

## ABSTRACT

**Background:** Adequate quality complementary diets and appropriate feeding practices are important for proper growth and development of young children.

**Objective:** To assess factors associated with diet diversity, meal frequency, and acceptable diet of children aged 6 to 23 months in two agroecological zones of Rongai subcounty, Kenya.

**Methods:** A cross-sectional study was conducted among 384 mothers/caregivers with children aged 6 to 23 months. A structured questionnaire was used to assess sociodemographic characteristics and child feeding practices. Diet diversity, meal frequency, and acceptable diet were derived from a 24-hour recall of child's food intake. Factors associated with diet quality were determined using binary logistic regression.

**Results:** Mean child diet diversity score was  $3.54 \pm 1.0$  of 7 food groups, with 56.8% of the children achieving minimum dietary diversity. A majority of the children (81.8%) received minimum meal frequency (MMF), with significant ( $P < .05$ ) difference between low (91.1%) and high (75.2%) agricultural potential areas. Children who received minimum acceptable diet (MAD) were only 34.1%. Mother/caregiver education level positively ( $P < .05$ ) associated with minimum diet diversity in low potential area (adjusted odds ratio [AOR] = 3.79, 95% CI: 1.47-9.75) and with MAD in high potential area (AOR = 1.87, 95% CI: 1.01-3.46). Other factors associated with MDD, MMF, and MAD included household income and slow feeding in low potential area, and child gender and active feeding in high potential area.

**Conclusion:** There is a variation in factors associated with diet quality and child feeding practices in different agroecological zones. Therefore, nutrition education and behavior change communication interventions aimed at improving child nutrition should be context-specific.

**Keywords:** agroecological zone; complementary feeding; minimum acceptable diet; minimum diet diversity; minimum meal frequency.