

#### **Focus on Work Package 4: Anthropometrical assessment**

The Italian and the French teams were responsible for the development of the protocol for the longitudinal assessment of body composition and growth pattern of the infants based on anthropometric measurements. The study is conducted in infants followed from the first examination (0-4 weeks) up to the age of 2 years.

##### **Description of work**

An methodology for anthropometric data collection trans-culturally was developed and agreed:

- Equipment and measurements were chosen according to the WHO recommendations. All sites in the different countries use the same measuring equipment.
- Instruments were provided to each centre for the calibration of the equipment.
- A Standard Operating Protocol document including photos was provided to each centre during a training session where all the teams were present.
- Questionnaires were devised for each visit (infants and parents), and were available on the laptop computer, in order to capture the data directly. Minimum and Maximum values obtained from published data had already been entered into the program, to avoid recording abnormal values during the study.
- Measurements are recorded two or three times, depending on the measure. The final value to be used will be the average of the different values.

##### **Analysis of the data**

From the recorded measurements, various anthropometric parameters will be calculated, e.g. weight and length gain, the body mass index, indices of fat distribution, body composition from skinfold measurements and from a combination of Mid Upper Arm Circumference (MUAC) and triceps skinfold, lower and upper segments and their ratio (Skelic index). These will provide detailed information on body composition and growth processes during the early phase of growth. Measurements of the parents and of the infant such as the wrist breadth will be used for adjustment for frame size.

Comparisons of the anthropometric parameters between the different feeding groups and the breast feeding reference group will allow us to assess the impact of nutrition on the growth processes of the children and on their potential future health risks.