Livestock for Health (L4H) Project

Improving Human Nutrition through Livestock Interventions among pastoralist communities in northern Kenya

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Animal Source Foods(ASFs) and Human Nutrition

- Higher nutrient density and bioavailability
- Higher quality protein/complete
- Necessary for growth and development in first 1000 days of life
- Critical in nomadic pastoralist communities

The influence of livestock-derived foods on nutrition during the first 1,000 days of life

Delia Grace[1], Paula Dominguez-Salas[1,2], Silvia Alonso[1], Mats Lannerstad[1], Emmanuel Muunda[1], Nicholas Ngwili[1], Abbas Omar[3], Mishal Khan[2,3], Eloghene Otobo[3]

Burden of Malnutrition

- 45% of deaths in children <5yrs globallly
- Burden highest in Asia & Sub-saharan africa
- Kenya: 26% stunted, 4% wasted & 11% underweight
- Highest burden – Northern kenya

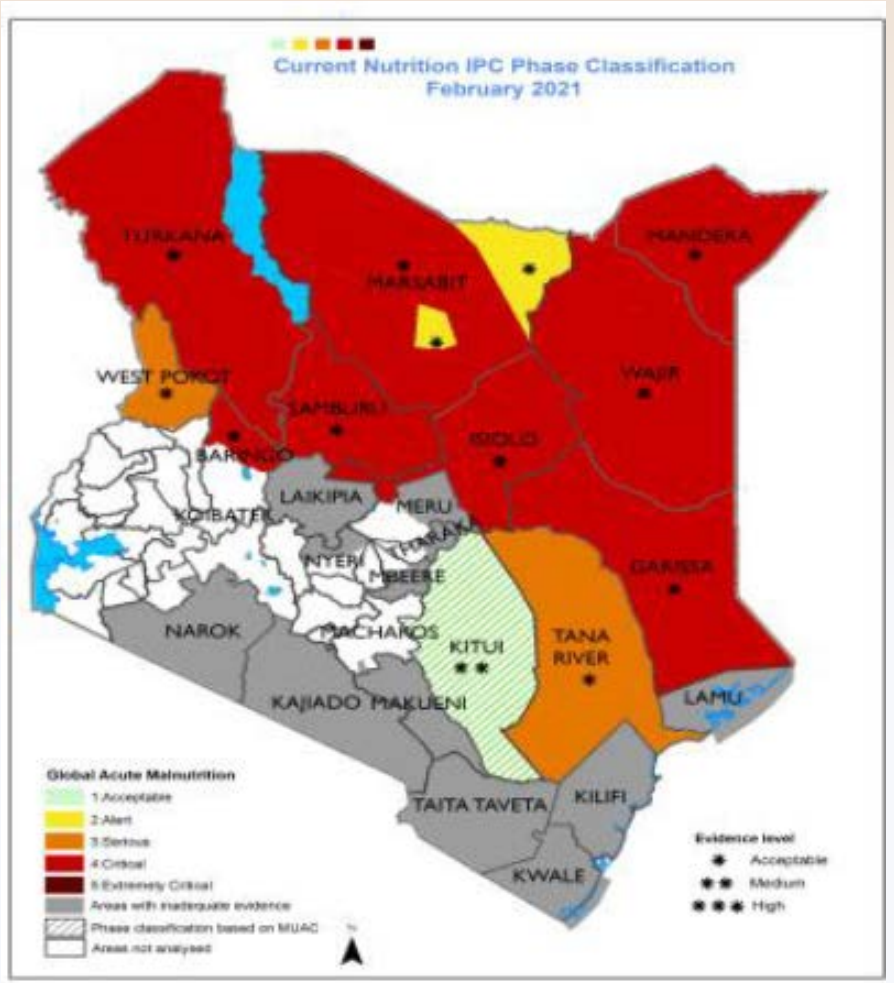


Figure 2. Nutrition Situation, February 2021

Climatic variability and human nutrition outcomes

Matere et al., 2020: https://doi.org/10.1016/j.wace.2019.100209

Role of livestock interventions in improving human nutrition

- Livestock a key source of food and nutrition security and livelihoods
- Vital for nutrition sensitive programming
- Impact pathways
  - Increased production & consumption of ASFs
  - Increased household level incomes
- Evidence on contribution of livestock intervention on human nutrition in scarce

Leroy and Frongillo, 2007: https://doi.org/10.1093/jn/137.10.2311

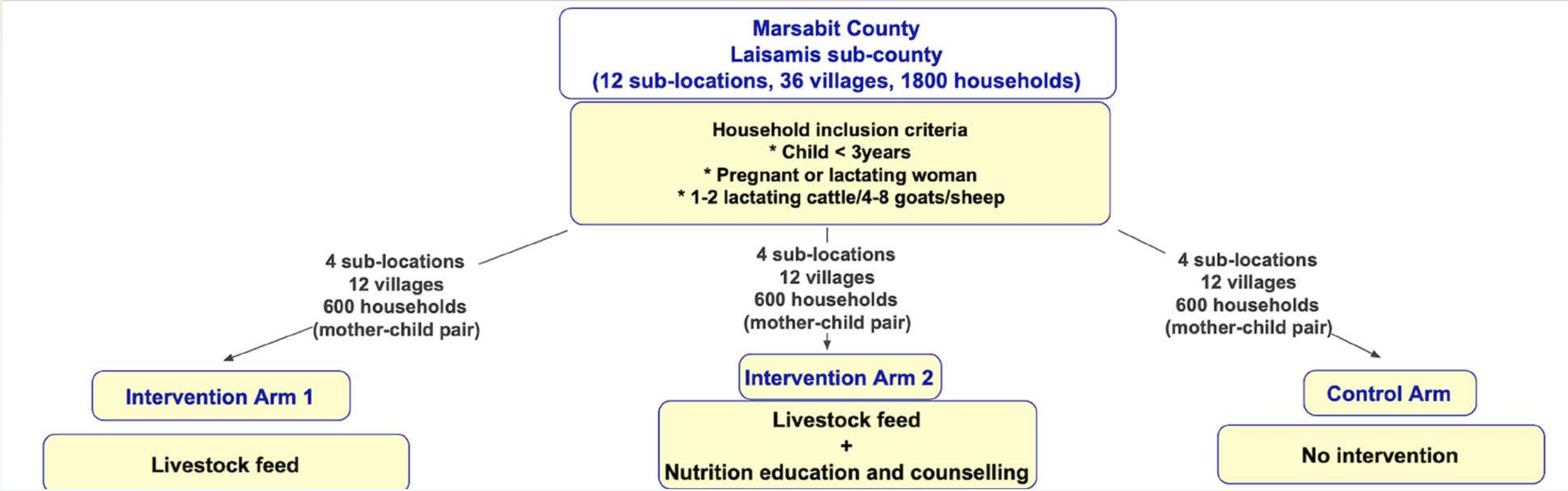
Livestock for Health(L4H) Project

Objectives:

- To quantify the effect of providing livestock feed during critical dry periods on the milk yield at the household.
- To determine the effect of providing livestock feeding and nutritional counselling on milk consumption (amount and frequency) by children < 5 years and pregnant and lactating women
- To determine whether providing livestock feed and nutritional counselling is associated with decreased risk of acute malnutrition among children < 5 years and pregnant and lactating women
- To determine if providing livestock feed, livestock feed and nutritional counselling is a cost-effective way of preventing acute malnutrition in children < 5 years and mothers

Design and methods

- Cluster randomized control trial with two intervention arms and one control arm



Data collection

- Community participatory survey
- Baseline survey
- Routine follow up – every six weeks

Key Learnings

- Livestock is the main sourtce of livelihood
- Malnutrition highly prevalent during dry seasons
- Communities retain some milking animals near households as other animals migrate

Food and Agriculture Organization of the United Nations

unicef for every child

Washington State University

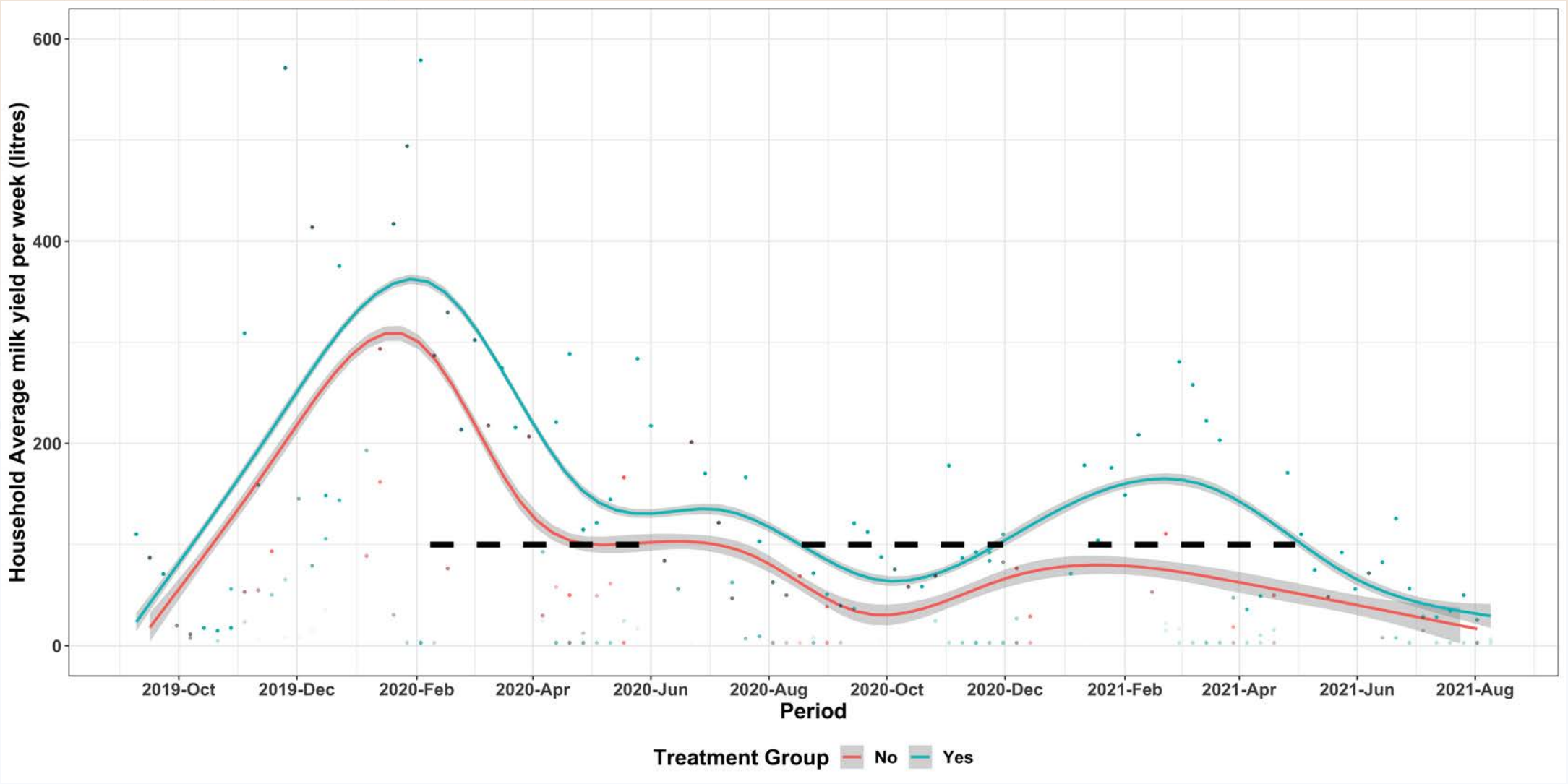
Marsabit County, Kenya

Seasonality of malnutrition: Community knowledge on patterns and causes of undernutrition in children and women in Laisamis

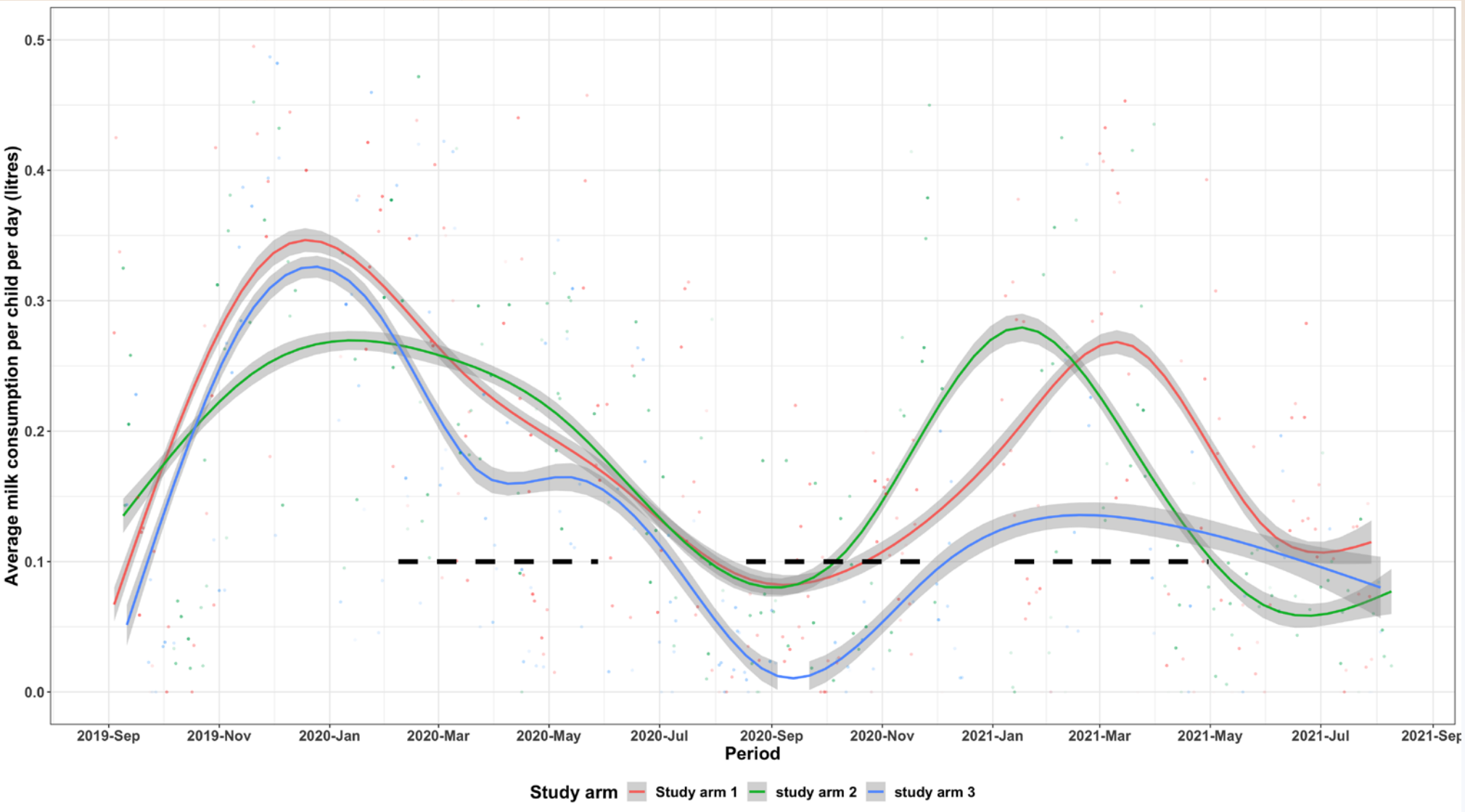
Livestock for Health (L4H)

DOI: https://doi.org/10.4060/ca8749en

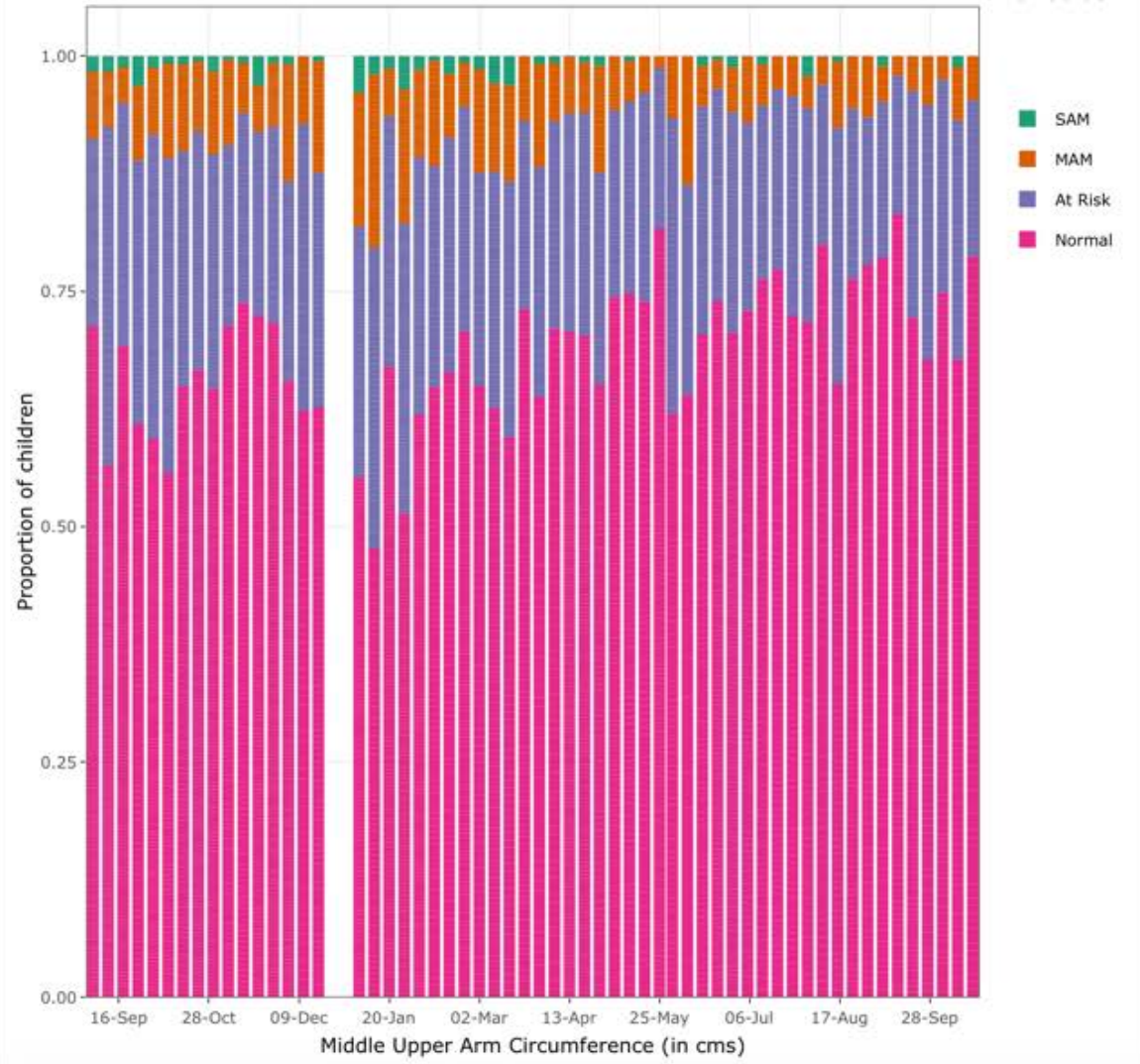
Average Milk Yield

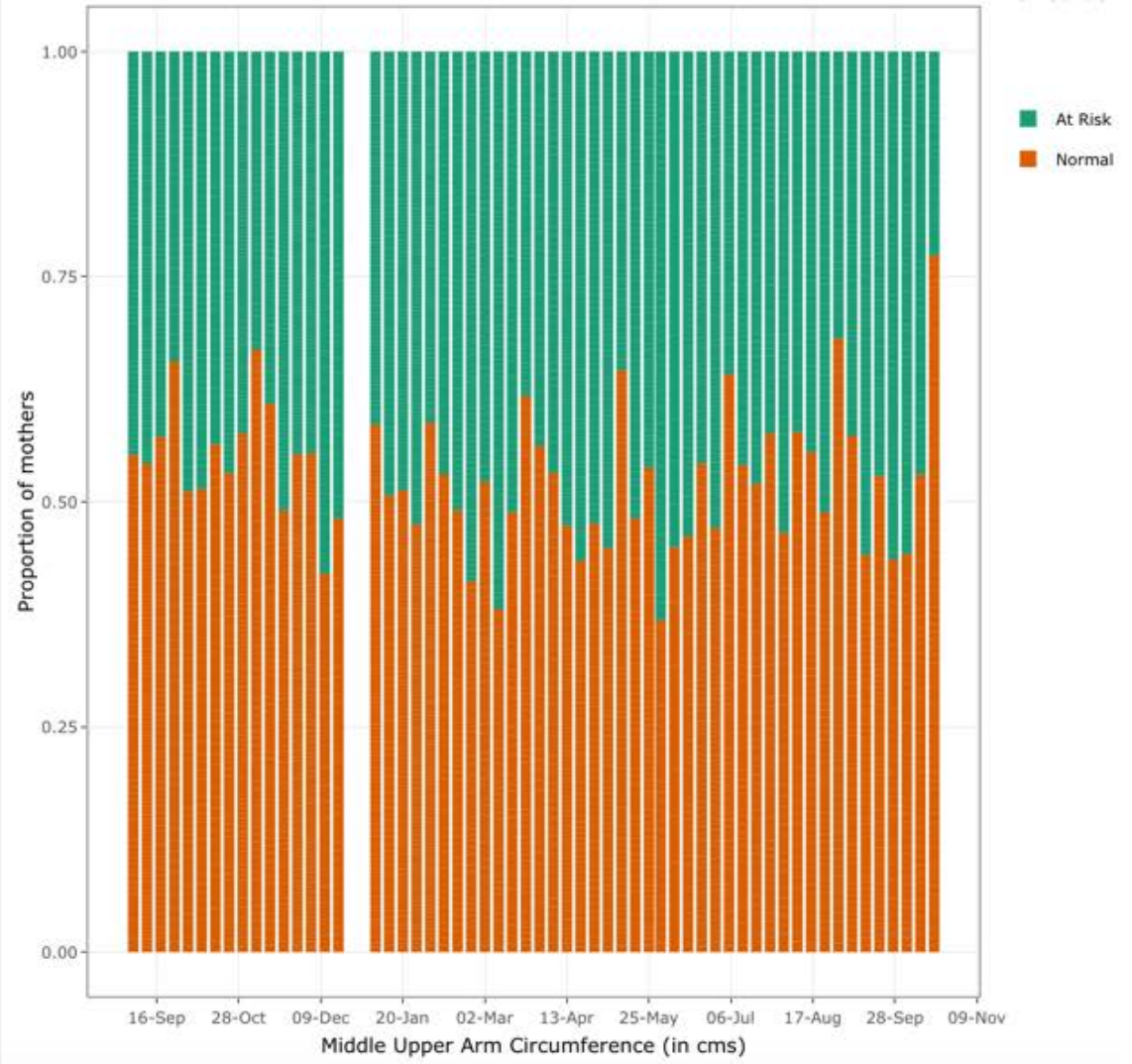


Average Milk consumption trends



Monitoring trends in malnutrition in children and women





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