REPUBLIC OF GHANA
MINISTRY OF HEALTH

GHANA HEALTH SERVICE
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Overview of Community-Based Management of Acute Malnutrition (CMAM)

Learning Objectives

- Identify the concepts and principles of CMAM
- Describe recent innovations and evidence
- Identify the components of CMAM
- Develop an appreciation for the issues related to implementing CMAM
- State global commitments related to CMAM

What is CMAM?

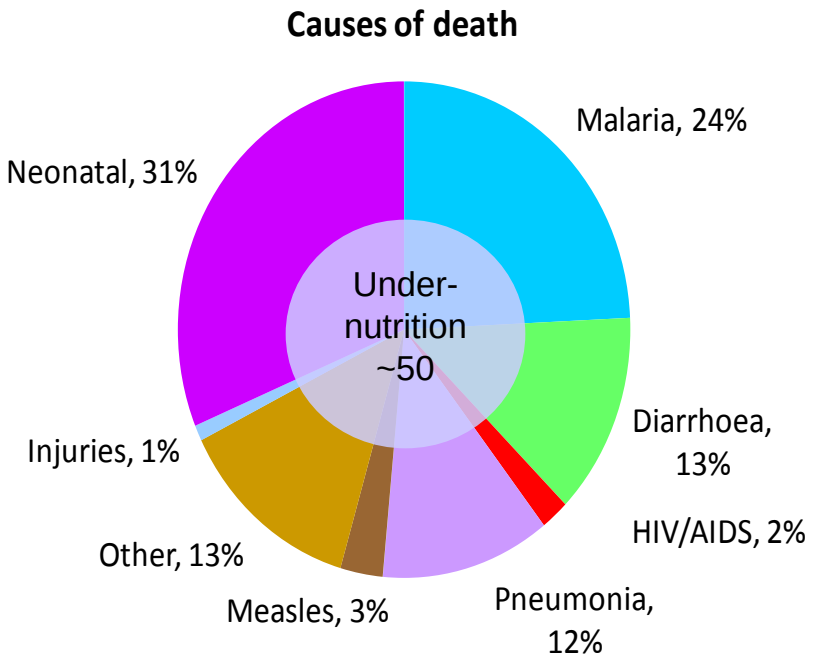
Community-Based Management of Acute Malnutrition (CMAM)

- Community-based approach to treating severe acute malnutrition (SAM)
  - Most children with SAM without medical complications treated as outpatients at accessible, decentralised sites
  - Children with SAM and medical complications treated as inpatients
  - Community outreach for community involvement and early detection and referral of cases

What is undernutrition?

- A consequence of a deficiency in nutrients in the body
- Types of undernutrition?
  - Acute malnutrition: wasting and bilateral pitting oedema
  - Stunting
  - Underweight
  - Micronutrient deficiencies
- Why focus on acute malnutrition?

Undernutrition and Child Mortality



- 54% of child mortality associated with underweight
- Severe wasting is an important cause of these deaths (difficult to estimate)
- Proportion associated with acute malnutrition often grows dramatically in emergency contexts

Recent History in the Management of SAM

- Traditionally, children with SAM treated in centre-based care: Nutritional Rehabilitation Centres (NRCs) or Therapeutic Feeding Centres (TFCs)
- Some of the centre-based care models follow WHO's *Management of severe malnutrition: a manual for physicians and other senior health workers* (1999)

Centre-Based Care for Children with SAM

- What is a TFC/NRC?
- Advantages and disadvantages of a TFC/NRC?

Challenges of Centre-Based Care: Overcrowding, Cross-Infection, Staff Workload Increases

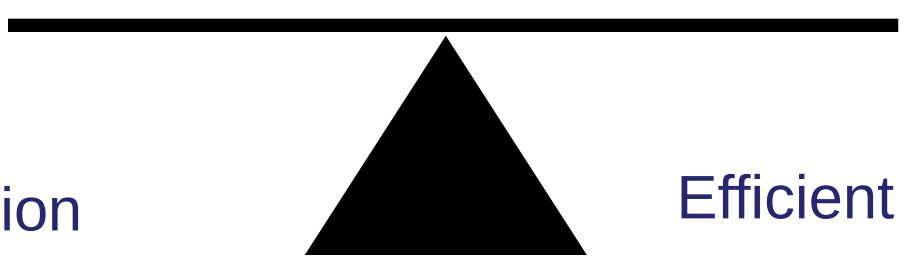
Principles of CMAM

- Maximum coverage and access
- Timeliness
- Appropriate medical and nutrition care
- Care for as long as needed

Maximise Impact by Focussing on Public Health

Population level impact (coverage)

Individual level impact (cure rates)



Early presentation

Access to services

Compliance with treatment

Efficient diagnosis

Effective clinical protocols

Effective service delivery

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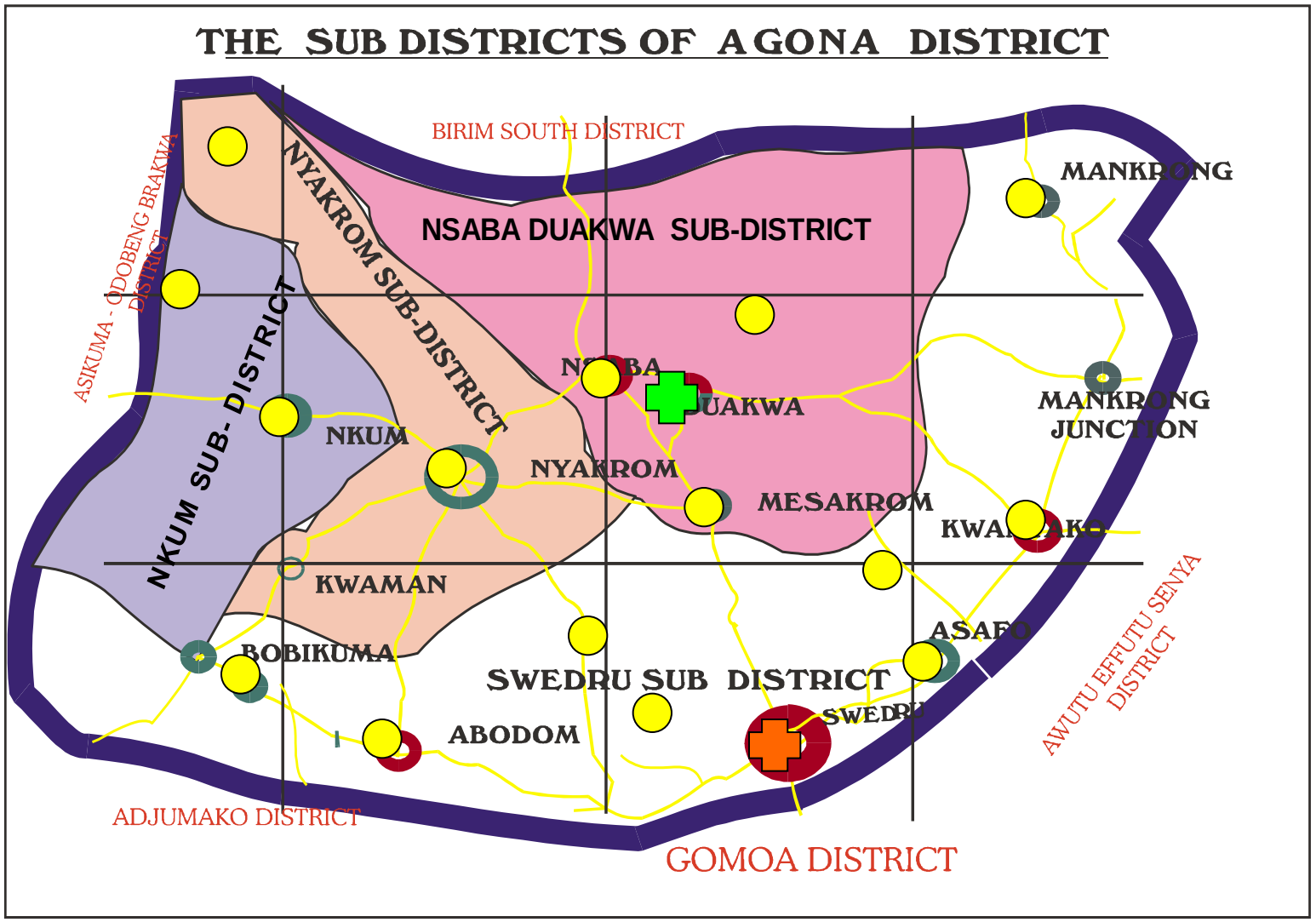

Bringing Treatment into the Local Health Facility and the Home

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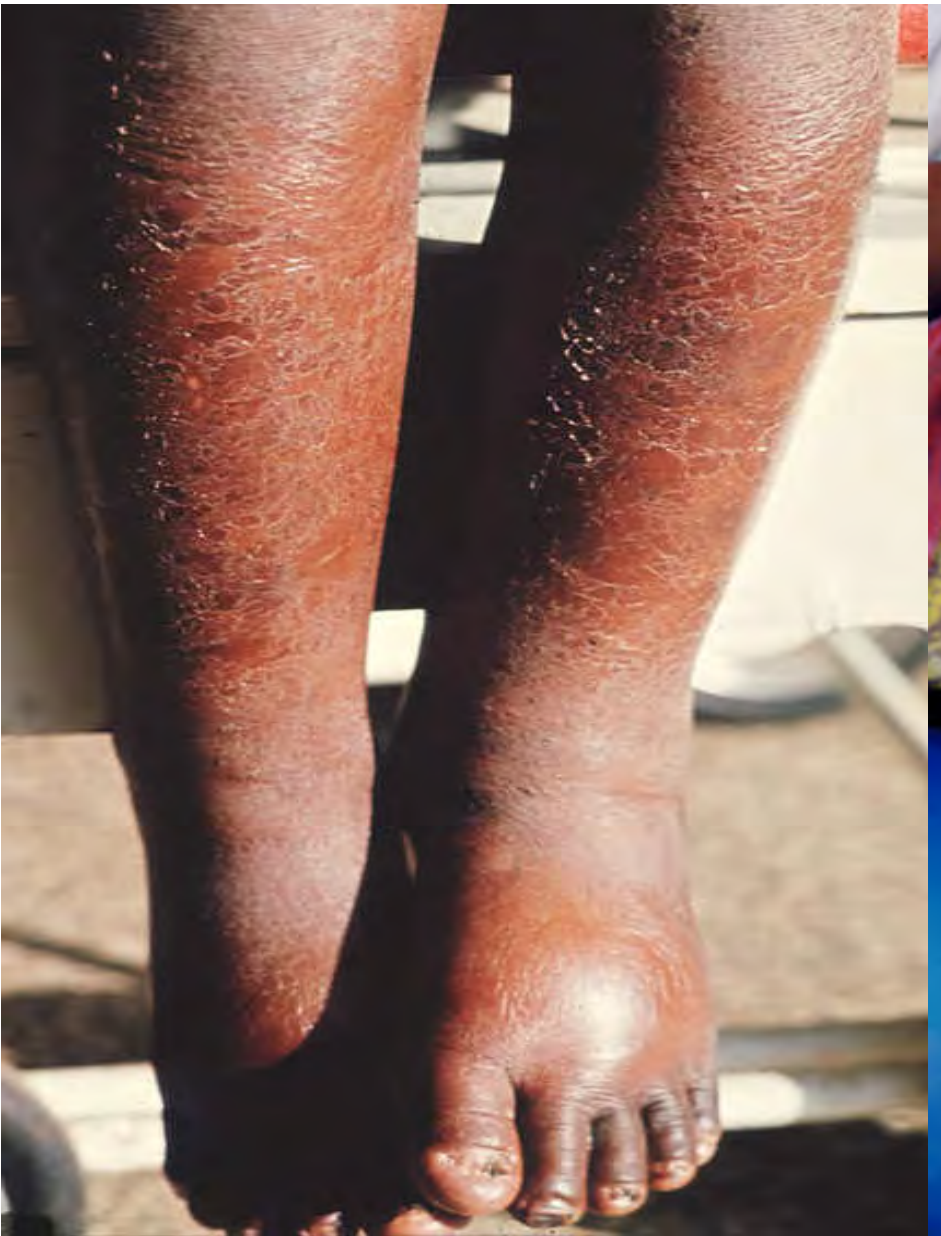
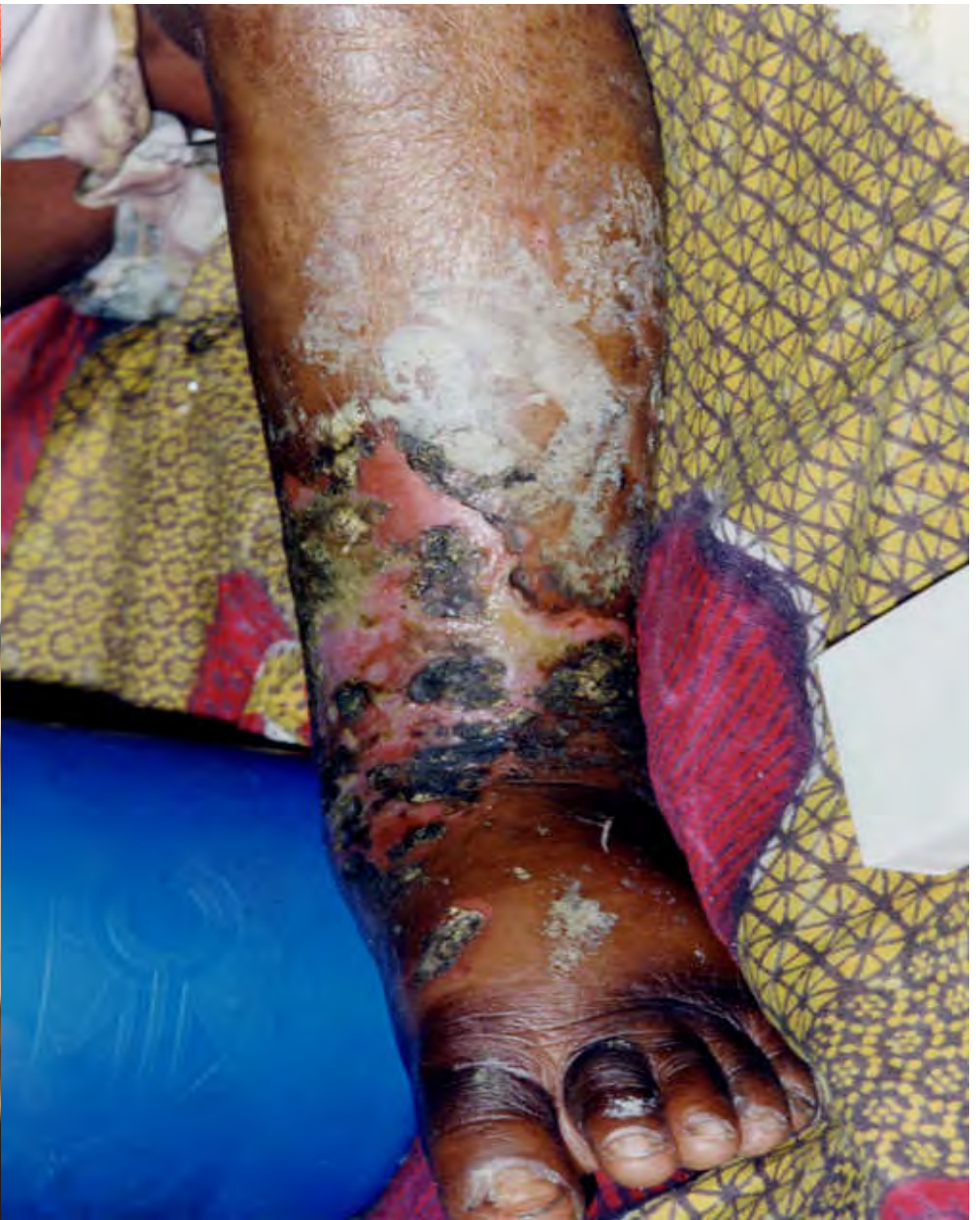
Timeliness: Early versus Late Presentation





Timeliness (continued)

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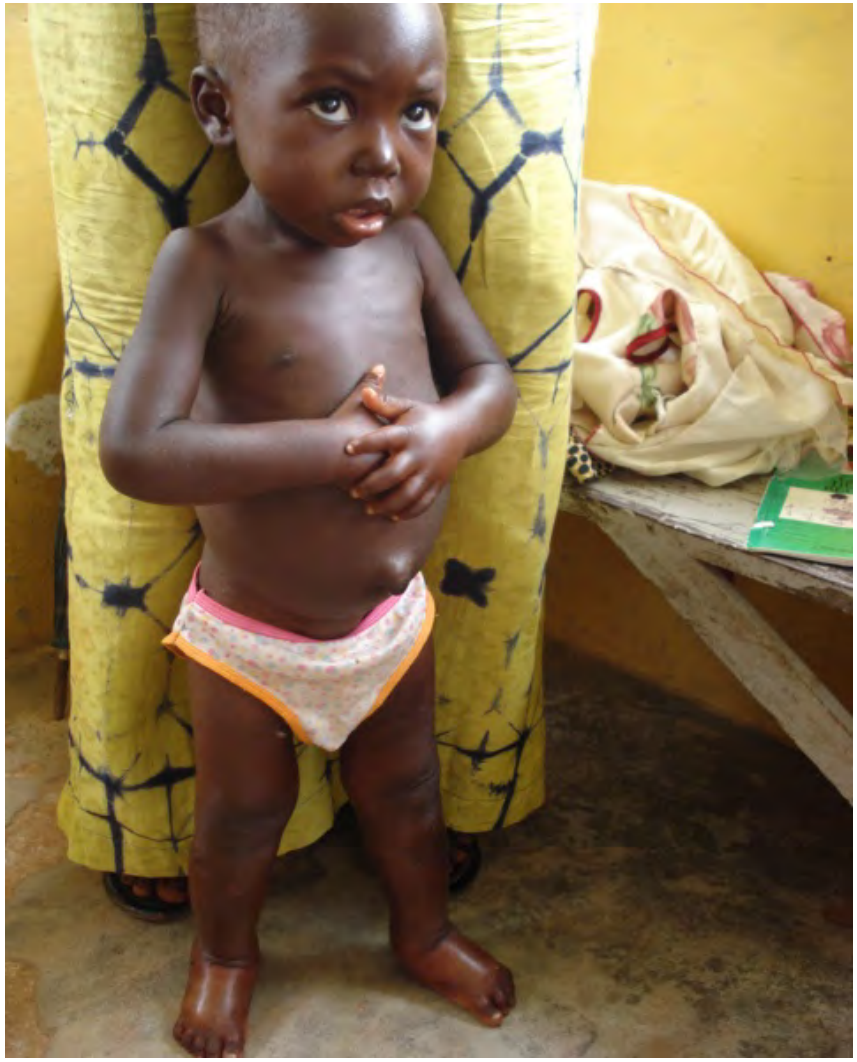
- **Find children before SAM becomes serious and medical complications arise**
- **Good community outreach is essential**
- **Screening and referral by community volunteers**

Appropriate Medical Treatment and Nutrition Rehabilitation Based on Need



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Care as Long as it is Needed

- Services to address SAM can be integrated into routine health services of health facilities.
- Treatment for SAM is available as long as there is a need, if supplies are present.
- Additional support to health facilities can be added during certain seasonal peaks or during a crisis.

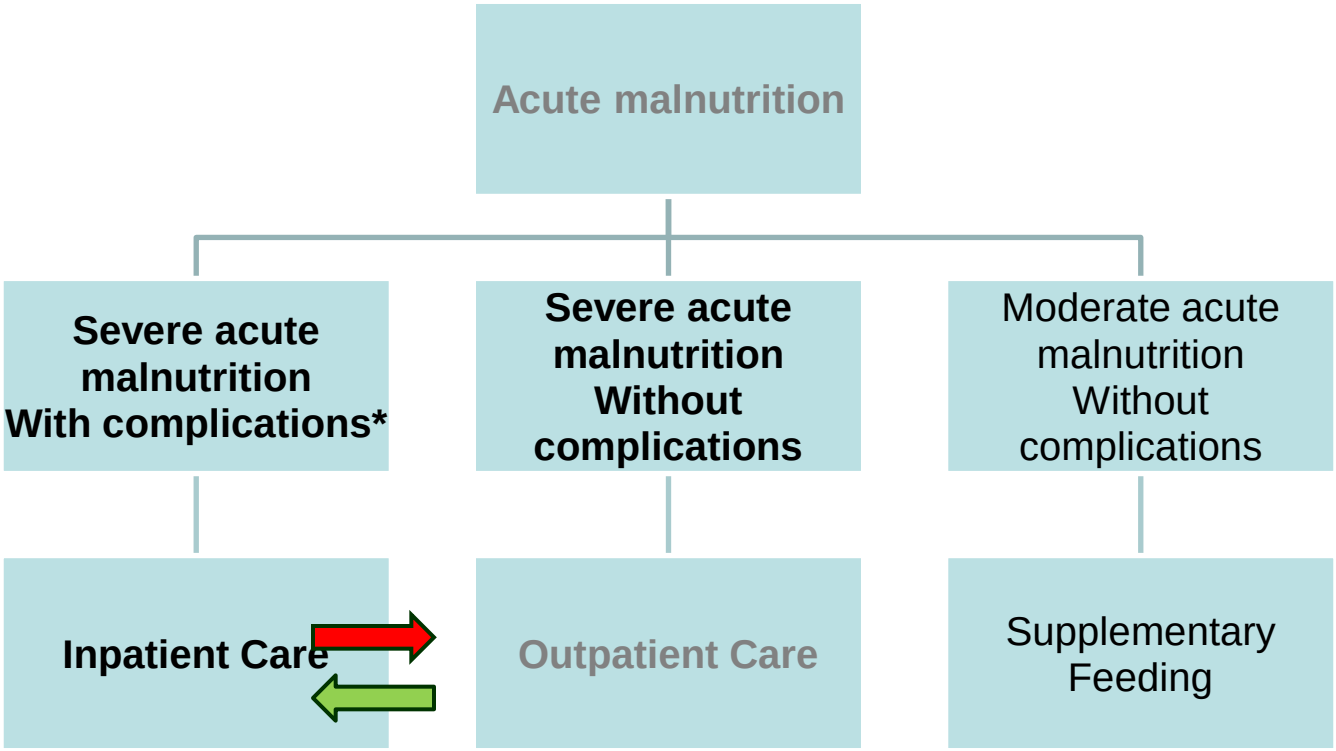
New Innovations Making CMAM Possible

1. Ready-to-use therapeutic food (RUTF)
2. New classification of acute malnutrition
3. Acceptance of assessment of wasting via mid-upper arm circumference (MUAC)

RUTF

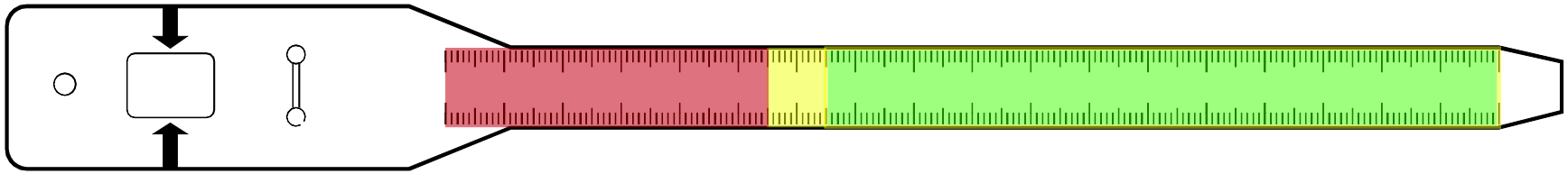
- Produced commercially by Nutriset in France (‘Plumpy’nut®) and locally in e.g., Democratic Republic of Congo, Ethiopia, Malawi, Niger, and Zambia
- Lipid-based RUTF ingredients:
  - Peanuts (ground into a paste)
  - Vegetable oil
  - Powdered sugar
  - Powdered milk
  - Vitamin and mineral mix (special formula)
- Additional formulations of RUTF are being researched

New Classification for Acute Malnutrition



*__Medical complications:__ Anorexia or no appetite, intractable vomiting, convulsions, lethargy or not alert, unconsciousness, lower respiratory tract infection, high fever, severe dehydration, severe anaemia, hypoglycaemia, or hypothermia

Acceptance of MUAC for Assessment



- Community-level identification
- Transparent and understandable measure
- Can be used by community-based outreach workers and volunteers for case-finding

Components of CMAM

1. Community outreach
2. Outpatient care for the management of SAM without medical complications
3. Inpatient care for the management of SAM with medical complications
4. Programmes that address moderate acute malnutrition (MAM)

1. Community Outreach

- Key individuals in the community promote CMAM activities
- Understanding of CMAM and treatment of SAM
- Understanding of cultural practices, barriers, and systems
- Dialogue on barriers to uptake
- Community case-finding and referral

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Community Outreach and Screening

2. Outpatient Care

- Target group: children with SAM WITHOUT medical complications AND with good appetite
- Activities: Weekly or biweekly visits to the Outpatient Care site for specialised medical treatment, anthropometry measurement, and nutritional rehabilitation
- Continued nutritional rehabilitation with RUTF

Clinical Admissions for Outpatient Care

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Outpatient Care: Medical Examination

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Outpatient Care: Systematic Medication

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- Amoxycillin
- Antimalarial
- Vitamin A
- Antihelminth
- Measles vaccination

Outpatient Care: Appetite Test

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3. Inpatient Care

- SAM with medical complications or no appetite
- Medical treatment according to WHO and/or national protocols
- Return to Outpatient Care after medical complication is resolved

4. Programmes that Manage MAM

- Target group: MAM
- Activities:
  - Routine medication
  - Dry supplementary food rations
  - Basic preventive health care and immunisation
  - Health and nutrition education and counselling

Relationship between Outpatient Care and Inpatient Care

- **Complementarity:** Inpatient Care for the management of SAM with medical complications until the medical condition is stabilised and the medical complication is resolving
- **Different priorities**
  - Outpatient Care component prioritises coverage and access
  - Inpatient Care component prioritises clinical care

Global Commitment for CMAM

- **WHO consultation** (November 2005): agreement by WHO to revise SAM guidelines to include Outpatient Care and endorse MUAC as an entry criterion for programmes
- **UNICEF accepted CMAM globally** (2006)
- **WHO, UNICEF, WFP, and UNSCN *Joint statement on the community-based management of severe acute malnutrition*** (June 2007): Support for national policies, protocols, trainings, and action plans for adopting the approach
- **WHO and UNICEF joint statement on the use of MUAC as an id**

Commitment for CMAM in Ghana

- MOH/GHS adopted the CMAM approach to manage SAM.
- Partners USAID/Ghana, UNICEF/Ghana and WHO/Ghana are collaborating in the integration, quality improvement, and scale-up of CMAM in Ghana.