

Feeding practices and dietary intakes of children aged 0-59 months in transmara east sub-county, Narok country

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Introduction

The study was conducted in Trans-Mara East Sub-County of Narok County in Kenya. Narok County is located in the South Rift Valley bordering the Republic of Tanzania to the South, Kisii, Migori, Nyamira and Bomet counties to the West, Nakuru County to the North and Kajiado County to the East. Narok County experiences a bimodal type of rainfall with the average annual rainfall ranging from 900mm to 1400mm per annum Trans-Mara East Sub County has a population size of 94,115 and average household size is 5.03. The main economic activity in Trans-Mara East Sub-County is agriculture. Trans-Mara East Sub-county is represented by one member in the National assembly and it constitutes of four county assembly wards which are each represented by one member in the County assembly. The county assembly ward includes; Oloolmasani, Kapsasian, Ilkerin and Mogondo. Within the various wards are villages that are lead by chiefs and assistant chiefs.

Study design and data collection

Cross-sectional survey using semi-structured and pre-tested questionnaires was conducted to collect information on the feeding practices and nutrient intakes of children below five years in Trans-Mara East Sub-county. The study population comprised of all children in Trans-Mara East Sub-County of Narok County, and the sampling frame was children under the age of five but above six months. An inclusion criterion was households with children below five years who consent to participate while an exclusion criterion was children below five years with terminal illnesses. Trans-Mara East Sub-County of Narok County was purposely selected. Using excel, Oloolmasani and Mogondo wards were randomly selected. For each ward, two villages were randomly selected using random number generator. For Mogondo

ward, Mogondo village and Angaset were picked and studied while for Oloolmasani Angaset and Kisiara villages were picked. A list of all households was obtained from the village elder with assistance of community health volunteer and the households were randomly selected. Where a household had been selected and it was not eligible for the study, one next household would be skipped. The direction of movement was established randomly by tossing a pen.

Results

Breastfeeding status

Majority of the children (79.6%) in the study were born in hospital while the rest (20.4%) at home. Only one in every ten babies (10.4%) had breastfeeding initiated within first 30 minutes after delivery while about one in every a hundred babies having breastfeeding delayed for as much as 24 hour as shown in Figure 1. There was a significant association between the place of birth of the child and initiation breastfeeding ($\chi^2=62.5$, $df=2$, $P<0.05$).

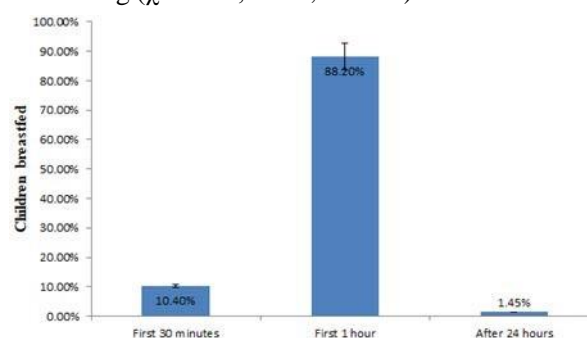


Figure 1. Distribution of the respondents by the time of initiation of breastfeeding.

Despite the fact that majority of the respondents reported to have stopped breastfeeding when the children had grown up, exclusive breastfeeding for the first six months was as low as less than one child in every a hundred (9.5%)

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Among the food given to children were herbs, milk, porridge and water. Eight out of ten children (8.5%) were given food in the first 0-2 days, while 5 in every ten children (46 %) were given food during the first month, four in ten children (37%) were given food between 2-6 months and the rest at 6 months and beyond.

Complementary feeding

Approximately three quarters (72.5%) of children was reported to take family foods while the rest were reported to take special food .

Eight in a hundred respondents (7.6%) reported that food left by the child would be eaten the following day or at a later time. Approximately half of the respondents (46%) reported to throw away any leftover food while 34.1% and 12.3% eaten caregivers and by other children respectively as shown.

Food groups consumed

The commonly consumed food groups were cereals based products (80.1%) Followed by and milk and milk products (74.1%). The least consumed food group is fish (4.3 %).. From Pearson chi- square there was no significant difference ($\chi^2=2.83$, df 15, $p>0.05$) between the food groups consumed by the various age groups.

Dietary diversity

The individual dietary diversity scores were computed based on 7 food groups. The mean number of scores for the food groups was 4.41 ± 1.49 . Children consumed between 2 and 7 food groups Majority of children (69.7%) had high dietary diversity score of more than four food groups while 30.3% had low dietary diversity score of less than food groups. There was a significant difference between gender of the children and dietary diversity scores (Independent t test=2.2, df =209, $p < 0.05$).

Discussion

More than two thirds of the respondents reported that they initiated breastfeeding within the first hour after delivery. The results compared well with a global survey done by WHO that established that 57.6% initiated breastfeeding within one hour [5]. EBF decreases neonatal death and improves the breastfeeding experience of the mothers. Exclusive breastfeeding for the first six months was as low as less than one child in every a hundred (9.5%). These findings are way too low from Country's level which is at 61%. This could be for various reasons which may include inadequate information about importance of exclusive breastfeeding for the first six months, cultural practices where mothers are expected to offer their infants herbs and milk cream that is perceived to aid the health of the child and socio-economic factors that limit the time spend by the mother and child and thus early complimentary feeding [6].

From the findings, very early introduction of complimentary feeding was common, majority at 1-2 months. These findings are similar to a study carried out in western Kenya that established that mean age for introduction of complementary feeding was 2.7 months [7]. This could be because of insufficient knowledge on exclusive breastfeeding attributed to low education levels of the caregivers and living in low income households. This has a negative implication on the nutrition status and consequently health status of the child. This is because there is high likelihood of contamination of food for the infant's premature and delicate digestive system to handle [8].

The individual dietary diversity scores were computed based on the 7 food groups [9]. Dietary diversity is a qualitative measure of food consumption that reflects household's dietary diversity and a proxy to individual nutrient adequacy (FAO, 2012). Children consumed between 2 and 7 food groups Majority of children (69.7%) had high dietary diversity score of more than four food groups while 30.3% had low dietary diversity score of less than food groups. This study was conducted in January just after maize harvest season. The commonly consumed food groups were cereals based products (80.1%) which could be attributed to bumper harvest the previous season, followed by milk and milk products (74.1%). The least consumed foods were fish and fish products, this could mainly be attributed to the fact that eating of fish is not in the culture and there is no permanent source of fish in the area.

Means for specific nutrients were run and percentage of the recommended daily allowances computed. Carbohydrates, Vitamin A, Calcium and Iron are among the nutrients whose RDAs were not met. For the means of carbohydrates, Vitamin A and Iron which were slightly less than the RDAs could be because of the reference RDAs which are specific to children 1-3 years yet the means were for children 6 months-59 months. Despite the popular intake of milk in the study population which is the main source of calcium, the RDAs are not met .This could be because of under-estimation of the amounts milk given to the child coupled with low consumption of other calcium rich food. Achieving adequate calcium levels in childhood is important for the development of peak bone mass crucial in minimizing incidence of fractures and osteoporosis later in life [10].

Conclusion

Exclusive breastfeeding for the first six months is poorly practiced and very early introduction of complimentary foods is of concern in the region. Dietary diversification in the region is generally low, with majority of the children consuming food less than four food groups per day.

Recommendations

There is need to educate the households on the need for exclusive breastfeeding for the first six months.

There is need to educate households on appropriate complementary feeding emphasizing on dietary diversity.

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