

National Center for Social  
and Criminological Research

Ministry of Housing and Reconstruction  
U.S. Agency for International  
Development

# **MEDICAL SURVEY**

**Cairo 1979**

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and Criminological Research

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Medical Survey

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(a)

## V Medical Survey.

### 1. Objectives:

The purpose of the medical survey was to determine the possible effect of squatter living conditions on one aspect of the physical health namely the nutritional status of a limited sample of preschool children (less than 6 years) through the examination of children weight height and skinfold thickness, with the assumption that this group represents the most fragile age category which could be affected by the socio - economic standard prevailing in the settlement.

### 2. Sample Selection:

Children were chosen randomly from the families already interviewed by the social field - workers in each settlement. The physician tried to choose his sample within the age range designated by AID/MOHR.

### 3. Methodology:

#### 3.a. Techniques.

The physician recorded children weight (in kg), and measured their length (in cm.). Concerning the skinfold thickness, the physician applied constant

(b)

pressure with a graduate skinfold caliber to measure the triceps skinfold thickness (in mm.). Boys, as well as girls were equally examined.

3.b. Field survey.

The medical field survey was done after the socio - economic survey. Before leaving each settlement, the physician accompanied by one of the field-worker, visited a random sample of the households previously surveyed, and examined the conditions of their children.

3.c. Processing of the data.

The data gathered was tabulated at the following levels:

gross - tabulation between:

- age and weight, skin weidth, length.
- weight and length and skin - weidth.
- lenth and skin weidth.
- sex, age and weight.
- sex, age and length.

## ARAB GHONEIM

Arab Ghoneim being the biggest. Settlement fifty children were examined.

The following data were collected.

Weight.

1- At one year age:

6 children weighted less than 6 kg.

4 children weighted 6 kg.

whereas the general anthropometric standards of reference are as follows:

- at one year the standard weight is 9.9 kg the 60% standard is 6 kg.

2- At 2 year age:

2 children weighted 6 kg.

2 children weighted 8 kg.

1 child wheighted 10 kg.

1 child weighted 10 kg.

whereas the standard deviation weight at 2 years age is 12.4 kg the 60% standard is 7.5 kg.

3- At 3 years age:

1 child weighted 10 kg.

3 children weighted 12 kg.

2 children weighted 14 kg.

The standard being 14.5 kg the 60% standard is 8.7 kg.

4-- At 4 years age:

4 children weighted 12 kg.

4 children weighted 14 kg.

2 children weighted 16 kg.

the standard being 16.5 kg the 60% standard is 12.3 kg.

5-- At 5 years age:

4 children weighted 12 kg.

4 children weighted 14 kg.

2 children weighted 16 kg.

2 children weighted 18 kg.

the standard being 18.4 the 60% standard is 11.0 kg.

6-- At 6 years age:

2 children weighted 14 kg.

2 children weighted 16 kg.

2 children weighted 18 kg.

the standard being above 18.4 kg.

4-- Length:

1-- At one year age:

7 children measured below 70 cm.

2 children measured 75 cm.

the standard length at 1 year age is 74.7 cm

the 60% standard is 44.3 cm.

2- At 2 years age:

1 child measured 70 cm.

4 children measured 75 cm.

2 children measured 70 cm.

the standard length at 2 years is 87.1 cm the 60% standard is 52.2 cm.

3- At 3 years age:

2 children measured 85 cm.

1 child measured 90 cm.

2 children measured 95 cm.

1 child measured 100 cm.

the standard length at 3 years is 96 cm.

4- At 4 years age:

1 child measured 90 cm.

6 children measured 95 cm.

3 children measured 100 cm.

the standard length at 4 years is 103.3 cm.

5- At 5 years age:

5 children measured 95 cm.

7 children measured 100 cm.

the standard length at 5 years is 109 cm.

6- At 6 years age:

1 child measured 90 cm.

5 children measured 100 cm.

the standard length at 6 years is above 109 cm.

III The weight for length relation obtained are the following:

1- At 6 kg weight the length ranged between 70 and 75 cm.

The standard weight for the length between 70 and 75 cm is from 8.7 kg to 9.9 kg.

2- At 8 kg weight the length was 85 cm.

The standard weight at 85 cm is 12 kg.

3- At 10 kg weight the length ranged between 80 and 85 cm.

The standard weight for the length between 80 and 85cm is from 11 to 12 kg.

4- At 12 kg weight the length ranged from 75 cm (one) to 95 cm (6) to 100 cm (3).

The standard weight for length ranging from 90 to 100 cm is 13.1 to 15.6 kg.

5- At 14 kg weight, the length ranged between 95 and 100 cm.

The standard weight for length ranging from 95 to 100 is 14.3 to 15.6 kg.

6- At 16 kg weight, the length was from 95 to 100 cm (with 6 children measuring 100 cm).

The standard weight for 100 cm is 15.6 kg.

7- At 18 kg weight, the length was from 95 to 100 cm.

The standard weight for this length is 14.3 to 15.6 kg.

IV Triceps skin-fold estimation:

1- At one year age:

4 children had a skin-fold of 8 mm.

4 children had a skin-fold of 9 mm.

The standard is 10.2 to 10.3 mm.

2- At 2 years age.

4 children had a skinfold of 9 mm.

The standard being at 2 years age 10 mm.

3- At 3 years age.

5 children had a skin fold of 9 mm.

The standard being 9.3 to 9.7 mm et 3 years age .

4- At 4 years age.

9 children had a skinfold of 9 mm.

The standard being at 4 years age 9.3 to 10.2 mm.

5- At 5 years age.

9 children had a skinfold of 9 mm.

3 children had a skinfold of 8 mm.

The standard being at 5 years age 9.1 to 9.4 mm.

6- At 6 years age.

4 children had a skinfold of 9 mm.

2 children had a skinfold of 7 mm.

The standard being at 6 years age 8.2 to 9.6 mm.

ARAB RASHED.

Forty children were examined in this settlement.  
The following data were collected.

I Weight.

1- At one year age:

6 children weighted 6 kg.

4 children weighted from 6 - 8 kg.

2 children weighted from 8 - 10 kg.

1 child weighed 11 kg.

whereas the general anthropometric standards of  
reference are as follows:

- at one year the standard weight is 9.9 kg the 60%  
standard is 6 kg.

2- At 2 years age:

1 child weighted 10 kg.

2 children weighted from 12 - 14

whereas the standard deviation weight at 2 years age  
is 12.4 kg the 60% standard is 7.5 kg.

3- At 3 years age:

1 child weighted 10 kg.

2 children weighted from 12-14 kg.

4 children weighted from 14-16 kg.

the standard being 14.5 kg the 60% standard is 8.7 kg.

4- At 4 years age:

2 children weighted 12 kg.

2 children weighted 15 kg.

3 children weighted 17 kg.

1 child weighted over 18 kg.

The standard being 16.5 kg the 60% standard is 9.9 kg.

5- At 5 years age:

3 children weighted from 14-16 kg.

2 children weighted from 16-18 kg.

1 child weighted over than 18 kg.

The standard being 18.4 kg the 60% standard is 11 kg.

6- At 6 years age:

3 children weighted from 14-16 kg.

2 children weighted from 16-18 kg.

1 child weighted over 18 kg.

The standard is over 18.4 kg.

II Length:-

1- At one year age:

8 children measured below 70 cm.

4 children measured 70 cm.

1 child measured 75 cm.

The standard length at 1 year age is 74.7 cm. the 60% standard is 44.3 cm.

2- At 2 years age:

3 children measured 80 cm.

The standard length at 2 years is 87.1 the 60% standard is 52.2 cm.

3- At 3 years age:

3 children measured 80 cm.

1 child measured 85 cm.

1 child measured 90 cm.

2 children measured 95 cm.

The standard length at 3 years is 96 cm.

4- At 4 years age:

2 children measured 80 cm.

1 child measured 90 cm.

4 children measured 95 cm.

1 child measured over 100 cm.

The standard length at 4 years is 103.3 cm.

5- At 5 years age:

1 child measured 95 cm.

2 children measured over 100 cm.

The standard length at 5 years is 109 cm.

6- At 6 years age:

6 children measured over 100 cm.

The standard length at 6 years is over 109 cm.

III The weight for length relation obtained are the following

1- From 6-8 kg weight the length ranged between 60 and 70 cm.

The standard weight for the length between 60 and 70 cm is from 5.7 to 8.7 kg.

2- From 8-10 kg weight the length was 70 cm.

The standard weight at 70 cm is 8.7 kg.

3- From 10-12 kg weight the length ranged between 75 and 95 cm.

The standard weight for the length 75-95 cm is from 9.9 to 14.3 kg.

4- From 12-14 kg weight the length was 80 cm.

The standard weight for 80 cm length is 12 kg.

5- From 14-16 kg weight, the length ranges between 80 cm to over 100 cm.

The standard weight for these length is from 14 to 15.6 kg.

6- From 16-18 kg weight, the length was from 90 to over 100 cm.

The standard weight for these lengths is from 14 to over 15.6 kg.

7- From 18 to over 18 kg weight, the length was over 100 cm which confirms with the standard weight

IV Triceps skin-fold estimation:

1- At one year age.

1 child had a skin-fold of 6 mm.

4 children had a skin-fold of 7 mm.

2 children had a skin-fold of 8 mm.

6 children had a skin-fold over 9 mm.

The standard ranges between 10.2 to 10.3 mm.

2- At 2 years age.

1 child had a skinfold of 6 mm.

2 children had a skinfold of over 9 mm.

The standard being at 2 years age 10 mm.

3- At 3 years age.

1 child had a skin-fold of 6 mm.

1 child had a skin-fold of 8 mm.

5 children had a skin-fold of over 9 mm.

The standard being between 9.3 and 9.7 mm.

4- At 4 years age.

1 child had a skinfold of 7 mm.

2 children had a skinfold of 8 mm.

5 children had a skinfold of over 9 mm.

The standard being at 4 years age between 9.1 and 10.2 mm.

5- At 5 years age.

1 child had a skinfold of 7 mm.

1 child had a skinfold of 8 mm.

1 child had a skinfold of over 9 mm.

The standard being at 5 years age between 9.1 and 9.4 mm.

6- At 6 years age.

2 children had a skinfold of 7 mm.

1 child had a skinfold of 8 mm.

3 children had a skinfold of over 9 mm.

The standard being at 6 years age between 8.2 and 9.6 mm.

Manshiet Nasser

In Manshiet Nasser 30 children were examined

The following data were collected.

I Weight:-

1- At one year age:

1 child weighted 6 kg.

1 child weighted 7 kg.

whereas the general anthropometric standards of reference are as follows:

at one year the standard weight is 9.9 kg the 60% standard is 6 kg.

2- At 2 years age:

1 child weighted 7 kg.

1 child weighted 9 kg.

whereas the standard weight at 2 years age is 12.4 kg the 60% standard is 7.5 kg.

3- At 3 years age:

3 children weighted 11 kg.

2 children weighted 13 kg.

2 children weighted 15 kg.

the standard being 9.5 kg the 60% standard is 8.7 kg.

4- At 4 years age:

2 children weighted 11 kg.

3 children weighted 13 kg.

2 children weighted 15 kg.

the standard being 16.5 kg the 60% standard is 9.9 kg.

5- At 5 years age:

5 children weighted 15 kg.

2 children weighted 17 kg.

1 child weighted over 18 kg.

the standard being 18.4 kg the 60% standard is 11 kg.

6- At 6 years age:

1 child weighted 15 kg.

3 children weighted over 18 kg.

the standard being over 18.4 kg.

II Length:-

1- At one year age:

1 child measured 65 cm.

1 child measured 75 cm.

the standard length at 1 year age is 74.7 cm.

the 60% standard is 44.3 cm.

2- At 2 years age:

2 children measured 70 cm.

the standard length at 2 years is 87.1 cm. the  
60% standard is 52.2 cm.

3- At 3 years age:

2 children measured 75 cm.

3 children measured 85 cm.

2 children measured 90 cm.

the standard length at 3 years is 96 cm.

4- At 4 years age:

2 children measured 85 cm.

3 children measured 90 cm.

2 children measured 95 cm.

the standard length at 4 years is 103.3 cm.

5- At 5 years age:

3 children measured 95 cm.

5 children measured over 100 cm.

the standard length at 5 years is 109 cm.

6- At 6 years age:

4 children measured over 100 cm.

the standard length at 6 years is over 109 cm.

III The weight for length relation obtained are the following:

- 1- At 6 kg weight the length was 70 cm.  
The standard weight for 70 cm length is 8.7 kg.
- 2- At 7 kg weight the length was 75 cm.  
The standard weight at 75 cm is 9.9 kg.
- 3- At 9 kg weight the length is 70 cm.  
The standard weight for 70 cm. length is 8.7 kg.
- 4- At 11 kg weight the length is 80 cm.  
The standard weight for 80 cm length is 11 kg.
- 5- At 13 kg weight, the length is 87 cm.  
The standard weight for 87 cm length is 12.4 kg.
- 6- At 15 kg weight, the length is 100 cm.  
The standard weight for 100 cm is 15.6 kg.
- 7- At 17 kg weight, the length is 105 cm.  
The standard weight for this length is 17.3 kg.
- 8- Over 18 kg weight the length is over 100 cm which conforms with the standard figures.

IV Triceps skin - fold estimation:-

- 1- At one year age:
  - 1 child had a skin-fold of 7 mm.
  - 1 child had a skin-fold of 8 mm.

The standard triceps skin - fold at one year is 10.2 - 10.3 mm.

2- At 2 years age:

1 child had a skinfold of 6 mm.

1 child had a skinfold of 8 mm.

The standard being at 2 years age 10 - 10.1 mm.

3- At 3 years age:

1 child had a skin fold of 6 mm.

2 children had a skin fold of 7 mm.

4 children had a skin fold of over 9 mm.

The standard being at 3 years 9.3 - 9.7 mm.

4- At 4 years age:

3 children had a skinfold of 7 mm.

2 children had a skinfold of 8 mm.

2 children had a skinfold of over 9 mm.

The standard being at 4 years age 9.3 - 10.2 mm.

5- At 5 years age:

1 child had a skinfold of 7 mm.

3 children had a skinfold of 8 mm.

4 children had a skinfold of over 9 mm.

The standard being at 5 years age 9.1 - 9.4 mm.

6- At 6 years age:

1 child had a skinfold of 7 mm.

3 children had a skinfold of over 9 mm.

The standard being at 6 years age 8.2 - 9.6 mm.

In Arab Kafir MI MIW 20 children have been examined.

The following data were collected.

Weights:-

1- At one year age:

3 children weighted less than 6 kg.

whereas the general anthropometric standards of reference are as follows:

- at one year the standard weight is 9.9 kg the 60% standard is 6 kg.

2- At 2 years age:

2 children weighted 10 kg.

whereas the standard weight at 2 years age is 12.4 kg the 60% standard is 7.5 kg.

3- At 3 years age:

3 children weighted 10 kg.

the standard being 14.5 kg the 60% standard is 8.7 kg.

4- At 4 years age:

1 child weighed 12 kg.

the standard being 16.5 kg the 60% standard is 9.9 kg.

5- At 5 years age:

1 child weighted 12 kg.

4 children weighted 14 kg.

1 child weighted 16 kg.

the standard being 18.4 kg the 60% standard is 11 kg.

6- At 6 years age:

3 children weighted 14 kg.

2 children weighted 16 kg.

the standard being above 18.4 kg.

## II Length:-

1- At one year age:

3 children measured below 70 cm.

the standard length at 1 year age is 74.7 cm. the 60% standard is 44.3 cm.

2- At 2 years age:

1 child measured 75 cm.

1 child measured 100 cm.

the standard length at 2 years is 87.1 cm. the 60% standard is 52.2 cm.

3- At 3 years age:

1 child measured 75 cm.

1 child measured 100 cm.

the standard length at 3 years is 9.6 cm.

4- At 4 years age:

1 child measured 80 cm.

1 child measured 95 cm.

1 child measured 100 cm.

the standard length at 4 years is 103.3 cm.

5- At 5 years age:

5 children measured over 100 cm.

the standard length at 5 years is 109 cm.

6- At 6 years age:

5 children measured over 100 cm.

the standard length at 6 years is above 109 cm.

III The weight for length relation obtained are the following:

1- At 6 kg weight the length is 80 cm.

The standard weight for 80 cm. length is 70  
11 kg.

2- At 8 kg weight the length is 85 cm.

The standard weight at 85 cm is 12 kg.

3- At 10 kg weight the length is 85 cm

The standard weight for 85 cm length is 12 kg.

4- At 12 kg weight the length is 90 cm.

The standard weight for 90 cm. length is 13.1 kg.

5- At 14 kg weight, the length is 100 cm.

The standard weight for 100 cm. length is 15.6 kg.

6- At 16 kg weight, the length is 100 cm.

The standard weight for 100 cm. is 15.6 kg.

#### IV Triceps skin-fold estimation:

1- At one year age:

1 child had a skin-fold of 4 mm.

1 child had a skin-fold of 5 mm.

1 child had a skin-fold of 7 mm.

The standard skin-fold for 1 year is 10.2-10.3 mm.

2- At 2 years age:

1 child had a skin-fold of 7 mm.

1 child had a skin-fold of 8 mm.

The standard being at 2 years age 10 - 10.1 mm.

3- At 3 years age:

1 child had a skin-fold of 5 mm.

1 child had a skin-fold of 6 mm.

1 child had a skin-fold of 7 mm.

The standard being at 3 years age 9.3 - 9.7 mm.

4- At 4 years age:

2 children had a skin-fold of 9 mm.

The standard being at 4 years age 9.3 - 10.2 mm.

5- At 5 years age:

1 child had a skin-fold of 5 mm.

1 child had a skin-fold of 6 mm.

1 child had a skin-fold of 7 mm.

2 children had a skin-fold of 9 mm.

The standard being at 5 years age 9.1 - 9.4 mm.

6- At 6 years age:

1 child had a skin-fold of 6 mm.

1 child had a skin-fold of 7 mm.

2 children had a skin-fold of 8 mm.

1 child had a skin-fold of 9 mm.

The standard being at 6 years age 8.2 - 9.6 mm.

Arab Zein

In Arab Zein 20 children have been examined

The following data were collected.

I Weight.

1- At one year age:

2 children weighted 6 kg.

1 child weighted 7 kg.

whereas the general anthropometric standards of reference are as follows:

- at one year the standard weight is 9.9 kg the 60% standard is 6 kg.

2- At 2 years age:

2 children weighted 7 kg.

whereas the standard weight at 2 years age is 12.4 kg the 60 % standard is 7.5 kg.

3- At 3 years age:

2 children weighted 9 kg.

2 children weighted 11 kg.

1 child weighted 13 kg.

the standard being 14.5 kg the 60% standard is 8.7 kg.

4- At 4 years age:

2 children weighted 13 kg.

1 child weighted 15 kg.

the standard being 16.5 kg the 60% standard is 11.9 kg.

5- At 5 years age:

5 children weighted 13 kg.

2 children weighted 15 kg.

the standard being 18.4 kg the 60% standard is 11 kg.

II Length:-

1- At one year age:

2 children measured below 70 cm.

1 child measured 70 cm.

the standard length at 1 year age is 74.7 cm.

the 60% standard is 44.3 cm.

2- At 2 years age:

2 children measured 80 cm.

the standard length at 2 years is 87.1 cm. the 60% standard is 52.2 cm.

3- At 3 years age:

1 child measured 80 cm.

1 child measured 85 cm.

1 child measured 90 cm.

1 child measured 95 cm.

the standard length at 3 years is 96 cm.

4- At 4 years age:

2 children measured 95 cm.

1 child measured over 100 cm

the standard length at 4 years is 103.3 cm.

5- At 5 years age:

2 children measured 95 cm.

5 children measured over 100 cm.

the standard length at 5 years is 109 cm.

III The weight for length relation obtained are the following:

1- At 6 kg weight the length was 70 cm.

the standard weight for 70 cm. length is 8

2- At 7 kg weight the length was 75 cm. the standard weight for 85 cm. is 9.9 kg.

3- At 9 kg weight the length was 82 cm.

The standard weight for this length is 11.4 kg.

4- At 11 kg weight the length was 80 cm.

The standard weight for this length is 11 kg.

5- At 13 kg weight, the length was 100 cm.

The standard weight for this length is 15.6 kg.

6- At 15 kg weight, the length was over 100 cm.

The standard weight for this length is above 15.6 kg.

IV Triceps skin - fold estimation:

1- At one year age:

1 child had a skin - fold of 2 mm.

2 children had a skin - fold of 7 mm.

The standard being at one year 10.2 - 10.3 mm.

2- At 2 years age:

1 child had a skinfold of 4 mm.

1 child had a skinfold of 8 mm.

The standard being at 2 years age 10 - 10.1 mm.

3- At 3 years age:

1 child had a skin fold of 6 mm.

2 children had a skin fold of 7 mm.

2 children had a skin fold of over 9 mm.

The standard being at 3 years age 9.3-9.7 mm.

4- At 4 years age:

1 child had a skin fold of 5 mm.

1 child had a skin fold of 8 mm.

1 child had a skin fold of over 9 mm.

The standard being at 4 years age 9.3-10.2 mm.

5- At 5 years age:

1 child had a skin fold of 5 mm.

4 children had a skinfold of 6 mm.

1 child had a skinfold of 7 mm.

1 child had a skinfold of 8 mm.

The standard being at 5 years age 9.1 -

El Abassiriy

In El Abassiriy 40 children were examined

The following data were collected.

I Weight:-

1- At one year age:

1 child weighted less than 6 kg.

2 children weighted 6 kg.

2 children weighted 8 kg.

3 children weighted 10 kg.

whereas the general anthropometric standards of reference are as follows:

- at one year the standard weight is 9.9 kg the 60% standard is 6 kg.

2- At 2 years age:

1 child weighted 8 kg.

3 children weighted 10 kg.

1 child weighted 14 kg.

whereas the standard deviation weight at 2 years age is 12.4 kg the 60% standard is 7.5 kg.

3- At 3 years age:

1 child weighted 10 kg.

3 children weighted 12 kg.

4 children weighted 14 kg.

1 child weighted 16 kg.

1 child weighted 18 kg.

the standard being 14.5 kg the 60% standard is 8.7 kg.

4- At 4 years age:

2 children weighted 14 kg.

1 child weighted 18 kg.

the standard being 16.5 kg the 60% standard is 9.9 kg.

5- At 5 years age:

2 children weighted 14 kg.

2 children weighted 16 kg.

4 children weighted 18 kg.

the standard being 18.4 kg the 60% standard is 11 kg.

6- At 6 years age:

2 children weighted 16 kg.

4 children weighted 18 kg.

the standard being above 18.4 kg.

## II Length:-

1- At one year age:

4 children measured below 70 cm.

3 children measured 70 cm.

1 child measured 80 cm.

the standard length at 1 year age is 74.7 cm.

the 60% standard is 44.3 cm.

2- At 2 years age:

2 children measured 70 cm.

3 children measured 80 cm.

the standard length at 2 years is 87.1 cm. the 60% standard is 52.2 cm.

3- At 3 years age:

1 child measured 80 cm.

2 children measured 85 cm.

7 children measured 90 cm.

the standard length at 3 years is 96 cm.

4- At 4 years age:

1 child measured 90 cm.

1 child measured 95 cm.

1 child measured over 100 cm.

the standard length at 4 years is 103.3 cm.

5- At 5 years age:

2 children measured 95 cm.

6 children measured over 100 cm.

the standard length at 5 years is 109 cm.

6- At 6 years age:

1 child measured 95 cm.

5 children measured over 100 cm.

the standard length at 6 years is above 109 cm.

III The weight for length relation obtained are the following:

1- At 6 kg weight the length was 65 cm.

The standard weight for 65 cm length is 7.2 kg.

2- At 8 kg weight the length was 68 cm.

The standard weight for 68 cm. is 8.1 kg.

3- At 10 kg weight the length was 75 cm.

The standard weight for 75 cm. length is 9.9 kg.

4- At 12 kg weight the length was 86 cm.

The standard weight for 86 cm length is 11.2 kg.

5- At 14 kg weight, the length was 90 cm.

The standard weight for 90 cm length is 13.1 kg.

6- At 16 kg weight, the length was 100 cm.

The standard weight for 100 cm is 15.6 kg.

7- At 18 kg weight, the length was over 100 cm.

This figure conform with the ideal standard measures.

IV Triceps skin-fold estimation:-

1- At one year age:

2 children had a skin-fold of 6 mm.

1 child had a skin-fold of 7 mm.

2 children had a skin-fold of 8 mm.

3 children had a skin-fold of 9 mm.

The standard is 10.2 - 10.3 mm.

2- At 2 years age:

1 child had a skinfold of 8 mm.

4 children had a skinfold of 9 mm.

The standard being at 2 years age 10 - 10.1 mm.

3- At 3 years age:

1 child had a skin fold of 7 mm.

1 child had a skin fold of 8 mm.

8 children had a skinfold of 9 mm.

The standard being 9.3 - 9.7 mm.

4- At 4 years age:

3 children had a skinfold of 9 mm.

The standard being at 4 years age 9.3-10.2 mm.

5- At 5 years age:

2 children had a skinfold of 8 mm.

6 children had a skinfold of 9 mm.

The standard being at 5 years age 9.1 - 9.4 mm.

6- At 6 years age:

1 child had a skin fold of 7 mm.

1 child had a skin fold of 8 mm.

4 children had a skin fold of 9 mm.

The standard being at 6 years age of 8.2 - 9.6 mm.

Analysis of the results.

In the six settlements studied, all the data collected revealed the following informations:

- 1- Most of the children were underweight; they hardly attained the general anthropometric standard values of reference; yet the weight was not lower than the 60% standards in most of the cases.
- 2- Most of the children were underbuilt. They too hardly attained the standard length for their , but were nevertheless not severely affected, as they reached values near the standard length when approaching 4 to 6 years age, as shown by the weight-length relations obtained.
- 3- Very slight under-nutrition was observed, as shown by the comparative study of the obtained values for triceps skin fold and the standard values.