  $-2$  SD of the median WHO standard population), and 5.8% of children were severely underweight (indicated by weight-for-age lower than  $-3$  SD of the same population), Stunting and severe stunting were found in 27.5% and 10.7% of children respectively (stunting and severe stunting were assessed as the prevalence of length/height-for-age below  $-2$ SD and  $-3$ SD of the WHO standards population respectively). The results showed that 6.1% of children were suffered from wasting, while 2.2% were suffered from severe wasting (the prevalence of weight-for-length/height below  $-2$ SD, and  $-3$ SD of the WHO standards population respectively), and also there was 5.6% of children had

overweight (BMI-for-age above +2 SD) while there was only 1.6% obese (BMI-for-age above +3SD). As shown in the below table most of the malnutrition rates are considered medium in severity according to malnutrition rates categories by WHO (wasting rates below 10%; stunting rates below 30% and underweight rates below 20% are Low significance).

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

	Number	Stunting	Severe stunting	Wasting	Severe wasting	Underweight	Severe underweight	Overweight	Obesity
Boys	1192	28.8	11.9	6.4	2.5	13.8	6.2	6.1	1.7
Girls	1109	26.1	9.4	5.8	2	13.5	5.4	5.1	1.5
Total	2301	27.5	10.7	6.1	2.2	13.6	5.8	5.6	1.6

As shown in the below figure children aged 6-11 months had higher rate of underweight than others and those with 24-35 months of age had higher stunting rate while children (6-11 months) had higher rate of wasting than other children enrolled in the study and no statistically significant difference in the prevalence of wasting and underweight among some age groups, although the results show roughly the same level for both indicators.



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



## ***Conclusions***

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According to WHO classification, the prevalence of malnutrition rates of children included in the study (stunting, underweight and wasting) were in the medium category of severity in prevalence ranges.



## ***Recommendations***

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- 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.



**Rapid nutritional assessment in under 5 years old children in emergency situations questionnaire form.**

**Q1: Governorate: .....**

**Q2: Form Num. :.....**

**Q3: Child name:.....**

**Q4: Sex:  Boy  Girl**

**Q5: Visit date:...../...../2014**

**Q6: Birthdate: ...../...../.....**

**Q7:Age: ..... year**

**..... months**

**Anthropometry**

**Q8: Weight:  ,  Kg**

**Q9: Height:  ,  Cm**

**Oedema of both feet:  Yes  NO**