

# Community-based management of severe acute malnutrition in India: New evidence from Bihar

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<b>Registration date</b> 29/01/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 08/04/2015	<b>Condition category</b> Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

According to the third Indian National Family Health Survey-3 (NFHS-3) conducted in 2005-06, 19.8% of children <5 years of age were wasted, while 6.4% suffered from severe acute malnutrition (SAM) in India. While the principal strategy remains inpatient care through Nutritional Rehabilitation Centers and Malnutrition Treatment Centers, there is a growing consensus within India that adoption of Community-Based Management of Acute Malnutrition (CMAM) is crucial to achieving widespread, effective coverage and treatment of all children with SAM.

Following widespread flooding in Bihar, Médecins Sans Frontières (MSF) conducted a household based survey in Darbhanga which found the prevalence of wasting and SAM in children younger than 5 years was 19.4% and 4.8%, respectively. Consequently, under a memorandum of understanding with the district authorities and thereafter with consent from the Bihar State Health Society, in February 2009 MSF initiated a CMAM program in Biraul block, Darbhanga district.

The CMAM model has been extensively used outside India, with over 50 countries adopting this approach as their first-line strategy for treating SAM. CMAM is based on principles that acknowledge both the need for prolonged treatment and the small proportion of children with SAM who require inpatient care for medical reasons, and on evidence that ambulatory management in the community can be a cost-effective solution from both societal and healthcare provider perspectives. A standard CMAM program consists of treatment sites close to the community where the children with 'uncomplicated' SAM, who constitute the majority of patients, can be seen weekly, and an inpatient facility ('Stabilization Center') that admits only children with SAM plus associated medical complications requiring specialist medical attention, and keeping them only until they recover enough to continue treatment as outpatients in the community.

In this study we look at the routine programme data that has been collected over the life of the programme and present it as an evaluation of the programme as a whole, to see how effective it has been compared to international and national standards. We also present the challenges that the programme faced and possible solutions for policy makers to consider in future decision making.

Who can participate?  
Observational study – not applicable

What does the study involve?  
Observational study – not applicable

What are the possible benefits and risks of participating?  
Observational study – not applicable

Where is the study run from?  
Biraul Block, District Dharbhnaga, Bihar, India

When is the study starting and how long is it expected to run for?  
Observational study – not applicable  
Analysis of data collected from February 2009 to November 2011. Analyse done between January 2014 and March 2014.

Who is funding the study?  
Médecins Sans Frontières

Who is the main contact?  
Dr Temmy Sunyoto

## Contact information

**Type(s)**  
Public

**Contact name**  
Dr Temmy Sunyoto

**Contact details**  
C203 Defence Colony  
New Delhi  
India  
110024

**Type(s)**  
Scientific

**Contact name**  
Dr Sakib Burza

**Contact details**  
C203 Defence Colony  
New Delhi  
India  
110024

## Additional identifiers

**Protocol serial number**

N/A

## **Study information**

### **Scientific Title**

Community-based management of severe acute malnutrition in India: New evidence from Bihar: an observational study

### **Study objectives**

This study is an observational study describing the characteristics and outcomes of 8,274 children with severe acute malnutrition treated by MSF in Dharbhangha district, Bihar, India between February 2009—September 2011 in a routine Community Management of Acute Malnutrition (CMAM) programme. The routinely collected programme data has been retrospectively analysed in this study to provide local policy makers with additional evidence of models of care for severely acute malnutrition in 6 month to 5 year old children.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

This analysis met the Médecins Sans Frontières Institutional Ethics Review Committee criteria for a study involving routinely collected program data. The program utilized a widely recognised treatment model (CMAM) for SAM and was conducted under a memorandum of understanding with the district authorities and thereafter with consent of the Bihar State Health Society, the usual procedure for NGOs operating in this context. All electronic data were analyzed anonymously.

### **Study design**

Single center observational retrospective cohort study using routinely collected programme data.

### **Primary study design**

Observational

### **Study type(s)**

Prevention

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

The condition being studied is Severe Acute Malnutrition (SAM) in children between the ages of 6-59 months.

### **Interventions**

We retrospectively analysed the routinely collected programme data from the CMAM programme, looking at exit outcomes, programme indicators and other challenges facing the implementation of CMAM in this context.

### **Intervention Type**

Other

**Primary outcome(s)**

We examined anthropometric and socio-demographic admission and exit characteristics, and classified analysis by discharge as cure, default, death or non-responder.

**Key secondary outcome(s)**

We examined risk factors for children defaulting from the programme by analysing anthropometric and socio-demographic criteria at the point of entry to the programme to see if there was any association with risk of defaulting from the programme.

**Completion date**

01/03/2014

**Eligibility****Key inclusion criteria**

All children with severe acute malnutrition presenting and admitted to the CMAM programme between February 2009 and September 2011.

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Child

**Sex**

All

**Key exclusion criteria**

No exclusion criteria.

**Date of first enrolment**

01/01/2014

**Date of final enrolment**

01/03/2014

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

India

**Study participating centre**

Biraul Block, District Dharbhnaga, Bihar  
India

# Sponsor information

## Organisation

Médecins Sans Frontières

## ROR

<https://ror.org/032mwd808>

# Funder(s)

## Funder type

Charity

## Funder Name

Médecins Sans Frontières

# Results and Publications

## Individual participant data (IPD) sharing plan

## IPD sharing plan summary

Stored in repository

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/04/2015		Yes	No
<a href="#">Participant information sheet</a>	Participant information sheet	11/11/2025	11/11/2025	No	Yes