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Sustainable and organic approaches to meet human needs”

## Animal Source Foods and Nutrition During Early Life

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### Abstract

The diets of populations in developing countries are based on starchy staple foods. Animal source foods (ASFs) are important sources of energy, high quality protein and bioavailable micronutrients but are often consumed in small quantities. This project is focusing on consumption patterns of ASFs in young children in Ethiopia and the pathway by which livestock keeping influences their consumption patterns.

Almost 300 families with infants 6 months old at the start of the study were visited during one year to collect data on dietary consumption patterns, growth and morbidity. A blood sample was drawn at the end of the study. Information about the socio-economic status of the families was collected.

Preliminary results:

The mean family size in rural households was 5.4 compared to 4.9 in urban households. In general, the yearly income of urban households was higher than of rural households (4561 ± 368 Birr compared to 3418 ± 277 Birr).

Cows' milk had been introduced to 46% of children by the age of 6 months (at least once daily in 93% of these children, but many mothers (64%) diluted milk with water). At 6 months, 9% of children were fed eggs at least once a week, while at 18 months 44% were fed eggs at this frequency. The most frequently consumed food at 18 months (98% of children) was injera, a fermented staple food.

Growth was impaired during the period 6 to 18 months, a pattern typically found in resource-poor areas. At 6 months, less than 10% of the children were stunted. One year later, almost 50% were stunted (height-for-age Z-score below 2 standard deviations of mean of reference population). Blood analysis (n=242) indicated high prevalence of anemia at 18 months; 68% (cut off 110 g l<sup>-1</sup>).

These results highlight the poor nutritional status of young children in the Ethiopian highlands. Further analysis will evaluate data on agricultural economics, consumption of ASFs and child nutrition in more depth.

**Keywords:** Agricultural economics, animal source foods, Ethiopia, infants, nutrition