



USAID
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USAID/Food By Prescription

Monitoring and Evaluation Training Manual for FBP Program

January/2013

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
BMI	Body Mass Index
ES	Economic Strengthening
FHAPCO	Federal HIV and AIDS Prevention and Control Office
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IEC/BCC	Information Education Communication/Behavioral Change Communication
MAM	Moderately Malnourished
MoH	Ministry of Health
MUAC	Mid-Upper-Arm Circumference
NACS	Nutrition, Assessment, Counseling and Support
OVC	Orphans and Vulnerable Children
PEPFAR	Presidents Emergency Plan For AIDS Relief
PLHIV	People Living with HIV
PMP	Program Monitoring Plan
PMTCT	Prevention of Mother To Child Transmission
RHBs	Regional Health Bureaus
RUTF	Ready-to-Use Therapeutic Food
SAM	Severely Malnourished
SNNPR	Southern Nations Nationalities and Peoples Region
USAID/FBP	U.S. Agency for International Development/Food By Prescription

Monitoring and Evaluation Training Time Table

Time & Session	Activity	Topic	Time Allotted	Responsibility
8:00-8:15 am	Registration			
8:15-8:45 am	Session -1	Introduction & Expectation	0:10'	
		Objectives	0:10'	
		Ground Rule and Admin Issues	0:10'	
8:45-9:15 am		Pre test	0:30'	
9:15-9:30 am	Session-2	Overview of USAID/FBP Program	0:15'	
9:30-10:00 am	Session-3	Nutritional Assessment, Counselling & Support(NACS)	0:30'	
10:00-10:20 am	Tea Break			
10:20-6:30 am	Session-4	M&E Concept	0:30'	
		USAID/FBP Program Indicators	0:30'	
		Standardized Recording and Reporting system	1:00 hr	
6:30-7:30 pm	Lunch Break			
7:30-9:00 pm	Session-4	Standardized Recording and Reporting system Ctd'	1:30 hr	
9:00-9:20 pm	Tea Break			
9:20-10:20 pm	Session-5	Data Analysis & Interpretation	0:30'	
		Data Quality Assurance	0:15'	
		Data flow hierarchy and reporting	0:15'	
10:20-10:50 pm		Post Test	0:30'	

I. INTRODUCTION

Session I: Introduction

This training manual is intended to endow data manager and health care providers with skills to manage the Monitoring and Evaluation (M&E) system at the facility level. It presents guidance on how to generate good quality data on nutritional care services offered to People Living with HIV (PLHIV), OVC and TB patients. The manual consists of tools and methodologies that trainers can use to aid instruction. It may also be used as a reference, by trainees, in administering Nutrition Assessment, Counseling and Support (NACS) data from recording analysis and reporting.

Objectives of the Training:

By the end of the session, participants will be:

- Oriented with the U.S. Agency for International Development/Food By Prescription (USAID/FBP) program.
- Provided with M&E tools and methodologies to record, analyze and report facility level data on the nutritional care services offered to patients.

Target Audience:

This manual is intended to assist the training of information technicians, Health Management Information System (HMIS) experts and data clerks that are involved in data generation, storage and reporting at facility levels. The manual is also intended to be used as a reference during recording of data in the Registration Book, as well as collating data in the reporting format.

2. OVERVIEW OF THE USAID/FBP PROGRAM

Session 2: Overview

Learning Objectives:

By the end of the session, participants will be able to:

- Understand the goal, objectives, indicators and expected results of the program
- Know the program components and the role of each stakeholder
- Describe the target beneficiaries and coverage

Handout 1: Program Overview

It is a 3 - 5 year program funded by Presidents Emergency Plan for AIDS Relief (PEPFAR)/USAID; MoH and Regional Health Bureaus (RHBs) are the owners and implementers of the program and Save the Children, USA is the implementing agency that provides Technical Assistance.

a. Goal, Objectives, and Intermediate Results (IR)

Goal: Improved nutritional and functional outcomes among HIV+ clients and Orphans and Vulnerable Children (OVC)

Objective: Integrate NACS into health facilities' Human Immunodeficiency Virus (HIV) care and create linkage to Economic Strengthening (ES) initiatives

IR 1: Facilitated Access to Therapeutic Foods through Public and Private Distribution Channels

IR 2: Provision of Technical Leadership for the Implementation of USAID/FBP

IR 3: Monitoring, Analysis and Evaluation

b. Target Beneficiaries and Coverage

Total target beneficiaries (direct support) are estimated at 90,000 malnourished clients. Among this 75,000 are Adults attending Anti-Retroviral Therapy (ART) and pre-ART

services; pregnant and post-partum HIV positive women, malnourished OVC and 15,000 TB patients. It covers about 513 health facilities that are Urban and Peri-urban, public/private health centers and hospitals with ART services. The geographic coverage includes: Addis Ababa, Dire Dawa, Oromia, Tigray, Amhara, Harari and Southern Nations Nationalities and Peoples Region (SNNPR).

Individual beneficiaries are provided with: Nutritional assessment; nutritional counseling/education; provision of therapeutic and supplementary nutritional support for moderately and severely malnourished clients; provision of Water Guard for use in household water treatment and linkages to Economic Strengthening (ES) opportunities.

c. Focus of the Programmatic Areas

The following are the four areas of focus of the program:

- Systems Strengthening - Commodity procurement, distribution and programming, provision of equipment and Information Education Communication/Behavioral Change Communication (IEC/BCC) tools, establish standardized care in the facilities and training in health facilities;
- Coordination and Linkages - Increased coordination of HIV and nutrition interventions and policy issues with key stakeholders;
- Monitoring and Evaluation - Systems for support of USAID/FBP programming and impact study;
- Supporting Individuals to take responsibility for themselves - Counseling, behavioral change and social and economic opportunities.

3. NUTRITIONAL ASSESSMENT, COUNSELING & SUPPORT (NACS)

Session 3: NACS

Learning Objectives

By the end of the session, participants will:

- Be able to classify patients using cut-off points.
- Understand Nutritional support recommended for MAM and SAM clients

a. Nutritional Classification using nutritional indices

i. Classification of Acute Malnutrition using Weight for Height (W/H) or Weight for Length (W/L)

Classification	W/H Cut-off points
Severe acute malnutrition	W/H < - 3 Z-score
Moderate acute malnutrition	W/H < -2 Z-score
Mild malnutrition	W/H -1 to -2 Z-score
Not malnourished	W/H > -1 Z-score

ii. MUAC Cut-off points for Children aged 6 months - 5 years

MUAC	Classification
Children 6 - 11 months old: < 11 cm Children 12 - 59 months old: < 11 cm Children 5 – 9 years old: < 13.5 cm Children 10 - 14 years old: < 16 cm Adults: <18.0cm (Adults includes both non-pregnant, pregnant, and post-partum adults.)	Severe Acute Malnutrition
Children 6 - 11 months old: 11- 12 cm Children 12 - 59 months old: 11- 13cm Children 5 – 9 years old: 13.5-14.5 cm Children 10 - 14 years old: 16 -18 cm Adults: <18-21	Moderate Acute Malnutrition
Infant 6 - 11 months old: >12 cm Children 12 - 59 months old: >13cm Children 5 – 9 years old: >14.5 cm Children 10 - 14 years old: >18 cm Adults: >21	Normal

iii. Classifying Nutritional Status for Adults using BMI

Adult BMI level	Nutritional Status
< 16 kg/m ²	Severely malnourished
16 - 16.99 kg/m ²	Moderately malnourished
17 - 18.49 kg/m ²	Mildly malnourished
18.5 - 24.99 kg/m ²	Normal weight
25 - 29.99 kg/m ²	Overweight
> 30 kg/m ²	Obese
Source: WHO 1995	

iv. Classification of Nutritional Status for Children aged 5 - 17 years using BMI-for-Age

Children Aged 5 – 17 years, BMI-for-Age	Nutritional Status
< -3 Standard Deviation (SD)	Severely malnourished
-2 to -3 SD	Moderately malnourished
-1 to -2 SD	Mildly malnourished
> -1 SD	Normal weight
Source: WHO 2006	

b. Nutritional Support: Therapeutic and Supplementary Feedings

Recommended therapeutics and supplementary food for the management of acute malnutrition in PLHIV, TB and OVC.

Ready to Use therapeutic Feeding (RUTF): Plumpy nut only treating for SAM clients.

Ready to Use Supplementary Feeding (RUSF): Plumpy Sup only for treating MAM clients.

4. MONITORING AND EVALUATION

Session 4: Monitoring and Evaluation

Purpose

This session introduces participants to the importance of monitoring and evaluation in nutrition and HIV program implementation. It also introduces the data collection tools, namely, “the Registration Book and Monthly Reporting Format”, along with how to compile, analyze and report.

Learning Objectives

By the end of the session, participants will be able to:

- Describe the similarities and differences of monitoring and evaluation
- Know Nutrition and HIV USAID/FBP program indicators and their importance
- Describe the contents of the Registration Book and Reporting Format
- Record data in the Registration Book
- Consolidate and report data using the Monthly Reporting Format
- Know the interpretation and analysis of the indicators at facility level

a. M&E Concept

Handout 2: Monitoring and Evaluation Concepts

Monitoring and evaluation are critical components and tools that gauge the USAID/FBP program. M&E information is used to inform and improve program design, management and supervision. Collection of nutrition-related information from clients is an important component of nutritional care and support that helps increase awareness among PLHIV, counselors and other service providers about a client’s diet and nutritional status, thereby supporting care, treatment and counseling processes.

Monitoring is a continuing assessment that uses systematic collection of data on specified indicators and wider information on the implementation of projects to provide

management and the main stakeholders of an on-going intervention with indications of the extent of progress and achievement of objectives (OECD). Monitoring looks for “what is going well as per the plan” and “what is not progressing” in terms of progress towards intended results. It then documents in reports, makes recommendations and follows-up with decisions and action. Monitoring is the routine ongoing assessment of activities applied to assess resources invested (inputs) in the program; services delivered (outputs) by the program and outcomes that are related to the program.

Generally, a monitoring nutrition program should help to:

- Assess the quantity, quality and timeliness of program inputs;
- Verify that inputs are transformed, through activities, into outputs that generate results;
- Provide information to improve targeting;
- Identify operational constraints to program effectiveness thus helping managers to improve implementation;
- Determine if a process or service, is meeting national or some other accepted set standards;
- Determine whether a program is servicing the target groups.

Evaluation is the systematic and objective assessment of an on-going or completed project, programme or policy in its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision making process of both recipients and donors. It is non-routine assessment and is concerned with the extent to which desired changes have occurred in the light of program objectives and whether the project is responsible for such changes.

Evaluation is important since it can help to:

- Determine the worth or value of on-going programs;
- Increase the effectiveness of program management and administration;

- Identify impacts that are attributable to a program;
- Provide information that will permit cost-effectiveness comparisons;
- Redesign an on-going program or shape a new program;
- Satisfy the accountability requirements of donors and program sponsors.

The Power of Measuring Results

- If you do not measure results, you cannot tell success from failure
- If you cannot see success, you cannot reward it
- If you cannot reward success, you are probably rewarding failure
- If you cannot see success, you cannot learn from it
- If you cannot recognize failure, you cannot correct it
- If you can demonstrate results, you can win public support

(Source: Adapted from M&E Orientation Course Manual, South African Management Development Institute)

b. USAID/FBP Program Indicators

An indicator is a pre-determined signal that shows when a specific point in a process has been reached or a result achieved. The nature of the signal will depend on what is being tracked and needs to be very carefully chosen. In management terms, an indicator is a variable that is used to assess the achievement of results in relation to the stated goals/objectives. Generally, an indicator is an observable change or event, which provides evidence that something has happened – whether an output delivered, immediate effect occurred or long term change observed.

M&E cannot be commenced without the use of markers called indicators. For each USAID/FBP input, process, output, outcome and impact to be measured, a verifiable and measurable indicator is identified. This enables each stage of the program implementation to be monitored and identifies gaps that may require additional attention or resources. The following are the selected programmatic indicators for USAID/FBP:

Programmatic indicators for USAID/FBP

Number of clients:

- Number of clients assessed for malnutrition
- Number of clients who received nutritional counselling
- Number of clients clinically assessed and found to be severely malnourished
- Number of clients clinically assessed and found to be moderately malnourished
- Number of clients who received nutrition support and are on Pre-ART
- Number of clients who received nutrition support and are on ART
- Number of clients who received therapeutic and/or supplementary food
- Number of clients who were graduated
- Number of clients who were non responder
- Number of clients who were lost to follow up
- Number of clients defaulted from the service
- Number of clients who were died
- Number of clients who were linked to ES

The above indicators are developed for overall USAID/FBP and measure the progress made as a result of this particular intervention.

c. Standardized Recording and Reporting system

Handout 3: Standardized Recording and Reporting system

To generate the above listed indicators, it is important to have a uniform data collection and reporting system. Standard recording and reporting ensure that key information gets stored. This helps easy retrieval by care providers to get an overview of the patient's progress over time; exchange of information between different health care providers, as well as with USAID/FBP staff and to facilitate compilation and comparison of indicators at different levels; but most importantly measure the progress made by each patient and the program itself.

i. Registration Book

The Registration Book is the basic source of information for USAID/FBP programmatic implementation that is routinely gathered and monitored. It is a book that contains information about a certain number of patients at a time. Each row in the Registration Book contains complete information about the patient. In this book, standard information is noted under categories. It is important to document routine performance indicators, as indicated above, Patient management and In-depth analysis.

The Registration Book is designed to be used from the time of patient admission, during evaluation and treatment; right through successive visits to graduation (based on the discharge criteria). The Registration Book contains key individual information to be recorded uniformly for all registered patients. It contains details on key identification, socio-demographic, anthropometric, nutritional support/therapeutic information that are included as 'onetime' information in the first visit. Successive columns are filled out for each visit, every month until the patient outcome is determined from the program.

ii. Information Recorded in the Registration Book and Instructions

The following page of this particular document presents the main explanations for the variables under consideration for the program and information is provided for each column.

iii. Nutritional Assessment and Counseling Tally Sheet

The first section of the Registration Book contains the tally sheet for Nutritional Assessment and Counseling:

At the top of the tally table, write the name of the facility where the service is provided;

- Then mark the service delivery unit to indicate where the service is being delivered: ART, Prevention of Mother to Child Transmission (PMTCT), Pediatric ART, under five or TB.
- Write the Name of the month the assessment and/or counseling takes place;
- Identify the categories of the patient whether it is adult or OVC based on the age and sex and tally accordingly;
- At the end of each month write the total for each category and summarize the grand total at the end of the page.

i. Enrolment and Follow-up recording

Colu	Description
1	<ul style="list-style-type: none"> • USAID/FBP Unique Number: Write the unique number for each patient • Medical Record number: Write medical record number from the card
2	<ul style="list-style-type: none"> • Name :Write the name of the client in this column
3	<ul style="list-style-type: none"> • Sex: Write the sex of the client in the column • Age: Write the age of the client in years in the column
4	<p>ART Status</p> <ul style="list-style-type: none"> ✓ Write 1 for On ART: HIV Positive patient taking ART ✓ Write 2 for On Pre-ART: HIV Positive patients enrolled in the chronic care but not started on ART ✓ Write 3 for N/A: Patient who is not tested for HIV – unknown status, only for children
5	<ul style="list-style-type: none"> • For PMTCT patients: Write 1 for HIV positive pregnant woman, Write 2 for HIV positive lactating woman and Write 3 for HIV positive non-lactating but post partum.
6	<ul style="list-style-type: none"> • Date: Write the date (according to the Ethiopian calendar) of the first registration, admission and each successive visit.
7	<ul style="list-style-type: none"> • Anthropometrics Measurements: Measure the weight and record, Measure the height and record and Measure the MUAC and record on the space provided.
8	<ul style="list-style-type: none"> • Calculate the BMI and record on the space provided

	<ul style="list-style-type: none"> • Calculate weight/height and record on the space provided • Observe the existence of bilateral pitting Edema and record ‘ yes’ if there is edema and ‘no’ if there is no edema
9	<ul style="list-style-type: none"> • Nutritional status: based on the national protocol classify the client and record as Severely Malnourished (SAM) or Moderately Malnourished (MAM).
11	<p>Sign of Symptomatic Disease: Write: 0 for no sign/none, 1 for TB, 2 for others and 3 for both Poor Weight Gain: Based on the rate of weight loss of a client, as indicated in the national protocol; Write 1 for yes or 2 for no</p> <p>Appetite Test: After the <i>appetite test</i>, as indicated in the national protocol Write: 1 for pass or 2 for fail</p>
12	<ul style="list-style-type: none"> • Prescription: Record the type and the total amount of supplementary and therapeutic foods (Plumpy nut)/RUTF provided to clients in sachets.
13	<ul style="list-style-type: none"> • Remark: Write whether the client is linked to an organization/association for ES and other purposes, as linked to ES(back to work, WFP,IPs, community organizations, Microfinance associations and others)
	<ul style="list-style-type: none"> • Outcome: 1 for Graduated, 2 for Non-responder, 3 for defaulter, 4 for lost to follow, 5 for death, 6 for transfer out, 7 for absent

Table I: Partial View of the FBP Tally Sheet



Federal Democratic Republic of Ethiopia
Ministry of Health

Name of Health Facility _____

Service Delivery Unit

ART <input type="checkbox"/>	PMTCT <input type="checkbox"/>	Paediatrics ART <input type="checkbox"/>	Under Five <input type="checkbox"/>
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Age Group	Sex	Month (1)		Month (2)		Month (3)		Month (4)		Month (5)	
		Assessment	Counselling								
< 5 Yrs	Male										
	Male Total										
	Female										
	Female Total										
5-14 Yrs	Male										
	Male Total										
	Female										
	Female Total										
15-17 Yrs	Male										
	Male Total										
	Female										
	Female Total										
>=18 Yrs	Male										
	Male Total										
	Female										
	Female Total										
Grand Total											

ii. Periodic Reporting Format (Monthly/Quarterly Reporting)

The Monthly/Quarterly Service Delivery Reports provide an overview of service delivery during the respective reporting periods, to inform the USAID/FBP management and the implementers how the program is progressing; what gaps exist and what ameliorative measures should be taken. The service delivery coverage report will be compiled on a monthly basis, within 3 - 5 days after the end of the reporting month.

The USAID/FBP program reports use a cross-sectional approach to record the project's performance. This means that the indicators are compiled at one point in time (at the end of each month). The indicator describes the cumulative number of clients disaggregated by age, sex and type of service they obtained for the reporting period.

The Monthly/Quarterly reporting format is disaggregating on the basis of age and sex; adult female being further sub-categorized into PMTCT, pregnant/postpartum and others. The first column of the reporting format contains all the indicators that show the activities performed in each facility and in which the cumulative of the activities are summarized from the Registration Book and recorded here.

To fill out the reporting format, information for each indicator may be obtained from the Registration Book, as pointed out in Table 12 below. Please ensure that the instructions for recording are followed carefully.

NACS Reporting Format

Table 4: NACS Reporting Format

Table 3: Information to be recorded and Instructions for recording

No	Information to be recorded	Instructions for recording
1	Number of clients clinically assessed for malnutrition	The cumulative of the nutritional assessment is obtained from the tally sheet.
2	Number of clients who received nutritional counseling	The cumulative of the nutritional counseling is obtained from the tally sheet.
3	Number of clients clinically assessed and found to be severely malnourished	This information is obtained from the nutritional status column in the Registration Book and the cumulative for the reporting period will be recorded here for successive visits.
4	Number of clients clinically assessed and found to be moderately malnourished	This information is obtained from the nutritional status column in the Registration Book and the cumulative for the reporting period will be recorded here for successive visits.
5	Number of clients who received therapeutic and/or supplementary food	The total number of clients who received therapeutic food for the reporting period is obtained from the Registration book by counting the total that got the support.
6	Number of clients graduated during the reporting period	This refers to the number of clients graduated during the reporting period and the cumulative of which is obtained from the outcome column (Code 1).
7	Number of clients relapsed during the reporting period	This refers to the number of clients relapsed during the reporting period and the cumulative of which is obtained from the remark column.
8	Number of clients who were lost to follow-up	This refers to the number of clients lost to follow during the reporting period and the cumulative of which is obtained from the outcome column (Code 4).
9	Number of clients who died during the reporting period	This refers to the number of clients died during the reporting period and the cumulative of which is obtained from the outcome column (Code 5).
10	Number of clients defaulted from the service	This refers to the number of clients defaulted during the reporting period and the cumulative of which is obtained from the outcome column (Code 3).
11	Number of non-responder clients	This is obtained from the outcome column of the Registration Book by counting those who are non- responders.
12	Number of clients transferred out	This is obtained from the outcome column of the Registration Book by counting those who transferred to another health facility.
13	Number of clients who got community linkage during the reporting period	This is obtained from the remark column in the Registration Book by counting those who got linkage service.

Region: _____

Zone: _____

Woreda: _____

Name of the health facility: _____

Reported by: _____

Reporting period: (____ / ____ / ____) to (____ / ____ / ____)

Reporting Quarter: _____

S/No	Indicators/Activities	Children							Adult			Total		
		< 5 Yrs		5-14 Yrs		15-17 Yrs			>=18 Yrs			Sex		Grand Total
		Sex		Sex		Sex			Sex					
		M	F	M	F	M	Female		M	Female				
PMTCT	Other						PMTCT	Other						
1	Number of clients assessed for malnutrition													
2	Number of clients who received nutritional counseling													
3	Number of clients clinically assessed and found to be severely malnourished (SAM)													
4	Number of clients clinically assessed and found to be moderately malnourished (MAM)													
5	Number of clients who received nutrition support and are on Pre-ART													
6	Number of clients who received nutrition support and are on ART													
7	Number of clients who received therapeutic and/or supplementary food													
8	Number of clients who were graduated													
9	Number of clients who were non responder													
10	Number of clients who were lost to follow up													
11	Number of clients defaulted from the service													
12	Number of clients who were died													
13	Number of clients who were linked to ES													

5. DATA ANALYSIS & INTERPRETATION

The data that are being collected at the facility level is used at all levels for different purposes and indicators. At the facility level, some of the data could be used to confirm whether the activities are on the right track or not; whether there is a requirement for additional corrective measures or not. Some examples are cited in the following table (Table 17).

Table 5: Sample Interpretation of Data

Indicator	Possible interpretation
Number of clients who received nutritional counseling	<p>Identifies if the facilities are achieving sufficient coverage of nutritional counseling for the adult clients, as a critical component of service coverage.</p> <p>Since all adult clients should be given nutritional counseling services, the target should aim at 100 per cent achievement of the indicator. Low values or significant decreases in this indicator may call for service providers and managers to identify and address service delivery gaps, such as negligence of service providers, lack of capacity etc. Appropriate follow-up should be designed and implemented.</p>
Number of clients who died during the reporting period	<p>Checks if the facilities are performing well in improving the lives of patients or not, which is one of the critical components of the program.</p> <p>Since clients should be given proper therapeutic services, the target should aim at reducing the baseline death rate. High values or significant increases in this indicator may call for service providers and managers to identify and address service delivery gaps, such as negligence of service providers, lack of service providers etc. Appropriate follow-up should be designed and implemented.</p>
Number of clients defaulted from the service	<p>Spots if the facilities are performing well in retaining the clients by whether they appear at all the visits and adhere to the prescriptions there are provided.</p> <p>Since clients are expected to attend all the visits and obtain the necessary services, the target should aim at reducing the baseline default rate. High values or significant increases in this indicator may call for service providers and managers to identify and address the causes of defaults, such as service delivery gaps, patient specific difficulties. Appropriate follow-up should be designed and implemented.</p>
Number of clients who were lost to follow up	<p>Spots if the facilities are performing well in retaining the clients by whether they appear at all the visits and adhere to the prescriptions there are provided.</p> <p>Since clients are expected to attend all the visits and obtain the necessary services, the target should aim at reducing the baseline lost to follow rate. High values or significant increases in this indicator may call for service providers and managers to identify and address the causes of lost to follow, such as service delivery gaps, patient specific difficulties. Appropriate follow-up should be designed and implemented.</p>

6. DATA QUALITY ASSURANCE

Handout 3: Data Quality Assurance

Data Quality simply means how well the data in a dataset reflect the actual program achievements; for example, the number of clients assessed for nutritional counseling, the amount of plumpy nut prescribed and distributed, the number of people graduated from the USAID/FBP program, etc. Quality is a subjective term and it must be defined by a set of criteria. The criteria for data quality are assessed through the dimensions of data quality that let us know how accurate, complete, concise and comprehensive the data are.

Experience has shown that the recording of information in the Registration Book has some challenges. Some of the challenges include:

- Non usage of the standard Registration Book for recording
- Recording of incomplete information with regard to height, weight, age, amount of RUTF etc
- Provision of USAID/FBP services not recorded in the Registration Book; this happens mostly during successive visits/follow-up
- Copying of the same information for all successive visits without showing the change brought about by the program
- No recording of attributes in the impact column, like death, lost to follow, graduation etc

Hence, to record and produce the right information, we need to take into account the dimensions of data quality that provide a brief overview of the validity, reliability, integrity, precision, timeliness and completeness of our data. These dimensions help us identify our weaknesses so that we can produce better quality data.

At each level of the six management processes (data source, data collection, data collation, analysis, reporting and use), there are multiple opportunities to improve data quality, as well as multiple threats to data quality. Identifying and addressing the opportunities and threats at each of these six key processes will strengthen the routine part of the USAID/FBP's M&E system.

Table 6: The Six Data Management Processes

Key Process	Description
Data Source	Our principal data source is the Registration Book. Many of the data quality issues would, therefore, be resolved through careful recording of the data.
Collection	The process of gathering data and recording is at the facility level. It also involves obtaining data from the patient card and transferring it into the Registration Book or database. During the collection process there could be mistakes and/or errors in properly gathering the data; therefore, we need to collect the data cautiously.
Collation	The aggregation of data into summarized form using the periodic format. Here also aggregation problems have been observed and we need to be vigilant.
Analysis	Analysis takes place at both facility and USAID/FBP office levels. For the purpose of understanding what the data are telling us by summarizing them into a series of descriptive statistics, determining if values are real or not, and compiling the findings in some form of presentable manuscript. Sometimes the data may a bit exaggerated or under-reported; hence attention should be given to this.
Reporting	Reporting is describing and translating the raw data into information that can be put to use. This process is carried out at different levels, though the degree of analysis may vary. At some levels (facility, even regional) only aggregated data may be sent as reports.
Use	To apply information in making timely and appropriate decisions.

As it is shown in the table above, there are no distinct boundaries between the processes; one process flows into another sequentially. Hence, we must apply the dimensions (validity, reliability, integrity, precision, timeliness and completeness of our data) illustrated below in Table 7.

Table 7: Dimensions of Data Quality and How to Apply Them

Data Quality Dimension	How We Check (some examples)
<p>Validity: Data clearly, directly and adequately represent the result that was intended to be measured. Have we actually measured what we intended?</p>	<p>Preparing well-designed Indicator Protocol Reference Sheets to clearly and specifically define what is being measured. Working on the design of the Registration Book. Train on, and supervise during, each of the six key processes</p>
<p>Reliability: Can we get the same results or findings if the procedures were repeated over and over?</p>	<p>Making sure that everyone is aware of the procedures and that they are followed. Minimize (or eliminate) the use of different tools for collecting the same data. Track errors to their original source and correct mistakes. Always double check that final numbers are accurate.</p>
<p>Integrity: Measure of ‘truthfulness’ of the data.</p>	<p>Having a second set of eyes to verify data reported at each stage of the process. Copy all data handlers in final reports. Treat data as official organizational information. Store data with security.</p>
<p>Precision: Measure of any bias or error.</p>	<p>Ensuring the data collectors have the capacity to maintain adequate precision. Report any issues around precision by identifying, recording and addressing errors.</p>
<p>Timeliness: The relationship between the time of collection, collation and reporting to the relevance of the data for decision making processes.</p>	<p>Make a realistic schedule that meets program management needs and enforce it. Include dates for data collection, collation, analysis and reporting on each level of the data management process.</p>
<p>Completeness: All of the data elements have been completed on each form.</p>	<p>Review each submitted data collection form to ensure that every data element has been completed. Engage in active follow-up with non-reporting units to ensure that all data are submitted on time.</p>

EXERCISE:

Case Study – The following Information is obtained from actual Registration Book from one of the implementing Health Centers. The information is summarized in the following table and shows how data are recorded by Health Care providers.



Case Study

In the Excel File attached above, you are provided with information obtained from assessing patients on their successive visits. Based on the information provided:

- 1. Record the data in the appropriate columns in the Registration Book; and using the same information, fill the rest of the derivative columns, where necessary.**
- 2. Prepare a report/fill in the reporting format based on the information available in the Registration Book.**

2.6. Data flow hierarchy, Progress and Schedule of Reporting

Handout 4 - Data flow hierarchy, Progress and Schedule of Reporting

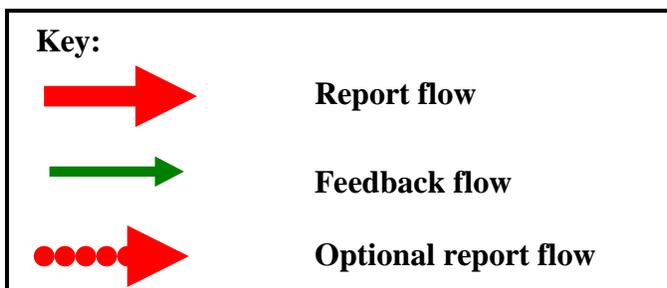
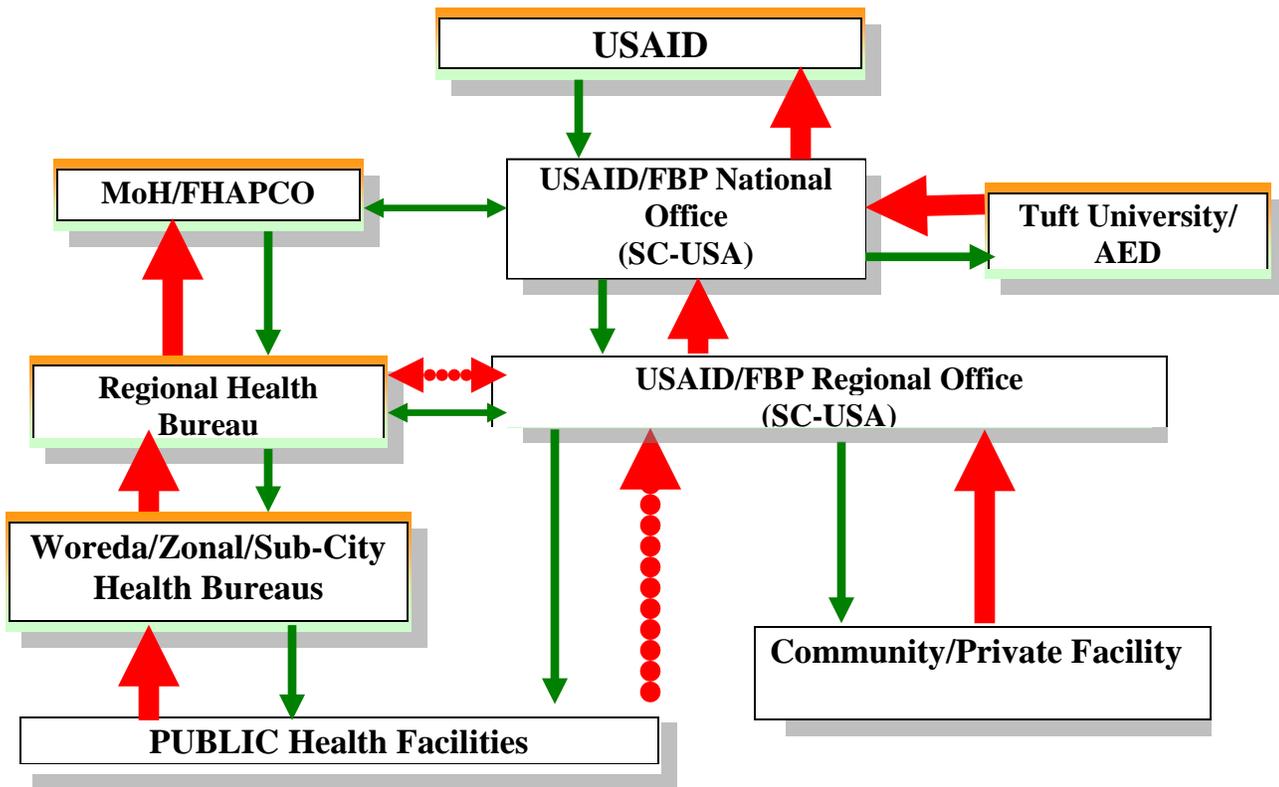
4.6.1 Data flow hierarchy

The monitoring data flow shows how the data recorded and collated can effectively flow from the service delivery level to the higher levels responsible for supervision of programs (Zonal, Regional, National Government agencies, USAID/FBP office and partners).

The service delivery points/facilities (hospitals and health centers) are responsible for generating the primary data through patients' cards and/or Registration Books where the clinical histories and service statistics of individual clients are recorded. This individual client data is then compiled and preferably presented to the heads of the respective departments or facilities for their own use in programmatic decision-making, as well as to review before sending the data on to higher levels. The information flow between different hierarchies is depicted in the diagram below (Table 20).

The data generated from different facilities are then sent to the next zonal/regional health bureau. At this level, the regional offices of USAID/FBP and Federal HIV and AIDS Prevention and Control Office (FHAPCO) should obtain the data. The data obtained from the lower hierarchy are compiled and partially analyzed before they are sent to the national level at Ministry of Health (MoH)/USAID/FBP. At USAID/FBP main office, the data will be further analyzed and reports are produced to be then sent to MoH, USAID/PEPFAR and other partners.

Table 8: Diagram. REPORT FLOW STRUCTURE



4.6.2 Progress Reporting

In USAID/FBP program, reporting is the major tool that is used for systematical and timely provision of useful information at periodic intervals. It provides regular feedback that helps the USAID/FBP and USAID management inform themselves and others on the progress, problems, successes and lessons of program implementation. Quarterly and Annual programmatic and financial reports are key conditions for the USAID/FBP implementing the USAID program.

Reporting is monitored for:

- **Timeliness** – whether reports are submitted at the specified and agreed times. This can be monitored simply by recording on a flow chart when reports are received.
- **Completeness** – whether all of the information required by the report format is provided.
- **Consistency** – whether the units used in consecutive reports facilitate comparisons in performance over time. This can be monitored by checking the report against the agreed milestones and indicators specified in the monitoring plan.
- **Content** – the extent to which the report provides an analysis of what has taken place, or simply presents ‘bare’ figures.
- **Reliability/accuracy** – the extent to which the report is a fair representation of the facts.

4.6.3. Schedule of Reporting

The reporting time table, which is indicated in the Program Monitoring Plan (PMP), takes account of both a reasonable time-frame for an expected change and the level of indicator (input, output, impact). It also focuses on the routinely generated data which are monitored regularly (monthly, quarterly, biannually and annually). The following reporting calendar is presented and is to be abided by all involved in the reporting process.

Table 9: Reporting Timetable (Use European Calendar)

From	To	Reporting deadline
Facilities	Woreda/zone/region	5 th day of end of the reporting month
Woreda/zone/region	USAID/FBP/Save the Children Fund (SC) headquarter	7 th day of end of the quarter
USAID/FBP/SC headquarter	USAID/MoH	15 th day of end of the quarter

ANNEX I : NUTRITION CARE PLAN ENTRY & EXIT CRITERIA

Table 5: Nutrition care plan entry and exit criteria

Entry criteria	Food regime	Exit/transition criteria
OVC 6–23 months old		
All (regardless of nutritional status)	<p>If severe acute malnutrition, treat as below.</p> <p>If moderate acute malnutrition (MAM), provide 100 g per day of FBF and one 92g sachet of RUTF per day.</p> <p>HIV-infected and HIV-exposed children of unknown status with moderate acute malnutrition should also be given approximately 92 g per day (500 kcal per day) of RUTF in addition to FBF.</p>	Exit at the age of 24 months. If malnourished at 24 months, follow criteria below for severe acute malnutrition and moderate malnutrition.
OVC 2 years –17 years old		
<p><u>Severe acute malnutrition</u></p> <p>Bilateral pitting edema of any grade</p> <p>OR</p> <p>WFH z-score (WHZ) < -3 or < 70% WHO median reference value (WHM)</p> <p>OR</p> <p>MUAC Infants 6– < 11 months: <11 cm Children 12–59 months: < 11cm Children 5–9 years: < 13.5cm Children 10–14 years: < 16 cm</p>	<p><u>Inpatient vs. Outpatient</u></p> <p>Admit or refer for inpatient treatment if</p> <p>a) severe bilateral pitting edema (+ +)</p> <p>OR</p> <p>b) any grade of edema and MUAC below cut off points for SAM or WFH<70% median or WFH z-score < -3</p> <p>OR</p> <p>c) meet any of the SAM entry criteria and have any of these complications: anorexia, intractable vomiting, convulsions, lethargy, unconsciousness, lower respiratory tract infection, high fever > 39° C, severe dehydration, severe anaemia, hypoglycemia, hypothermia < 35° C, shock, malaria, lack of appetite, pneumonia, active TB, or chest in-drawing according to FMOH, WHO and Integrated Management of</p>	<p>If gaining weight (3–5 g/kg/day), review every 2 weeks.</p> <p>If not gaining weight for 3 consecutive weigh-ins, losing weight for 2 consecutive weigh-ins, or experiencing worsening edema, consider admission for inpatient care per Phase 1.</p> <p>Transition to moderate malnutrition regimen below if WHZ > -3 or WHM > 70% (or MUAC > 11 cm) and the patient has no edema for more than 2 consecutive weeks.</p>

¹ Children and adolescents may face barriers to HIV testing and should not be ineligible for FBP for this reason. Taking children into health facilities may overcome some of these barriers to testing.

ANNEX II: NUTRITION CARE PLAN

Entry criteria	Food regime	Exit/transition criteria
<i>Malnourished ART and pre-ART (non-pregnant/post-partum) adults and adolescents, either inpatient and outpatient</i>		
<u>Severe acute malnutrition</u> BMI < 16.0 kg/m² If client cannot stand straight for height, MUAC < 16 cm Bilateral edema and BMI < 18.5	About 3,100 kcal per day from a combination of RUTF and supplementary food (e.g., 1,500 kcal from RUTF (3 sachets) + 1,600 kcal from 400 gm supplementary food such as FBF) (3 sachets of RUTF + 400gms of FBF)	BMI > 16.0 kg/m ² (transition to supplementary protocol below) AND No edema for 2 consecutive visits at least 10 days apart
<u>Moderate malnutrition</u> BMI > 16.0 but ≤ 18.5	About 1 sachet of RUTF (500 kcal) and 200 g of FBF (400 kcal per 100g) = 1,300 kcal of FBF	BMI > 18.5 for 2 consecutive visits
<i>HIV-positive pregnant or post-partum women (with infants < 6 months)</i>		
MUAC > 18.5 cm but < 21 cm OR Pregnant women losing weight in past 2 weigh-ins	About 1 sachet of RUTF (500 kcal) and 300 g of FBF = approximately 1,200 kcal FBF	MUAC > 21 cm

ANNEX III: ALGORITHM FOR CHILDREN

Annex 9a. Algorithm and Nutrition Care Plans for the Management of Malnutrition in PLHIV- Children

ASSESS		CRITERIA	CLASSIFY	TREATMENT/ CARE PLAN		
HISTORY	LOOK AND FEEL					
<p>Refer to records (or if needed ask to determine the following):</p> <p>1. Has the child lost weight in the past month or since the past visit</p> <p>2. Does the child have:</p> <ul style="list-style-type: none"> Cough for more than 21 days? This may be due to HIV-related chronic disease (e.g., lymphocytic interstitial pneumonia (LIP)) or to PCP, TB, pneumonia, others Active TB on treatment Diarrhea for 14 days or more Other chronic OI or malignancy Poor appetite 	<p>1. Those under 6 months of age look for signs of severe visible wasting: e.g.</p> <ul style="list-style-type: none"> loss of muscle bulk sagging skin/buttocks <p>2. Check the presence of oedema on both feet</p> <p>3. Measure the weight (kg) and height (cm)</p> <ul style="list-style-type: none"> Compute weight-for-height, for children < 5 yrs. Compute BMI for age for children 5 -14 yrs. <p>4. Measure the mid-upper-arm circumference (MUAC)</p> <p>5. If w/Ht and MUAC are not possible, then measure weight-for-age</p> <ul style="list-style-type: none"> If weight-for-age is used, check the shape of the growth curve. Or Estimate percentage change in weight since last visit. <p>6. Examine/observe for danger signs of:</p> <ul style="list-style-type: none"> Intractable vomiting High fever >38°C/malaria Hypothermia <35°C Severe anaemia (paleness, palm pallor) Convulsion/fitting Persistent diarrhoea Bilateral oedema +++ Severe dehydration Extensive skin lesion Very weak/lethargy Pneumonia or active TB? Any chest in-drawing 	<p>Bilateral pitting edema (in both legs)</p> <p>OR</p> <p>WHZ below -3 or WHM < 70% of the WHO reference value</p> <p>OR</p> <p>MUAC</p> <p>Infants 6mo-11mo <110mm Children 12 mo-59 mo <110mm Children 6yr-9yr <135mm Children 10yr-14yr <160mm</p> <p>OR</p> <p>Visible signs of severe malnutrition for under six months of age</p> <p>OR</p> <p>BMI for age: 5-17 years <-3 Z-score</p>	<p>Severe or moderate Malnutrition with medical complications</p> <ul style="list-style-type: none"> If any of the danger signs OR Infant < 6 months OR Severe bilateral edema OR Poor appetite <p>Severe Malnutrition <u>without</u> medical complications</p> <ul style="list-style-type: none"> WH or MUAC < cutoff for severe malnutrition AND None of the danger signs AND No severe bilateral edema AND > 6 months of age 	<p>Admit or refer for inpatient care.</p> <p>NUTRITION CARE PLAN A (RED)</p>		
		<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Ask all questions and complete all assessments with each child</p> </div>		<p>WHZ below -2 or WHM 70-80% of the WHO reference value</p> <p>OR</p> <p>MUAC</p> <p>Infants 6mo-11mo <120mm Children 12 mo -59 mo <130mm Children 6yr-9yr <145mm Children 10yr-14yr <160mm</p> <p>OR</p> <p>BMI for age: 5-17 years z-score from -2 to -3</p>	<p>MODERATE MALNUTRITION</p>	<p>NUTRITION CARE PLAN B (YELLOW)</p>
				<p>Regardless of WFH, MUAC or BMI for age:</p> <p>Growth Curve Faltering</p> <p>Confirmed significant weight loss of > 5% since the last visit</p>	<p>POOR WEIGHT GAIN</p>	
				<p>Regardless of WH, MUAC or BMI for age:</p> <ul style="list-style-type: none"> Chronic Lung disease TB Persistent diarrhea Other Chronic OI or Malignancy 	<p>Signs of SYMPTOMATIC DISEASE</p>	
				<p>Child is gaining weight or maintaining a proper WFH</p> <p>WHZ > -2 or WHM > 80% of the WHO median reference value</p> <p>OR</p> <p>BMI for age: 5-17 years >-2 z-score</p> <p>In the absence of signs of symptomatic disease and significant weight loss</p>	<p>GROWING WELL</p>	

ANNEX IV: ALGORITHM FOR ADULTS

Annex 9b. Algorithm and Nutrition Care Plans for the Management of Malnutrition in PLHIV - Adult

ASSESS		CRITERIA	CLASSIFICATION	TREATMENT PLAN
HISTORY	LOOK AND FEEL			
<p>Refer to records (or if needed ask to determine the following)</p> <p>1.Has the client lost weight in the past month or since the past visit?</p> <p>2.Has the client had:</p> <ul style="list-style-type: none"> • Active TB or is on treatment for it? • Diarrhoea for more than 14 days? • Other chronic OIs or malignancies? (e.g., esophageal infections) • Mouth soars or oral thrush? <p>3.Has the client had noticeable changes in his/her body composition, specifically his/her fat distribution?</p> <ul style="list-style-type: none"> • Thinning of limbs and face> • Change in fat distribution on the limbs, breasts, stomach region, back or shoulders? <p>4.Has the client experienced the following?</p> <ul style="list-style-type: none"> • Nausea and/or vomiting? • Persistent fatigue? • Poor appetite? 	<p>1.Check for edema on both feet and sacrum. In adults, rule out other causes of symmetrical edema (e.g., pre-eclampsia, severe proteinuria [nephrotic syndrome], nephritis, acute filariasis, heart failure, wet ber-ber).</p> <p>2.Measure weight (kg) and height (cm).</p> <p>3.Compute BMI (adults)</p> <p>4.Measure MUAC (pregnant and post-partum women and/or adults who cannot stand straight).</p> <p>5.Examine for conditions that cause secondary malnutrition (see above and in "History")</p> <p>6.Examine/observe for complications and danger signs:</p> <ul style="list-style-type: none"> • Severe anemia (paleness, pallor of the palms) • Severe dehydration • Active TB • Bilateral severe edema 	<p>Bilateral pitting edema</p> <p><u>Adults (non-pregnant/post-partum)</u> BMI < 18 kg m² (If BMI cannot be measured, use MUAC cut-off below.)</p> <p><u>Pregnant/postpartum women</u> MUAC < 180 mm</p>	<p>SEVERE/MODERATE malnutrition <u>with</u> complications</p> <p>if client has any of the danger signs or severe edema (e.g., severe dehydration, poor appetite, bilateral edema)</p> <p>Acute malnutrition <u>without</u> complications</p> <p>if client has BMI or MUAC less than the severe malnutrition cutoff and does not have any of the danger signs</p>	<p>Admit or refer for inpatient care.</p> <p>NUTRITION CARE PLAN A (RED)</p>
		<p><u>Adults (non-pregnant/post-partum)</u> BMI 16 - 18.99 Moderate BMI 17 - 18.49 (If BMI cannot be measured, use MUAC cut-off below.)</p> <p><u>Pregnant/postpartum women</u> MUAC 180 - 210 mm</p>	<p>MODERATE MALNUTRITION</p>	<p>NUTRITION CARE PLAN B (YELLOW)</p>
		<p>Regardless of BMI or MUAC:</p> <ul style="list-style-type: none"> • Confirmed unintentional weight loss of > 5% since the last visit • Reported weight loss: e.g. loose clothing which used to fit 	<p>SIGNIFICANT WEIGHT LOSS</p>	
		<p>Regardless of BMI or MUAC:</p> <ul style="list-style-type: none"> • Chronic lung disease • TB • Persistent diarrhoea • Other chronic OI or malignancy 	<p>Signs of SYMPTOMATIC DISEASE</p>	<p>NUTRITION CARE PLAN C (GREEN)</p>
<p><u>Adults (non pregnant/post-partum)</u> BMI ≥ 18.5 (If BMI not possible, use MUAC)</p> <p><u>Pregnant/post-partum women</u> MUAC > 210 mm</p> <p>In the absence of signs of symptomatic disease and significant weight loss</p>	<p>NORMAL</p>			

The Registration Book (CD attached)



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