



# Early Childhood Development and Nutrition

Experiences promoting holistic nurturing care in nutrition services  
29 July, 2021



# Child Health Task Force Today



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*from*



**80+** countries



**300+** organizations



Working together in **10** subgroups

Coordination



Advocacy

Support  
Countries



Learning

Knowledge  
Management



Focused on **5** themes of work

# Featuring



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Health & Nutrition  
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Catholic Relief Services



Hosted & moderated by the Nutrition subgroup



# A mixed methods cluster-randomized controlled trial of the Kusamala Program for caregivers and children with severe acute malnutrition in Malawi

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**SickKids**

Centre for  
Global Child Health







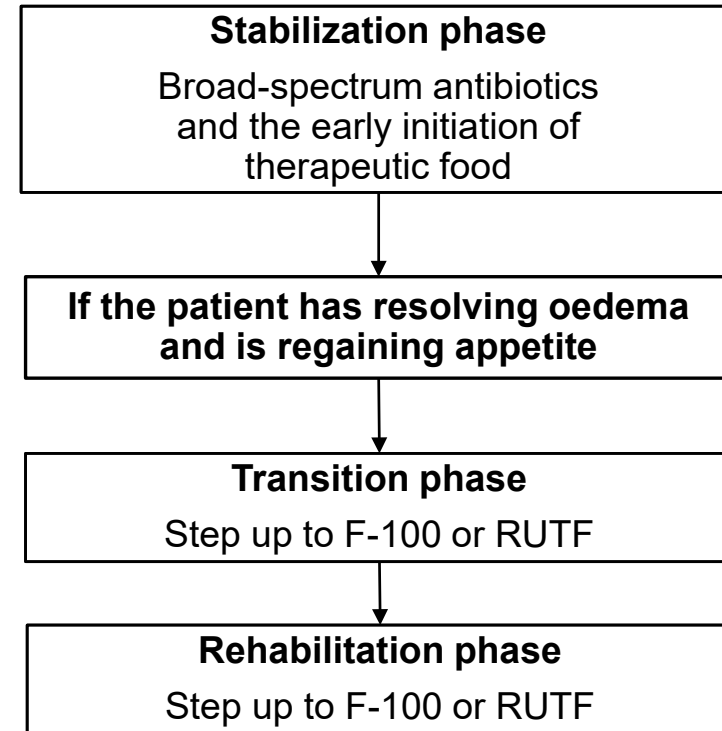
**Moyo Nutritional Rehabilitation & Research Unit**

# Management of severe acute malnutrition

## Severe acute malnutrition (SAM)

- Severe wasting
- Oedematous malnutrition

Admission to **nutritional rehabilitation units (NRUs)** required for **acute illness in addition to SAM**



Bhutta et al. Nat Rev Dis Primers, 2017

# Malnutrition and child development

## Risks for **poor child development**<sup>3</sup>

- Infection and illness
- Malnutrition
- Inadequate **psychosocial stimulation (responsive care)**

## **Few studies** of development in **children with SAM** including after discharge<sup>4-8</sup>

- Research at the Moyo NRU has shown poor developmental scores at discharge<sup>7</sup>
- Children with SAM at an earlier grade and have lower cognitive scores<sup>8</sup>

3. Aboud & Yousafzai. Annu Rev Psychol, 2015

4. Prado & Dewey. Nutr Rev, 2014

5. Victora et al. Lancet, 2008

6. Grantham-McGregor et al. J Nutr, 1995

7. van den Heuvel et al. JoGH, 2017

8. Lelijveld et al. Pub Health Nut, 2018





# The Kusamala Program

**Psychosocial stimulation**

**Nutrition and feeding**

**Water, sanitation and hygiene (WASH)**



# Objectives and trial design



To evaluate the **effects of the Kusamala Program** on **child development and nutritional status** in children with SAM six months after discharge

To understand **perceptions and experiences of primary caregivers** who have participated in the Kusamala Program

# Objectives and trial design



## Cluster-randomized controlled trial

- Including children **6-59 months** of age with SAM and primary caregivers
- Intervention or comparison randomly attributed by 1-week periods






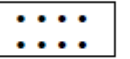
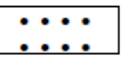



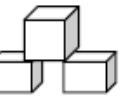
Data collection at **enrollment, discharge, and follow-up** six months after discharge

- Enumerators blinded to allocation



# Malawi Developmental Assessment Tool



<p>13. Can use a neat pincer grasp to pick up object between thumb and forefinger</p> 	<p>14. Puts blocks or stones in and out of a plastic tea cup in imitation.</p> 	<p>15. Copies pushing a little wooden or wire car along</p> 
<p>19. Scribbles on paper with chalk or on the ground with a stick in a circular motion</p> 	<p>20.. Can build a tower of two bricks</p> 	<p>21. Puts pegs in a board in a longer time. (&lt; 2 min)</p> 
<p>25 Fill up two cups. One with very little water and one with a lot of water and ask the child to give you the cup with more water (do it three times)</p>	<p>26 Can do the peg board quicker – within 30 s (&lt;30s)</p> 	<p>27. Unscrews and screws the cap on and off a peanut butter plastic jar</p> 
<p>31. Picks the “longer” stick 3 out of 3 times</p> 	<p>32. Picks the heaviest of two objects</p> 	<p>33. Can make a bridge</p> 

# Intervention attendance and fidelity



Day 1: 93%

Day 2: 89%

Day 3: 79%

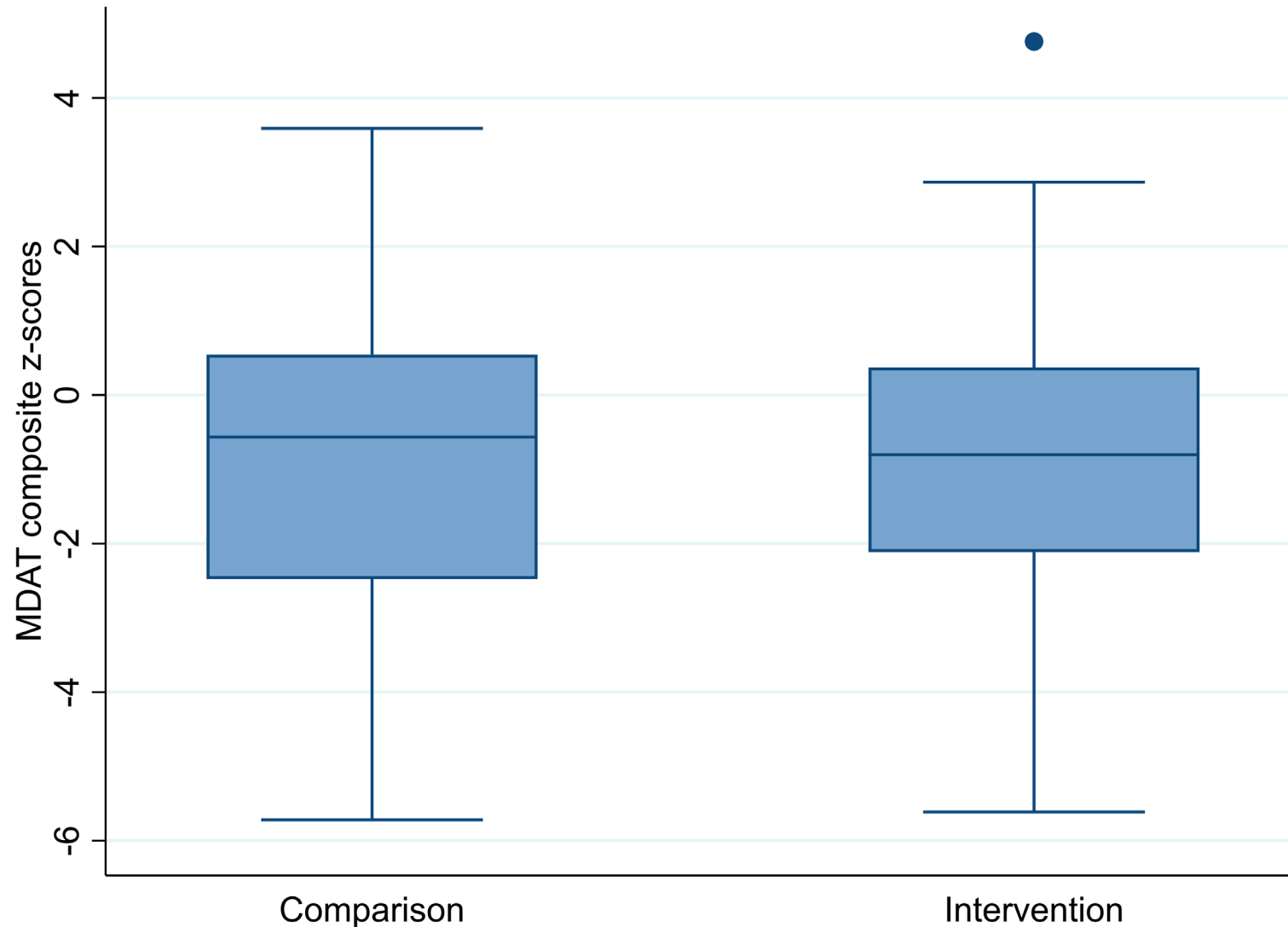
Day 4: 64%

**Intervention fidelity** was assessed by an enumerator trained in child development and counselling

- **90% of counselling skills were met** based on the Care for Child Development manual
- The mean **quality rating** was **4.25 out of five**



# MDAT z-scores



**Comparison**

-0.82 (95% CI: -1.6, -0.07)

**Intervention**

-0.93 (95% CI: -1.5, -0.4)

**p=0.8**

# Summary of qualitative study

**Seven in-depth interviews and four focus group discussions** were done with **20 caregivers** between January and April 2020

**Each of the 20 participants had positive sentiments**

“The lessons learned were an eye opener to problems arising due to poor nutrition and unhygienic conditions.”

“It was good in the sense that we learned a lot especially on how to take care of our children. We used to prioritize other issues at the expense of our children.”



# Applying practices at home

“I try my best because I even made porridge flour from soya, beans and rice. When the flour is about to finish, I have to know how I can source money, or I can prepare porridge using maize flour and groundnut flour. The money one can spend when a child is admitted at the hospital is more than you can spend by just taking good care of the child.”

# Conclusions

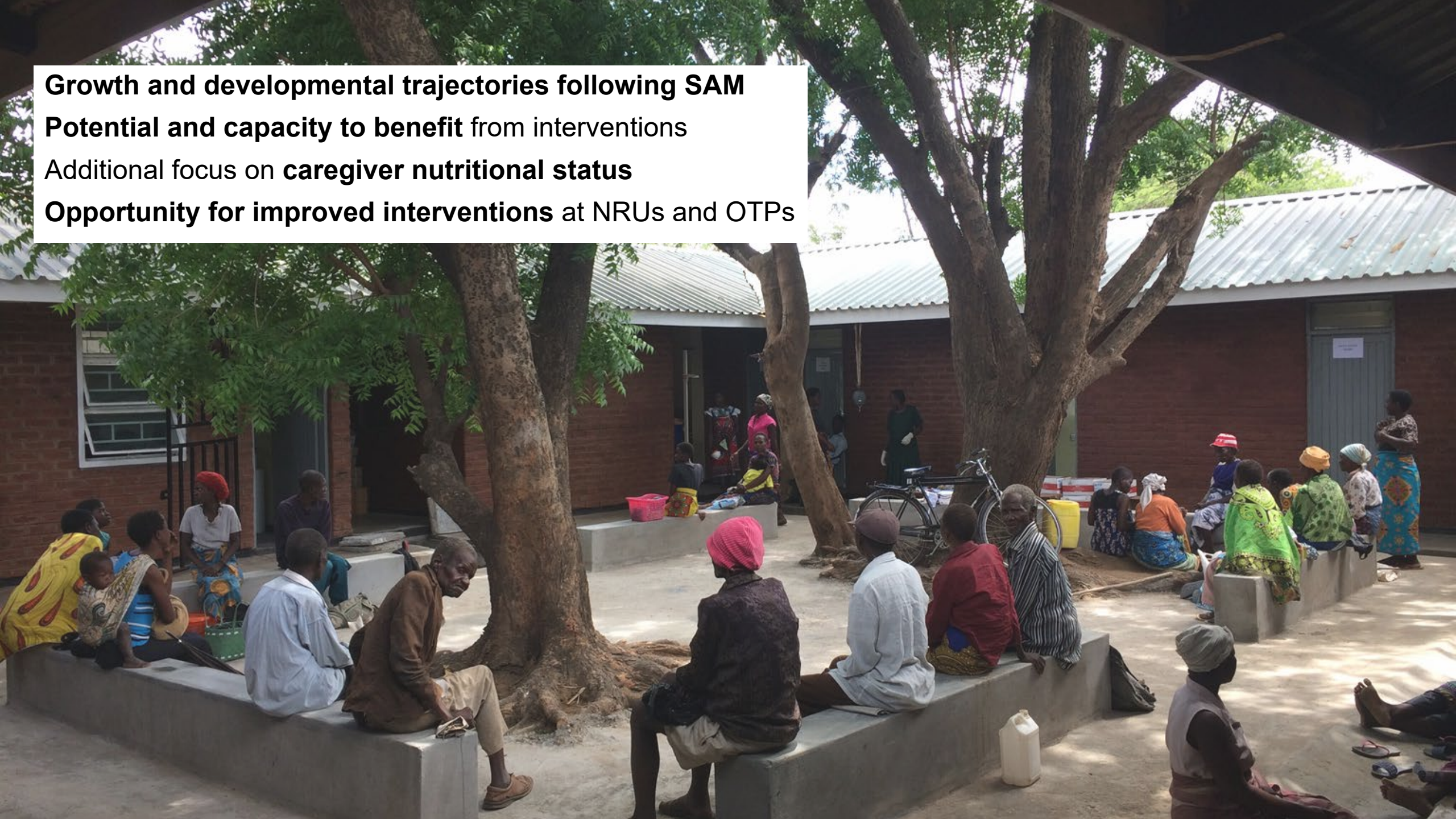
The Kusamala Program was **feasible to implement** at the Moyo NRU

It was **insufficient in terms of having an impact on developmental outcomes** in children with SAM following discharge from inpatient treatment





**Growth and developmental trajectories following SAM**  
**Potential and capacity to benefit from interventions**  
Additional focus on **caregiver nutritional status**  
**Opportunity for improved interventions at NRUs and OTPs**





# Acknowledgements



## **Supervisor**

Dr. Robert Bandsma

## **Co-Investigators**

Mike Bwanali

Josephine Chimoyo

Dr. Anna Heath

Dr. Meta van den Heuvel

Dr. Melissa Gladstone

Isabel Potani

Dr. Wieger Voskuil

## **Malawi Team**

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Alice Bwanali

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Abel Tembo

Frank Ziwoya





# Nurturing Care in Management of Wasting: Experience from Sudan

Colleen Emary, WVI





# Integrated Nutrition and ECD for Moderately Acute Malnourished Children in Sudan - operational research

## Objective

Assess the feasibility and effectiveness of combined early childhood psycho-social stimulation and care on the treatment outcomes of malnourished children integrated within existing nutrition program

- 2-group comparative study
- 6-month implementation period



# Design - Intervention

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**Community Nutrition Integrated Platform (CNIP)** - implemented by WV in collaboration with WFP. The approach combines:

**Targeted Supplementary Feeding (TSF)** - treatment regimen for MAM children 6 -59 months with moderate wasting, PLW with MUAC 18.5 cm - <21 cm

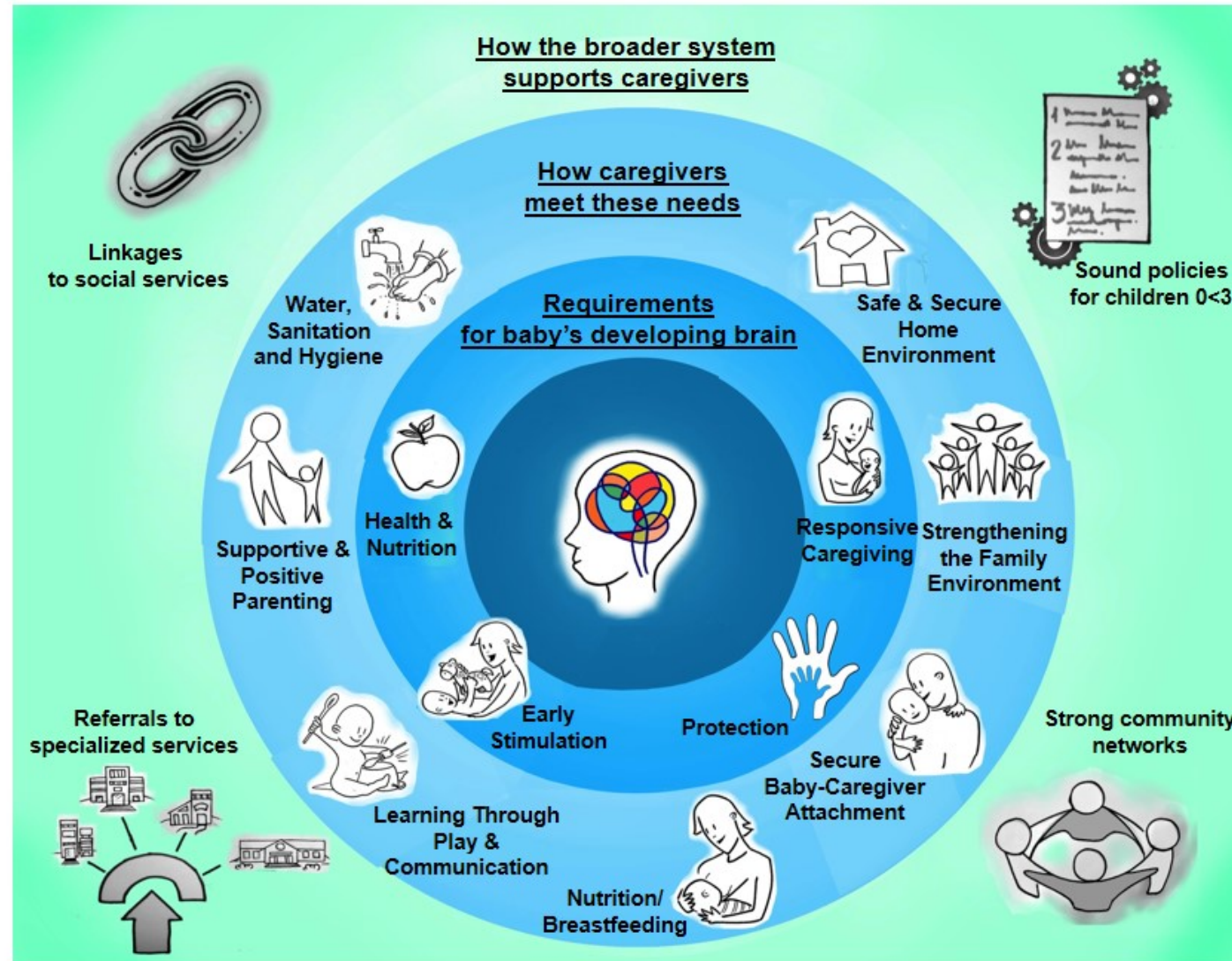
**Supplementary Food Based Prevention of Moderate Acute Malnutrition** - prevention regimen for children 6-23 months- with MUAC 11.5 cm - < 12.5 cm, PLW at risk – MUAC  $\geq 21$  cm and < 23 cm

**AND**

**ECD - Go Baby Go-** Parenting Program with an integrated approach to promote holistic growth and development for children 0-3 years



# Go Baby Go - Parenting Program



# Go Baby Go!

## Alignment with Nurturing Care Framework

### Health Care:

immunization, safe water, improved sanitation and good hygiene.

**Early Learning:** access to quality early, age-appropriate learning opportunities, materials with nurturing, interactive engagement.



### Nutrition Care: Optimal IYCF

- exclusive breast feeding, minimum acceptable diet.

### Responsive Caregiving:

sensitive engagement such as, serve and return, secure attachment, responsive feeding, singing, talking.

### Security and Safety:

prevention from toxic stress, environmental hazards (indoor, outdoor safety).

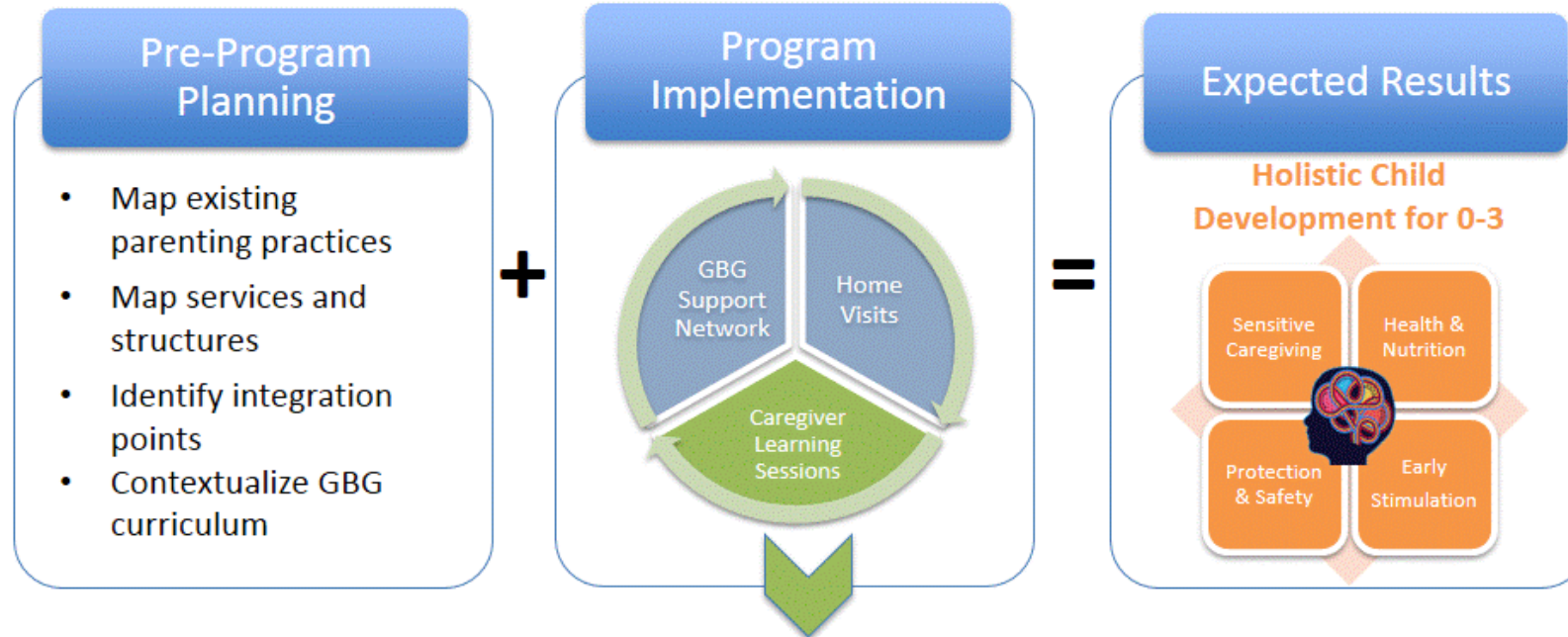


# Implementation



## Go Baby Go - Parenting Program

### Process and Curriculum



### Learning Sessions:

GBG Journey: Who We Are As Caregivers	Sensitive & Responsive Caregiving	Holistic Child Development	Nurturing Physical Development	Nurturing Cognitive Development	Nurturing Social & Emotional Development
Play & Communication	Home & Community Environment	Wellbeing as a Family Affair	Community Action Planning	Who We Are As Fathers (Optional)	Supporting Children in Crisis (Optional)

# Study Design

**Target group** – randomly selected 427 children, aged 6 – 59 months with MUAC 11.5 cm - < 12.5 cm enrolled in CNIP Targeted Supplementary Feeding

**3 CNIP Sites:** 2 – CNIP + GBG, 1 - CNIP

**Delivery cadre for ECD**– Community Mobilizers, trained on GBG





# Design - ECD

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**1. Caregiver Group Sessions -**  
integrated within waiting period at  
Supplementary Feeding Centers

**2. Toy making**



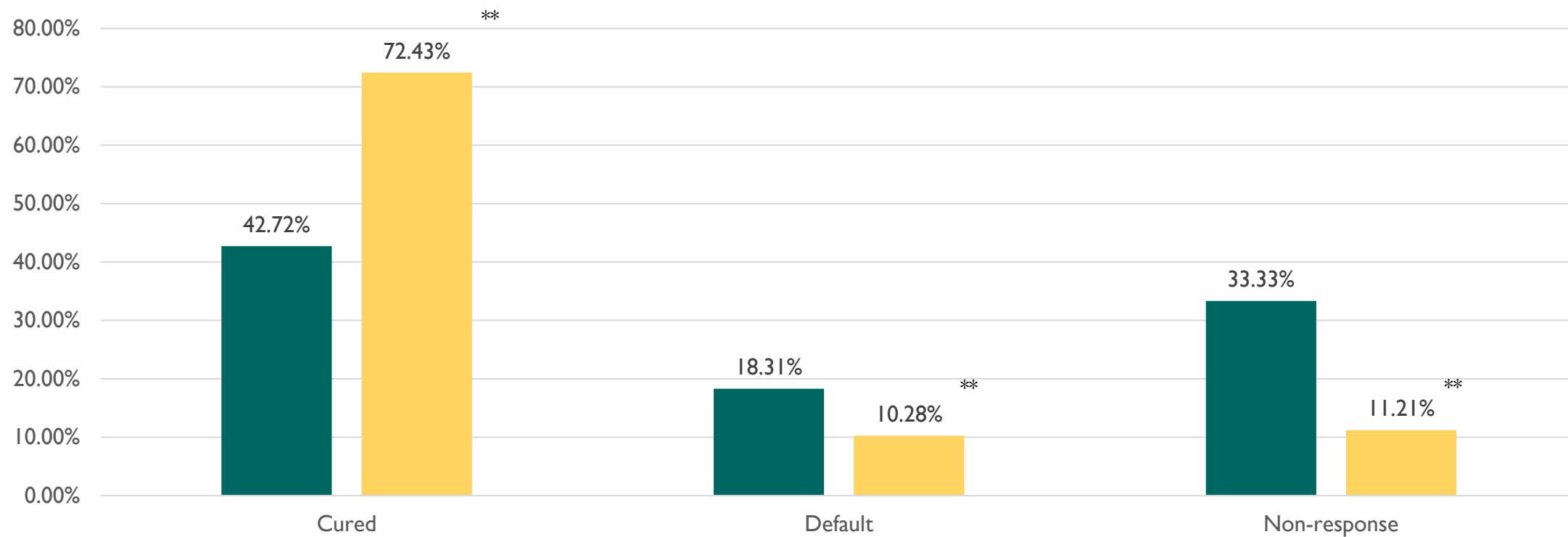
**3. Home Visits – monthly**

# Monitoring & Evaluation

- **Nutrition outcomes**
  - Standard MAM treatment outcomes (cured, death, default, non-recovered)
  - Weight gain, Length of Stay
- **Parent-Child interaction & developmental outcomes**
  - Nipissing District Developmental Screener (NDDS)
  - Brigance Parent-Child Interactions Scale (BPCIS)



# Treatment Outcomes



\*\* P<0.001

■ CNIP ■ CNIP + GBG

# Caregiver & Volunteer Perceptions

*"I have also come to learn that playing with my children not only amuses them but it also gives me a great feeling of release and relaxation,"*  
(caregiver)

*"There's a lot we teach the caregivers, some of these things they already know, it is just a matter of enhancing that knowledge further or reinforcing its importance,"* (GBG volunteer)



# Conclusion & next steps

- Implementing ECD was feasible within an outpatient program, using community volunteer structures
- Combined psychosocial stimulation & care with nutrition was found to improve treatment outcomes
- More evidence needed to prove the concept for scale-up, institutionalization of the approach
- Advocacy for inclusion of ECD interventions as part of wasting management in both humanitarian and stable contexts

# Acknowledgements

WV Sudan

World Food Programme

Ministry of Health

Communities of Mershing,  
Manawashi, Duma localities





# CRS Integrated Early Childhood Development, Health, and Nutrition programming

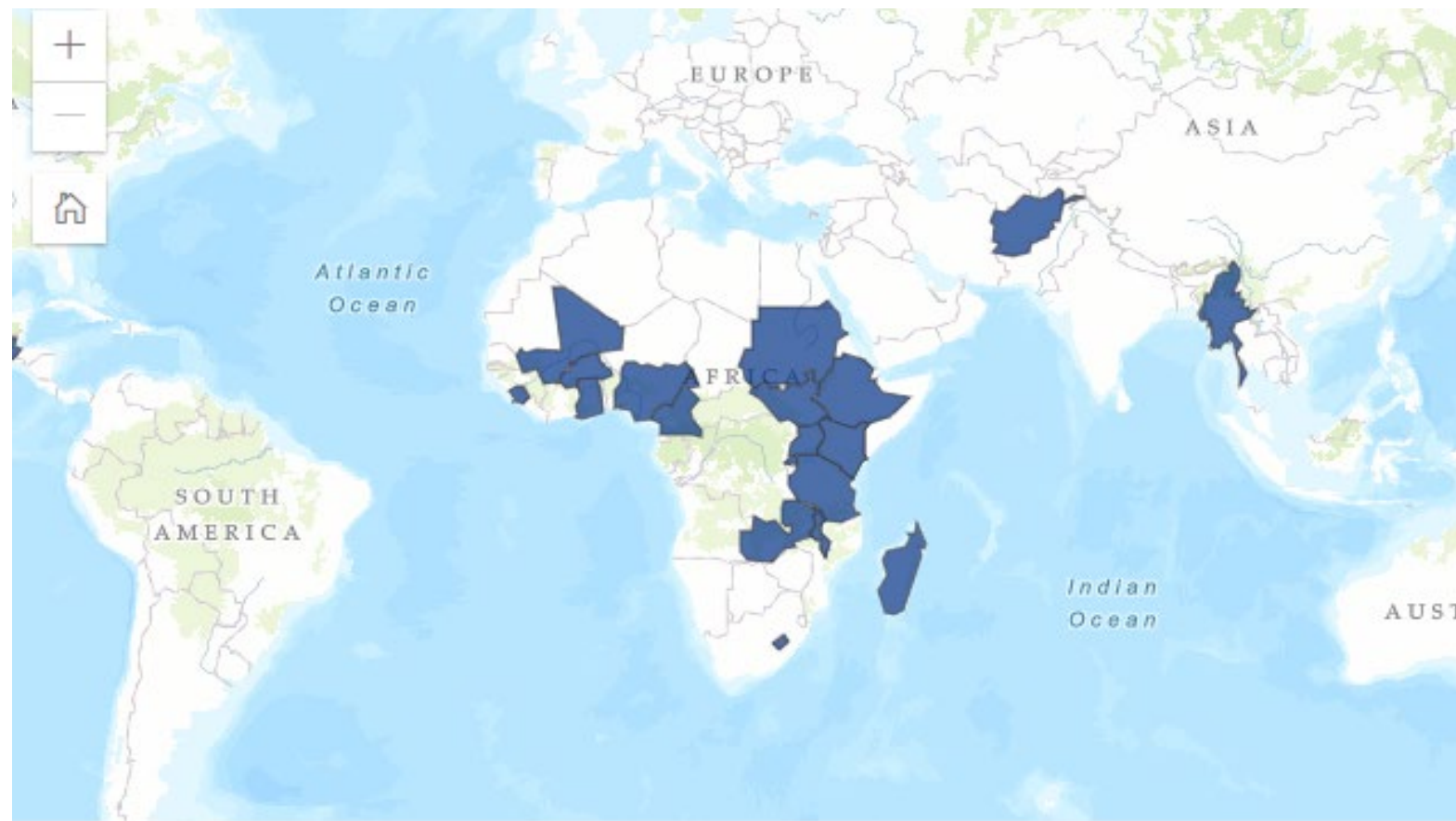
Elena McEwan

STA MCH

Catholic Relief Services

July 29, 2021



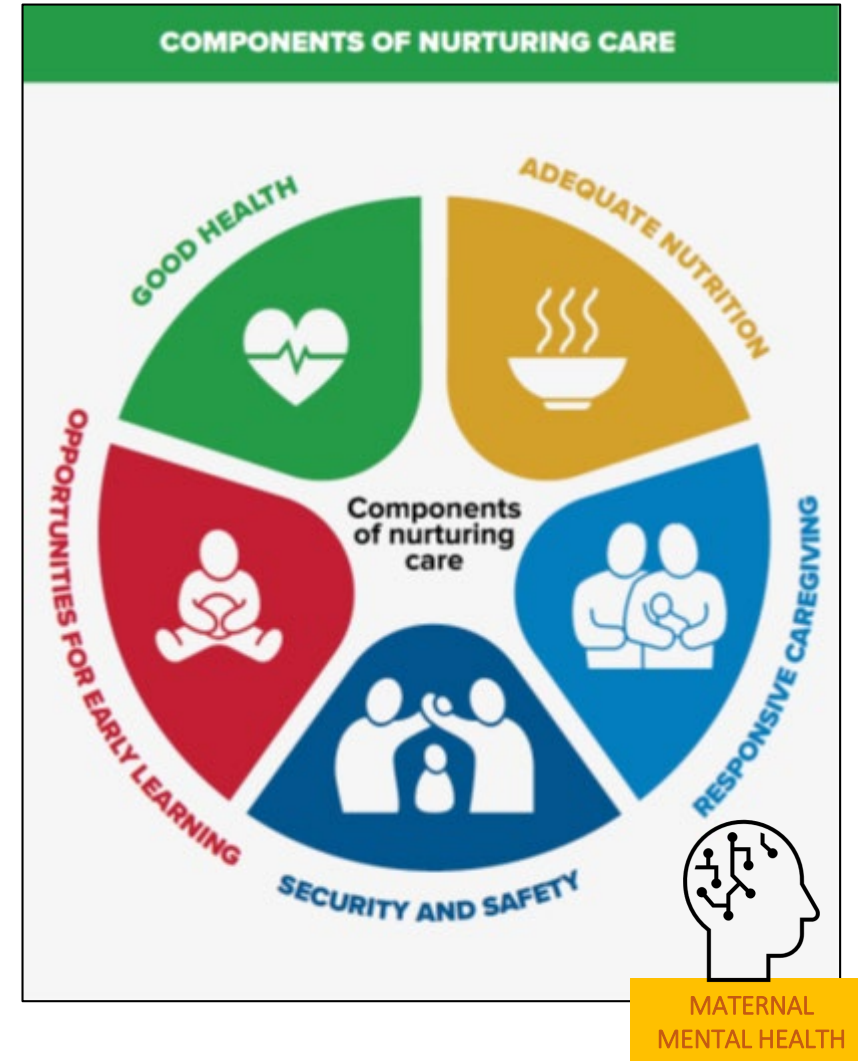
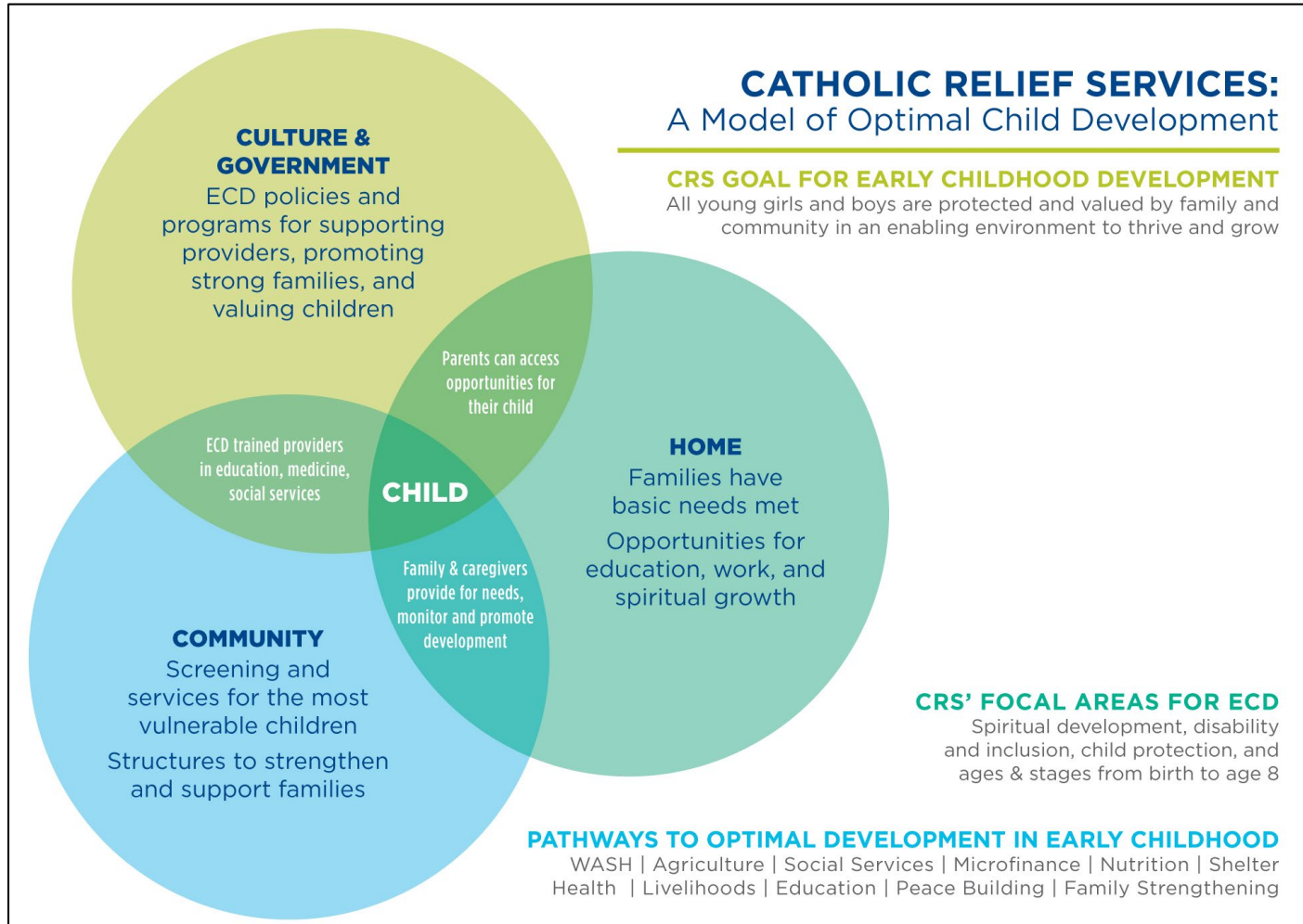


# Where and Why integrate ECD?

- First 1000 days is the most rapid and crucial developmental processes in cognition, language, social-emotional development, and physical health occur during this period.
- Healthy food, clean water, health care, protection, and opportunities to learn are crucial elements for brain development.
- Combining ECD with existing interventions is efficient as programs can make use of same facilities, transportation, community networks and distribution systems



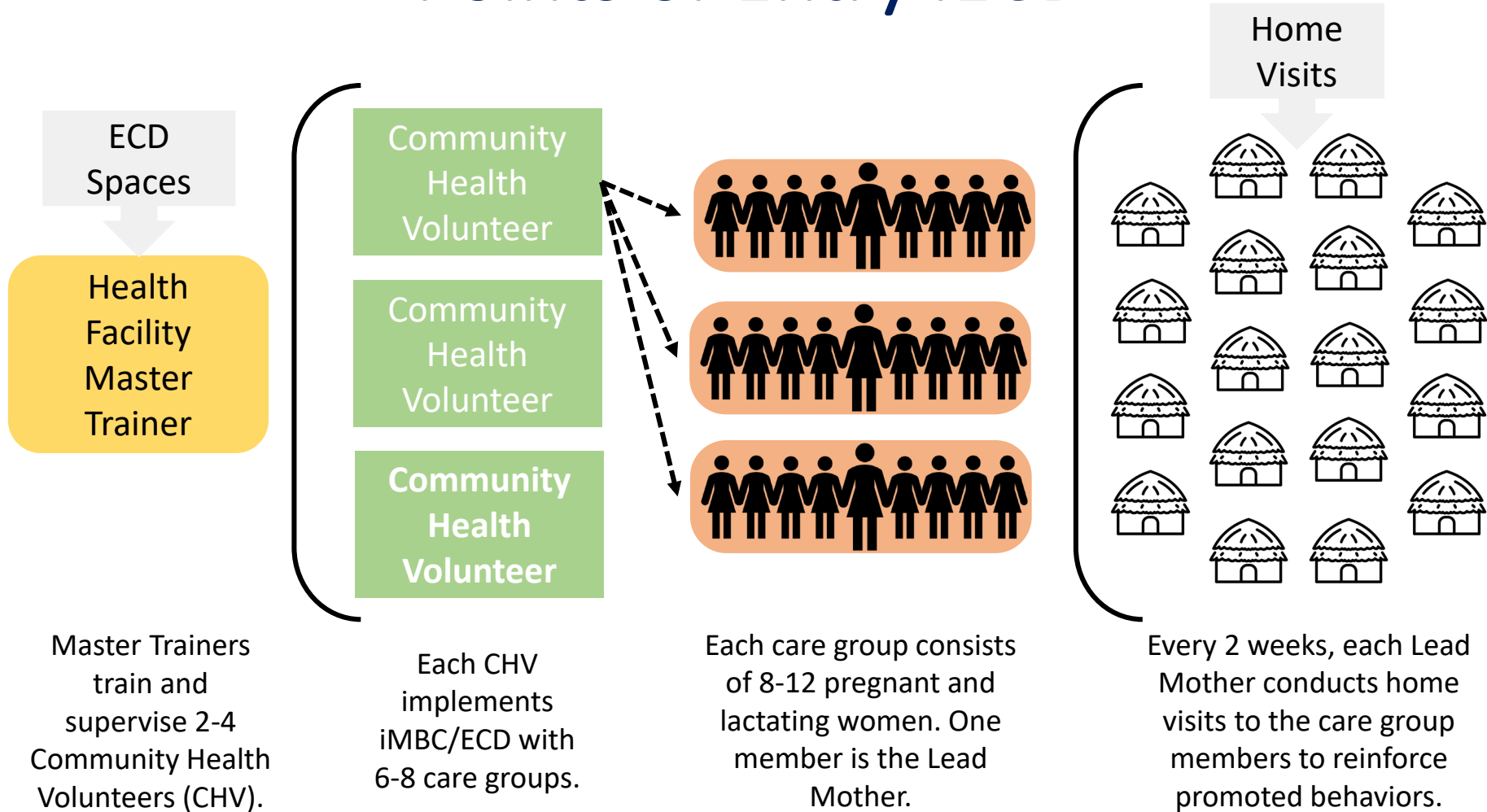
# CRS Guiding Framework for Integrating Child Health, Nutrition and Early Childhood Development



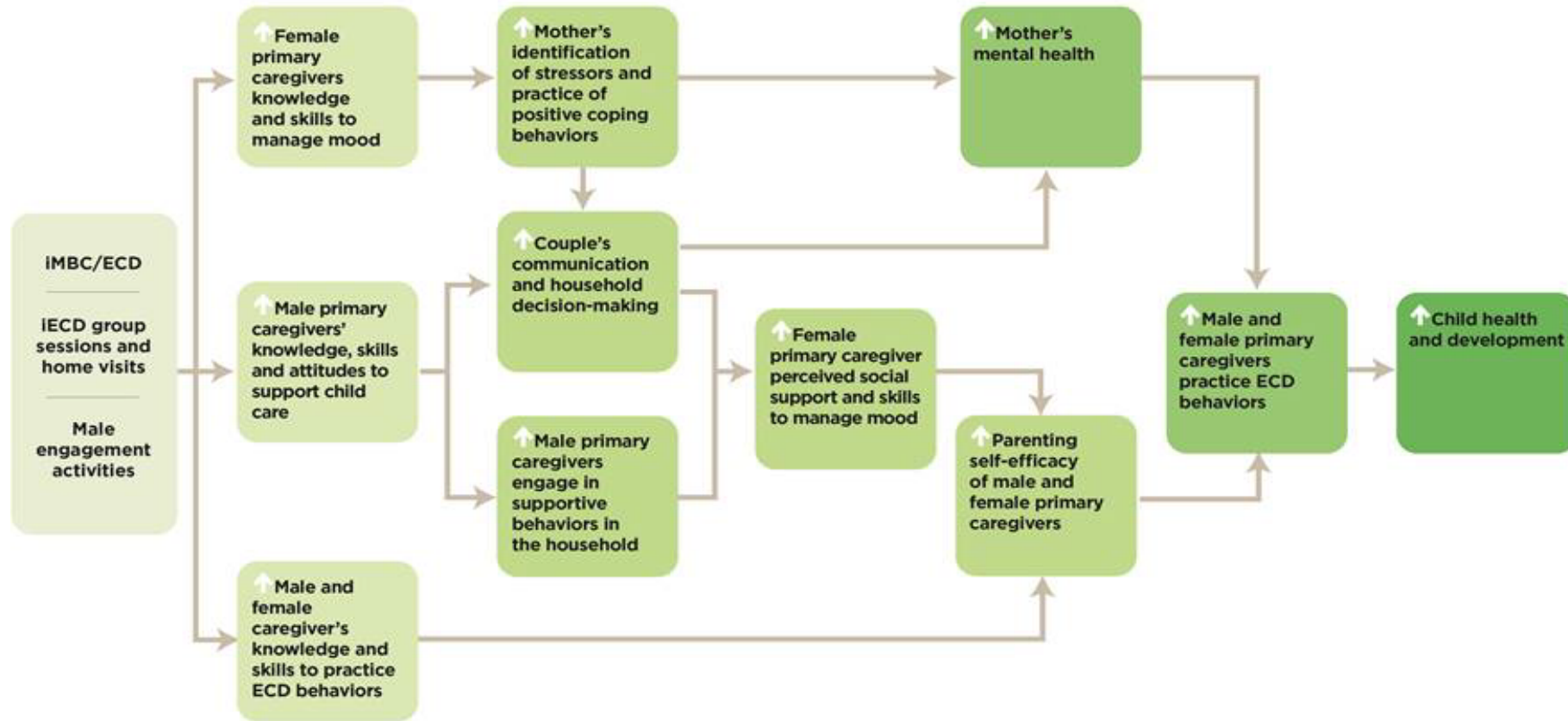
[Link: CRS Guiding Framework for Integrating Child Health, Nutrition and Early Childhood Development](#)



# Points of Entry iECD



# CRS Conceptual Framework for Integrated ECD in the First 1000 Days



CRS hypothesizes that improved mothers' skills to manage their mood and knowledge in iECD, coupled with better coping mechanisms, and social support, will lead to greater parenting self-efficacy. Increased self-efficacy will lead to uptake positive care behaviors (e.g. early stimulation, IYCF, positive parenting and WASH behaviors), which will ultimately lead to stronger mother-baby relationships, and healthier women and improved child growth and development.

# MEAL

- Baseline/endline
- Accompaniment to improve BC and technical skills
- Monthly monitoring
- Implementation Research/integration of maternal mental health/ECD
- Use of QIVCs and supervision checklists

## Early Stimulation

Positive Parenting

Infant and Young Child Feeding

Water, Sanitation, and Hygiene

Maternal Mental Health

Click the indicator numbers to access the **questionnaire items and scoring procedures** for each indicator.

Indicator #	Indicator
<a href="#">ES 1</a>	% of children 0-23 months engaged in four or more activities to provide early stimulation and responsive care in the last 3 days with his/her mother
<a href="#">ES 2</a>	% of children 0-23 months engaged in one or more activities to provide early stimulation and responsive care in the last 3 days with his/her father
<a href="#">ES 3</a>	% of children 0-23 months whose caregivers who engaged in at least 2 stimulation practices during the pregnancy
<a href="#">ES 4</a>	% of children 6-23 months whose caregivers who engaged in at least 2 stimulation practices during the infancy (first six months)
<a href="#">ES 5</a>	% of children 0-23 months who play with two or more types of playthings



# THRIVE PROJECT BASELINE/ENDLINE

## Kenya

- Mothers' engagement 2+ early stimulation behaviors increased from 37% to 44.5% ( $p < 0.01$ )
- Approval of physical punishment decreased from 79.1% to 37.7% ( $< 0.001$ )
- Child minimum dietary diversity (6-23 m) from 32.3% to 41.5% ( $< 0.005$ )
- Mothers with symptom of depression decreased from 61.9% to 31.1% ( $< 0.001$ )

## Malawi

- Mothers' engagement 2+ early stimulation behaviors increased from 73.8% to 84.9% ( $p < 0.01$ ).
- Child minimum dietary diversity increased from 35.8% at baseline to 55.1% at end line ( $p < 0.001$ )
- Mothers' symptoms of depression (Hopkins Symptoms Check List) decreased from 55.7% to 39.4% ( $p < 0.001$ )

## Tanzania

- Mothers' engagement 2+ early stimulation behaviors increased from 42.2% to 80.3% ( $p < 0.01$ )
- Approval of physical punishment for children decreased from 63.8% to 30.6% ( $p < 0.001$ ).
- Child minimum dietary diversity increased from 18.8% at baseline to 33.1% at end line ( $p < 0.001$ )
- Mothers' symptoms of depression decreased from 45.1% to 22.7% ( $p < 0.001$ )

# Conclusion & Recommendations

- Integration is feasible and efficient as projects can make use of same facilities, human resources, transportation, community networks and distribution systems
- Targeting: First 1000 days, Caregivers in vulnerable sub-groups (depression, young mothers and fathers)
- Address implementation challenges to increase comprehension and attendance
- Integrate ECD with economic strengthening activities to reduce HH poverty and hunger
- Proactively address intimate partner violence
- Directly engage male caregivers (increase attendance, decrease IPV)



# Implementation challenges

- Delays in translating materials to local languages/validation
- Staff and CHVs learning curve to implement quality SBC interventions
- Low literacy likely impacted uptake of SBC skills in CHVs
- Household hunger (attendance)
- Intra partner violence (depression, attendance, migration)





## Connect with the us



Engage with the **co-chairs**:

- Akriti: [akriti\\_singh@jsi.com](mailto:akriti_singh@jsi.com)
- Bridget: [baidam@actionagainsthunger.org](mailto:baidam@actionagainsthunger.org)

Subgroup information, recordings and presentations from previous meetings and webinars are available on the subgroup page of the Child Health Task Force website:

[www.childhealthtaskforce.org/subgroups/nutrition](http://www.childhealthtaskforce.org/subgroups/nutrition)

*\*The recording from this webinar will be available on this page later today*

Suggestions for improvement or additional resources are welcome. Please email **[childhealthtaskforce@jsi.com](mailto:childhealthtaskforce@jsi.com)**.

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