

MATERNAL FOOD MANAGEMENT, INTRAHOUSEHOLD FOOD  
DISTRIBUTION IN GUATEMALA: CULTURE AND BEHAVIOR

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**INTRODUCTION** This paper examines maternal food management in households where food scarcity is, a recurrent problem and child malnutrition is evident, paying special attention to women's decisions on child feeding and feeding patterns of malnourished children. It addresses the questions: 1. Do mothers of undernourished children recognize their offspring's needs? 2. How do they feed these children in comparison to other household members when food supplements are available? 3. Are there cultural principles of food distribution and how are they associated with feeding behavior? 4. How do household members perceive and use food supplements intended for undernourished children?

**MATERIAL AND METHODS** Two rapidly urbanizing communities 35 kms from Guatemala City were selected. 45 households randomly identified as participating in a food supplementation project for at least one malnourished child 1 to 5 years were selected. Food products received were 3 lbs each cornsoy mix, cracked wheat, and skim milk powder, and one pint of vegetable oil per individual beneficiary. Average monthly household income was about US\$12, 90% of the women worked to generate income and 29% of them were heads of household; 35% of the women were illiterate. Each household was visited twice. Food was weighed and observations and interviews carried out with the principal women in households. Dietary data were collected by direct weighting and recall techniques; precoded forms were used to collect socioeconomic and observational data; and an ethnographic interview was used to explore cultural principles of food distribution. Intrahousehold food distribution was assessed comparing each member's percentage adequacy of energy and protein with those of other members for both mealtime food and total daily intake. 236 individuals were included in the dietary analysis. The results of the ethnographic interviews were qualitatively analyzed.

**HYPOTHESES: CULTURAL PRINCIPLES OF FOOD DISTRIBUTION** It was hypothesized that 4 food distribution principles would be found: 1. Contributions: Those perceived to have the greatest contribution potential will receive more than their corresponding share of food from the family pot. 2. Needs: Those perceived to be the most needy will receive more food. 3. Equity: Each member of the household will receive a portion of food corresponding to his/her nutritional requirements. 4. Demand: Those who demand more food will receive more.

**RESULTS** The target child (intended food supplements beneficiary)

received a significantly less adequate caloric diet than others in the household during formal meals ( $F=5.54, p .02$ ). When total daily intake was measured, these differences were no longer significant, although target children continued to have the lowest caloric adequacies. Target children were not fed any more than or any differently from other children the same age. Children in this age category received food significantly less adequate in calories during meals than elder household members ( $F=3.54, p .01$ ). When total daily intake from snacks was included there were no significant differences by age categories in the distribution of household calories. Women had significantly better caloric adequacies both for food consumed at mealtimes ( $F=3.37, p .01$ ), and for total daily intake ( $F=2.33, p .05$ ), than other household members. The male head had a significantly richer protein diet during meals compared to other household members ( $F=1.99, p .01$ ), but when food intake between meals was included his protein adequacy did not differ from others'. There is no evidence that households are responding to the nutritional requirements of target children. Three cultural principles of food distribution were identified: a contributions principle with 3 versions: one favoring adults over children, one favoring males over females, and one favoring adult males; an equality principle which proposed giving portions of equal size to all household members; and a needs principle favoring children over adults, but not favoring the target child over other children. The most commonly expressed one was the contributions rule, followed by the equality and needs principles. Women's observed distribution of supplementary food is congruent with their statements regarding management and distribution of supplements for household consumption. Food donations are seen as supplements for the whole household, due to food scarcity. Food management behavior does not reflect an effort to reserve food supplements exclusively or primarily for the target child, although his special needs are recognized. Supplements are combined with other food, and prepared and distributed in the same way as other food products in the household, following the same kind of routine decision-making. Milk powder, CSM and cracked wheat are primarily used in the preparation of sweet gruels which are intended but not always destined primarily for children. Women stated that they try to reserve milk products for their children, but no one said they reserve them for the target child.

DISCUSSION How can we explain the finding that in the same households men receive preferential treatment in the distribution and consumption of protein, but adult women show better energy intake? What accounts for the fact that food distribution during meals meets the nutritional requirements of adults more fully than those of children 1 to 5 years, but food distribution patterns during the whole day tends to make these differences disappear? First, distribution rules favoring adults and especially adult males are more rigorously observed in the distribution of prestige foods not suitable for sharing widely. Expensive food, particularly animal protein, is such kind of prestige food. Prestige food is subject to the contributions principle. Calories are not subject to this principle of food distribution partly because prestige foods are not their primary source. Second, distribution behavior during meals follows distribution principles which are not operative at other times. The relative formality of meals and the presence of adults, especially adult males at these events, influence women's decision to observe the predominant food distribution principles. The consumption of calories occurs both during structured and unstructured meal events. Perhaps women have more access to caloric

foods between meals because they spend more hours at home than men. Women's caloric intake may be also due to nibbling during meal preparation. Children in the youngest age category appear to be able to snack liberally and, in fact, do unstructured eating of such magnitude as to obliterate the differences in dietary adequacy between them and adults observed during main meals. Our interpretation of this finding is that women compensate for their food distribution behavior during formal meals by applying the needs rule at other times and distributing food to favor children between meals.

CONCLUSIONS Target children are recognized as needy but not targeted for special treatment in intrahousehold food distribution, whether of supplements or regular food. The household focus in food distribution behavior is important; it should be recognized and planned for in food supplementation programs, or targeting done more effectively. Eating between formal meal events is critical for the food intake and nutritional adequacy of women and children. Food and nutrition education programs should encourage women to allow children to snack liberally, and should give more attention to snack foods. Likewise, donated food products should be geared for the preparation of snack food, food that can be nibbled on, and non-prestige foods which can be shared widely