This paper identifies 3 research questions using our experience with socioeconomic changes in Tunisia as an example. Tunisia has always adopted the WHO/UNICEF recommendations concerning children's nutrition, especially breastfeeding and complementary feeding. This paper analyses different studies conducted in Tunisia concerning feeding practices and their effects on growth, morbidity, and mortality in childhood. The results obtained during 2 periods are presented: the first 20 years after independence (before 1976) and the second 20-year period (situation in 1996).

Before 1976

Feeding Practices

Most infants were breastfed—84% to 99%, and the mean duration was 15 months. The mean length of exclusive breastfeeding was 6 months. Breastfeeding was less common in urban communities. This was not explained by mother's occupation but it was rather because of her ignorance regarding good child feeding practices. Most studies emphasized the lack of complementary feeding starting from the second semester of life. The age of introduction of the first nutrient was variable according to regions. The first complementary foods were most commonly (>60%) wheat flour gruels and watered biscuit. Bread was introduced at 5 months. Legumes were rarely given. Eggs, meat, and fish were not introduced until 12 months.

Growth

Low birth weight (<2500 g) was present in only 7% to 9%. Children grew well until the age of 5 to 6 months; then, growth often declined with the introduction of inadequate complementary foods and continued to decline until 24 months. According to the Gomez classification, wasting was common (50%–60%) among children <5 years old, with a peak prevalence in the second year of life. Kwashiorkor became less frequent (3.5% in 1969; 1.6% in 1973); mortality remained high (30%–40%). Mean duration of exclusive breastfeeding was the same during this period, the decrease in prevalence of severe malnutrition can be explained by the improvement of the quality of complementary feeding. In 1969, more than a half of healthy infants 6 to 9 months old had received no complementary foods indicating that exclusive breastfeeding had fully satisfied their nutritional needs. Early introduction of complementary foods, which contain potentially allergenic proteins and may be bacterially contaminated, should be avoided.

1994

A national and global policy was introduced in the 1970s to improve the nutritional status of growing children. Weaning food mixes made from local cereals and legumes were promoted and available throughout the country. The national survey conducted in 1994 evaluated the results and these can be compared with the “before 1976” figures above.

Feeding Practices

 Breastfeeding was still widely practiced (94%). This was little affected by the educational achievement of the mothers, socioeconomic level, or birth rank but older primiparae breastfed less frequently (80%). The mean duration of breastfeeding was 15 months. It was longer for women who had never gone to school.

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(18 months) and for mothers older than 40 (21 months). However, the mean length of exclusive breastfeeding was 1.6 months only. Before the age of 4 months, 84% of infants had received water, 66% had received herb tea, 41% had received water with sugar, 19% had received infant formula, and 19% had received household foods such as mashed vegetables or wheat flour gruels (61% of infants had had these by 6 months). Family foods were received by 48% of the infants at 7 months and by 88% of the infants at 12 months. Weaning was abrupt in 58% of the infants.

**Growth**

Wasting was observed in 9% of children <5 years old (2%, severe). The frequency of wasting was low before the age of 6 months (3.5%), reaching the highest rate between the ages of 6 and 12 months particularly among whose mothers had not gone to school and with birth intervals <2 years. Stunting remained frequent (22%, 9% severe). It increased from 25% at 6 months to 31% between 1 and 2 years and then declined to 19% at 2 years. Stunting was more frequent in rural communities than in urban (33% vs 14%). It was more prevalent in infants from mothers with short birth intervals (<2 years: 30%; >4 years: 17%) reflecting the benefit of family planning. The mothers’ education was a benefit (13% in the children of mothers who had been to school vs 31% in children whose mothers had never attended school). A total of 0.8% of children had kwashiorkor. These children were primarily 1 to 2 years old, lived in rural communities, and their mothers had not achieved a primary level of education.

**Infection**

Gastroenteritis with dehydration accounted for 17% to 22% of hospitalizations during the period 1966–1972 and 24% of these infants died. The action of the national diarrheal disease control program had led to a reduction of this prevalence. Acute respiratory infections were the second most frequent infection (18% of hospitalizations.) They were severe and responsible for a high mortality during the first 20 years. Measles used to be very frequent and severe. However, since the institution of obligatory immunization, it is no longer a public health problem. Infant mortality was 1010/100 during the period 1970–1974 and had considerably decreased to 350/100 during the period 1990–1994.

**Conclusion**

The decrease of morbidity and mortality observed the last years can be attributed to the several actions conducted in Tunisia to improve the socioeconomic level, environmental health and hygiene, education, and family planning. Despite the high prevalence of breastfeeding, the mean duration of exclusively breastfeeding does not exceed 2 months. The lack of exclusive breastfeeding in addition to inadequate complementary feeding bring threats to infant health. The growth of children often declines with the introduction of complementary foods around the age of 6 months and continues to decline up to 24 months. Public health efforts that focus only on prolonged breastfeeding in developing countries will not ensure adequate early childhood growth. Intervention programs can be designed to promote exclusive breastfeeding, at least for 4 months, and to enhance the energy and nutrient content of complementary foods by the use of traditional household mixtures. Such programs and interventions need to be carefully controlled and evaluated. It is also necessary to determine the most important factors affecting the caregivers’ ability to provide complementary feeding and the interactions between nutrition, growth, and infection in childhood.

**Research Questions**

1. Are there any advantages to complementary feeding before 6 months in developing countries?
2. What is the impact of mothers’ education on breastfeeding and the introduction of complementary foods?
3. How can the interrelationships between infant growth, nutrition, and infection be better characterized?

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