CONCLUSIONS 10

10.1 Age of complementary feeding

The interviews with mothers found a general consensus that solid foods should not be given to children until after the child can walk. However, this recommendation was often not followed, particularly by the mothers of malnourished children who regularly gave their children rice and *to* between 7 and 12 months of age. In addition, giving water and traditional medicines from birth is nearly universal. Introduction to complementary food was done using *cobal,* a watery millet-based gruel considered a bridging liquid appropriate for infants from about six months of age. It was described as “light” and “sweet,” classified differently from the staples such as *to* and rice, which were seen as heavy and which would “weigh the child down” and impede him from walking.

The problem with the wide use of *cobal* to complement breast milk is its nutritive quality is minimal unless it contains soured milk. Health education messages could emphasize the positive aspects of feeding at six months of age with *cobal* and reinforcing its energy content by adding groundnut oil, which is widely available, or pounded groundnuts, which are cheaper but still have a high calorific content.

Mothers of malnourished children tended to give their children complementary food earlier than mothers of well-nourished children because they perceived that their breast milk was insufficient or that the quality of the milk was inferior. They thus set up a cycle of breast milk insufficiency as the frequency and intensity of infant suckling was diminished by the child’s consumption of complementary foods. Again, health education programs and health professionals need to carefully explain to women the relationship between infant suckling and milk production and insist that breastfeeding be increased rather than decreased if milk seems insufficient. In fact, health workers appear to sometimes need additional training in correct breastfeeding and supplementation practices, including advice about giving water. In some cases, water had been given in the first months of life on the advice of health professionals, when, in fact, this is not technically necessary and could be a source of contamination, potentially leading to diarrhea.

The observational data indicate that in general, in terms of feeding practices and food consumption, there were very few differences between the well-nourished and malnourished children, particularly at the older ages. There was some evidence that initial problems with growth and weight resulted in giving complementary food and in a decline in breastfeeding, but this was by no means a strategy for all the mothers interviewed. One important finding, albeit without statistical significance, was that the malnourished children were more likely to put dirt or sand in their mouth than their well-nourished counterparts. This points to issues of care and hygiene being fundamentally different between the two groups.

During episodes of illness, mothers tended to increase breastfeeding and giving water. Mothers of better nourished children paid more attention to food consumption if the child was sick and were more likely to prepare special dishes or to insist that a child ate even when he did not apparently wish to do so. Mothers of malnourished children expressed the view that if a child did not want to eat, there was no point in forcing him or her.

10.2 Context of feeding practices

The study found that it is the context of the feeding practices and the decisions preceding them rather than the practices themselves that differ among the two groups of children. First, the community context is one of absolute and extreme poverty in which time and labor demands on women are excessive and result in very little income with which to purchase food or anything else. Men recognize that their responsibilities are to feed and cloth their immediate and often extended families, but they have great difficulty doing so. This is true throughout the rural areas and even in some urban households. In addition to the dry Sahelian environment, which precludes the cultivation of a wide variety of foodstuffs, this difficulty to meet basic daily food needs may explain why the differences in rural and urban feeding practices were minimal. Women admitted that despite advice from health workers to diversify complementary foods, they were unable to do so for economic reasons.

The data clearly indicate that one of the major determinants of mothers' ability to care for their children is the social support available to them in their household, and particularly with the availability of older daughters who can act as child minders. Those women who could not draw on daughters to provide child care for their infants, or to help with other household tasks were obliged to combine child care and domestic duties and carry out both simultaneously. Such double duty may well lead to increased fatigue and limit their ability to interact with their children. In particular, it may be that mothers are less able to monitor hygiene and cleanliness. Unminded children may place contaminating substances in their mouth leading to diarrhea and subsequent malnutrition. A cycle of apathy and dependency in children then begins resulting in their being less able to be left at home and more likely to accompany their mother on her back while she carries out her work.

The predominant finding related to the household context of decisionmaking about infant feeding was the importance of the role of the mother-in-law in all aspects of child care in households with young mothers. In particular, young and first-time mothers rarely made decisions alone about aspects of their children's well-being. Mothers-in-law took responsibility for much of the day-to-day care of the child, for giving traditional medicines, treating illnesses, and advising on complementary feeding. During the group discussions, older women stated that feeding with solid foods should be withheld until the child can walk; otherwise, his or her development will be impaired. However, they also recognized that, in many cases, feeding was occurring earlier than they would have liked.

In short, the preferences of other women for the timing of feeding were mixed. Nevertheless, their social power and child care roles cannot be underestimated. It is vital that the mother/mother-in-law dynamic be incorporated into education strategies and that the older women are sensitively informed of optimal feeding practices.

Overall, mothers' complementary feeding practices were different from the standards recommended by international agencies in two main ways: 1) nearly all mothers gave water and traditional medicines soon after birth and continued to do so, and 2) a large proportion waited to give solid foods (besides *cobal*) until the child was 9 or 10 months old. Although they recognized that the cultural norms prescribed withholding food until after the first year, they admitted that in fact they supplemented a great deal earlier with *cobal,* which was not considered "food."

Differences in the practices of mothers of malnourished children were not so evident for complementary feeding as for other aspects of care such as the choice of surrogate caretaker, attention to hygiene, and illness management. The interaction of these factors in this economically marginal environment characterized by food insecurity means that vulnerable infants easily run the risk of becoming malnourished, which often spirals into a constant cycle of illness, anorexia, and compromised growth.

10.3 Policy recommendations

- Health workers should be taught about the recommendations on exclusive breastfeeding and on the correct age for giving complementary foods, including water and traditional medicines. They also need to be trained to advise women to continue and even increase breastfeeding if their milk appears to be insufficient because milk production is related to the frequency and intensity of infant suckling.

- Because of their key role in child care with young mothers, older women (mothers-in-law) should be integrated into child health education programs, which often focus only on women of reproductive age. They could be sensitively educated by using “griots” (praise-singers) or other traditional methods of communication that emphasize their positive role and provide information about complementary foods.

- Opportunities for the development of women’s social support and social networks should be increased to provide them with opportunities for social interaction, economic collaboration, and child care. Recent migrants in urban areas could be linked to others from their place of origin through the “Associations des Ressortissants.” Neighborhood associations could be involved in setting up child care services for those who live in the same neighborhood.

- Since the main weaning food *(cobal)* is so widely given as a complementary food, it could be usefully fortified, perhaps with peanut oil or ground peanuts, to increase its energy content.

- Men should be encouraged to care for and interact with their children and taught about the correct ages for supplementation and the types of foods that are appropriate. This information could be disseminated during interventions that focus on agricultural improvements or during other male-orientated production activities.

- The association between good hygiene in the household and well-nourished status suggests that ways should be found to improve environmental sanitation around the household.