Diet diversity is negatively associated with stunting among Ethiopian children 6-23 months of age

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Abstract

We reported that 44% of children under five years-of-age were stunted (i.e., height-for-age z-score (HAZ) below -2) and 11% were consuming minimum diet diversity (DD), a World Health Organization core indicator for infant and young child feeding (1). This analysis was conducted to determine the association between diet diversity score (DDS) and stunting among Ethiopian children 6-23 months of age.

A total of 4100 children 6-23 months of age who participated in the National Food Consumption Survey were included in the analysis. A DDS was calculated for each child by categorizing individual foods consumed in quantities > 5 g in the past 24-hours into the United Nations Children’s Fund seven food groups for DD. Chi-square test was used to determine in which regions children were consuming minimum DD, defined as having a DDS ≥4 food groups. The association between stunting and DDS was determined using logistic regression model, including all potential socioeconomic, demographic and physiological confounders.

Results

Nationally, 8.6% of children consumed adequate diet (DDS ≥4 food groups). There was a statistically significant difference in DDS among regions (p<0.001). Lower DDS were observed in Benshangul Gumuz region (3.4%), and the highest score was observed in Addis Ababa (22.4%) (Table 1). Among the variables considered, place of residence, region, mother’s education, child sex, child breast feeding status, DDS and child age were significantly associated with stunting (p<0.001). In contrast, socio-economic status and number of children less than 5 years in the household were not significantly associated with stunting.

Concluding recommendation

Our findings demonstrated that limited diversity in complementary foods is a predictor of stunting among children 6-23 months of age in Ethiopia. This reinforces the notion that improved food variety may indeed reflect a greater likelihood of meeting daily energy and nutrient requirements, which would result in improved nutritional status among young children.

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References