

MALNUTRITION IN THE PILOT NEIGHBORHOODS OF OUAGADOUGOU

Malnutrition is a leading cause of child mortality in Burkina Faso and Ouagadougou is no exception. To document the prevalence of malnutrition, a baseline anthropometric survey in May/June of 2002 measured the weights and heights of all children less than five years of age¹ in the two pilot communities of Taabtenga (non-zoned) and Wemtenga (zoned). A concurrent household survey collected information on home feeding practices.

The anthropometric survey showed that 16% of children under five were acutely malnourished (WHZ < -2²) in each of the two neighborhoods – a remarkably high proportion. As shown in the figure, such malnutrition is rare among children less than 6 months of age (the period during which infants can derive all of their nutritional needs from breastfeeding). Starting at six months of age, however, the prevalence of acute malnutrition rises sharply and remains high until children reach their third year of life. Acute malnutrition is thus common in the two communities throughout the weaning period. In contrast, chronic malnutrition (HAZ < -2³) is also rare throughout the first 6 months of life, then it slowly accumulates between 6 months and 18 months before it reaches a plateau. This plateau level of chronic malnutrition is considerably higher in the case of Taabtenga

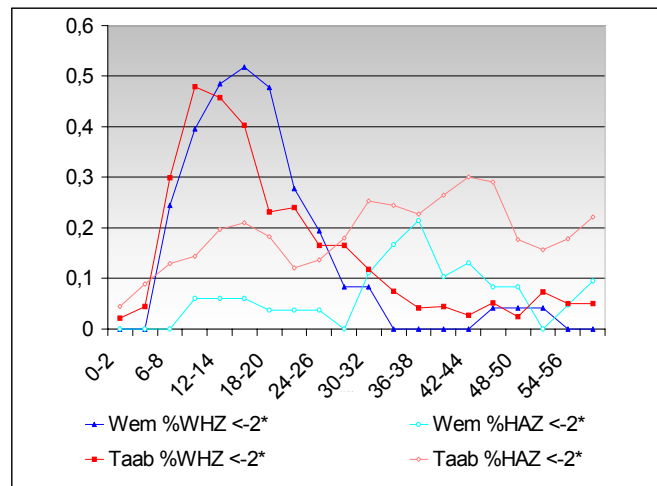
¹ Participation was excellent in Taabtenga : 437 of 502 (87%) registered children were weighed. Another 12% were absent during the two weeks of the survey while the parents of less than 1% of children refused or could not be accounted for. In contrast, 131 of 170 (77%) Wemtenga children participated : 13% were absent and parents of 10% refused or could not be accounted for. *The graph shows 9 month moving averages.

² Weight-for-height Z score more than 2 standard deviations below the international mean. Such children are referred to as « wasted » or acutely malnourished.

³ Height-for-age Z score more than 2 standard deviations below the international mean. Such children are referred to as « stunted » or chronically malnourished.

(where 20% of children overall are stunted) than in the case of Wemtenga (where only 6% of children overall are stunted). The table

Figure 1
Prévalence de malnutrition par âge
à Taabtenga et à Wemtenga



source : UERD, enquête santé ménage, mai-juin 2002

compares these overall results with those found throughout Ouagadougou and throughout Burkina Faso during the Demographic and Health Survey of 1998.

Survey	Prevalence		
	%WHZ < -2 wasting	%WAZ < -2 under-weight	%HAZ < -2 stunting
DHS Nov.- March '98	10	21	21
Ouagadougou			
Burkina Faso	13	34	37
UERD June 2002			
Taabtenga	16	31	20
Wemtenga	16	20	6

source : UERD, enquête santé ménage, mai-juin 2002 and MacroInternational – INSD, Burkina Demographic Health Survey 1998-99

The percentage of children with weights below 80% of the median for their age was 35% in Taabtenga and 23% in Wemtenga. Based

upon models developed by Pelletier *et al*⁴ it can thus be estimated that 45% of all deaths of children under-five in Taabtenga and 29% of those in Wemtenga are attributable to malnutrition or to the interaction of malnutrition with various infectious diseases. In each neighborhood, more than two-thirds of this malnutrition-associated mortality occurs to children who are only mildly to moderately malnourished.

The sharp rise in acute malnutrition from 6 months of age suggests a need to strengthen home practices for complementary feeding and feeding during and after acute illnesses. Of note are the following findings from the household survey. Porridge is the main weaning food in both neighborhoods. Of those children eating porridge, 25% in Wemtenga and 9% in Taabtenga are given porridge that is made from specially enriched flour. Caretakers enriched the porridge further with sugar (56% of the time in both communities) but aside from a few instances where shea nut butter was added, no one in either community reported enriching the porridge with oil. Follow-on research should identify the most acceptable options for increasing the energy content of porridge through enrichment with oil or possibly more sugar.

Parents reported that they possessed home-based health records for most children (83% in Wemtenga vs. 92% in Taabtenga) although a smaller percentage of parents could actually locate and show them to the surveyor (67% in Wemtenga vs. 85% in Taabtenga). Only about half of the children (56% in Wemtenga vs. 40% in Taabtenga) had been weighed during the last 12 months and a third or less (34% in Wemtenga vs. 19% in Taabtenga) had been weighed in the last 2 months. Interestingly, a significant percentage of mothers (46% in Wemtenga vs. 13% in Taabtenga) were able to correctly interpret a pair of sample growth curves.

Caretakers of 78% of children in Wemtenga and 75% of those in Taabtenga reported that the children had received a capsule of vitamin A in the last 12 months. In the vast majority of cases this capsule appears to have been

administered during the Polio National Immunization Days of October/November 2001. Less than 11% of children in Wemtenga and less than 6% of children in Taabtenga have received a capsule of vitamin A in the last 6 months even though they are now in the season when vitamin A deficiency is most common.

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⁴ Pelletier D. et al. The effects of malnutrition on child mortality in developing countries. Bulletin of the World Health Organization, 73, 1995.