

NRI/ MOH and UNICEF

Nutritional status survey of under five children In Baghdad – Iraq 29 April to 3 May 2003

Introduction:

Under the difficult conditions Iraq has been going through since the outbreak of war on 20 March 2003, we need to assess the impact of the damaged infrastructure, lack of power and potable water and the increase of prices of basic food items which has negatively affected the food security at household level. This survey has been designed to assess the impact of war on nutritional status of under 5 children and to determine the prevalence of different type of malnutrition in Baghdad governorate. This survey was conducted by the Nutrition Research Institute (NRI) teams/ staff with UNICEF support.

Objectives of the Survey:

This rapid assessment survey aims at:

1. Determining prevalence different types of malnutrition among U5 children.
2. Determining prevalence of nutritional edema in the surveyed children.
3. The survey will be a starting point to determine future responses and to design further interventions to address malnutrition.

Targeted Age Group:

Children under five years of age living in Baghdad governorate are targeted, the following indicators were used:

- Weight for Height indicator; wasting
- Weight for Age indicator; underweight
- Height for Age indicator; stunting

It is also essential to include the prevalence of nutritional edema in the targeted children in this survey.

Planning stage:

NRI with UNICEF support has collected and reviewed the available information, based on previous nutritional status surveys conducted in Baghdad at household level, the available demographic data, covering rural and urban districts in Baghdad, ... etc. Training courses were conducted to re-train NRI supervisors and the survey teams on collection of the required information/data, especially since most of them have participated in earlier similar surveys.

Eight field teams were identified, each teams of (5) health workers, equipped with:

- Electronic weighing scales, UNISCALE (2 pieces)
- Height/length measuring boards
- Questionnaire/ survey forms
- Survey Guidelines

Another team of specialist doctors from NRI have supervised the fieldwork, checked the questionnaire forms after data collection, supervised data entry, data cleaning, analysis and participating in the final report writing.

Identification and selection of the Sample Size:

To identify representative sample of under 5 children in Baghdad governorate; the systematic cluster sampling method was adopted based on previous surveys conducted by NRI and FAO in the years 1993, 1995, 1997, and 2000, covering rural and urban districts in Baghdad governorates. Accordingly 36 clusters were selected from the same area/ clusters that have been identified in earlier surveys, the number of children in each cluster was about 30 children, and each cluster have included about 15 households. We planed to enroll 900 under 5 children from 30 clusters in this survey but during the preparation for the field work it was decided to have additional 6 clusters in case we didn't manage to have the required number of 30 under 5 children per cluster.

When reaching the pre-identified cluster, selection of the first household is done by pen-rolling method; then the nearest household chosen, then moving on to the second nearest household until 30 children were surveyed. All children within the targeted age group (as per their ID cards/ registered birth date) in each household must be surveyed.

A total of 960 U5 children were surveyed; the confidence interval of this sample size was 95%. The design factor was 2.

The field work:

Data collection started on 29 April to 3 May 2003.

Data Analysis

After collection of the required information and anthropometric data from the identified households in the clusters by the field teams; the questionnaire forms were reviewed by the supervisory committee from NRI to verify the data collection process and the field coding. Missing data/ information was identified, and field teams were asked to go back to the field to re-fill the missing information/ data.

EPI-Info version 6 was used for statistical/ data analyses.

Results and Discussion

The main results of this rapid assessment nutritional status survey of U5s are as below:

1. The total no. of U5 children surveyed was (960), of whom 493 (51.4%) boys and 467 (48.6%) girls.

Table No. (1) Gender distribution of the surveyed children

Gender	No. of Children	%
Male	493	51.4
Female	467	48.6
TOTAL	960	100

2. Age distribution of the surveyed children in months;

Table No. (2) Age distribution in months

Age group/month	No.	%
0 – 5	199	20.8
6 – 11	177	18.6
12 – 17	120	12.6
18 – 23	100	10.5
24 – 35	134	14
36 – 47	138	14.5
48 – 59	86	9
Total	954	100

Flagged (abnormal) figures were reported in 6 cases; hence not listed in the analysis.

3. Malnutrition rate by sex in the surveyed children **table No. (3):**

Malnutrition Type	Indicator	Boys		Girls	
		-2 SD to -3SD	Below -3 SD	-2 SD to -3SD	Below -3 SD
Underweight	weight/age	11.5	2.9	10.5	1.5
Stunting	height/age	13	4	11.3	3.3
Wasting*	weight/height	6.1	2.3	5.8	1.1

* Oedema is included in wasting
CI of 95%

4. Malnutrition rate in total is shown in **table No. (4):**

Malnutrition type	Indicator	-2 SD to -3 SD	Below -3 SD	TOTAL
Underweight	weight/age	11.0	2.2	13.2
Stunting	height/age	12.2	3.7	15.9
Wasting*	weight/height	6.0	1.7	7.7

* Oedema is included in wasting
CI of 95%

5. The rate of nutritional edema was 0.4% of the surveyed children.

Discussion

Table 5 below showed the trends of malnutrition over the years 1995 to 2000, comparing earlier results of FAO assessments in Baghdad.

Table No. 5: Malnutrition indicators; comparison with earlier household surveys conducted in Baghdad governorate with FAO support.

Year	CI	Malnutrition Indicator		
		Weight/age % (Underweight)	Height/age % (Chronic/ stunting)	Weight/height % (Acute/ wasting)
1995*	95%	29.0	28.0	12.0
1997*	95%	24.7	27.5	8.9
1999*	95%	21.3	20.4	9.0
2000*	95%	--	12.0	10.5
Nutrition status household survey in south/ centre 2002	95%	9.4	23.1	4.0
2003	95%	13.2	15.9	7.7

The results of the above mentioned FAO supported surveys suggests an improvement in the nutritional status (underweight) which has taken place during the years 1995 – 2002, followed by increased trends of underweight and wasting compared to 2002 earlier household survey.

Limitation of the survey:

For security reason, UNICEF and NRI have agreed to conduct this survey in Baghdad governorate only rather than conducting national survey after the war.