ABSTRACT

Background: The relationship between vitamin A supplementation and growth of children in Kenya has not been established, although there are context-specific variations on the relationship.

Methods: Data from the 2008-09 on a weighted sample of 1029 children aged 24-35 months. Descriptive and logistic regression analyses were conducted. The outcome variable of interest was stunting, while the exposure variable was ever received a dose of vitamin A supplement.

Results: The prevalence of stunting was 46%; underweight 20%, and wasting 6%. The prevalence of ever receiving vitamin A supplementation was 78%. Receiving vitamin A supplementation was significantly and negatively associated with stunting and underweight status, adjusting for other co-risk factors. Among children who did not receive vitamin A, the odds of stunting and underweight were 50% (p=0.038) and 75% (p=0.013) higher, respectively, in comparison with those who received supplementation.

Conclusion: Vitamin A supplementation may be beneficial to growth of young children in Kenya.

BACKGROUND

- Among children aged less than 5 years, undernutrition is a serious risk factor for ill health, and is associated with increased morbidity and mortality.
- In this age group, stunting is also associated with compromised cognitive development, future economic productivity and susceptibility to metabolic diseases.
- East Africa carries the highest burden of stunting at close to 50% among children aged less than 5 years.
- In Kenya, the prevalence of stunting for children aged less than five years is 35%.
- There have been conflicting results regarding the effects of Vitamin A on child growth.

OBJECTIVES

To determine the potential effects of vitamin A supplementation on the nutritional status of children aged 24-35 months in Kenya with a specific focus on stunting levels.

METHODS

- Secondary data from Kids Register (KR file) of the 2008-09 Kenya Demographic and Health Survey was used (KDHS).
- A sub-sample of 1,048 children age 24-35 months was filtered from the original sample of 6,079 children aged under five years and then weighted to obtain a nationally representative sample of 1,029 for analysis.
- Outcome variables were stunting, wasting and underweight according to WHO definitions.
- The key explanatory variable was ever received vitamin A; others were household, maternal and child risk factors for undernutrition.
- For bivariate analysis, Pearson’s chi-square test was used to determine differences in proportions by background characteristics at the child, maternal and household levels.
- Multiple logistic regression was conducted with the outcome variables and the explanatory variables.

RESULTS

- Among children 24-35m, the prevalence of stunting was 46.1%, wasting 6.1% and underweight 17.4%.
- Receiving vitamin A supplement was significantly and negatively associated with stunting (p=0.004) (Table 1).
- Among children who had not received vitamin A supplement, the odds for stunting were 50% and for underweight 75% higher, respectively than among those supplemented children (Table 1).
- Ever receiving vitamin A supplement was also significantly and negatively associated with underweight (p=0.002), but not wasting (Tables 2 and 3).
- Other factors significantly associated with stunting, wasting or underweight were perceived size at birth; duration of breastfeeding; morbidity from cough; BMI status of the mother; maternal education; urban or rural residence; region of residence, wealth index; source of drinking water; type of toilet facility and number of children under age 5 living in the household.

CONCLUSIONS

Receiving vitamin A supplement may be beneficial to growth of young children in Kenya. However, though freely offered through immunization services to children 6-59 months, some children do not receive it, particularly after completing the immunization schedule.

There is need to establish innovative and effective ways of maximizing utilization of this intervention, particularly for children who have completed their immunization schedule.

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