

FAMILY MUAC - Empowering mothers & caretakers to screen U5 children for malnutrition using Family MUAC in Kenya

Irish Global Health Network Conference - Global Imbalance and Social Inclusion

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Background



- Wasting continues to threaten the lives of 45.4 million children under the age of five globally and 12.1 million in Africa, of which 4.3 million are severely wasted.
- In Kenya, 4% of children under five – or more than half a million children – are reportedly wasted.
- The arid semi-arid lands (ASALs) of Northern Kenya bear some of the biggest burden.
- These areas suffer from the long term effects of recurring drought and related food and nutrition emergencies.
- The prevalence of global acute malnutrition among under-fives in the North Horr Sub-county, for example, was above 20% according to all six of the most recent SMART surveys.
- A major obstacle to the early detection and treatment of acute malnutrition is that caretakers of young children often do not know their child is malnourished and would be admitted to treatment services if brought to the health facility

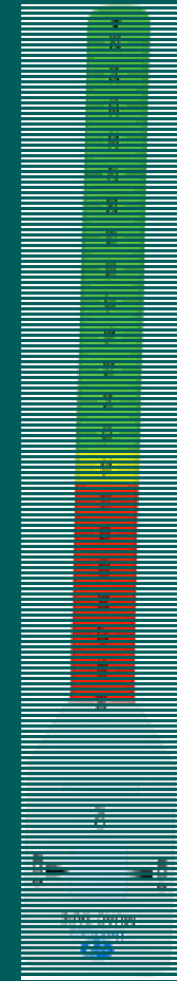
Project Overview: Family MUAC



- 2 year-research project for a low-cost high impact nutrition intervention
- **Research question:** Does mothers' use of MUAC screening improve early detection, referral and prevention of malnutrition among children u5s, with specific references to the challenges faced in pastoralists communities.
- **Location:** North Horr Sub County (Marsabit)
- **Beneficiaries:** 849 children; 420 mums; 40 CHVs
- **Partners:** Trinity College Dublin, MoH

Intervention: Family MUAC

- The Family MUAC approach supports caretakers of children under-five to regularly screen their own children for acute malnutrition using a MUAC band, rather than waiting for a community worker or volunteer.
- Mothers are trained to take and interpret the MUAC measurement themselves and bring their child to the health facility if they find their child to be severely wasted (marked red on the MUAC band) or moderately wasted (marked yellow on the MUAC band).
- With these skills, mothers can catch malnutrition early and be confident when they make the often long journey to the health facility, it will be worth the journey.



Family MUAC Approach: Steps of the study.

- The study sites were identified (North Horr) and specific wards were randomly allocated into the control and intervention groups.
- The purpose for this was to ensure that Family MUAC would be tested in an area with a control group to demonstrate any improvements in the management of children with malnutrition as well as the knowledge on good nutrition practices.
- Baseline assessment were undertaken
- 448 mother were trained on how to screen their children using the MUAC tape and were followed through
- Periodic assessments provided critical information that guided implementation and support
- An end-line assessment undertaken



A health worker assessing child for malnutrition in North Horr Sub County during an outreach visit.

Key results: Behaviour change: capability, opportunity and motivation scores among mothers

- A quantitative survey assessed factors that were likely to influence the MUAC screening and referral behaviour of mothers in the intervention arm.
- The assessment tool was based on the COM-B model for behaviour change, which suggests that capability, opportunity and motivation are three primary factors capable of changing behaviours.
- Mothers were asked to express their level of agreement with 20 statements reflecting her perception on her own *capability* to screen her children for malnutrition (7 statements) and *opportunities* (8 statements) and her motivation (5 statements) to do so.
- Overall, mothers who reported having screened their child during the four weeks prior to the survey interview had significantly higher Capability, Opportunity and Motivation scores at a number of time points compared to those that said they hadn't screened their child



Figure 2: Capacity, opportunity and motivation scores (mean value)

Key results

1. Incremental improvement in the proportion of mothers who screen their children on monthly basis from 63% to 79% at the end line.
2. Mothers accurately screen for malnutrition (comparable to health workers(gold standard) despite high illiteracy levels
 - Training of mother focused on interpreting the readings based on colors and not actual number readings.
 - During the periodic assessments, agreement between mothers screening and those of an experienced nutritionists were checked.
3. Mothers/Carers empowered to take appropriate actions on screening their children – There was an increase in the proportion of Mothers who take Appropriate Actions after screening their children from 61.5% at baseline to 75% by Endline
4. Mothers referred their children early for management
5. Mother knowledge on child feeding practices improved e.g. Knowledge on breastfeeding improved from 44% to 92.4%



Conclusion

- **The Family MUAC approach has empowered mothers to detect malnutrition early and to take action including treatment uptake.**
- Has also reduced workload for CHVs. Family MUAC was adopted as a critical approach to ensure continuity in the screening of children during COVID-19 pandemic when all household visits by CHVs were prohibited.
- Next steps are to advocate for resourcing and scale up of the approach nationally.



CHV in Nairobi City County's informal settlements demonstrating the use of the MUAC tape to the mother. .

Other Materials

- Simplified Approaches website, including Quick guidance on Family MUAC and Family MUAC tools.
- Family MUAC page on the State of Acute Malnutrition website
- Preparing for Scale: Family MUAC, one of several papers produced during the CMAM 2021 conference hosted by Concern Worldwide and Irish Aid in March 2021.

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