

MODULE EIGHT

Monitoring and Reporting on CMAM

LEARNING OBJECTIVES

HANDOUTS AND EXERCISES

1. Describe the Principles of a Monitoring System for CMAM	
2. Describe How the Individual Child Is Tracked and Monitored in CMAM	<p>Handout 8.1: Monitoring the Individual Child in Outpatient Care</p> <p>Handout 8.2: Registration Numbering System Proposed for CMAM</p> <p>Handout 8.3 Monitoring and Reporting on CMAM</p> <p>Handout 8.4 Filing Outpatient Care Treatment Cards</p>
3. Complete Site Tally Sheets and Site and District Report; Interpret the Findings	<p>Handout 8.3 Monitoring and Reporting on CMAM</p> <p>Handout 8.5 Site Tally Sheet for the Management of SAM</p> <p>Handout 8.6 Site Reporting Sheet for the Management of SAM</p> <p>Handout 8.7 District or National Reporting Sheet for the Management of SAM</p> <p>Exercise 8.1 (a) Outpatient Care Site Tally Sheet and Site Reporting Sheet</p> <p>Exercise 8.2 Completing Site Tally Sheet</p>
4. Calculate and Discuss Service/Programme Performance and Coverage	<p>Handout 1.2 Terminology for CMAM</p> <p>Handout 8.8 CMAM Indicators</p> <p>Handout 8.9 Principles of Coverage</p> <p>Exercise 8.1 (b) Outpatient Care Site Reporting Sheet</p>
5. Monitor and Respond to Barriers to Access	<p>Handout 8.10 Monitoring Barriers to Access</p> <p>Exercise 8.3 Community Meeting Role-Play</p>
6. Explain the Purpose of Support and Supervision Visits and the Role of a Supervisor/Mentor	<p>Handout 8.11 Support and Supervision for CMAM</p> <p>Handout 8.12 Support and Supervision Checklist for Outpatient Care</p> <p>Handout 8.13 Support and Supervision Checklist for Community Outreach</p> <p>Exercise 8.4 Analysis of Site Reports of Three Outpatient Care Sites and One Inpatient Care Site</p> <p>OPTIONAL: Supplemental Reference 8.1 Setting Up a CMAM Monitoring System Using an Electronic Database in Excel</p>
7. Prepare an Outline for CMAM Reporting	Handout 8.14 Guidance on CMAM Reporting
Wrap-Up and Module Evaluation	

HANDOUT 8.1

MONITORING THE INDIVIDUAL CHILD IN OUTPATIENT CARE

- **Individual treatment of children with severe acute malnutrition (SAM) is monitored on an outpatient care treatment card.** Each child with SAM who is admitted to CMAM at an outpatient care site will have an outpatient care treatment card, even if she/he is referred to inpatient care.
- **The child's unique registration number is recorded on treatment cards, referral slips, ration cards and any other records.** This will be the child's identifying number throughout his/her care in CMAM.
- **The outpatient care treatment card is kept on file at the outpatient care site.** Registration in a registration book is usually not necessary.
- **The mother/caregiver receives a ready-to-use therapeutic food (RUTF) ration card that provides a record of the child's progress and the RUTF received at each outpatient care follow-on session.** The card includes key information about the child and basic information on his/her progress: name, age, caregiver (e.g., mother, father, grandmother), place of origin, outreach worker name, date of admission, dates of outpatient care follow-on sessions. At admission, discharge and each outpatient care follow-on visit, mid-upper arm circumference [MUAC], weight, height and ration received are also recorded. Upon discharge, the RUTF ration card is returned to the health facility to be attached to outpatient care treatment card.
- **Individual children are tracked as they are referred to different CMAM services (inpatient care, outpatient care or supplementary feeding) to ensure that admission, discharge and treatment procedures are followed and documented correctly.** This is done by ensuring that outpatient and inpatient care treatment cards and referral slips are filled out properly and always include the child's unique registration number.
- **The referral slip keeps track of children who have moved between outpatient care and inpatient care.** The referral slip should describe which treatment(s) and medicine(s) were given and why, to avoid giving children the same medicine twice.

HANDOUT 8.2

REGISTRATION NUMBERING SYSTEM PROPOSED FOR CMAM

- Each child receives a registration number when she/he is first admitted to outpatient care, inpatient care or supplementary feeding. Each registration number has three parts: the health facility's name or code, the child's individual number and the service code indicating where the child started treatment (inpatient care, outpatient care or supplementary feeding). Most children will be admitted to outpatient care, as it is the most decentralized service and, therefore, the most common and accessible entry point for treatment.
- The code for each site must be established before services at that site start, must be unique for that site and must be used consistently by all staff to avoid confusion as to which site a child is receiving services. The site code should be three or four letters and should be easily understood.
- In some countries, there is a standard numbering system as part of the health management information system (HMIS). The numbering system for CMAM can be adapted to take this into account. In adapting the HMIS numbering system, ensure that the site where each child entered CMAM and his/her initial CMAM service are included. If national guidelines for CMAM exist, they should be followed.

TABLE 1 REGISTRATION NUMBERING SYSTEM

EXAMPLE 1 Standard 3-part numbering system NYL/ 001/Out	EXAMPLE 2 HMIS numbering system from Malawi 77/88/999/MMYY/OTP
NYL: The code of the site or health facility	77: The 2-digit code for the district
001: Child's individual allocated number (the numbers run sequentially)	88: The 2-digit code for the health facility
Out: Outpatient care, the service where the child started treatment	999: Child's individual allocated number
	MMYY: Month and year of admission
	OTP: Outpatient Therapeutic Programme, the service where the child started treatment

- To ensure effective tracking and follow-up in the community, ALL records concerning the child should follow the same numbering system. This includes registration books (if used), treatment cards, ration cards and referral slips. Other relevant registration numbers—such as those given at other clinics or hospitals, HIV testing and counselling sites or antiretroviral therapy (ART) sites—should also be recorded on the outpatient care treatment cards.
- The registration number must appear on referral slips. The child retains the number upon return.
- Returning defaulters use the same number they had as they are still suffering from the same episode of undernutrition. Their treatment continues using the same treatment card.
- Readmissions (children who meet admission criteria again after being discharged cured, i.e., they relapsed) receive a new number and a new card as they are now suffering from a different episode of undernutrition and need full treatment again.

HANDOUT 8.3

MONITORING AND REPORTING ON CMAM

Routine quantitative service data are collected on site tally sheets that are filled out at the end of the service session and summarized on monthly site reporting sheets.

This information is used to monitor the outputs and performance of the service/programme. Health managers and health care providers at the district or health facility level use the information to determine whether the target population is reached, to learn whether there are areas requiring investigation or strengthening or to monitor the effect of any changes made (e.g., new sites are opened, more community volunteers are added, more supplies are accessible).

SITE TALLY SHEET INFORMATION

(See also **Handout 8.6 Site Tally Sheet for the Management of SAM.**)

Routine service data that are tallied each service/programme session include:

- The **total** number of children under treatment at the **Start of Week [A]**.
- The number of **Total Admissions** by entry category are either:
 - **New cases 6-59 months**
 - **New cases Other:** Adults, adolescents, children > 5 years, and infants < 6 months
 - **Old cases:** Referrals who returned from inpatient care or outpatient care and are readmitted to the site; or Returned defaulters (who did not recover and returned after discharge to continue treatment)
 - **Optional:** New admissions can be categorized by gender or by admission criteria (bilateral pitting edema, mid-upper arm circumference [MUAC] weight-for-height [WFH]), which can help identify differences in the type of undernutrition in different areas (e.g., cases of bilateral pitting edema might be much higher in some areas than others or higher in certain seasons)
- The number of **Total Discharges** by exit category:
 - **Cured:** Children who reached the discharge criteria after treatment
 - **Died:** Children who died while in treatment
 - **Defaulted:** Children who left the service/programme before reaching the discharge criteria, children were absent for 3 consecutive sessions
 - **Non-recovered:** Children who do not meet the discharge criteria after four months in treatment (after medical investigation done)
- Other exit category:
 - **Referrals:** Children who left the site temporarily because they were referred to inpatient or outpatient care or for medical investigation
Note: Because services must track children and not double-count them, children who are referred between outpatient care and inpatient care are not considered full discharges; they are on referral status. They remain in the service/programme. In contrast, non-recovered children—who have been referred earlier for medical investigation—leave the service/programme if they are still not responding to treatment after four months.

- Optional quantitative data to collect to monitor effectiveness of treatment include **average daily weight gain (AWG), average length of stay (LOS) of cured discharges** and the **readmission rate**. These can be calculated for all children that are discharged cured or on a random sample. AWG and LOS for cured cases of kwashiorkor or marasmus should be calculated separately.
 - **AWG of cured discharges** in outpatient care is expected to be **above 4 g/kg/day**
 - **LOS of cured discharges** in outpatient care is expected to be **below 60 days**
 - **Readmissions after discharge (or relapse)**: Interventions might be needed at the household level to avoid high readmission rates (number of readmissions per total new admissions); high rates might also mean children have been discharged too soon.

SITE REPORTING SHEET INFORMATION

(See also **Handout 8.6 Site Reporting Sheet for the Management of SAM.**)

The site tally sheet information is compiled in the site reporting sheet, and rates of children discharged as cured, died, defaulted and non-recovered are listed as proportions of the total discharges. Site reporting sheets are sent to the district health office monthly.

- Epidemiological weeks can be used to define calendar months for reporting (e.g., weeks 1-4 = January; weeks 5-8 = February).
- Site reporting sheets feed information into district, sub-national or national reporting sheets.

DISTRICT REPORTING SHEET INFORMATION

(See also **Handout 8.7 District Reporting Sheet for the Management of SAM.**)

- The reporting sheets from all health facilities with inpatient care and outpatient care are compiled in the district reporting sheet, and rates of children discharged as cured, died, defaulted and nonrecovered are listed as proportions of the total discharges. The categories 'old cases' and 'referrals' are omitted as these children have not exited the service/programme.
- The compiled reporting sheets can be used at sub-national and national levels, and the reporting period can be adjusted as convenient or appropriate (e.g., month, year).

OTHER INFORMATION

- **Qualitative information is also collected from the communities and beneficiaries of CMAM** to understand the perceptions of the service/programme and to help managers better understand possible problems such as high default rates or low coverage.
- Other information to collect from the mothers/caregivers and/or community:
 - **Reported cause and place of death**: Recording this information on the child's outpatient care treatment card can help identify problems with treatment and use of action protocols and determine where additional training and supervision might be needed.
 - **Reasons for default and non-recovery**: These could include a high prevalence of tuberculosis (TB) and/or HIV, sharing of food in the household or poor water and sanitation, which might indicate a need for stronger service linkages with other sectors.

- **Supervisory and Community Outreach:** See **Handout 8.10 Monitoring Barriers to Access** and **Module 3: Community Outreach**.
- **Coverage:** See **Handout 8.9 Principles of Coverage**.

USING SITE REPORTS TO DETERMINE SERVICE PERFORMANCE

- **The health facility site report is developed monthly** (using full four or five epidemiological weeks for the month, determined beforehand at the national level) and should be reviewed by the health facility or district management team during monthly or quarterly meetings.
- **The supervisor or supervisory team from the District Ministry of Health (MOH) will be responsible for reviewing health facility site reports.**
- **Service/programme performance (the proportions of children who were cured, died, defaulted and non-recovered) can be compared with Sphere key indicators (the minimum standards).** The Sphere standards might not be applicable to development services/programmes. However, there are currently no internationally accepted standards for CMAM in non-emergency contexts. Therefore, the Sphere standards can be used as a benchmark.
- **The monthly site reports can be used to address any issues that have emerged.** The information can be useful to hold meetings with the community to find out more about the reasons for specific problems, such as high defaulter rates, or issues such as why mothers/caregivers do not bring their children to outpatient care. This can be done through focus group discussions.
- **The data can be tracked using an electronic spreadsheet. Supplementary Reference 8.1 Setting Up a CMAM Monitoring System Using an Electronic Database in Excel** describes how to use Excel spreadsheets for program monitoring.

COMPILING AND ANALYSING SITE REPORTS FOR NATIONAL REPORTING (WHOLE SERVICE/PROGRAMME)

- **The site reports from the different CMAM sites for the management of SAM (outpatient care and inpatient care) are compiled into overall district, sub-national or national reports.** See **Handout 8.7 District or National Reporting Sheet for the Management of SAM** for an example.
- **Individual CMAM sites send their site tally sheets and/or site reporting sheets to the District MOH.** The district health officer-in-charge is responsible for compiling the individual site reports into a combined report for the district CMAM service as a whole.
- **The district sends its compiled monthly district reports to the MOH at the national level.**
- **Systems should be set up from the beginning to build the reporting capacity of health facilities and the District MOH** to ensure, for example, that it follows national guidelines or a standardized reporting format and that this reporting is done regularly and accurately. Reporting and feedback should be integrated with the existing health management information system (HMIS) where possible. The HMIS might need to be adapted to include SAM indicators.
- **The reports will help to identify issues and gaps and determine whether progress has been made toward accomplishing objectives.**

HANDOUT 8.4

FILING OUTPATIENT CARE TREATMENT CARDS

- All active and past outpatient care treatment cards are kept in files that should be accessible at the health facility at all times. This ensures the ability to monitor children, cross-check readmissions and verify reports.
- There should be two files: one for active cases, with a separate section for referrals, and the other for discharges, with separate sections for cured, died, defaulted and non-recovered.

TABLE I. FILING SYSTEM

FILE 1: ACTIVE CASES Sections:	FILE 2: EXITS Sections:
<p>Children with SAM currently in treatment</p> <p>Note: Mark the outpatient care treatment cards of children who are not responding well and need follow-up home visits and of absentees (children who have missed one or two outpatient care follow-on visits).</p> <p>Separate section:</p> <p>Referrals awaiting return: children who have been referred to inpatient care or for medical investigation</p>	<p>Cured: children who reached the discharge criteria and exited the service/prorgam</p> <p>Note: Check this file for any readmissions after default as the same outpatient care treatment card should be used.</p> <p>Died: children who died while in treatment</p> <p>Defaulted: children who have been absent consecutive sessions</p> <p>Non-recovered: children who did not respond after four months in treatment despite referral for medical investigation</p>

- **Referrals to inpatient care:** The “referrals awaiting return” file should be checked regularly. The child should receive a follow-up home visit by outreach workers (e.g., community health workers [LHWs], volunteers) if she/he does not return to outpatient care from inpatient care within two weeks. If the child dies in inpatient care, the outpatient care treatment card is filed under “died.”
- **Defaulted (absent for three consecutive sessions):** Children who defaulted should receive a follow-up home visit, and their mothers/caregivers should be encouraged to return to CMAM services. The reason for default should be investigated by the outreach worker, reported to the health care provider and recorded on the child’s outpatient care treatment card. Steps should be taken to address the cause of the default.
- **Died:** A record of the child’s symptoms and diagnosis should be recorded on the outpatient care treatment card and used to identify any problems with the treatment or the action protocol.
- Children who are not responding well and need a follow-up home visit: When children are not responding well in the service/programme and the action protocol indicates that follow-up at home is needed (e.g., if the child has lost weight), the outreach worker should identify and report to the health care provider all possible reasons the child is not recovering. The health care provider records this information on the child’s outpatient care treatment card and uses the information to decide whether to refer the child to inpatient care or for further medical investigation. Smooth communication channels between outpatient care health care providers and outreach workers are essential for requesting follow-up home visits and monitoring children, especially when outreach workers cannot attend the outpatient care session.

HANDOUT 8.5

SITE TALLY SHEET FOR THE MANAGEMENT OF SAM

HEALTH FACILITY NAME					
DISTRICT					
SITE		Outpatient care	Inpatient Care		
WEEK					TOTAL
DATE					
TOTAL START OF WEEK (A)					
New Cases 6-59 m Bilateral Pitting Oedema (B1a)					
New Cases 6-59 m MUAC/WFH (B1b)					
Other New Cases (adults, adolescents, children > 5 y, infants <6 months) (B2)					
Old cases: Referred from Outpatient or Inpatient care; or Returned defaulters (C)					
TOTAL ADMISSIONS (D) [D=B+C]					
Cured (E1)					
Died (E2)					
Defaulted (E3)					
Non-recovered (E4)					
REFERRALS TO OUTPATIENT OR INPATIENT CARE (F)					
TOTAL DISCHARGES (E)					
TOTAL EXITS (G) [G=E + F]					
TOTAL END OF WEEK (H) [H=A+D-G]					

HANDOUT 8.6

SITE REPORTING SHEET FOR THE MANAGEMENT OF SAM

SITE REPORTING SHEET

MONTHLY SITE REPORT FOR MANAGEMENT OF SAM												
SITE					IMPLEMENTED BY							
REGION					MONTH / YEAR							
					TYPE OF MANAGEMENT (CIRCLE)	<input type="checkbox"/> Inpatient <input type="checkbox"/> Outpatient						
DISTRICT					ESTIMATED MAXIMUM CAPACITY							
					ESTIMATED TARGET malnourished <5s (based on latest survey data and admission criteria)							
					RUTF CONSUMPTION							
TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSION (D) (B+C=D)	DISCHARGES (E)				REFERRAL (F) to inpatient or outpatient care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)	
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)				
					%	%	%	%				
					TARGET (Sphere Standards)	>75%	<10%	<15%				

E1: Cured = reaches discharge criteria
E3: Defaulted = absent for 3 consecutive sessions
E4: Non-recovered = does not reach the discharge criteria after 4 months in treatment (after medical investigation)

HANDOUT 8.7

DISTRICT REPORTING SHEET FOR THE MANAGEMENT OF SAM

DISTRICT (STATE OR NATIONAL) REPORTING SHEET (COMBINING INPATIENT CARE WITH OUTPATIENT CARE)

**(PERIOD/YEARLY) REPORT FOR MANAGEMENT OF SAM IN CMAM
(COMBINING INPATIENT CARE WITH OUTPATIENT CARE)**

COUNTRY/STATE/DISTRICT		IMPLEMENTING PARTNERS	
NUMBER OF TREATMENT SITES		REPORTING PERIOD	
NUMBER OF OUTPATIENT CARE SERVICES			
NUMBER OF INPATIENT CARE SITES			
ESTIMATED MAXIMUM CAPACITY			
ESTIMATED TARGET; Children with SAM < 5 years of age in a given period			
ESTIMATED COVERAGE			
RUTF CONSUMPTION			

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		TOTAL ADMISSION (B)	DISCHARGES (E)				TOTAL DISCHARGES (E)	TOTAL END OF THE MONTH (H) (A+B-E=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)		CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)		
				%	%	%	%		
			TARGET (Sphere Standards)	>75%	<10%	<15%			

E1: Cured = reaches discharge criteria
E3: Defaulter = absent for 3 consecutive sessions
E4: Non-recovered = does not reach the discharge criteria after 4 months in treatment (after medical investigation)

HANDOUT 8.8

CMAM INDICATORS

There are two basic sets of indicators: **performance indicators** and **output indicators**.

Performance indicators (or outcome indicators) measure whether a CMAM service/programme has achieved its objectives and planned outcomes, which are measured in percentages.

- These indicators tell how many children with SAM (and proportion in percentage) who are enrolled in the service/programme are discharged as cured, died, defaulted or non-recovered. Indicators for outpatient care and inpatient care per district or at the national level will be merged to evaluate the overall performance of therapeutic care for SAM. Results can be compared with international minimum standards for therapeutic feeding programmes in emergency settings, established by the Sphere Project. These Sphere minimum standards might not be applicable in non-emergency contexts, but this has not yet been tested.

% cured (or recovered)	Sphere minimum standard: > 75%
% died	Sphere minimum standard: < 10%
% defaulted	Sphere minimum standard: < 15%
% non-recovered	No Sphere indication

- In addition, it is important to determine whether the service/programme is achieving its aims, in terms of **access and utilization (coverage)**. The best way to do this is through a population-based coverage survey. In rural contexts, the programme should achieve at least 50 percent coverage of the total eligible population— malnourished children under 5— according to Sphere minimum standards.

Simple methods to determine coverage without conducting an expensive coverage survey are being investigated. Cruder methods, such as comparing actual admissions to the expected caseload (based on estimated prevalence and incidence), can be used to estimate coverage for monitoring purposes, in between population surveys. Exhaustive screening in purposively selected communities can also provide useful information on coverage.

- The optional indicators of **average daily weight gain (AWG)** and **average length of stay (LOS) of cured children** could be calculated for all children or a random sample of children (new cases only) who are discharged cured. The indicators are calculated for marasmus and kwashiorkor cases separately.

Note: AWG and LOS for outpatient care are not essential information but can provide information on the effectiveness of treatment.

- The **AWG of cured children** in outpatient care is expected to exceed 4 g/kg/day (the Sphere minimum standard for AWG based on traditional center-based inpatient care is at least 8 g/kg/day). A low AWG could indicate factors such as a high absence rate, high default rate, ineffective treatment, sharing of ready-to-use therapeutic food (RUTF) and/or non-compliance to the treatment protocol.

To calculate AWG, first determine weight gain of each cured child in the sample: Weight gain (g/kg/day) is [discharge weight in g – minimum weight in g] divided by [minimum weight in kg x

number of days between minimum weight and discharge day]. AWG is the sum of the weight gains (g/kg/day) in the sample divided by the number of cured children/treatment cards per category (marasmus or kwashiorkor) in the sample.

- The **LOS of cured children** in outpatient care is expected to be less than 60 days. A long LOS might be the result of factors such as a high proportion of children who do not recover, frequent absences, defaulting, sharing of the RUTF and/or unresolved illness. A short LOS might indicate that children are discharged too soon, a finding that could be supported by a high relapse rate. The minimum LOS in CMAM if admission criteria are based on low mid-upper arm circumference (MUAC) is two months.

LOS is calculated by adding the length of stay for all cured children in the sample and dividing the sum by the number of cured children/treatment cards per group of cured children in the sample.

2. Output indicators measure whether a service/programme has completed the planned activities/outputs needed to achieve the established goals and objectives. They are measured in numbers or percentages and should be specific to the activities/outputs established.

Examples of output indicators are:

- Number of health facilities with established inpatient care and/or outpatient care
- Number of children with SAM admitted to inpatient care or outpatient care per time period
- Number of children with SAM under treatment per time period
- Number of children discharged per time period
- Number or percentage of health care providers trained and active in SAM case management in outpatient care
- Number or percentage of health care providers trained and active in SAM case management in inpatient care
- Number or percentage of community health workers (LHWs) trained and active in community outreach
- Number or percentage of volunteers trained and active in community outreach

Additional indicators will depend on the service/program's aim and monitoring needs. For example:

- Number of children referred by volunteers and admitted to outpatient care
- Percentage of communities in the target area within one day's return walk to CMAM services
- Percentage of health facilities in the district or target area that provide CMAM services
- To assess barriers to access the service/programme, possible indicators include:
 - Number of children under 5 with SAM identified in the community and referred for treatment
 - Number of children under 5 with SAM referred from the community for treatment and admitted
 - Number of meetings between the community outreach coordinator and/or workers and community members (e.g., community leaders, traditional healers and religious leaders, caregivers of beneficiaries and non-beneficiaries) per time period

TABLE I. SUMMARY OF PERFORMANCE INDICATORS

▪ Total number of new admissions		
▪ Total number of discharges*		
▪ Total number of children with SAM in treatment		
▪ Information on new admissions 6-59 months: a. Proportion of children with SAM admitted on bilateral pitting edema, low mid-upper arm circumference (MUAC), low weight-for-height (WFH) b. Proportion of children with SAM admitted by gender		
BENCHMARKS	SPHERE STANDARDS (EMERGENCIES)	CMAM (ADAPTED)
% Cured Proportion of children discharged cured, out of total discharges*	> 75%	> 75%
% Died Proportion of children who died while in treatment, out of total discharges*	< 10%	< 10%
% Defaulted Proportion of children recorded as absent for three consecutive sessions, out of total discharges*	< 15%	< 15%
% Non-recovered Proportion of children who had been referred for further medical investigation and are discharged non-cured after four months in treatment, out of total discharges*	< 10%	< 10%
% Coverage Proportion of children with SAM who are in treatment out of total number of children with SAM in the community	50% (rural) 70% (urban)	> 70%
Average daily weight gain (AWG) (calculated from a sample of children cured per category [kwashiorkor or marasmus]) = sum of weight gains in a sample divided by number of children cured or treatment cards in the sample		
Average length of stay (LOS) (calculated from a sample of children discharged cured of kwashiorkor and marasmus) = sum of length of stay in a sample divided by number of children cured or treatment cards in the sample		

* Total discharges comprise the cured, died, defaulted and non-recovered categories.

TABLE 2. SUMMARY OF OUTPUT INDICATORS

<ul style="list-style-type: none"> ▪ Number of functioning outpatient care sites
<ul style="list-style-type: none"> ▪ Number of functioning inpatient care sites
<ul style="list-style-type: none"> ▪ Number of functioning supplementary feeding sites
<ul style="list-style-type: none"> ▪ Number of health care providers trained in outpatient care and referral based on action protocol (plus gender distribution of trainees)
<ul style="list-style-type: none"> ▪ Number of health care providers trained in inpatient care and case management of SAM with medical complications (plus gender distribution of trainees)
<ul style="list-style-type: none"> ▪ Number of LHWs trained in community outreach (plus gender distribution) ▪ Number of volunteers trained in community outreach (plus gender distribution)
<ul style="list-style-type: none"> ▪ Number of communities mobilized

HANDOUT 8.9

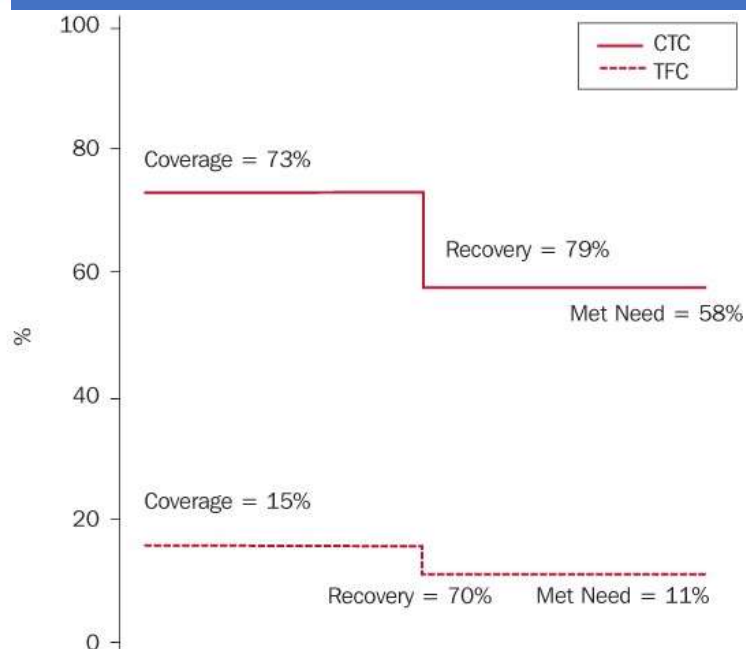
PRINCIPLES OF COVERAGE

- The priority in CMAM is to make treatment available to the greatest number of children with SAM possible in an affected population. Therefore, it is important to assess coverage, the proportion of children who need assistance who actually receive care in the service/programme.
- Coverage is usually expressed as a percentage. For example, if there are 100 children with SAM in a service/programme area and 70 of them are in the service/programme, then coverage is 70 percent.
- Coverage is one of the most important indicators of how well a service/programme is **meeting the need**. A service/programme with a high coverage rate and a low cure rate might be better at meeting the need than one with a low coverage rate and a high cure rate (see **Figure 1** for a hypothetical illustration).

“Met need” is the product of the coverage rate and the cure rate. If, for example, a service/programme has a coverage rate of 70 percent and a cure rate of 90 percent then “met need” expressed as a percentage can be calculated as: **$70 \times 90/100 = 63\%$** , indicating that the service/programme is meeting 63% of the need.

- High-quality services/programmes have both high coverage and high cure rates.
- The coverage of a CMAM service/programme is mapped and estimated using a population-based coverage survey. One sampling method that is commonly used is centric systematic area sampling (CSAS), which refers to the way communities are selected for sampling. New techniques for assessing access and coverage that are less resource-intensive are under development.

FIGURE 1: COVERAGE, CURE RATE AND IMPACT



Source: Community-based Therapeutic Care: A Field Manual, p.116

HANDOUT 8.10

MONITORING BARRIERS TO ACCESS

Since coverage surveys are infrequent and resource-intensive, it is important to monitor barriers to access regularly by keeping an eye on routine data collected by the service/programme.

- **Barriers of special concern:** The starting point for routine monitoring should be the information collected during the community assessment (see **Module 3: Community Outreach**), which can reveal context-specific barriers that must be addressed. For example, if the community assessment showed that certain communities, ethnic groups or locations are marginalized, then enrolment data from these areas should be watched closely. If the assessment indicated that adherence to traditional treatments and healers was particularly strong in a specific area or that tension exists between community leaders and service providers, then the routine monthly and quarterly reporting from these communities should be scrutinized carefully.
- **Common barriers:** In addition to issues highlighted by the community assessment, routine monitoring can reveal additional information on barriers to access, e.g.,
 - Comparing admission numbers across outpatient care sites, which would show whether the numbers reflect the size of known populations or catchment areas
 - Watching for health facilities or communities where admissions drop abruptly, which could indicate that a supervisory visit is needed to help staff clarify confusing admissions procedures, to correct misconceptions about eligibility in the community or to address other reasons for the decline
 - Monitoring the number of absentees and defaults at the outpatient care sites; for example, an increase could signal a variety of local problems such as interruptions to the supply chain, seasonal barriers to access or poor quality of service or instruction from the outpatient care providers
 - Scrutinizing reports to ensure that community outreach is being performed
- **Corrective actions:** Monitoring should be tied to actions designed to address the problem. Corrective actions can usually take place in the context of routine supervisory visits, where service/ programme managers meet and mentor local facility-based staff (see **Learning Objective 6**). In devising corrective measures, it is useful for managers to seek non-staff perspectives, including the views of community leaders, people who use the service/programme and those who do not.
- **Local monitoring:** Health care providers should conduct their own routine monitoring. For example, they could divide their catchment area into segments and use registration data to check whether outreach is taking place and whether admissions are coming from the parts of the community they were expected to. Finding solutions to issues flagged by routine monitoring requires health care providers to meet occasionally with community members and outreach workers.

HANDOUT 8.11

SUPPORT AND SUPERVISION FOR CMAM

- **Support and supervision/mentorship**, meaning continuous support and motivation with the purpose of improving performance, should be the overarching objective of the supervisor or supervisory team.
- Responsibility for supervising all CMAM services/programmes should be established during the planning stages. Supervisors are responsible for ensuring that the service/programme is running smoothly and for overall service quality.
- Supervision visits may be conducted by the district health management team or equivalent and may be part of an integrated supervisory visit, where supervisors check as well on other services.
- Supervisors should ensure that treatment cards are completed and filed correctly. Supervisory visits should include review of the treatment cards, particularly the cards of children who have died, defaulted or not recovered. The supervisor should ensure that admissions and discharges are made according to established criteria and that treatment protocols are performed correctly. The supervisor also should check whether the action protocol is properly followed so that cases are referred and/or followed up where appropriate.
- Supervisors should work closely with the health care providers and outreach workers (e.g., community health workers [LHWs], volunteers) at the outpatient care site to ensure that any issues regarding service delivery, follow-up home visits or the management of individual cases can be identified and followed up.
- Supervisors can use a **supervisor checklist**. This can be adapted to the context and should follow national protocols and the national health management information system (HMIS).
- Supervisors, health care providers and outreach workers (e.g., LHWs, volunteers) should have scheduled meetings to discuss any service/programme issues. The meetings should cover:
 - Issues in service/programme management, including a review of the caseload to determine whether it is manageable for the number of staff available, any expected increases/decreases in the caseload because of the season or a sudden population influx and a contingency plan to handle unexpected changes in caseload or other management challenges
 - Other staff issues
 - Factors that might affect attendance or require adjusting the outpatient care schedule (e.g., when the harvest season approaches)
 - Supply issues and planning
 - A review of deaths in outpatient care and inpatient care to identify any problems with using the action protocol or treatment protocol and to determine whether actions and treatments could have been conducted differently
 - A review of defaults

- A review of children who do not respond to treatment, such as children who do not gain weight or who lose weight
 - A review of non-recovered children (those who do not meet discharge criteria after four months of treatment [after medical investigation is done])
 - A review of referrals to ensure effective tracking within the CMAM service/programme
 - Any issues in the community that might affect service/programme access and uptake (coverage)
 - A review of monitoring and reporting systems
 - A review of site tally sheets and site reports
- It is good practice to keep supervision reports on file to track the progress of individual sites over time.

TABLE 1. SUPERVISOR RESPONSIBILITIES (EXAMPLE FOR OUTPATIENT CARE AT THE HEALTH FACILITY LEVEL)

Observation of Treatment and Completion of Treatment Cards	Tracking and Reporting
<ul style="list-style-type: none"> ▪ Outpatient care treatment cards, ready-to-use therapeutic food (RUTF) ration cards (and health passports/health cards, where used) are completed ▪ Child’s progress is closely monitored and recorded on his/her treatment card throughout treatment. ▪ Admissions and discharges are made according to protocols and noted on the treatment cards. ▪ Medical assessments (medical history and physical examination) are conducted and noted on the treatment cards. ▪ Routine and supplemental medicines are given and noted on the treatment cards. ▪ Appetite tests are conducted and noted on the treatment cards. ▪ Illnesses reported by the mothers/caregivers are noted on the treatment cards. ▪ Any deterioration in child’s condition is identified, addressed according to the action protocol and noted on his/her treatment card. ▪ Absences and defaults are noted on the treatment cards and followed up. ▪ Referrals are noted on the treatment cards and followed up. ▪ Deaths are noted, and symptoms and the reported cause of death are investigated and recorded on the treatment cards. 	<ul style="list-style-type: none"> ▪ Unique number system is being used. ▪ Referral slips are completed. ▪ Tally sheets are completed, compiled and filed. ▪ Site reports are developed from the tally sheets and sent on time to the appropriate agency (e.g., Ministry of Health [MOH], a specific nongovernmental organization [NGO], the United Nations Children’s Fund [UNICEF]).
	<p style="text-align: center;">Supplies and Planning</p> <ul style="list-style-type: none"> ▪ RUTF supplies are adequate and stored appropriately. ▪ Request for RUTF supplies is made to the appropriate agency or the MOH. ▪ Supply of essential drugs (routine medicines) is adequate. ▪ Request for medicine supplies is made to the appropriate agency or the MOH. ▪ Stock records for medicines and RUTF are completed.

TIPS FOR SUPERVISORS/MENTORS

- Supervisory visits are conducted to help health care providers improve their performance. The visits should be seen as an ongoing part of the capacity development strategy and the motivation of health care providers.
- The best way to determine whether a health care provider is performing well is to watch him/her perform on the job. This observation should be followed by a discussion of what was observed and of the data the supervisor collected and recorded on monitoring forms (supervision checklist).
- Supervisory visits are the best time to identify any important areas in which particular health care providers can improve before the next supervisory visit.
- People who are praised for what they are doing well are motivated to continue to do a good job.
- If a health care provider needs to improve on a certain action, the supervisor first should show him/ her how to perform the action more accurately. Then the supervisor should ask him/her to repeat the improved action on his/her own while the supervisor observes.
- If a health care provider has several areas to improve on for the next supervisory visit, the supervisor should have the person work on the area that will make the biggest difference if improved. The supervisor should address less important issues after the health care provider has mastered the priority area.

GUIDANCE CHECKLIST FOR A SUPERVISORY VISIT

During the pre-arranged supervisory visit, the supervisor/mentor:

- Courteously asks to accompany individual health care providers during their regular activities
- Observes the job performance of health care providers
- Stays in the background during the activities and does not interfere or give feedback until all the health care provider's activities are finished
- Discusses job performance with health care provider in private
- Provides feedback to the health care provider
- Praises the health care provider for what she/he is doing well to motivate her/him to continue this performance
- Works with the health care provider to identify important areas for improvement
- Shows the health care provider what has worked well in her/his experience and then gives him/her a chance to try it while observing
- Plays the role of mentor
- Schedules a follow-up supervisory visit

HANDOUT 8.12

SUPPORT AND SUPERVISION CHECKLIST FOR OUTPATIENT CARE (EXAMPLE)

8.12

Health Facility: _____ **Date:** _____

	TOTAL OBSERVED	TOTAL CORRECT	DIRECT OBSERVATION AT SITE	QUALITY			COMMENT
				1 – Done correctly	2 – Done but needs improvement	3 – Not done/ done incorrectly	
Number of health care providers (staff) and volunteers present Staff greet mothers/ caregivers and are friendly and helpful							Staff: Volunteers:
Registration numbers assigned correctly Registration numbers written on all documents	Total new admissions in past month						
Grade of bilateral pitting edema measured accurately	Total bilateral pitting edema checks observed						
Mid-upper arm circumference (MUAC) measured accurately	Total MUAC checks observed						
Weight measured accurately Height measured accurately	Total weighings observed Total measurements observed						
Weight-for-height (WFH) classification done correctly	Total WFH checked						
Admission is according to correct criteria	Total treatment cards checked						(Spot check cards)
Medical history recorded accurately	Total medical histories observed						

Physical examination performed and recorded accurately	Total treatment cards checked	Total w/ full exam				(Check card)
Child's appetite tested using ready-to-use therapeutic food (RUTF), upon admission and during outpatient care follow-on sessions						How tested and by whom?
Routine medication given according to protocol and recorded accurately	Total treatment cards checked	Total with correct medicines				
Amount of RUTF needed is correctly calculated	Total treatment and ration cards checked					
Appropriate education given to mothers/ caregivers						Note topic and form:
Follow-up medicines given according to protocol and recorded accurately	Total treatment cards checked					
RUTF ration cards completed correctly	Total treatment cards checked					(Spot check)
Slow responders are identified according to the definition for follow-up and communicated to outreach workers	Total problem cases needing follow-up home visit during past month	Total				
Priorities for follow-up home visits discussed with outreach worker; list of names recorded/ cards marked			List/ clear discussion?			
Beneficiaries discharged according to protocol	Total treatment cards checked					
Correct number of absentees/defaults identified for follow-up home visits	Total number of absentees/ defaults according to treatment cards	Total w/ outcome recorded				
Tally sheets, reporting sheets and stock cards completed correctly	Total weeks reviewed					(Spot check)

HANDOUT 8.13

SUPPORT AND SUPERVISION CHECKLIST FOR COMMUNITY OUTREACH (EXAMPLE)

Question/Issue	Why?
COORDINATION OF OUTREACH	
Has someone at the facility level been designated as responsible for managing/ coordinating community outreach efforts?	Outreach is less clear-cut and less glamorous than clinical work, and health managers and health care providers might need reminding that outreach is also part of CMAM.
Has the job of the outreach worker (case-finder) been clearly defined, including his/her range of responsibilities and level of effort?	Case-finders are sometimes recruited before the amount of work required is specified.
Do outreach workers meet periodically (e.g., monthly, quarterly) with the designated outreach coordinator?	Supervisory meetings might help to motivate case finders, especially when they are unpaid.
In general, do outreach workers feel they receive adequate information and support from the outreach coordinator?	Supervisory meetings should be an opportunity for two-way communication, not just for giving instructions.
Does the outreach coordinator appear familiar with basic service/programme data (e.g. admissions, absentees, defaults)?	The outreach coordinator should be interpreting this data and using it to adjust outreach methods and priorities.
Does the outreach coordinator have a means of discussing outreach problems or issues with community leaders? Is this being used?	Not all issues can be addressed by discussion between the outreach coordinator and the outreach workers alone. Problems such as defaulting and barriers to access might require the inclusion of community leaders, mothers/caregivers and other stakeholders.
CASE-FINDING	
What form of case-finding is being used locally? Is it still the most appropriate form?	The service/programme might need to alter case-finding methods as levels of severe acute malnutrition (SAM) and community awareness change.
How active are case-finders? Is this level of activity appropriate, given SAM prevalence?	Active case-finding should not be so frequent as to be intrusive, but neither should it be left alone for too long. During periods of high SAM prevalence and while awareness of CMAM is still low, monthly screenings might be appropriate.
FOLLOW-UP HOME VISITS	
Has responsibility for follow-up home visits been clearly designated and accepted in all parts of the health facility catchment area?	Follow-up might break down unless it is worked out in advance who is responsible for following up cases in a given location.
Are absentees and children who defaulted being followed up reliably with follow-up home visits?	Even with clear lines of responsibility, follow-up might not occur. The reasons for this must be understood and addressed.
What do outreach workers and community members say about the value of these visits?	Outreach workers who perform follow-up home visits sometimes need further training on advising and negotiating effectively with families.

HANDOUT 8.14

GUIDANCE ON CMAM REPORTING

MONTHLY SITE OR DISTRICT REPORTS

The monthly report (per site, district or overall at the national level) presents quantitative information on service/programme performance (key performance indicators). It provides basic information to monitor the effectiveness of the CMAM service/programme.

REPORTING ON SERVICE/PROGRAMME PERFORMANCE

The monthly, quarterly or yearly report presents key quantitative and qualitative information and analysis and interprets the information in a comprehensive manner. The report should include the following essential information:

General

- Author of report
- Date and period of reporting
- Geographical catchment area and population
- Name of health facilities with outpatient care and/or inpatient care ▪ Starting date of services/programmes

Performance and output indicators for the management of severe acute malnutrition (SAM) in inpatient care and outpatient care combined, per time period:

- Number of new admissions
- Number of discharges
- Number of beneficiaries in treatment
- Number and percentage cured
- Number and percentage died
- Number and percentage defaulted
- Number and percentage non-recovered
- Number of referrals to inpatient care or hospital
- Number admitted from community outreach referral
- Number of sites
- Number of new sites added
- Number of staff (e.g., health managers, health care providers, community health workers [LHWs], volunteers) trained

Figures

- Figure (graph) with trends of key performance and output indicators (see example figure below):
 - Bars with new admissions, discharges, beneficiaries in treatment
 - Lines for cured, died, defaulted and non-recovered rates
- Figure (graph) for monthly average length of stay (LOS) and average weight gain (AWG) per category of admission criteria
- Figure (pie chart) with distribution of admission criteria
- Figure (pie chart) with distribution of discharge categories (see example figure on the next page)

Death records: Date, sex, age, reported cause of death, LOS in service/programme

Default records: Date, sex, age, reported/presumed reason for defaulting, LOS in service/programme

Interpretation of overall progress

- Interpret findings on performance and coverage and any qualitative information that was obtained through community meetings, focus group discussions, etc.; then, triangulate the information.
- Discuss challenges, opportunities, lessons learned and success stories.

EXAMPLE GRAPH FIGURES

Figure 1. Number of Admissions, Discharged and in Treatment in CMAM Per Area and Time Period

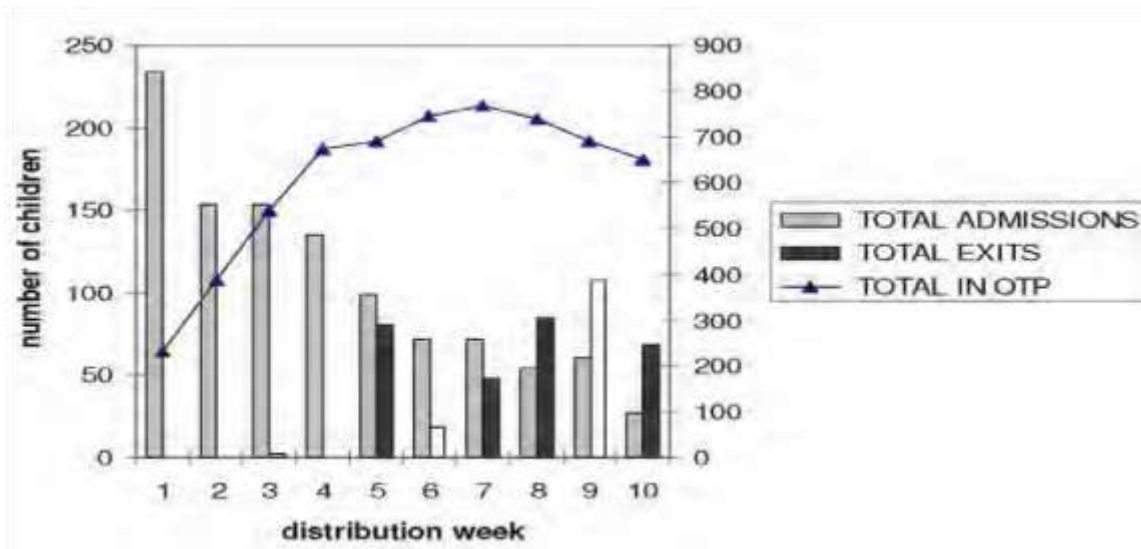
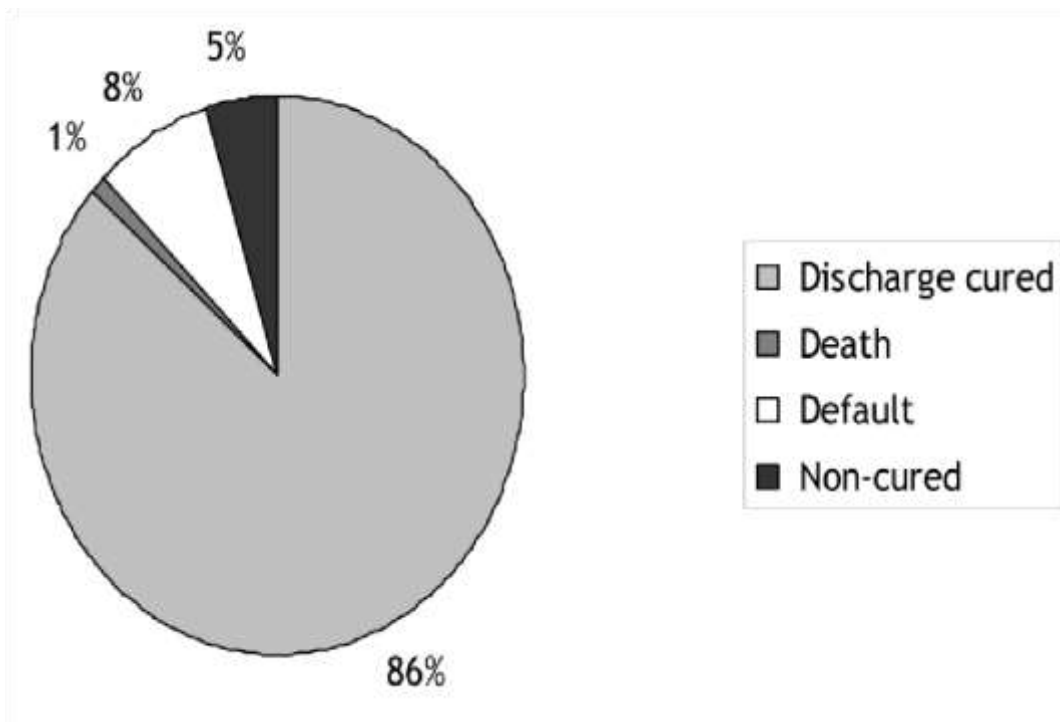


Figure 2. Discharge Categories in CMAM Per Area and Time Period



EXERCISE 8.1

OUTPATIENT CARE SITE TALLY SHEET AND SITE REPORTING SHEET

	WEEK WK 32	WK 33	WK 34	WK 35	TOTAL
	DATE				
<p>SITE <u>Outpatient care</u> Inpatient Care</p> <p>HEALTH FACILITY NAME Rural Health Centre, Islamkot</p> <p>DISTRICT Tharparkar</p>					
TOTAL START OF WEEK (A)					
New Cases 6-59 m Bilateral Pitting Edema (B1a)					
New Cases 6-59 m MUAC/WFH (B1b)					
Other New Cases (adults, adolescents, children > 5 y, infants <6 months) (B2)					
Old cases: Referred from Outpatient or Inpatient care; or Returned defaulters (C)					
TOTAL ADMISSIONS (D) [D=B+C]					
Cured (E1)					
Died (E2)					
Defaulted (E3)					
Non-recovered (E4)					
REFERRALS TO OUTPATIENT OR INPATIENT CARE (F)					
TOTAL DISCHARGES (E)					
TOTAL EXITS (G) [G=E + F]					
TOTAL END OF WEEK (H) [H=A+D-G]					

EXERCISE 8.1(A) OUTPATIENT CARE SITE TALLY SHEET

EXERCISE 8.1(B) OUTPATIENT CARE SITE REPORTING SHEET

MONTHLY SITE REPORT FOR MANAGEMENT OF SAM

	SITE IMPLEMENTED BY					
	REGION / MONTH / YEAR	February / 2008				
	TYPE OF MANAGEMENT	Inpatient				
	(CIRCLE)	Outpatient				
	ESTIMATED MAXIMUM					
DISTRICT CAPACITY						
	ESTIMATED TARGET malnourished <5s (based on latest survey data and admission criteria)					
	RUTF CONSUMPTION	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Packets/pots</th> <th style="width: 50%;">kg equivalent</th> </tr> <tr> <td style="height: 20px;"></td> <td style="height: 20px;"></td> </tr> </table>	Packets/pots	kg equivalent		
Packets/pots	kg equivalent					

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSION (D) (B+C=D)	DISCHARGES (E)				REFERRAL (F) to inpatient or outpatient care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
					%	%	%	%			
				TARGET (SPHERE Standards)	>75%	<10%	<15%				

E1: Cured = reaches discharge criteria
E3: Defaulted = absent for 3 consecutive sessions
E4: Non-recovered = does not reach the discharge criteria after investigation)

EXERCISE 8.2

COMPLETING SITE TALLY SHEET AND SITE REPORT

The organization is assumed to be an outpatient care site at the Rural health center _____ in the _____ district of _____ province. Six outpatient care treatment cards are filled in for the first two weeks of admission to the Rural outpatient care site.

HANDOUTS

- Outpatient care treatment cards for six children in the Rural outpatient care site
- Site tally sheets for RHC's outpatient care site
- Site report for Rural

INSTRUCTIONS

Go through the outpatient care treatment cards and the text below and complete the site tally sheet for each week.

Rural outpatient care admission pattern:

- Week 1: Three children with mid-upper arm circumference (MUAC) < 110 mm were admitted to the service. Outpatient care treatment cards for all three are attached.
- Week 2: Two children were admitted, one with bilateral pitting edema +++ and the other with weight-for-height (WFH) < 70% of the median. Outpatient care treatment cards for both are attached.
- Week 3: Two children were admitted, one with bilateral pitting edema ++ and the other with MUAC < 110 mm. The outpatient care treatment card for the child with bilateral pitting edema is attached. The other card is not available.
- Week 4: Five children who do not have outpatient care treatment cards are admitted: three with MUAC < 110mm, one with WFH < 70% of the median and one moved in from inpatient care.

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Neway Mefin			Reg. N°	YRB / 001 / OUTP
AGE (months)	13	SEX	<input checked="" type="radio"/> M <input type="radio"/> F	DATE OF ADMISSION	04/10/2007
ADMINISTRATIVE UNIT	Boricha			TIME TO TRAVEL TO SITE	1 hour
COMMUNITY	Yirba			FATHER ALIVE	
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE	
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	5
ADMISSION (CIRCLE)	<input checked="" type="radio"/> self referral	<input type="radio"/> outreach referral	<input type="radio"/> inpatient care referral	<input type="radio"/> health facility referral	TWIN <input type="radio"/> yes <input checked="" type="radio"/> no
RE-ADMISSION (relapse)	<input type="radio"/> no <input type="radio"/> yes	ADDITIONAL INFORMATION			

ADMISSION ANTHROPOMETRY

BILATERAL PITTING OEDEMA	<input type="radio"/> + <input type="radio"/> ++ <input type="radio"/> +++	MUAC (mm)	107	WEIGHT (kg)	6.2	HEIGHT (cm)	62	WEIGHT FOR HEIGHT	95
ADMISSION CRITERIA	Bilateral pitting oedema	MUAC		Weight for Height		OTHER:			

HISTORY

DIARRHOEA	<input type="radio"/> yes <input checked="" type="radio"/> no	# STOOLS/DAY	<input checked="" type="radio"/> 1-3 <input type="radio"/> 4-5 <input type="radio"/> >5
VOMITING	<input type="radio"/> yes <input checked="" type="radio"/> no	PASSING URINE	<input checked="" type="radio"/> yes <input type="radio"/> no
COUGH	<input type="radio"/> yes <input checked="" type="radio"/> no	IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?	
APPETITE	<input type="radio"/> good <input checked="" type="radio"/> poor <input type="radio"/> none	BREASTFEEDING	<input type="radio"/> yes <input checked="" type="radio"/> no

PHYSICAL EXAMINATION

RESPIR. RATE (# min)	<input type="radio"/> <30 <input type="radio"/> 30 - 39 <input checked="" type="radio"/> 40 - 49 <input type="radio"/> 50+	CHEST INDRAWING	<input type="radio"/> yes <input checked="" type="radio"/> no
TEMPERATURE °C	38.2	CONJUNCTIVA	<input checked="" type="radio"/> normal <input type="radio"/> pale
EYES	<input checked="" type="radio"/> normal <input type="radio"/> sunken <input type="radio"/> discharge	DEHYDRATION	<input checked="" type="radio"/> none <input type="radio"/> moderate <input type="radio"/> severe
EARS	<input checked="" type="radio"/> normal <input type="radio"/> discharge	MOUTH	<input checked="" type="radio"/> normal <input type="radio"/> sores <input type="radio"/> candida
ENLARGED LYMPH NODES	<input checked="" type="radio"/> none <input type="radio"/> neck <input type="radio"/> axilla <input type="radio"/> groin	HANDS & FEET	<input checked="" type="radio"/> normal <input type="radio"/> cold
SKIN CHANGES	<input checked="" type="radio"/> none <input type="radio"/> scabies <input type="radio"/> peeling <input type="radio"/> ulcers / abscesses	DISABILITY	<input type="radio"/> yes <input checked="" type="radio"/> no

ROUTINE MEDICATION: ADMISSION

ADMISSION:	DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
	Amoxicillin	4/10/2007	200,000 IU			
	Vitamin A (if not in last 6 months)	4/10/2007	125 mg (5 ml) 3x per day	Measles immunisation	<input type="radio"/> no <input type="radio"/> yes	date:
	Malaria treatment			Fully immunised	<input type="radio"/> no <input type="radio"/> yes	
2nd VISIT:	Mebendazole					

OTHER MEDICATION

DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD									
NAME	Yohannes Solomon				Reg. N°	YRB / 002 / OUTP			
AGE (months)	16	SEX	<input checked="" type="radio"/> M	<input type="radio"/> F	DATE OF ADMISSION	04/10/2007			
ADMINISTRATIVE UNIT	Boricha				TIME TO TRAVEL TO SITE	2.5 hours			
COMMUNITY	Yirba				FATHER ALIVE				
HOUSE DETAILS/LANDMARKS					MOTHER ALIVE				
NAME OF CAREGIVER					TOTAL NUMBER IN HOUSEHOLD	6			
ADMISSION (CIRCLE)	<input checked="" type="radio"/> self referral	<input type="radio"/> outreach referral	<input type="radio"/> inpatient care referral	<input type="radio"/> health facility referral	TWIN	<input type="radio"/> yes	<input checked="" type="radio"/> no		
RE-ADMISSION (relapse)	<input type="radio"/> no	<input type="radio"/> yes	ADDITIONAL INFORMATION						
ADMISSION ANTHROPOMETRY									
BILATERAL PITTING OEDEMA	<input type="radio"/> +	<input type="radio"/> ++	<input type="radio"/> +++						
MUAC (mm)	102	WEIGHT (kg)	7.5	HEIGHT (cm)	68	WEIGHT FOR HEIGHT	95		
ADMISSION CRITERIA	Bilateral pitting oedema	MUAC		Weight for Height		OTHER:			
HISTORY									
DIARRHOEA	<input type="radio"/> yes	<input checked="" type="radio"/> no		# STOOLS/DAY	<input checked="" type="radio"/> 1-3	<input type="radio"/> 4-5	<input type="radio"/> >5		
VOMITING	<input type="radio"/> yes	<input checked="" type="radio"/> no		PASSING URINE	<input checked="" type="radio"/> yes	<input type="radio"/> no			
COUGH	<input type="radio"/> yes	<input checked="" type="radio"/> no		IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?					
APPETITE	<input checked="" type="radio"/> good	<input type="radio"/> poor	<input type="radio"/> none		BREASTFEEDING	<input type="radio"/> yes	<input checked="" type="radio"/> no		
ADDITIONAL INFORMATION									
PHYSICAL EXAMINATION									
RESPIR. RATE (# min)	<input type="radio"/> <30	<input checked="" type="radio"/> 30 - 39		<input type="radio"/> 40 - 49	<input type="radio"/> 50+				
TEMPERATURE °C	37.6								
EYES	<input checked="" type="radio"/> normal	<input type="radio"/> sunken	<input type="radio"/> discharge						
EARS	<input checked="" type="radio"/> normal	<input type="radio"/> discharge		DEHYDRATION					
ENLARGED LYMPH NODES	<input checked="" type="radio"/> none	<input type="radio"/> neck	<input type="radio"/> axilla	<input type="radio"/> groin					
SKIN CHANGES	<input checked="" type="radio"/> none	<input type="radio"/> scabies	<input type="radio"/> peeling	<input type="radio"/> ulcers / abscesses					
ADDITIONAL INFORMATION									
ROUTINE MEDICATION: ADMISSION									
ADMISSION:	DRUG	DATE	DOSAGE		DRUG	DATE	DOSAGE		
	Amoxicillin	4/10/2007	200,000 IU						
	Vitamin A (if not in last 6 months)	4/10/2007	125 mg (5 ml) 3x per day		Measles immunisation	<input type="radio"/> no	<input type="radio"/> yes	date:	
	Malaria treatment				Fully immunised	<input type="radio"/> no	<input type="radio"/> yes		
2nd VISIT:	Mebendazole								
OTHER MEDICATION									
DRUG	DATE	DOSAGE		DRUG	DATE	DOSAGE			

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Abaynesh Mengistu			Reg. N°	YRB / 003 / OUTP
AGE (months)	18	SEX	M <input type="radio"/> F <input checked="" type="radio"/>	DATE OF ADMISSION	04/10/2007
ADMINISTRATIVE UNIT	Boricha			TIME TO TRAVEL TO SITE	3 hours
COMMUNITY	Yirba			FATHER ALIVE	
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE	
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	5
ADMISSION (CIRCLE)	<input checked="" type="radio"/> self referral	<input type="radio"/> outreach referral	<input type="radio"/> inpatient care referral	<input type="radio"/> health facility referral	TWIN <input type="radio"/> yes <input checked="" type="radio"/> no
RE-ADMISSION (relapse)	<input type="radio"/> no <input type="radio"/> yes	ADDITIONAL INFORMATION			

ADMISSION ANTHROPOMETRY

BILATERAL PITTING OEDEMA	<input type="radio"/> + <input type="radio"/> ++ <input type="radio"/> +++	MUAC (mm)	98	WEIGHT (kg)	7.5	HEIGHT (cm)	72	WEIGHT FOR HEIGHT	83
ADMISSION CRITERIA	Bilateral pitting oedema	MUAC		Weight for Height		OTHER:			

HISTORY

DIARRHOEA	<input type="radio"/> yes <input checked="" type="radio"/> no	# STOOLS/DAY	<input checked="" type="radio"/> 1-3 <input type="radio"/> 4-5 <input type="radio"/> >5
VOMITING	<input type="radio"/> yes <input checked="" type="radio"/> no	PASSING URINE	<input checked="" type="radio"/> yes <input type="radio"/> no
COUGH	<input type="radio"/> yes <input checked="" type="radio"/> no	IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?	
APPETITE	<input type="radio"/> good <input checked="" type="radio"/> poor <input type="radio"/> none	BREASTFEEDING	<input type="radio"/> yes <input checked="" type="radio"/> no
ADDITIONAL INFORMATION			

PHYSICAL EXAMINATION

RESPIR. RATE (# min)	<input type="radio"/> <30 <input checked="" type="radio"/> 30 - 39 <input type="radio"/> 40 - 49 <input type="radio"/> 50+	CHEST INDRAWING	<input type="radio"/> yes <input checked="" type="radio"/> no
TEMPERATURE °C	37.2	CONJUNCTIVA	<input checked="" type="radio"/> normal <input type="radio"/> pale
EYES	<input checked="" type="radio"/> normal <input type="radio"/> sunken <input type="radio"/> discharge	DEHYDRATION	<input checked="" type="radio"/> none <input type="radio"/> moderate <input type="radio"/> severe
EARS	<input checked="" type="radio"/> normal <input type="radio"/> discharge	MOUTH	<input checked="" type="radio"/> normal <input type="radio"/> sores <input type="radio"/> candida
ENLARGED LYMPH NODES	<input checked="" type="radio"/> none <input type="radio"/> neck <input type="radio"/> axilla <input type="radio"/> groin	HANDS & FEET	<input checked="" type="radio"/> normal <input type="radio"/> cold
SKIN CHANGES	<input checked="" type="radio"/> none <input type="radio"/> scabies <input type="radio"/> peeling <input type="radio"/> ulcers / abscesses	DISABILITY	<input type="radio"/> yes <input checked="" type="radio"/> no
ADDITIONAL INFORMATION			

ROUTINE MEDICATION: ADMISSION

ADMISSION:	DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
	Amoxicillin	4/10/2007	200,000 IU			
	Vitamin A (if not in last 6 months)	4/10/2007	125 mg (5 ml) 3x per day	Measles immunisation	<input type="radio"/> no <input type="radio"/> yes	date:
	Malaria treatment			Fully immunised	<input type="radio"/> no <input type="radio"/> yes	
2nd VISIT:	Mebendazole					

OTHER MEDICATION

DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

**WEEK 2: OUTPATIENT CARE TREATMENT CARD
DETAILS**

CASE 4 ADMISSION

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Meskerem Tena			Reg. N°	YRB / 004 / OUTP
AGE (months)	23	SEX	M <input type="radio"/> F <input checked="" type="radio"/>	DATE OF ADMISSION	04/17/2007
ADMINISTRATIVE UNIT	Boricha			TIME TO TRAVEL TO SITE	3.5 hours
COMMUNITY	Yirba			FATHER ALIVE	
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE	
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	6
ADMISSION (CIRCLE)	<input checked="" type="radio"/> self referral	<input type="radio"/> outreach referral	<input type="radio"/> inpatient care referral	health facility referral	TWIN <input type="radio"/> yes <input checked="" type="radio"/> no
RE-ADMISSION (relapse)	<input type="radio"/> no <input type="radio"/> yes	ADDITIONAL INFORMATION			

ADMISSION ANTHROPOMETRY					
BILATERAL PITTING OEDEMA	<input type="radio"/> + <input type="radio"/> ++ <input checked="" type="radio"/> +++	MUAC (mm)	114	WEIGHT (kg)	8.4
		HEIGHT (cm)	78.2	WEIGHT FOR HEIGHT	80.7
ADMISSION CRITERIA	<input checked="" type="radio"/> Bilateral pitting oedema	<input type="radio"/> MUAC	<input type="radio"/> Weight for Height	OTHER:	

HISTORY					
DIARRHOEA	<input type="radio"/> yes <input checked="" type="radio"/> no	# STOOLS/DAY	<input checked="" type="radio"/> 1-3 <input type="radio"/> 4-5 <input type="radio"/> >5		
VOMITING	<input type="radio"/> yes <input checked="" type="radio"/> no	PASSING URINE	<input checked="" type="radio"/> yes <input type="radio"/> no		
COUGH	<input type="radio"/> yes <input checked="" type="radio"/> no	IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?			
APPETITE	<input type="radio"/> good <input checked="" type="radio"/> poor	<input type="radio"/> none	BREASTFEEDING	<input type="radio"/> yes <input checked="" type="radio"/> no	

PHYSICAL EXAMINATION					
RESPIR. RATE (# min)	<input type="radio"/> <30 <input checked="" type="radio"/> 30 - 39 <input type="radio"/> 40 - 49 <input type="radio"/> 50+	CHEST INDRAWING	<input type="radio"/> yes <input checked="" type="radio"/> no		
TEMPERATURE °C	37.8	CONJUNCTIVA	<input checked="" type="radio"/> normal <input type="radio"/> pale		
EYES	<input checked="" type="radio"/> normal <input type="radio"/> sunken <input type="radio"/> discharge	DEHYDRATION	<input checked="" type="radio"/> none <input type="radio"/> moderate <input type="radio"/> severe		
EARS	<input checked="" type="radio"/> normal <input type="radio"/> discharge	MOUTH	<input checked="" type="radio"/> normal <input type="radio"/> sores <input type="radio"/> candida		
ENLARGED LYMPH NODES	<input checked="" type="radio"/> none <input type="radio"/> neck <input type="radio"/> axilla <input type="radio"/> groin	HANDS & FEET	<input checked="" type="radio"/> normal <input type="radio"/> cold		
SKIN CHANGES	<input checked="" type="radio"/> none <input type="radio"/> scabies <input type="radio"/> peeling <input type="radio"/> ulcers / abscesses	DISABILITY	<input type="radio"/> yes <input checked="" type="radio"/> no		

ROUTINE MEDICATION: ADMISSION						
ADMISSION:	DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
	Amoxicillin	4/10/2007	200,000 IU			
	Vitamin A (if not in last 6 months)	4/10/2007	125 mg (5 ml) 3x per day	Measles immunisation	<input type="radio"/> no <input type="radio"/> yes	date:
	Malaria treatment			Fully immunised	<input type="radio"/> no <input type="radio"/> yes	
2nd VISIT:						
	Mebendazole					

OTHER MEDICATION					
DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

**WEEK 2: OUTPATIENT CARE TREATMENT CARD
DETAILS**

CASE 5 ADMISSION

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Taye Menberu			Reg. N°	YRB / 005 / OUTP
AGE (months)	14	SEX	<input checked="" type="radio"/> M <input type="radio"/> F	DATE OF ADMISSION	04/17/2007
ADMINISTRATIVE UNIT	Boricha			TIME TO TRAVEL TO SITE	1.5 hours
COMMUNITY	Yirba			FATHER ALIVE	
HOUSE DETAILS/LANDMARKS				MOTHER ALIVE	
NAME OF CAREGIVER				TOTAL NUMBER IN HOUSEHOLD	3
ADMISSION (CIRCLE)	<input checked="" type="radio"/> self referral	<input type="radio"/> outreach referral	<input type="radio"/> inpatient care referral	health facility referral	TWIN <input type="radio"/> yes <input checked="" type="radio"/> no
RE-ADMISSION (relapse)	<input type="radio"/> no <input type="radio"/> yes	ADDITIONAL INFORMATION			

ADMISSION ANTHROPOMETRY									
BILATERAL PITTING OEDEMA	<input type="radio"/> + <input type="radio"/> ++ <input type="radio"/> +++	MUAC (mm)	110	WEIGHT (kg)	5.2	HEIGHT (cm)	37.3	WEIGHT FOR HEIGHT	66.6
ADMISSION CRITERIA	Bilateral pitting oedema	MUAC	Weight for Height		OTHER:				

HISTORY							
DIARRHOEA	<input type="radio"/> yes <input checked="" type="radio"/> no	# STOOLS/DAY	<input checked="" type="radio"/> 1-3 <input type="radio"/> 4-5 <input type="radio"/> >5	PASSING URINE	<input checked="" type="radio"/> yes <input type="radio"/> no	IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?	
VOMITING	<input type="radio"/> yes <input checked="" type="radio"/> no	APPETITE	<input checked="" type="radio"/> good <input type="radio"/> poor <input type="radio"/> none	BREASTFEEDING	<input type="radio"/> yes <input checked="" type="radio"/> no	ADDITIONAL INFORMATION	

PHYSICAL EXAMINATION							
RESPIR. RATE (# min)	<input type="radio"/> <30 <input checked="" type="radio"/> 30 - 39 <input type="radio"/> 40 - 49 <input type="radio"/> 50+	CHEST INDRAWING	<input type="radio"/> yes <input checked="" type="radio"/> no	CONJUNCTIVA	<input checked="" type="radio"/> normal <input type="radio"/> pale	DEHYDRATION	<input checked="" type="radio"/> none <input type="radio"/> moderate <input type="radio"/> severe
TEMPERATURE °C	37.8	EYES	<input checked="" type="radio"/> normal <input type="radio"/> sunken <input type="radio"/> discharge	MOUTH	<input checked="" type="radio"/> normal <input type="radio"/> sores <input type="radio"/> candida	HANDS & FEET	<input checked="" type="radio"/> normal <input type="radio"/> cold
EARS	<input checked="" type="radio"/> normal <input type="radio"/> discharge	ENLARGED LYMPH NODES	<input checked="" type="radio"/> none <input type="radio"/> neck <input type="radio"/> axilla <input type="radio"/> groin	DISABILITY	<input type="radio"/> yes <input checked="" type="radio"/> no	ADDITIONAL INFORMATION	

ROUTINE MEDICATION: ADMISSION						
ADMISSION:	DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE
	Amoxicillin	4/17/2007	125 mg (5 ml) 3x per day			
	Vitamin A (if not in last 6 months)	4/17/2007	125 mg (5 ml) 3x per day	Measles immunisation	<input type="radio"/> no <input type="radio"/> yes	date:
	Malaria treatment			Fully immunised	<input type="radio"/> no <input type="radio"/> yes	
2nd VISIT:	Mebendazole					

OTHER MEDICATION					
DRUG	DATE	DOSAGE	DRUG	DATE	DOSAGE

WEEK 3: OUTPATIENT CARE TREATMENT CARD
DETAIL

CASE 6 ADMISSION

ADMISSION DETAILS: OUTPATIENT CARE TREATMENT CARD

NAME	Lemlem Bezabih				Reg. N°	YRB / 006 / OUTP		
AGE (months)	18	SEX	M	F	DATE OF ADMISSION	04/21/2007		
ADMINISTRATIVE UNIT	Boricha				TIME TO TRAVEL TO SITE	3 hours		
COMMUNITY	Yirba				FATHER ALIVE			
HOUSE DETAILS/LANDMARKS					MOTHER ALIVE			
NAME OF CAREGIVER					TOTAL NUMBER IN HOUSEHOLD	4		
ADMISSION (CIRCLE)	self referral	outreach referral	inpatient care referral	health facility referral	TWIN	yes	no	
RE-ADMISSION (relapse)	no	yes	ADDITIONAL INFORMATION					
ADMISSION ANTHROPOMETRY								
BILATERAL PITTING OEDEMA	+	++	+++					
MUAC (mm)	113	WEIGHT (kg)	7.5	HEIGHT (cm)	72	WEIGHT FOR HEIGHT	83	
ADMISSION CRITERIA	Bilateral pitting oedema		MUAC	Weight for Height	OTHER:			
HISTORY								
DIARRHOEA	yes	no		# STOOLS/DAY	1-3	4-5	>5	
VOMITING	yes	no		PASSING URINE	yes	no		
COUGH	yes	no		IF BILATERAL PITTING OEDEMA, HOW LONG SWOLLEN?				
APPETITE	good	poor	none	BREASTFEEDING	yes	no		
ADDITIONAL INFORMATION								
PHYSICAL EXAMINATION								
RESPIR. RATE (# min)	<30	30 - 39	40 - 49	50+	CHEST INDRAWING	yes	no	
TEMPERATURE °C	38				CONJUNCTIVA	normal	pale	
EYES	normal	sunken	discharge		DEHYDRATION	none	moderate	severe
EARS	normal	discharge			MOUTH	normal	sores	candida
ENLARGED LYMPH NODES	none	neck	axilla	groin	HANDS & FEET	normal	cold	
SKIN CHANGES	none	scabies	peeling	ulcers / abscesses	DISABILITY	yes	no	
ADDITIONAL INFORMATION								
ROUTINE MEDICATION: ADMISSION								
ADMISSION:	DRUG	DATE	DOSAGE		DRUG	DATE	DOSAGE	
	Amoxicillin							
	Vitamin A (if not in last 6 months)	4/21/2007	125 mg (5 ml) 3x per day		Measles immunisation	no	yes	date:
	Malaria treatment				Fully immunised	no	yes	
2nd VISIT:								
	Mebendazole							
OTHER MEDICATION								
DRUG	DATE	DOSAGE		DRUG	DATE	DOSAGE		

OUTPATIENT CARE SITE TALLY SHEET

HEALTH FACILITY NAME					
DISTRICT					
SITE		Outpatient care	Inpatient Care		
WEEK					
DATE					TOTAL
TOTAL START OF WEEK (A)					
New Cases 6-59 m Bilateral Pitting Oedema (B1a)					
New Cases 6-59 m MUAC/WFH (B1b)					
Other New Cases (adults, adolescents, children > 5 y, infants <6 months) (B2)					
Old cases: Referred from Outpatient or Inpatient care; or Returned defaulters (C)					
TOTAL ADMISSIONS (D) [D=B+C]					
Cured (E1)					
Died (E2)					
Defaulted (E3)					
Non-recovered (E4)					
REFERRALS TO OUTPATIENT OR INPATIENT CARE (F)					
TOTAL DISCHARGES (E)					
TOTAL EXITS (G) [G=E + F]					
TOTAL END OF WEEK (H) [H=A+D-G]					

EXERCISE 8.4

ANALYSIS OF THE SITE REPORTS OF THREE OUTPATIENT CARE SITES AND ONE INPATIENT CARE SITE

OUTPATIENT CARE SITE A

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSIONS (D) (B+C=D)	DISCHARGES (E)				Referral (F) to Inpatient or Outpatient Care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
50	48	0	4+1	49	30	3	6	9	0	48	55
Additional information: Wasted: 41 Bilateral pitting edema: 7					62.5%	6.3%	12.5%	18.8%			
					TARGET (Sphere Standards)						
					>75%	<10%	<15%				

OUTPATIENT CARE SITE B

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSIONS (D) (B+C=D)	DISCHARGES (E)				Referral (F) to Inpatient or Outpatient Care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
140	120	0	7+7	134	79	1	15	7	7	109	165
Additional information: Wasted: 90 Bilateral pitting edema: 30					77.5%	0.9%	14.7%	6.8%			
					TARGET (Sphere Standards)						
					>75%	<10%	<15%				

OUTPATIENT CARE SITE C

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSIONS (D) (B+C=D)	DISCHARGES (E)				Referral (F) to Inpatient or Outpatient Care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
40	59	0	3+4	66	40	0	4	6	4	54	52
Additional information: Wasted: 27 Bilateral pitting edema: 32					80.0%	0%	8.0%	12.0%			
					TARGET (Sphere Standards)						
					>75%	<10%	<15%				

INPATIENT CARE SITE

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		OLD CASES (C) Referral from outpatient or inpatient care, or Returned defaulters	TOTAL ADMISSIONS (D) (B+C=D)	DISCHARGES (E)				Referral (F) to Inpatient or Outpatient Care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)			CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
18	19	0	11+0	30	0	1	2	1	17	21	27
Additional information: Wasted: 14 Bilateral pitting edema: 5					NA%	NA%	NA%	NA%			
					TARGET (Sphere Standards)	>75%	<10%	<15%			

MONTHLY CMAM DISTRICT REPORT (CONSOLIDATED FOR INPATIENT CARE AND OUTPATIENT CARE)

TOTAL BEGINNING OF THE MONTH (A)	NEW CASES (B)		TOTAL NEW ADMISSIONS (B)	DISCHARGES (E)				TOTAL DISCHARGES (E)	TOTAL END OF THE MONTH (H) (A+B-E=H)
	6-59 m (according to admission criteria) (B1)	Other (adults, adolescents, children > 5 y, infants < 6 m) (B2)		CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)		
248	246	0	246	149	5	27	23	204	290
				73.0%	2.5%	13.2%	11.3%		
				TARGET (Sphere Standards)	>75%	<10%	<15%		

Conclusions Drawn from the Reports	Questions to ask or Possible Explanations
1. Health center B has more patients than the other centers.	1. Is this normal? Does it cover a highly populated area or a very wide area? What are the walking distances to the center? Is this center manageable? Could a second center be opened with existing resources?
2. At health center C, more than half the admissions are from bilateral pitting edema.	2. Is this normal? Are the other health centers neglecting this diagnosis? Or, the opposite—is there an over-diagnosis of bilateral pitting edema here? Is this health center in a different food economy area? Was the same observation made in previous months and in surveys?
3. Out of the overall 246 new admissions, 227 were admitted directly to outpatient care (92.3%) and 19 to inpatient care (7.7%).	3. This could be an indicator of the efficacy of “early detection” and therefore of the quality of community mobilization. It also could indicate that children with serious conditions are hidden at households and are not reached.
4. Health center A is not referring any patients to inpatient care.	4. This could mean that no patients required transfer, but it should be checked through supervision.

<p>5. The death and non-recovered rates in health center A are quite high for outpatient care.</p>	<p>5. This raises questions about the quality of the assessment of patients in this center and the application of and adherence to treatment and action protocols.</p>
<p>6. Health center B's default rate is quite high and warrants follow-up to determine the reasons.</p>	<p>6. Perhaps mothers/caregivers decide not to return because waiting times or walking distances are too long. It will be necessary to visit the center to determine the reasons.</p>
<p>7. Health center C's cured rate is good although there are questions about the non-recovered rate.</p> <p>8. Overall, 211 children left outpatient care during the month; 200 of these children were discharged. However, 11 were referred back to inpatient care, meaning that the conditions of 5.5% of the children under treatment in outpatient care deteriorated.</p>	<p>7. Is this related to the number of cases with bilateral pitting edema, noted above? Could this be investigated?</p> <p>8. Why is the condition of children deteriorating when under treatment in outpatient care? Is there compliance to medicine and RUTF protocols? What health and nutrition messages are mothers/caregivers receiving? Are there other underlying health conditions that must be addressed?</p>
<p>9. While 17 children were referred from inpatient care to outpatient care, the outpatient care sites admitted only 14 children referred from inpatient care. Note that 11 patients were referred from outpatient care to inpatient care and 11 admissions are registered in the inpatient care site report as referred from outpatient care.</p>	<p>9. The difference between referrals from inpatient care and admissions to outpatient care could be due to a weak registration system or because some referred children did not go to the outpatient care sites. This observation should trigger closer assessment and supervision of the registration and referral system (e.g., the use of referral slips, the provision of transportation, the messages and explanations given to the mother/caregiver at the time of referral). Note that children who were referred left the site where they were being treated but did not leave the service/programme. The compiled number of cases under treatment in the district is 209, which counts 9 cases less than the sum of the individual report. This difference is due to the 3 missed referrals. Other missed cases may have been in transit while referred across months. (Note: this could be a shortcoming of the exercise and if this is repeated at the district level in the field, it should be reported for review of the compilation system).</p>

Note: The specific discharge rates from the inpatient care site are not calculated. Children that improve are referred to outpatient care to continue treatment. The specific discharge rates would not reflect poor quality as they include ONLY those children with SAM that had medical complications. This is one of the reasons why the programme needs also to be evaluated as a whole, combining information from both inpatient and outpatient care as presented in the combined reporting sheet, where the performance indicators provide information of the CMAM service in the district for the management of SAM.

SUPPLEMENTAL REFERENCE 8.1

SETTING UP A CMAM MONITORING SYSTEM USING AN ELECTRONIC DATABASE IN EXCEL

Adapted from *Community-based Therapeutic Care (CTC): A Field Manual*, pages 207-211

The following instructions can be used to construct a database for outpatient care and inpatient care sites per district in Excel.

STEP 1. CREATING THE DATA INPUT SHEET (SEE SITE TALLY AND REPORTING SHEETS)

1.1. Create Columns

- Create a spreadsheet in Excel with four columns titled: 'Session Week', 'Site' and 'Month'.
- Create columns corresponding to the admission and exit criteria on your site tally and reporting sheet
- Ensure each column title is written in its own cell.
- Create columns titled:

Total End Last Session (or Total end of the week/month)

New Cases 6-59 months

New Cases Other

Old Cases

Total Admissions

Cured

Death

Defaulter

Non-recovered

Total Discharged

Referral

Total Exits

Total Under Treatment (or Total beginning of week/month)

1.2. Create Rows

- Write site names (e.g., names of health facilities with outpatient care or inpatient care sites) of the district in rows moving down the spreadsheet for cycle 1. (Leave some space to add extra sites as the service/programme progresses.)
- Write **1** in each cycle number box.
- For the first row corresponding to cycle 2, write in a formula of the first box **+1**.
- Do not write site names for cycle 2. Write a formula of the appropriate cell in cycle 1.
- Make a bold line under the first cycle

1.3. Enter Formulas

- Add in formulas for:
 - Total end of last session (For cycle 1, there is no formula. Put 0 in the cells. For subsequent cycles, use Total under Treatment from the previous cycle).
 - Total Admissions = New cases 6-59 months + New cases other + Old cases
 - Total Discharged = Cured + Deaths + Defaulters + Non-recovered
 - Total Exits = Cured + Deaths + Defaulters + Non-recovered + Referral
 - Total Under Treatment = Total End Last Session + Total Admissions – Total Exits
- For all formulas, click and copy formulas down the sheet to fill as many weekly cycles as required. (We recommend no more than one year's data in one database.)
- Data can now be entered by cycle from the weekly tally sheets (Optional database at national level can use monthly cycles using the monthly district reporting sheets)

STEP 2. CREATING THE DATA REPORT

- From the input sheet under 'Data' on the top menu, select 'Pivot Table Report'.
- Click 'Microsoft Excel List or database'.
- Highlight all of the spreadsheet
- Click 'Next' to get to the Pivot Table construction.
- Into 'Page', drag Site and Month.
- Into 'Column', drag Week.
- Into 'Data', drag the following variables in the following order: New cases 6-59 months, New cases other, Old cases, Total Admissions, Cured, Death, Defaulters, Non-recovered, Total Discharges, Referral, Total Exits, Total under treatment.
- Double click on all variables in data sheet in the Pivot Table construction. Perform the following on each one:
 - Change title by removing Count of. Do not shift the title too much to the left or Pivot Table alarm will be set off.
 - Change from Count to Sum.
 - Click Number
 - Click Number again
 - Tick Use 1000 separator.
 - Change decimal place to 0.
 - Click Next
 - Click new work sheet
 - Rename it 'Report'.
- Blank out number in grand total column for 'Total under Treatment' (the number is meaningless for CMAM data).
- Once data is added to the input sheet, the report can be updated. Place the cursor inside the report, right click and select 'refresh data'.
- Data can be viewed by cycle for the whole service/programme or, if required, for individual sites or months.

For additional guidance and use of pivot tables see:

<http://office.microsoft.com/enus/assistance/HA010346321033.aspx>

STEP 3. CREATING THE GRAPHS

Create Chart of Admission and Discharge Trends

- To make the bar chart, first click on the chart icon.
- In Custom Type, select 'Line – Column'.
- In Series, click 'Add'.
- Click 'Name' bar and write in 'Total Admission'.
- Click 'Values' and highlight 'Total Admission' row in report (leave out grand total).
- Click 'category x labels' and highlight distribution cycles row.
- Click 'Add' again
- Click 'Name' bar and write in 'Total Discharged'.
- Click 'Values' and highlight 'Total Discharged' row in report (leave out grand total).
- Click 'Add' again.
- Click 'Name' bar and highlight 'Total under treatment' row in report.
- Click 'Next', click 'Chart Title' and add in overall title and titles for axes.
- Put in new sheet – rename Graphs.

CREATE PIE CHART SHOWING BREAKDOWN OF DISCHARGE CATEGORIES

- Click on the chart icon.
- Click on pie chart.
- In 'Series', click 'Add'.
- Click 'Values' and highlight the data in 'Grand Total' for discharge variables (i.e. Cured, Death, Defaulter, Non-recovered). Do not include Referral or Total Exits.
- Click 'Category labels' and highlight the exit titles (i.e. Cured, Death, Defaulter, Non-recovered).
- Click Next, click Chart Title and write in title.
- Click Data label and tick percent.

See Figures in **Handout 8.14 Guidance on CMAM Reporting** an example of how the graph and pie should look.

Note: When you start to input data into the database, columns corresponding to cycles where no data has yet been entered can be hidden. This makes it easier to view the report and graphs.