

cMAMI: Stronger evidence towards future scale up via a cluster RCT in Ethiopia

Key stakeholder meeting, Jimma, Ethiopia

7th October, 2019

Internal Meeting Report

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Summary

A one-day meeting of key stakeholders in the upcoming research on community management of at-risk mothers and infants under six months (cMAMI) in Ethiopia was held at Jimma University on October 7, 2019 co-hosted by the London School of Hygiene and Tropical Medicine (LSHTM), Jimma University, GOAL, and the Emergency Nutrition Network (ENN). A series of presentations on the MAMI approach, the proposed research, the policy environment and the Ethiopian context set the scene for working groups and plenary discussion throughout the day. Participants identified barriers and opportunities related to the research implementation in Ethiopia and key considerations for the formative research phase. Overall, the three top-voted barriers and opportunities were that MAMI is a policy priority and this research will contribute to policy change (*opportunity*), the risk of defaulting during study follow up (*barrier*) and strong local and international collaboration (*opportunity*).

1. Overview

MAMI vision

Every infant aged <6month, at every healthcare/community-level contact point, is nutritionally assessed and appropriately supported to survive and thrive.

In 2010, the ENN produced the MAMI Project Report highlighting a significant global burden of undernutrition in infants under six months of age, gaps in policy guidance, inconsistent and inadequate case management, and poorer programme outcomes than for older

children¹. This catalysed an informal collaboration amongst concerned programmers, policy makers and researchers to address these challenges. The ten years since has seen significant policy and programme shifts, including WHO guidance update to include community-based management for this age group², programming innovations and operational research. However, uptake of normative guidance by national governments has been hampered by lack of robust evidence on impact of interventions, scalability and sustainability. A nationally driven research programme was identified as a critical next step to address both national and international interests.

To address this, the London School of Hygiene and Tropical Medicine (LSHTM), Jimma University Clinical and Nutrition (JUCAN) Research Partnership, the Emergency Nutrition Network (ENN) and GOAL Ethiopia will embark on a four year research programme in Ethiopia, entitled “*Community management of at risk mothers and infants <6 months (cMAMI): Stronger evidence towards future scale up via a cluster RCT in Ethiopia*”. It is planned for Jimma Zone and Deder Woreda, East Hararghe Zone. This is funded by the Eleanor Crook Foundation (ECF) RISE (Research, Innovate, Scale, Establish) implementation research programme.

Between 6th and 13th October 2019, a series of key stakeholder meetings were convened by the research team in Addis, Jimma and Deder to secure early engagement and key inputs to help shape research plans, complement and leverage existing health and nutrition services, and so maximize project impact and chances of success and ensure These meetings mark the beginning of a one year period of formative research.

1.1 Objectives

The overall aim of the meeting was to engage with key stakeholders in the upcoming research on community management of at-risk mothers and infants under six months (cMAMI) in Ethiopia. The objectives were to:

1. Introduce key stakeholders to cMAMI, including the long-term vision and short-term plans for a randomised controlled trial (RCT)
2. the process of co-creating cMAMI details together with key stakeholders
3. Identify key challenges and opportunities for the RCT and long-term scale-up
4. Shape details of formative work to address the 'opportunities' identified

The morning session comprised a series of presentations setting the scene for working groups and discussion in the afternoon. Opportunities were identified and developed in plenary. The agenda is included in Annex 1.

The meeting was attended by 32 delegates including researchers across multiple disciplines at Jimma University and representatives from Jimma health zone where the research will be conducted (the participant list is included in Annex 2).

2. Welcome remarks

Carlos Grijalva-Eternod (LSHTM) opened the meeting by welcoming participants and giving an overview of the day's agenda. Prof. Tsinel Girma (Jimma University) then introduced the Jimma University Clinical and Nutrition Research Center (JUCAN) and acknowledged the unreserved support of senior management at Jimma University to this research. He welcomes and appreciated the LSHTM, ENN and GOAL team effort and thanked the ECF for their support. He emphasised the central role of such a meeting to actively engage with

¹ Reference.

² WHO

the community and create a common understanding between different stakeholders, which is vital to produce quality evidence.

The President of Jimma University, Dr. Jemal A/fitu, then addressed the meeting, welcoming participants and emphasising Jimma University commitment for such partnerships generally and for the partnership between Jimma University and LSHTM in particular. The MAMI research ambitions strongly resonate with the university's motto "we are in the community". He stressed the important policy implications of this research and concluded by reassuring all the commitment of the leadership to support this project to completion.

Nicki Connell (ECF) thanked the government and other partners and gave an overview of ECF's work, emphasising that cMAMI is a key area in the accomplishment of the Sustainable Development Goals (SDGs) as there are short- and long-term benefits to optimising health and nutrition in infants under six months.

3. Presentations

A presentation by Marie McGrath, ENN on the history of cMAMI set the scene for the meeting by describing the global burden of undernutrition in infants under six months, the creation of the cMAMI network and its vision, and the current state of cMAMI initiatives globally.

Prof. Tsinuel Girma presented on Management of acute malnutrition in Ethiopia including progress on child survival, status of national guidelines for acute malnutrition management, and challenges faced in service delivery in terms of staff capacity, time, quality and competency.

A presentation by Hatty Barthorp on GOAL's experiences of cMAMI in Ethiopia described the organisation's efforts to implement cMAMI programming in two refugee camps, including the use of the cMAMI tool, MAMI-adapted MUAC tapes, educational breastfeeding videos, and digital data management as well as challenges related to the identification of at-risk mother-infant pairs.

Marko Kerac, LSHTM presented on why scaling matters in the context of cMAMI and subsequently presented an overview of the planned research trial in terms of aim (to generate and disseminate quality evidence that outpatient-care using a 'cMAMI package' is effective, safe and cost-effective with potential for sustainable scale up"), primary and secondary research questions, design (randomised control trial), PICO (population, intervention, comparator and outcomes) and trial governance.

Melkamu Berhane (Jimma University) then gave a presentation on why cMAMI matters for child survival in which he outlined global data showing the increased vulnerability of infants under six months compared to older age groups as well as the causes and long-term consequences of malnutrition in infancy.

A presentation by Mubarek Abera (Jimma University) on the links between cMAMI and maternal mental health described the key role of maternal mental health in infant malnutrition and how it impacts on newborns by leading to inadequate care and feeding practices. He emphasised the importance of strengthening the delivery of maternal mental health services to ensure that infants survive and thrive.

A presentation by Carlos Grijalva Eternod on the epidemiology of small/at-risk infants in Ethiopia outlined the prevalence of malnutrition and the various anthropometric indicators used to assess it. He discussed the low acceptance of using weight-for-length (WFL) and the importance of considering age when deciding on cut-offs to define malnutrition.

Plenary discussion points were:

Mr. Yebeltal (JU) suggested there is a good community based platform and guidelines for acute malnutrition management in Ethiopia, what is the additional intervention planned for infant less than six months? *Marko Kerac (LSHTM) clarified the current study will include at risk mothers who are not included in the existing CMAM platform and MAMI will bridge management of malnutrition and other illnesses.*

Dr. Demesew (JU) initially reminded all of the multidimensional nature of malnutrition and asked if dimensions beyond maternal mental health intervention that is going to be given by the current study? *Marko Kerac (LSHTM) acknowledged and emphasized the importance of comprehensively addressing multiple dimensions, but it is only feasible to address a selectin in the planned research.*

Dr. Deriba (Paediatrics Department), asked for clarity on number of visits, form of visits (mother attending health facility or home visits) and scope of the study (pilot in several health facilities or at scale from the outset). He also asked regarding evidence on MUAC in infants under six months. *Marko Kerac (LSHTM) clarified that mothers will attend health facilities at low and decreasing frequency and transport costs will be reimbursed. Both Marko and Prof. Tsinuel Girma (Jimma University) stated there is increasing evidence from several sources that support use of MUAC in infants under six months, comparable to weight for age in identifying at risk infants.*

Nega Jibat (Jimma University) presented on the planned initial formative work that will inform subsequent phases of the cMAMI research. He described the different work packages (WP)(below) and reviewed the topic guides that will be used to interview stakeholders.

- Formative WP 1: Stakeholder analysis/engagement & establishing a Technical Advisory Group (underway)
- Formative WP 2: Qualitative study refining CMAMI tool and delivery plans (KII, FGDs and field observations)
- Formative WP 3: Quantitative survey establishing caseload & study logistics.
- Formative WP 4: Secondary data analysis to define new MUAC / WAZ admission criteria.

Plenary discussion points were:

Mr. Getu (JU) asked whether the research provide special feeding recommendations for preterm infants. *The project will not generate new recommendations but work with the community to apply existing ones.*

Mrs. Abonesh (JU) asked, whether household food security status and prenatal feeding practice will be assessed? *Marko Kerac (LSHTM) confirmed both variables will be included and Nega Jibat (JU) emphasized the importance of engaging local professionals to ensure questions on food security were well understood by mothers.*

A representative from the Health Bureau asked how will the research reach infants currently accessing treatment at health post level? While appreciating this may be an issue in some cases, we expect the majority of infants will present with their infant to the nearby health centre. The project will work to create strong linkages between the health post and health centres.

Dr. Seleke (JU) asked to what degree policies and guidelines are integrated? Marie McGrath (ENN) explained this research will look to existing policies and guidelines and MAMI will work to bring all actors together for better implementation and outcome convergence. Prof. Tsinuel stressed the importance of integrating different programmes at the lowest level. The MAMI research aims to include health institutions both in urban and rural areas.

4. Key stakeholders, barriers and opportunities to MAMI research

Through the afternoon, working groups identified, presented and discussed in plenary the top three key stakeholders to engage in the MAMI research (Table 1), the top three challenges (barriers) the project may face (Table 2), and the top three opportunities the research presents (Table 3). Long lists are included in Annexes 3-5.

Table 1: Top three key stakeholders identified by working groups

Key stakeholders	Justification
Group 1	
<ol style="list-style-type: none"> 1. IYCF 2. Community case management (HEWs) 3. CBN (community based neonatal care) 	The professionals working in the programs are very close to the community at grass root level.
Group 2	
<ol style="list-style-type: none"> 1. Sick baby care 2. IYCF 3. Safe motherhood initiative 	These programmes have a similar target group to the MAMI research
Group 3	
<ol style="list-style-type: none"> 1. GMP 2. ANC 3. CBNC 	These initiatives are accessible to most members of the community and deliver different counselling packages that could be leveraged

Table 2: Top three barriers identified by working groups

Barriers	Additional context
Group 1	
<ol style="list-style-type: none"> 1. High default rate 2. Conflict of interest 3. Change of address 	Dr.Netsanet (JU Paediatrics department) mentioned the poor health seeking behaviour of rural communities and stressed the necessity to install robust counselling package to minimize loss to follow up and to maintain participants for the project duration.
Group 2	
<ol style="list-style-type: none"> 1. Investigator experience 2. Infrastructure and health system 3. Enrolment and follow up 	Dr.Hiwot (JU) and member of the group has mentioned the importance of giving due attention concerning participants address since it's easy to drop the previous and get a new Sim card, participants might discard the first number given.
Group 3	
<ol style="list-style-type: none"> 1. Poor communication 	

<ol style="list-style-type: none">2. Non adherence to guidelines3. Poor quality of care4. Shortage of supplies	
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Table 3: Top three opportunities identified by working groups

Opportunities
Group 1
1. Priority[policy] area 2. Using existing health care system 3. Early detection of malnutrition
Group 2
4. Strong commitment 5. [Will inform] policy change 6. JU strong experience implementing RCTs
Group 3
4. [Identified] policy concern 5. Using existing structures 6. Collaboration

Clarifications in plenary addressed the following issues:

Dr. Zeleke (JU) asked regarding the project plan for trial governance. *A professional (Biostatistician/epidemiologist) in the research team will manage this and establish due committees and process.*

There was discussion on potential for information contamination between the control and intervention groups, leading to possible increased service uptake in control areas (a long-listed barrier identified in Group 3). Mrs. Rahema (JU) pointed out importance of a buffer zone between sites to lower this risk.

How is scarcity of evidence an opportunity? *To justify research, there should be an identified gap in the area that can be addressed through the proposed study. From this perspective, absence of evidence in the area gives logical plausibility.*

To what extent are existing guidelines are implemented in the country? *Dr.Mubarik & Mr.Yebeltal (JU) stated there is scarcity of evidence in this regard. Policy change is not necessarily required to change practice; strong evidence may be enough to inform practice even if not (yet) included in existing guidelines.*

It is important to deal with birth spacing since it has a direct effect on infants health (Dr.Netsanet from JU, department of paediatrics). *This is well appreciated: there are multiple determinants even before and during pregnancy that affect current health status of infants, however a single project cannot accommodate all.*

Dr.Hiwot from JU noted there is an advantage and urgency to closely work with the Federal MOH since there is one year remaining on HSDP (Ethiopian Health Sector Development Program) to ensure the study design is aligned with the country policy. Prof.Tsinuel clarified that the new policy will comprise general recommendations that are in keeping with the MAMI project. Dr.Melakmu described the engagement with FMOH to date and plans for key stakeholder meeting in Addis including MOH on 9th October.

In response to a question on the inclusion of biomarkers in the research, raised by Dr. Zeleke (JU), Marko Kerac highlighted the considerable knowledge gaps in terms of functionality as an outcome of malnutrition treatment (rather than whether a child is big or small).

How will MUAC be standardised for infants under six months? This is a key component of the formative period that includes a systematic review and using evidence from Ethiopia and other countries.

Is there a plan to conduct the research in other parts of Ethiopia? The current study will be conducted only in Jimma and Deder but additional sites will be considered in the future.

Following discussions, all participants voted on their top stakeholders, opportunities and barriers (5 votes each, on any theme and more than one vote allowed per item). See Box 1 for results. Overall, the three top-voted barriers and opportunities were MAMI is a policy priority and will contribute to policy change (opportunity), risk of defaulting during study follow up (barrier) and strong local and international collaboration (opportunity).

Box 1: Results of plenary vote on priority key stakeholders, opportunities and barriers

Key stakeholders (32 votes)

1. Community Based Neonatal Care (CBNC) (10)
2. IM(N)CI (9)
3. IYCF (7)
4. Growth monitoring programmes (3)
5. ANC (2)
6. Safe Motherhood Initiative (1)

Opportunities (61)

1. Policy priority/will contribute to policy change (31)
2. Strong local and international collaboration (11)
3. Working within the existing health system (8)

Barriers (23)

1. Risk of defaulting during study follow up (15)
2. Poor communication (2)
3. Disrupt current ways of working (remit of HEW v nurses, nurse incentives) (2)

No plenary vote:

2. *IYCF & Maternal Child Health package*
3. *FBO support*
4. *Nutrition programmes (CMAM/SFP/OTP, etc)*
5. *Maternal mental health*
6. *Community/peer groups*
7. *Cash/social support/social welfare*
8. *National early child development*
9. *Social support*

4. Closing remarks

On behalf of the MAMI research team, Marko Kerac warmly thanked JU for hosting the meeting and for such a warm welcome, again emphasising how JU's 'in the community' motto resonates so well with the MAMI approach. He also extended thanks to the attendees for such active engagement and re-emphasised how Ethiopia will be pioneers of the cMAMI approach as they were with CMAM.

5. Meeting evaluation

Results from immediate post meeting evaluation amongst participants (anonymised) were positive. One hundred percent of Jimma participants rated the overall meeting as “very good” or “excellent”. All participants from both sites were either “satisfied” or “extremely satisfied” with the meeting content. Ninety-four per cent were satisfied” or “extremely satisfied” with administration and logistics. Highlights for participants included the importance and value of sharing ideas with and getting feedback from different stakeholders not directly engaged in the research, the standardization of MUAC for infants under six months, the emphasis on community level action to address at risk infants, investment in a formative period of research, strong collaborative effort and transparency of the project.

Annex 1: Agenda

Community management of at risk mothers and infants <6months (cMAMI):

Stronger evidence towards future scale up via a cluster RCT in Ethiopia

Monday October 7th. Jimma University Agriculture Campus

AGENDA:		
Time	Topic	Presenter
09:00 – 09:20	Welcome / Opening Remarks	Mr. Kora Tushune, Vice President, JU Tsinuel Girma, JU Nichola Connell, ECF
09:20 – 09:50	Challenges: <ul style="list-style-type: none"><i>History of MAMI</i><i>cMAM guidelines in Ethiopia for infants u6m</i>	Marie McGrath, ENN Tsinuel Girma, JU
09:50 – 10:35	Opportunities: <ul style="list-style-type: none"><i>MAMI in Ethiopia</i><i>Paths to scale, learning & Building Bridges (cMAMI conceptual framework)</i><i>Survive – MAMI and child mortality</i><i>Thrive – Infants (Development & NCDs)</i><i>Thrive – Maternal (Mental health, social)</i>	Hatty Barthorp, GOAL Marko Kerac, LSHTM Melkamu Berhane, JU Mubarek Abera, JU Mubarek Abera, JU
10:35 – 11:05	Coffee break	
11:05 – 11:35	Context / Landscape: <ul style="list-style-type: none"><i>Epidemiology of small/at risk in Ethiopia</i><i>Key policies and to-date recommendations</i>	Carlos Grijalva- Eternod, LSHTM Mubarek Abera, JU
11:35 – 12:05	Research Plan: <ul style="list-style-type: none"><i>The cMAMI randomised controlled plan (PICO)</i><i>cMAMI formative work</i>	Marko Kerac LSHTM Nega Jibat, JU
12:05 – 12:35	Stakeholder mapping (1): <ul style="list-style-type: none"><i>Who needs to get involved</i>	Group discussion
12:35 – 13:35	Lunch	
13:35 – 14:20	Stakeholder mapping (2): <ul style="list-style-type: none"><i>What else is already happening?</i>	Group discussion
14:20 – 15:05	Barriers: <ul style="list-style-type: none"><i>Experiences and barriers to date</i>	Group discussion
15:05 – 15:35	Coffee break	

15:35 – 16:20	Opportunities	
	<ul style="list-style-type: none"> • <i>How might cMAMI help?</i> • <i>How can we move forward?</i> 	Group discussion
16:20 – 17:05	Formative work:	
	<ul style="list-style-type: none"> • <i>What are the key questions to explore?</i> • <i>Who needs to be involved?</i> 	Group discussion
18:00	GROUP DINNER	

ECF: Eleanor Crook Foundation; ENN: Emergency Nutrition Network; JU: Jimma University
 LSHTM: London School of Hygiene and Tropical Medicine; MOH: Ministry of Health

Annex 2: List of participants

Stakeholders' consultative meeting on community management of at risk mothers and infants <6months (cMAMI: Stronger evidence towards future scale up via a cluster RCT in Ethiopia), Oct 7, 2019, JUCAVM

No.	Name	Organization	Profession
1	Rozu AWOI	SOS Jimma	BSc nurse
2	Beatal Zines	JU	Lecturer
3	Kidew Yehant	JU	HM
4	Dr Tsion Tichun	JU	Pediatrician
5	Nega Jibat	JU	socialist
6	Abonesh Taye	JU	Nurse/turnover
7	Aemtsehay Sisay	JU	Camera Operator
8	Yibeltal Sirona	JU	PhD fellow
9	Getu Gizaw	JU	teacher
10	Zeleke Mekonnen	JU	Med. Science
11	Zewdie Bichanu	JU	Public Health
12	Abdirahaman Fentahun	JU/ERCO	Lecturer
13	Tarekegn Wondimu	ERCO	Expert
14	Dr. Demisiel Aene	JU	MD. Ob/Gyn
15	Dr. Gudina Terefe	JU	PhD-
16	Koror Mushan	JU	pub. Health
17	Temesgen muligeta	FIDO	Health officer
18	Dr. Diriba Fufa	JU	pediatrician
19	mat. wos mama	mishun of church	missionary
20	Dr. Leschun Berhan	JUMC	pediatric resident
21	Asew Ademe	JUCAVM	Jct.
22	Narejaman Alciessa Jimenez	JUCAVM	BSc
23	Adil A. J. M.	J	

Stakeholders' consultative meeting on community management of at risk mothers and infants <6months (cMAMI: Stronger evidence towards future scale up via a cluster RCT in Ethiopia), Oct 7, 2019, JUCAVM

No.	Name	Organization	Profession
1	Ashenafi Belay	JU	ERCO
2	Ermas Admasu	JU/ERCO	ERCO
3	Rahma Ali	JU	teacher
4	Sultan Suleman	JU	pharmacist, prof
5	Bozayo Alenna	JU	psychiatrist
6	Dr. Wabseth Workel	JU	pediatrician
7	Diribe Makonena	JU	ERCO
8	Dr. Dereje Beyan	JUMC	physician
9	Tasew Berhan	SULO	FRG

Annex 3: Key stakeholders to engage in MAMI research (working groups, long list)

Group 1:

- ❖ ICCM,
- ❖ IYCF
- ❖ CBNC
- ❖ CMBC
- ❖ Safe motherhood initiative
- ❖ Nutrition support for PLWHA
- ❖ IMNCI,
- ❖ Nurses,
- ❖ Health officers,
- ❖ Health extension workers

Group 2:

- ❖ Safe abortion care,
- ❖ Sick baby care
- ❖ EPI,
- ❖ IYCF,
- ❖ IMNCI,
- ❖ Safe motherhood initiatives
- ❖ Mother support group
- ❖ CBHI
- ❖ ANC,
- ❖ ICCM,
- ❖ HIV/ART,
- ❖ Safety net

Group 3:

- ❖ GMP,
- ❖ EBF,
- ❖ ANC,
- ❖ CBNC,
- ❖ kangaroo mother care,
- ❖ ICCM,
- ❖ IMNCI,
- ❖ EPI,
- ❖ Early stimulation for development,
- ❖ essential newborn care,
- ❖ Care for vulnerable children (provides service and financial support),
- ❖ PMTC,
- ❖ Social services provided by missionary and SOS

Annex 4: Barriers to MAMI research (working groups, long list)

Group 1

- ❖ High Default rate, Low Coverage
- ❖ conflict of interest b/n health workers and policy
- ❖ Men's engagement
- ❖ Change of address,
- ❖ Extra work burden,
- ❖ Case definitions

Group 2:

- Religion
- Care seeking behaviour
- Acceptance
- Investigators experience
- Infrastructure and the health system
- Instability
- Capacity of health workers
- Ethical issue
- Level of maternal educational status
- Resource
- Traditional practices (care and feeding)
- Attitude of Health professional
- Data management
- Research and policy gap
- Having adequate sample
- Lost to follow-up

Group 3

- Non adherence
- Shortage of supply
- Low attendance
- Trained staff Turnover
- Poor quality of care
- Poor referral linkage
- Increase uptake of services in the control group (information contamination between intervention and control sites sensitising control group) (unlikely)
- Competing projects in the area (unlikely)
- Poor data quality
- Increased demand
- Poor communication with local authorities

Annex 5: Opportunities for MAMI research (working groups, long list)

Group 1:

- Top government priority
- Health system
- New case definition
- Early detection of Malnutrition
- Improve health workers skill
- Reducing infant mortality & morbidity
- EPI program

Group 2:

- Government commitment
- JU commitment
- Committed staffs
- Knowledge transfer
- Capacity building
- Experience exchange b/n Jimma & Deder site

Group 3

- Policy
- Existing health service delivery structure
- Existing community structure
- JU experience
- JU philosophy
- CBHI
- Behavioural intervention