

# A proposal to improve the prevention, identification and treatment of children with malnutrition through the implementation of family-led MUAC program and its assessment in the West Nile region of Uganda

<b>Submission date</b> 23/08/2022	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 08/09/2022	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 05/09/2022	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

In Uganda, about 8 million children in a year become wasted or develop acute malnutrition and only 10 – 15% access treatment despite decentralized close outpatient (OTC) and inpatient (ITC) treatment care services. Among the contributing factors to this access gap is the weak community health system approach in the country for population engagement to be knowledgeable with presence of children having child wasting and this has affecting early identification and referral of involved children. Therefore, the Ministry of Health (MOH) together with UNICEF and other national partners, revised the national guidelines for integrated management of acute malnutrition (IMAM) using facts from research that trained caregivers can exactly identify a child with wasting using color-coded mid-upper-arm circumference (MUAC) measuring tape and checking for presence or absence of pitting swelling of both feet. The approach in IMAM guidelines for training family caregivers inclusive of mothers, fathers and other family members to screen their children for malnutrition using MUAC was named “Family Led MUAC Program” and planned to start in six host refugee districts of the West Nile region in Uganda.

The objective for Family MUAC Program roll-out in select districts was to assess the barriers and facilitators for the program implementation; uptake and acceptance by caregivers and health providers at health facilities and community settings to increase identification and referral of children with malnutrition to healthcare services.

### Who can participate?

Healthcare workers in all health facilities in districts of Arua City, Arua district, Koboko, Madi Okollo, Terego and Yumbe and all community health workers referred to as village health teams (VHTs) in each district will be trained to routinely train family caregivers in procedures for Family MUAC Program during healthcare visits at the facility or during community outreaches.

What does the study involve? (for participants)

The study will assess the program before, during and after implementation to understand the factors affecting implementation, process and expected results. The healthcare workers, community VHTs, and family caregivers will be interviewed and observations will be made to understand program reach to beneficiaries, appropriateness, acceptability, feasibility, beneficiary ability to do and change to program needs or standards, involved costs, and program sustainability.

What are the possible benefits and risks of participating?

Program roll-out, implementation and planned assessments will enable the MOH and partners understand or gain situational experiences, lessons and best practices to guide national program implementation scale-up and program reporting system. The healthcare providers and community VHTs will attain refresher skills in service delivery, family caregivers and involved children will have increased awareness, access and being in-charge of their health and nutrition status. Minimal risks are likely such as fatigue during interview sessions or workload to health providers.

Where is the study run from?

The program implementation will be conducted by the local district, health facility and community systems and involved teams. The School of Medicine College of Health Sciences at Makerere University (Uganda) will conduct the assessments and provision of technical assistance in program implementation or delivery.

When is the study starting and how long is it expected to run for?

Who is funding the study?

The program implementation and assessments are funded by UNICEF Uganda and the government of Uganda through the Ministry of Health and local district governments in the involved districts. UNICEF Uganda provided funds for field program implementation and its assessments and the government provided the healthcare system, infrastructure and the involved human resource.

Who is the main contact?

Ezekiel Mupere MBChB, MMed, MS., PhD, [mupez@yahoo.com](mailto:mupez@yahoo.com)

## Contact information

### Type(s)

Principal Investigator

### Contact name

Dr Ezekiel Mupere

### ORCID ID

<http://orcid.org/0000-0002-8746-9009>

### Contact details

Upper Mulago Hill Road  
Department of Paediatrics and Child Health  
School of Medicine College of Health Sciences  
Makerere University

Kampala  
Uganda  
7072  
+256 776161327  
Ezekiel.mupere@mak.ac.ug

**Type(s)**  
Scientific

**Contact name**  
Dr Ezekiel Mupere

**Contact details**  
Upper Mulago Hill Road  
Department of Paediatrics and Child Health  
School of Medicine College of Health Sciences  
Makerere University  
Kampala  
Uganda  
7072  
+256 776161327  
mupez@yahoo.com

**Type(s)**  
Public

**Contact name**  
Dr Ezekiel Mupere

**Contact details**  
Upper Mulago Hill Road  
Department of Paediatrics and Child Health  
School of Medicine College of Health Sciences  
Makerere University  
Kampala  
Uganda  
7072  
+256 776161327  
mupez@yahoo.com

## **Additional identifiers**

**EudraCT/CTIS number**  
Nil known

**IRAS number**

**ClinicalTrials.gov number**  
Nil known

## Secondary identifying numbers

Nil known

# Study information

## Scientific Title

Enhance integrated management of acute malnutrition with family-led MUAC implementation science research in the West Nile region of Uganda using a single quasi-experimental design: FMUAC

## Acronym

FAMUAC

## Study objectives

Family Led MUAC Program improves community prevention, detection and referral of children with wasting in a health care system

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

1. Approved 30/09/2021, Primary IRB Makerere University School of Biomedical Sciences Research and Ethics Committee (SBSREC, Upper Mulago Hill Road Kampala, Uganda; +256-752-575050; erisamwaka@gmail.com), ref: SBS-2021-59
2. Approved 01/12/2021, Uganda National Council for Science and Technology (UNCST, Plot 6 Kimera Rd, Kampala P.O. BOX 6884, KAMPALA, Uganda; no telephone number provided; no email provided), ref: UNCST HS1828ES

## Study design

Quasi experimental design with pre- and post- Family Led MUAC program implementation research evaluations

## Primary study design

Interventional

## Secondary study design

Quasi experimental design

## Study setting(s)

Community

## Study type(s)

Prevention

## Participant information sheet

No participant information sheet available

## Health condition(s) or problem(s) studied

Child wasting

## **Interventions**

A single Quasi experimental design with pre-program and post-program intervention evaluations in involved districts to assess the clinical/program effectiveness and implementation outcomes will be employed because of ethical, practical and funding considerations.

The program interventions and in line with the Ministry of Health guidelines for management of acute malnutrition will aim to

- 1) strengthen organization of districts, training and mentorship of district health teams, health facility staff and community workforce in implementation of Family Led MUAC for improved access and service coverage of nutrition interventions in each district,
- 2) improve prevention, screening for early detection, treatment and follow-up of children with acute malnutrition,
- 3) improve quality of care standards for improved outcomes nutrition patient outcomes.

Health workers at the district, health facility and community level systems will be purposively selected and interviewed every three months for one year. A random sample of 19 family caregivers with children less than five years within the health facility catchment area will be selected and interviewed once in the last quarter of the program implementation.

## **Intervention Type**

Other

## **Primary outcome measure**

Reach to beneficiaries, appropriateness, acceptability, feasibility, adoption, fidelity, involved costs, and program sustainability will be assessed using interviews every 3 months for 1 year

## **Secondary outcome measures**

1. Proportion of children screened at community level measured using mid-upper-arm circumference measuring tape every 3 months for 1 year
2. Establishment of barriers and facilitators of program implementation assessed using interviews every 3 months for 1 year

## **Overall study start date**

01/04/2021

## **Completion date**

01/12/2022

## **Eligibility**

### **Key inclusion criteria**

Family caregivers with children under five years of age and have been residents for three months or more

Health providers at the district, health facility and community levels.

### **Participant type(s)**

All

### **Age group**

Adult

**Sex**

Both

**Target number of participants**

2660

**Key exclusion criteria**

Family caregivers with neurological impairment and unable to respond coherently in an interview

**Date of first enrolment**

01/12/2021

**Date of final enrolment**

01/12/2021

**Locations****Countries of recruitment**

Uganda

**Study participating centre****Makerere University**

Department of Paediatrics and Child Health School of Medicine College of Health Sciences  
Upper Mulago Hill Road  
Kampala  
Uganda  
7072

**Sponsor information****Organisation**

Makerere University

**Sponsor details**

Upper Mulago Hill Road  
Department of Paediatrics and Child Health  
School of Medicine College of Health Sciences  
Kampala  
Uganda  
7072  
+256 776161327  
Ezekiel.mupere@mak.ac.ug

**Sponsor type**

University/education

**Website**

<http://mak.ac.ug/>

**ROR**

<https://ror.org/03dmz0111>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

UNICEF Uganda

## **Results and Publications**

**Publication and dissemination plan**

Planned publication in a high-impact peer-reviewed journal

**Intention to publish date**

01/03/2023

**Individual participant data (IPD) sharing plan**

The current data sharing plans for this study are unknown and will be available at a later date

**IPD sharing plan summary**

Data sharing statement to be made available at a later date