Ministry of Health and Population

Infant and Young Child Nutrition Policy and Guidelines

2003 - 20

[Malawi Government Logo]

USAID Logo

AED-LINKGAES Project

TABLE OF CONTENTS

FOREWORD

In Malawi, malnutrition rates among infants and young children, pregnant and lactating women have consistently remained high over the past decades. One of the major reasons is that the Government did not have an explicit policy that would guide provision of infant and young child nutrition services. The Government fully recognizes the immediate and long-term social and economic repercussions of malnutrition among infants and young children. It is in light of this that the Government embarked on a comprehensive consultation process involving various stakeholders to put in place this Policy to guide infant and young child nutrition services and formulation of appropriate nutrition strategies. Further, Government is fully aware that the advent of the HIV/AIDS pandemic in which MTCT is a major concern, has created numerous health, social and economic demands in the provision of nutrition services at all levels. Exclusive effort has, therefore, been made to provide comprehensive guidelines for feeding infants and young children in the context of HIV/AIDS.

This Policy has designated special attention to a comprehensive implementation plan, which among other things, requires mobilization of various forms and levels of resources. The Malawi Government is committed to allocate and actively seek human and

material resources for effective implementation of the Policy. The Ministry, therefore, invites support of the general public, Government departments, non governmental organizations, donor community, private sector and stakeholders to be active players in implementing this Policy as an integral part of the Malawi Government poverty reduction strategy

HONOURABLE YUSUF H. MWAWA, MP
MINISTER OF HEALTH AND POPULATION

ACKNOWLEDGEMENT

The Ministry of Health and Population (MoHP) would like to acknowledge and appreciate contributions made by individuals and institutions in various forms. The exercise benefited technical and financial assistance from LINKAGES Project Malawi: Academy for Education and Development (AED), and World Vision Malawi – MICAH Project. MoHP is thankful to UNICEF and WHO for technical assistance during the consultative process.

Further, MoHP is grateful to the following members of a core-technical group, who dedicated their time and expertise in developing the framework of this document: Jane Banda (MoHP), Theresa Banda (MoHP – MICAH Project), Frank Bell (College of Medicine), Robin Broadhead (College of Medicine), Elita Chatipwa (Nurses and Midwives Council of Malawi), Mwate Chintu (LINKAGES Project), Timothy Kachule (CHAPS), Alexander Kalimbira (Bunda College of Agriculture), Rosemary Kambewa (National Aids Commission), Veronica Kamvazina (Ministry of Agriculture), Lennie Kamwendo (Kamuzu College of Nursing), Richard Luhanga (Zomba Central Hospital), Catherine Mkangama (MoHP), Mirriam Mkandawire (Rumphi District Hospital), Sabina Mlusu (Blantyre District Health Office), Tomaida Msiska (National Economic Council), Charles Mwasambo (Lilongwe Central

Hospital), Rose Namarika (MICAH), Charlotte Walford (EU Nutrition Project) and Lilian Selenje (UNICEF).

The Policy and Guidelines were finalized through a number of consultations and rigorous exercise of editing and finalization by the following core-group members: Theresa Banda (MoHP-MICAH Project), Mwate Chintu (LINKAGES Project), Lucy Horea (MoHP), Alexander Kalimbira (Bunda College of Agriculture), Mary Kambewa (Lilongwe District Health Office), Catherine Mkangama (MoHP), Rex Mpazanje (MoHP), and Edwin Nkhono (MoHP). The Ministry is thankful to these individuals and the organizations that they represented.

ACRONYMS

AED	Academy for Education and Development
AIDS	Acquired Immune Deficiency Syndrome
BCC	Behavioural Change and Communication
BFHI	Baby Friendly Hospital Initiative
BMI	Body Mass Index
BMS	Breast Milk Substitutes
CHAPS	
EHP	Essential Health Package
EU	European Union
GMP	Growth Monitoring and Promotion
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IDD	Iodine Deficiency Disorder
IDRC	International Development Research Centre
IEC	Information Education and Communication
ILO	International Labour Organization
IMCI	Integrated Management of Childhood Illnesses
IU	International Units
MBS	Malawi Bureau of Standards
MCH	Maternal and Child Health
MDHS	Malawi Demographic and Health Survey
MICAH	Micronutrient and Health
MoHP	Ministry of Health and Population
MTCT	Mother-to-Child-Transmission
MUAC	Mid Upper Arm Circumference
NAC	National AIDS Commission
NRU	Nutrition Rehabilitation Unit

NSO	National Statistical Office
PMTCT	Prevention of Mother-to-Child Transmission
PRSP	Poverty Reduction Strategy Paper
SWAP	Sector Wide Approach
UNICEF	United Nations Children's Fund
VCT	Voluntary Counselling and Testing
WHA	World Health Assembly
WHO	World Health Organization

INTRODUCTION

Ministry of Health and Population and her collaborating partners have been implementing various interventions aimed at improving infant and young child nutrition. However, for a long time nutrition indicators have remained poor. According to the Malawi Demographic and Health Survey (MDHS) 2000, 49%, 25% and 6% of Malawian under five children are stunted, underweight and wasted, respectively (NSO, 2001). Malnutrition, which is a result of low dietary intake and frequent infections, and exacerbated by the HIV pandemic, has been singled out as one of the major contributing factors to the high infant, young child and maternal mortality rates in the country. The MDHS 2000 estimates the rates at 104 and 189 per 1,000 live births for infants and under five children respectively, and 1,120 per 100,000 for maternal mothers. Although the country has experienced modest reductions in infant and under five mortality in recent years, the rates are comparatively high among developing countries, and the situation continues to significantly undermine Government efforts for poverty reduction.

One of the contributing factors to the current poor nutritional status of infants and young children is that nutrition interventions have, for a long time, been implemented using a vertical approach

without a properly guided and coordinated mechanism. Therefore, this Policy has been developed in order to facilitate standardized implementation and service provision of various nutrition and related interventions in relation to components of the infant and young child nutrition in the country such as:

- Infant and young child feeding practices
- Prevention and control of micronutrient deficiencies
- Management of moderately and severely malnourished children and mothers
- Nutrition surveillance

These interventions are implemented in a participatory and multisectoral manner through specific functions of the Nutrition Section, namely advocacy, policy development, social mobilization, coordination, promotion and capacity building.

This document has two sections which must be used together. The **Infant and Young Child Nutrition Policy** comprises program goal and objectives, policy purpose and objectives as well as corresponding policy statements, and a program implementation plan. The second part is the **Infant and Young Child Nutrition Guidelines** which spells out guidelines specific to the policy statements.

World Health Assembly resolution. The Policy will be used in line with other existing relevant policy instruments such as the National Health Plan 1999-2004, the Malawi Government Vision 2020, the PRSP, and PMTCT Guidelines. It will also be used in line with relevant international resolutions and declarations such as:

- Convention on the Rights of the Child.
- International Code of Marketing of Breast milk Substitutes, and Subsequent
- Innocenti Declaration 1990.

Section A: Policy

PROGRAM GOAL AND OBJECTIVES

The Infant and Young Child Nutrition Policy has been developed as an integral part of EHP, safety nets and nutrition sub-components of the PRSP. This Policy guides program coordinators/managers, policy makers, health workers and other stakeholders dealing with infants, young children and mothers on how to implement nutrition program activities.

Program Goal

To contribute to improved infant and young child nutrition for survival, growth and development.

Program Objectives

1. To increase the rate of exclusive breastfeeding among infants for the first 6 months of life.
2. To reduce mother to child transmission of HIV caused by breastfeeding.
3. To provide caregivers with knowledge and enhance skills on timely, appropriate and adequate complementary feeding.
4. To ensure that nutritional needs of infants and young children and their mothers in emergency affected populations are addressed.

5. To strengthen nutrition surveillance at all levels.
6. To enhance good nutritional status for all women of the reproductive age.
7. To improve management of moderately and severely malnourished infants, young children and mothers.
8. To increase access to micronutrients by infants, young children and mothers

PURPOSE AND OBJECTIVES OF PROGRAM AND SERVICE POLICY

Policy Purpose

To direct and facilitate standardized implementation of nutrition services.

Policy Objectives

1. To guide decision-making among service policy makers and service providers at all levels.
2. To be used as a tool for advocacy.
3. To increase access to nutrition services at all levels.
4. To coordinate infant and young child nutrition services at all levels.
5. To standardize nutrition service delivery.

POLICY STATEMENTS

INFANT AND YOUNG CHILD FEEDING

A. Infant and young child feeding in the first 2 years of life

In Malawi, breastfeeding is practiced by almost all mothers (97%), though exclusively breastfeeding for the first 6 months is not optimally practiced. The MDHS 2000 showed that 45% of babies were exclusively breastfed for the first 6 months of life. Breastfeeding is the natural and best mode of feeding infants and young children since it does not only save lives, but also greatly improves the quality of life through its nutritional, immunological, biological and psychological benefits. Although most mothers breastfeed for almost 2 years, infants are not given timely, appropriate and adequate nutrient-rich and energy foods to complement breast milk from 6 months to 24 months or beyond.

In order to address the current situation, the following policy statements shall guide infant feeding practices in the first 6 months (exclusive breastfeeding), and complementary feeding 6-24 months or beyond.

- Exclusively breastfeeding practices shall be recommended for all infants during the first 6 months of their life unless otherwise medically indicated.

- Breastfeeding should further be encouraged from 6-24 months or beyond along with appropriate complementary feeding
- All service providers shall continue to promote, support and protect breastfeeding from 6-24 months or beyond with timely, appropriate and adequate complementary feeding.
- Where use of breast milk substitutes (BMS) is indicated, all service providers shall ensure that marketing and use of the BMS is in compliance with the Code of Marketing BMS, and that safety procedures are strictly adhered.

B. Infant and young child feeding and HIV/AIDS

Malawi's HIV prevalence in antenatal women ranges from 16-30% (NAC, 2000). Mother to child transmission (MTCT) of HIV in which a baby is likely to get an HIV infection from an infected mother during pregnancy (7%), delivery (15%) and through breastfeeding up to 2 years (15%) has become a major concern in the infant and young child feeding practices (WHO, 2002). However, with exclusive breastfeeding, HIV transmission is reduced from 15% to 6%.

The following policy statements shall, therefore, guide feeding practices for infants and young children of mothers who are HIV positive.

- Exclusive breastfeeding shall be protected, promoted and supported as a primary feeding option for all infants in all populations regardless of the HIV status of the children or their mothers.
- Health workers shall inform all mothers, regardless of their HIV status, on the risks of MTCT through breastfeeding.
- All mothers who are HIV positive shall be given full information on all possible infant feeding options and be allowed to make an informed choice.
- Health workers shall ensure that replacement feeding of choice by HIV positive mothers complies with the Malawi Code of Marketing Infant and Young Child foods, International Code of Marketing Breast Milk Substitutes (BMS) and subsequent World Health Assembly (WHA) resolutions.
- Confidentiality and support of feeding choice shall be maintained at all times as standard management of infant feeding for mothers who are HIV positive.

C. Infant and young child feeding in emergency situations

People living in emergency situations such as those affected by natural disasters or wars often have to live in crowded and unsanitary conditions which put infants, young children and mothers at risk of infections such as diarrhoea. Their access to food and health care services may also be compromised.

Thus, during emergencies, breastfeeding becomes even more crucial in ensuring adequate nutrition and health for infants and young children. Therefore, the following policy statements shall guide feeding of infants in emergency situations:

- Infants in emergency situations should be exclusively breastfed in the first six months unless medically or otherwise indicated.
- All service providers to populations in emergency situations shall continue to protect, promote and support breastfeeding of infants and young children aged 6 – 24 months or beyond with timely, appropriate and adequate complementary feeding.

D. Replacement feeding in emergency situations

Although breastfeeding remains the best practice for feeding infants in emergency situations, replacement feeding may sometimes be indicated due to various reasons such as physical or psychological incapacitation of the mother. In other cases, infants may not be accompanied by a caretaker. The following policy statement shall guide replacement feeding in emergency situations:

- Where replacement feeding for infants less than 6 months is indicated, infant feeding options shall be made on fully informed choices by the caregivers.
- Replacement feeding should continue with timely, appropriate and adequate complementary foods for infants and young children aged 6 – 24 months or beyond.
- Replacement feeding of choice should comply with the Malawi Code of Marketing Infant and Young Child foods, International Code of Marketing BMS and subsequent WHA resolutions.
- Confidentiality and support of feeding choice shall be maintained at all times as standard management of infant feeding for mothers who are HIV positive.

E. Prevention and control of micronutrient deficiencies

Specific micronutrient deficiencies of vitamin A, iodine and iron constitute a public health concern in Malawi. The whole population is estimated to be vitamin A deficient with over 38% sub-clinical vitamin A deficiency (MoHP 2001). At least 54% and 70% of pregnant women and under five children, respectively are anaemic (MoHP 1998). Iodine deficiency disorders (IDD) have significantly reduced over years from 56% to less than 5% total goitre rate. One of the major interventions has been use of iodised salt. According to the 2001 National Micronutrient Survey, 71% of households were using iodised salt; however, only 36% of the salt was adequately iodised (MoHP 2003). This trend would reverse the gains already realized in IDD elimination. These deficiencies have direct impact on survival, growth, development and psychosocial well being of children and that of women of childbearing age.

A comprehensive package consisting of micronutrient supplementation, fortification, dietary diversification and modification, and public health interventions is essential in reducing micronutrient deficiencies. In light of this, the following policy statements shall guide implementation of the interventions:

i. Supplementation

- All children aged 6 – 59 months should be given vitamin A supplements according to schedule.
- All women within 8 weeks of delivery should be given vitamin A supplements according to schedule.
- All pregnant women should get iron/folate tablets according to schedule

ii. Fortification

- All stakeholders should encourage and guide families and communities to consume fortified foods.
- Health workers shall reinforce implementation of salt iodisation regulations.
- Stakeholders shall comply with food fortification regulations and standards.

iii. Dietary Diversification

- Stakeholders shall follow the multimix principle in the promotion of appropriate diets of infants, young children and women of childbearing age.

iv. Public Health

- Health workers shall facilitate prevention, control and treatment of parasitic and infectious diseases.

F. Growth monitoring and promotion

Growth monitoring and promotion (GMP) is an operational strategy of enabling caretakers to visualize growth or lack of growth, and to receive specific, relevant and practical guidance in ways in which the household and community can act to ensure health and continued growth of the child (IDRC, 1992). GMP should be regarded as a preventive and promotive strategy aimed at taking specific action to avert poor physical and psychosocial development of a child. Therefore, the following policy statement shall guide implementation of this service:

- Growth monitoring and promotional activities shall be provided at all levels of health service delivery.
- Infant and young child developmental milestones should be an integral part of growth monitoring and promotion activity.

G. Management of moderately & severely malnourished children and mothers

Half of the under-five children in Malawi are chronically malnourished, of whom 24% are severe. Annually, 10 – 20% of under-five children are admitted in hospitals due to malnutrition. As a result of poor management of the moderately and severely malnourished children, mortality is often high.

Similarly, about 10% of pregnant and lactating women are malnourished each year. The high rate of maternal malnutrition significantly contributes to low birth weight and high maternal mortality, presently estimated at 1,120/100,000 live births. In light of poor management of moderately and severely malnourished children and mothers, the following policy statement shall guide all health workers and stakeholders:

i. Management of moderate acute malnutrition (supplementary feeding)

- All stakeholders involved in management of moderately acute malnourished children and mothers shall comply with national guidelines on Management of Acute Moderate and Severe Malnutrition.

ii. Management of severe acute malnutrition (therapeutic feeding)

- All stakeholders involved in management of severely acute malnourished children should follow phased-feeding protocols according to the national guidelines.

PROGRAM IMPLEMENTATION PLAN

Implementation of this Policy is in line with the Essential Heath Care Package (EHP) within the Ministry of Health and Population, and Poverty Reduction Strategy Paper (PRSP) which is the overall Government strategy. In order for the Policy to be successfully implemented, there is need to review and institute a number of management processes. These include institution of a flexible system that ensures continuous review, implementation, and quick responses as a complement to the Sector Wide Approaches (SWAPs). It is critical to establish a mechanism that provides stakeholders with a forum to meet formally, report progress, exchange ideas, plan, consult and coordinate across the program. This mechanism will facilitate a move from a program-centred approach to a more efficient and collaborative approach.

In order for the MoHP to effectively meet its mandate, several institutional capacity issues need to be addressed. These include human resource development, behavioural change communication, coordination and networking, resource mobilization, community support system, as well as monitoring and evaluation.

Human Resource Development

Implementation of this policy requires adequate and relevantly trained personnel both at central and service delivery levels. Considering that the health sector is currently experiencing severe human resource shortages, achieving the desired number of skilled personnel required for full and proper implementation of this Policy will take time to be realized. However, it is imperative that initial steps be taken to fill vacant posts in the MoHP Nutrition Section, and posts of nutritionist at district level. This will ensure that service standards elaborated in the Guidelines are properly followed and monitored.

Resource Mobilization

Implementation of this Policy will have enormous cost implications. With the current limited financial resources in the health sector, nutrition programs will require supplementary funding sources which include the public, private and collaborating stakeholders such as donors and other non

traditional sources. The MoHP will continue to actively seek and mobilize resources to fund various activities in the nutrition program within the context of SWAPs.

Coordination and Networking

Solving nutritional problems is a challenge because the causes are multisectoral in nature. This will require multisectoral collaboration, coordination and networking with a variety of individual organizations and institutions at all levels. The Nutrition Section of the MoHP shall take a leading role in coordinating and networking for the implementation of this Policy as a management tool in the fight against malnutrition.

Community Support System

Infant and young child nutrition is greatly influenced by community beliefs, attitudes and cultural norms. The success of this Policy will depend on active community participation and involvement. Special attention should be placed in strengthening the existing community support systems to improve child nutrition.

Behavioural Change and Communication

The infant and young child nutrition IEC messages that have been in use did not adequately address

the enormous issues attributed to attitude, cultural practices and the emergence of HIV/AIDS. There is need to develop comprehensive behavioural change and communication (BCC) messages which will help to improve infant and young child nutrition. The BCC strategy will also cut across advocacy, gender issues, client provider interaction and improved maternity protection

Monitoring and Evaluation

In order to foster a practice of continuous assessment and facilitate the monitoring and evaluation process, MoHP through the Health Management Information System (HMIS) Unit will reinforce timely collection, processing and utilization of data at all levels. In addition, there is need to establish a community-based nutrition surveillance system which should be linked to HMIS for effective monitoring, evaluation and timely response. Operational research will be regularly undertaken to help identify areas that can be improved, and reprogram activities.

Section B: Guidelines

FEEDING PRACTICES FOR CHILDREN IN THE FIRST 2 YEARS OF LIFE OR BEYOND

Guiding Principle 1

Protect, promote and support breastfeeding in health facilities and community services and eliminate practices which undermine breastfeeding.

These guidelines should be used with reference to 10 steps to successful breastfeeding (Annex 1).

Guidelines

1. Every health facility providing maternity services should have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Health facilities should train health care staff at all levels of service provision in knowledge and skills necessary to implement the breastfeeding policy.
3. Health workers should inform all pregnant women attending antenatal services about the benefits and management of breastfeeding.
4. Health workers should help mothers to initiate breastfeeding within half hour of birth with uninterrupted skin to skin contact throughout the first hour of delivery.

5. Health workers should help and show mothers how to breastfeed and maintain lactation even if they should be separated from their infants.
6. Newborn infants should be given no food or drink other than breast milk, unless medically indicated.
7. Health facilities should encourage bedding-in to allow mothers and infants to remain together 24 hours a day.
8. Health workers should encourage mothers to breastfeed their infant on demand.
9. Mothers should not give artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Health workers should foster establishment of community support groups and refer mothers to them on discharge.

Guiding Principle 2

Reinforce the Malawi Code of Marketing of Infant and Young Child Foods and observe the International Code for Marketing of Breast Milk Substitutes (BMS) and subsequent World Health Assembly (WHA) resolutions.

Guidelines

These guidelines should be used with reference to National Code of Marketing Infant and Young Child Foods and subsequent WHA resolutions.

1. There should be no advertising or other forms of promotion of breast milk substitutes to the general public.
2. Within the health care system, breast milk substitutes if indicated should be purchased or given on prescription.
3. Donations or low cost BMS supplies should not be used as inducement for promotion of breast milk substitutes
4. All health care providers receiving donations of breast milk substitutes for infants should ensure that the supplies would continue as long as the infants concerned need them.
5. All health care providers should implement and monitor the code at all levels including the community.
6. Only health and community workers should demonstrate to caregivers on how to prepare and feed the infants BMS where medically indicated.

Guiding Principle 3

Reinforce maternity protection as per ILO Convention 2002 for an enabling environment to

safely practice exclusive breastfeeding in the first 6 months of life.

Guidelines

These guidelines should be used with reference to Employment Act 1999.

1. Every organization/institution should not engage pregnant and breastfeeding women in work, which has been established to significantly risk the health of the mother and the unborn child.
2. Upon production of medical certificate or other appropriate certification stating the date of birth of the child, a mother should be entitled within every three years, to minimum of 8 weeks full paid maternity leave as cited in the Employment Act 1999.
3. In the event of illness (certified by a registered medical practitioner) arising out of pregnancy or confinement affection of the employee or her child, the mother should be granted additional leave as the employer may deem fit.
4. Upon invitation to a workshop, seminar or similar professional gathering, breastfeeding mothers, their babies and baby sitters should be catered for.

Guiding Principle 4

Encourage timely, adequate and appropriate introduction of complementary foods from 6 months, with sustained breastfeeding up to 2 years or beyond.

Guidelines

1. Service Providers should encourage mothers to introduce energy and nutrient-rich foods from 6 months while continuing to breastfeed on demand up to 2 years or beyond (Annexes 2 and 3).
2. Caregivers should be advised to always follow the standard food hygiene rules when preparing food for the child to avoid food contamination.
3. Caregivers should actively participate in feeding the child from an individual plate or cup in order to ensure adequate food intake by the child.
4. Feeding bottles and use of teats should be discouraged and cup feeding should be the standard feeding method.
5. Caregivers should be encouraged to continue breastfeeding, and giving more energy and nutrient-rich foods or fluids more frequently than usual to children who are sick or recovering from illness.

INFANT FEEDING PRACTICES IN THE CONTEXT OF HIV AIDS

These guidelines should be used with reference to PMTCT guidelines.

Guiding Principle 1

Promote, integration of PMTCT interventions into BFHI strategy where services are available.

Guidelines

1. Health workers should protect, promote and support exclusive breastfeeding for all infants in the first 6 months of life regardless of the HIV status of their mothers (Annex 4)
2. Health workers should incorporate PMTCT interventions in their BFHI policy and health care practices as stipulated in Annex 4.
3. Health workers should encourage caregivers/mothers that are HIV positive to timely introduce appropriate energy and nutrient rich foods while continuing with their infant feeding of choice.

Guiding Principle 2

Provide information and supportive counselling to mothers who are HIV positive on infant feeding

options in order for them to make informed choices (Annexes 5-7).

Guidelines

1. Pregnant and lactating women utilizing MCH or Family Planning services and those considering to become pregnant should be given information on possible mother to child transmission of HIV through breastfeeding.
2. Health workers should give full information on possible infant feeding options to mothers who are HIV positive and allow them to make an informed choice (Annex 6).
3. Mothers who are HIV positive should be given on-going counselling and psychosocial support to sustain their feeding option.

Guiding Principle 3

Promote and maintain confidentiality as the standard approach to the management of feeding of infants from mothers who are HIV positive

Guidelines

1. Health workers should ensure that counselling of HIV positive mothers on infant feeding options should be on a one-to-one basis either before or during pregnancy, or postnatally.

2. Health workers should observe standard protocols for maintaining confidentiality for counselling women and their partners on infant feeding options as stipulated in VCT guidelines.

INFANT FEEDING IN EMERGENCIES

Guiding Principle 1

Protect, promote and support breastfeeding and eliminate practices which undermine breastfeeding among populations in emergency situations.

Guidelines

1. Service providers should protect, promote and support exclusive breastfeeding in the first 6 months of life and sustained breastfeeding with energy and nutrient rich foods from 6 months up to 2 years or beyond.
2. Infants aged below 6 months of age who are accompanied by their own mothers should continue to be exclusively breastfed.
3. For infants less than 6 months of age who are not accompanied by their mothers, wet nursing should be considered for continued breastfeeding.

4. Mothers who experience interruption in breastfeeding should be assisted to relactate and continue breastfeeding where possible.
5. Severely malnourished mothers should be given comprehensive treatment as stipulated in the guidelines for Management of Acute Moderate and Severe Malnutrition, and be assisted to continue breastfeeding.
6. In the absence of continued breastfeeding, replacement feeding should be used accordingly (Annex 6 and 8).
7. Service providers should establish infant feeding options from mothers that are HIV positive and assist them with their choice where possible (Annex 5 – 7).
8. Counsel and support infant feeding of choice (Annexes 4 - 6).

Guiding Principle 2

Encourage timely, adequate and appropriate introduction of complementary foods from 6 months, with sustained breastfeeding/ feeding option of choice up to 2 years or beyond among populations in emergency situations.

Guidelines

1. Service providers should encourage mothers to introduce energy and nutrient-rich foods from 6 months while continuing to

breastfeed on demand up to 2 years or beyond (Annexes 2 and 3).

2. Caregivers should be advised to always follow the standard food hygiene rules when preparing food for the child to avoid food contamination.
3. Caregivers should actively participate in feeding the child from an individual plate or cup in order to ensure adequate food intake by the child.
4. Feeding bottles and use of teats should be discouraged; cup-feeding should be the standard feeding method.
5. Caregivers should be encouraged to continue breastfeeding, giving more energy and nutrient-rich foods or fluids more frequently than usual to children who are sick or recovering from illness.

Guiding Principle 3

Reinforce the Malawi Code of Marketing of Infant and Young Child Foods and observe the International Code for Marketing of Breast Milk Substitutes (BMS) and subsequent World Health Assembly (WHA) resolutions among populations in emergency situations.

Guidelines

1. Service providers should reinforce the Malawi Code of Marketing of Infant and Young Child Foods and observe the International Code for Marketing breast milk substitutes and subsequent World Health Assembly resolutions.
2. Donor communities should facilitate acquisition of regular and sufficient supplies of suitable infant and young child foods where these could be necessary, without undermining breastfeeding.
3. Service providers should facilitate hygiene preparation of artificial feeds by parents/guardians of artificially fed infants.

MICRONUTRIENT SUPPLEMENTATION

Guiding Principle

- Promote micronutrient supplementation for children, pregnant and lactating mothers as per prescribed protocols.

Guidelines for iron and folate supplementation

These guidelines should be used with reference to Prevention and Control of Anaemia Plan of Action.

1. Service providers should encourage all pregnant women attending antenatal services to take iron/folate supplements (60mg iron/0.5g folate) on daily basis.
2. Service providers may supplement iron/folate to other groups as stipulated in the Prevention and Control of Anaemia Plan of Action depending on availability or resources.

Guidelines for vitamin A supplementation

- Service providers should supplement all children from 0 – 59 months with vitamin A capsule once every six months (<12 months, 100,000 IU, >12 months 200,000 IU).
- Service providers should supplement all mothers with a single dose of vitamin A (200,000 IU) within 2 months of delivery.
- Health workers should ensure that all children aged 0-59 months receive Vitamin A supplements according to schedule even if they had treatment dose in less than 6 months.
- Health workers should ensure that all children with persistent diarrhoea, measles, severe malnutrition and xerophthalmia should receive treatment dose of vitamin A as part of case management even if they had received vitamin A supplement in less than 6 months.

FORTIFICATION

Guiding Principle 1

- Promote use of fortified foods by all households.

Guidelines

1. Service providers should inform mothers on the importance of using fortified foods at every opportune time.
2. Service providers should encourage all households to consume fortified foods.
3. Where fortification facilities exist, service providers should promote community level fortification of locally processed foods.

Guiding Principle 2

- Reinforce fortification regulations and mandatory food standards where applicable.

Guidelines

These guidelines should be used with reference to salt iodisation regulations and Malawi Bureau of Standards (MBS) standards.

1. MBS should ensure that food fortification is done according to the stipulated standards and regulations.

2. Port Health Officers, Environmental Health Officers (District and City Assemblies), Health Surveillance Assistants and the MBS should ensure that all salt for human and animal consumption in Malawi is adequately iodised as stipulated in salt iodisation regulations.

DIETARY DIVERSIFICATION AND MODIFICATION

Guiding Principles

- Promote production and consumption of micronutrient-rich foods
- Promote use of oil-rich foods together with vitamin A-rich foods for better utilization of vitamin A.
- Promote use of vitamin C-rich foods together with plant-based iron-rich foods for better utilization of iron.

Guidelines

These guidelines should be used with reference to Community Nutrition Manual for Extension Workers. The multimix principle (a method of using foods from different groups at each meal time) should be used (Annex 9).

- Service providers should encourage households to produce and consume a variety of foods for adequate micronutrient intake.
- Service providers should teach the six food groups as a guide to good nutrition for individuals and families.
- The multimix principle should be used to teach and demonstrate effective meal planning, preparation and consumption.

PUBLIC HEALTH INTERVENTIONS

Guiding Principle

- Facilitate prevention, control and treatment of parasitic and infectious diseases.

Guidelines

These guidelines should be used with reference to Integrated Management of Childhood Illnesses (IMCI) and relevant public health guidelines.

- Service providers should provide information on relationship between malnutrition and infection to all caregivers/mothers and the general public.
- Health workers should follow standardized guidelines/protocols in the prevention, control and treatment of childhood illnesses.

- Service providers should encourage caregivers/mothers to prevent childhood illness as stipulated in the relevant guidelines.

MANAGEMENT OF MODERATELY AND SEVERELY ACUTE MALNUTRITION AMONG CHILDREN AND MOTHERS

Guiding principle

- Manage moderately and severely acute malnourished children and mothers following national guidelines.

Guidelines

These guidelines should be used with reference to national guidelines on the management of moderate and severe acute malnutrition.

1. Service providers should refer all cases of acute malnutrition to the nearest health facility according to the national referral criteria (Annex 10).
2. Service providers should ensure that eligible beneficiaries are registered for supplementary feeding according to national guidelines (Annex 10).
3. Service providers should ensure that the registered beneficiaries for supplementary

feeding receive 300g Likuni Phala and 30g vegetable oil per day per child, and 250g maize meal and 75g beans per day for pregnant and lactating mothers.

4. Service providers should discharge beneficiaries from supplementary feeding program according to the national guidelines (Annex 10).
5. Service providers should refer all children who do not improve in their nutritional status for four consecutive months to the nearest health facility for further examination and action.

GROWTH MONITORING AND PROMOTION

Guiding Principle

Reinforce growth monitoring and promotional services for all children under-five years of age.

Guidelines

- Service providers should conduct regular activities in all under five children and assess developmental milestones (psychomotor and language).
- Service providers should take necessary action based on the assessment of the growth and

development of the child as stipulated in the health passport or under five card.

- Service providers and communities should take necessary action based on identified problems to improve growth and development of children

REFERENCES

IDRC 1992. Growth promotion for child development. Proceedings of a colloquium held in Nyeri, Kenya 12 – 13 May 1992.

NSO 2001. Malawi demographic and health survey 2000. National Statistical Office: Zomba, Malawi.

MoHP 1998.

MoHP 2001.

MoHP 2003. Report of the national micronutrient survey in Malawi 2001. Ministry of Health and Population: Lilongwe, Malawi.

WHO 2002.

ANNEXES

ANNEX 1: TEN STEPS TO SUCCESSFUL BREASTFEEDING

Every facility providing maternity services and care for newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding
4. Help mothers initiate breastfeeding with a half hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicate
7. Practice rooming-in to allow mothers and infants to remain together for 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Fosters the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

ANNEX 2: GUIDELINES FOR INTRODUCING COMPLEMENTARY FOODS

1. Use locally available and nutrient-rich foods beginning from 6 months of age.
2. Gradually increase consistency, quantity and frequency of locally available energy and nutrient-rich foods while continuing breastfeeding for breastfed infants, and replacement feeding according to stipulated guidelines (Annexes 3 - 7) for babies on replacement feeding.
3. Gradually increase food consistency and variety as the infant gets older, adapting the diet to the infant's requirements and abilities.
    - Feed mashed and semi-solid foods beginning from 6 months of age.
    - Feed energy and nutritious "finger foods" (snacks that can be eaten by children alone) beginning around 8 months of age.
    - Make the transition to the family diet at about 12 months of age.
4. Diversify the diet to improve quality of macro- and micronutrient intake.
    - Feed vitamin A-rich fruits and vegetables daily.

- Feed protein rich foods such as beans, groundnuts, peas, soybeans, and eggs.
- Use fortified foods, such as Likuni Phala, fortified maize meal when available.

5. Practice active feeding
   - Feed infants directly and assist older children to feed themselves from their own plate.
   - Offer favourite foods and encourage children to eat when they lose interest or have depressed appetites.
   - If children refuse many foods, try different food combinations, tastes, textures, and methods for encouragement.
   - Talk to children during feeding.
   - Feed slowly and patiently and minimize distractions during meals.
   - Do not force children to eat.
6. Practice frequent and active feeding during and after illness.
   - During illness, increase nutritious fluid intake by more frequent breastfeeding or other forms of milk and patiently encourage children to eat favourite foods.
   - After illness, breastfeed or give other forms of milk and nutritious foods more often than usual and encourage

children to eat more food at each sitting.

7. Practice good hygiene and proper food handling.
   - Caregiver and children should always wash their hands before food preparation and eating.
   - Serve foods immediately after preparation.
   - Use clean utensils to prepare and serve food.
   - Serve children using clean cups and bowls and never use feeding bottles.

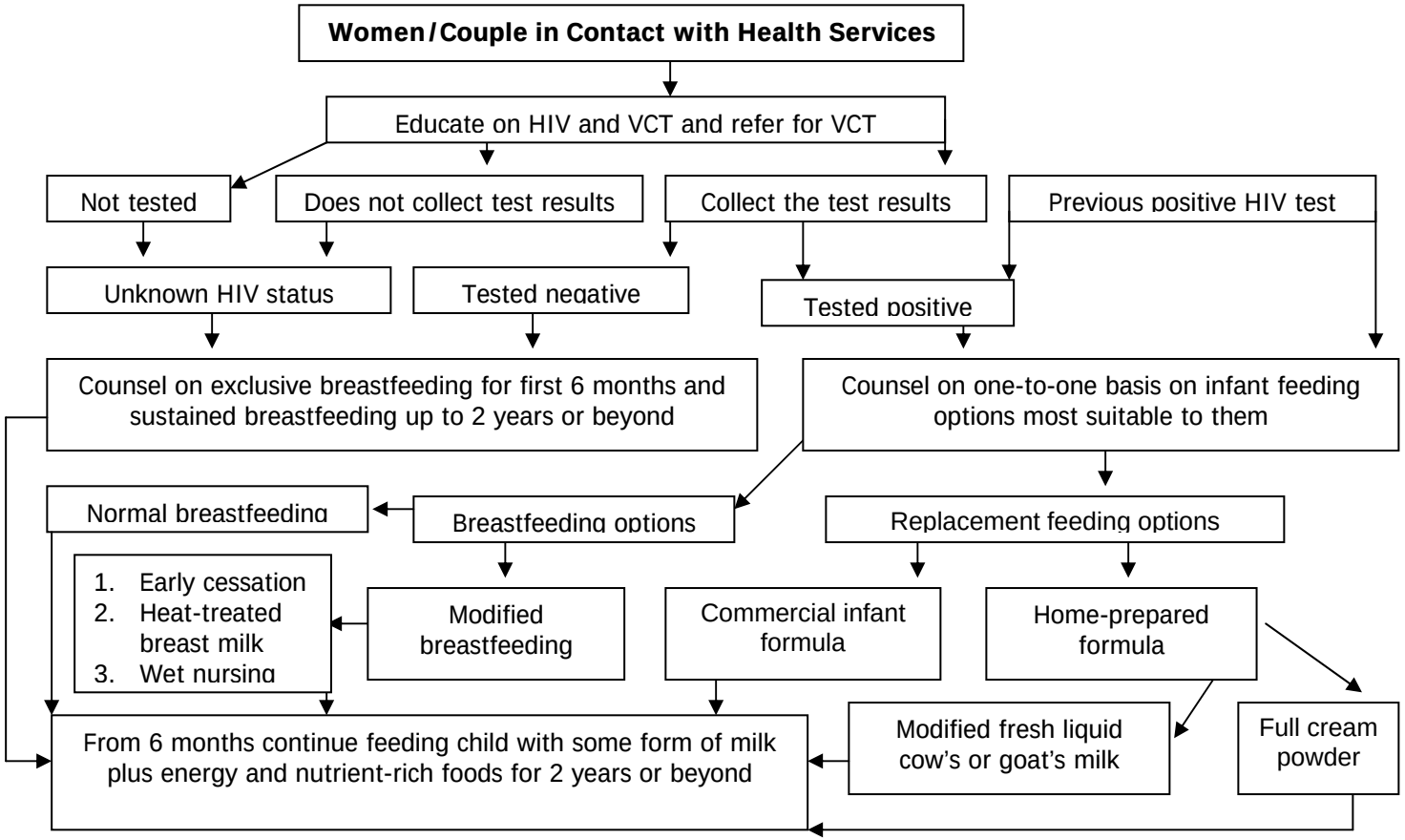
ANNEX 3: GUIDELINES ON FREQUENCY, QUANTITY AND QUALITY OF COMPLEMENTARY FOODS

Age	No of feeds per day	Quantity	Quality/Type
6 - 8 months	2 to 3 times per day	50 – 100 ml per feed	Enriched porridge with sugar, oil, pounded groundnuts
9 - 11 months	3 to 4 times per day	100 to 150 ml per feed	Enriched, pounded, mashed or strained foods e.g. powder meats, vegetables and fruit juice or mashed fruit
12 - 24 months	4 to 5 times per day	200 to 300 ml per feed	Enriched, chopped/mashed foods and snacks

As a child grows older, the quantity and quality of complementary foods should increase while maintaining frequent breastfeeding or replacement feeding according to choice.

ANNEX 4: TEN STEPS TO SUCCESSFUL BREASTFEEDING IN THE CONTEXT OF HIV

ANNEX 5: ALGORITHM FOR COUNSELLING ON INFANT FEEDING OPTIONS



ANNEX 6: INFANT FEEDING OPTIONS FOR MOTHERS WHO ARE HIV POSITIVE

Some mothers who are HIV positive may choose not to breastfeed their infants. Such mothers should be assisted to choose other forms of milk to give their infants as long as it is affordable, sustainable, feasible, safe and acceptable.

1. Breastfeeding options

i. Exclusive and sustained breastfeeding

This option can be chosen if the mother finds it difficult for social, economic and cultural reasons to avoid breastfeeding

Mothers who are HIV positive and choose to breastfeed normally should be encouraged to exclusively breastfeed their infants for the first 6 months and sustained breastfeeding with energy and nutrient-rich foods from 6 months up to two years or beyond. However, such mothers should be informed of the increased risk of mother to child transmission of HIV due to mixed feeding. Health workers should support the mother through continuous counselling on breastfeeding management and primary prevention of HIV/AIDS.

ii. Modified breastfeeding

a. Early cessation

This option can be chosen if:

- The mother develops symptoms of AIDS during the breastfeeding period.
- The mother/couple/family cannot provide adequate supply of replacement feeds during the first few month.
- The mother finds it difficult for social, cultural and economic reasons to avoid breastfeeding.

What to do:

- Health workers should encourage mothers who choose this option to exclusively breastfeed their infants for the chosen period which could be from 3-6 months.
- Mixed feeding should be avoided as this may cause gut inflammation that could increase the risk of HIV acquisition
- Prior to early cessation of breastfeeding, the mother should be counselled on the process of stopping breastfeeding and how to introduce replacement feeding of her choice (Refer to PMTCT guidelines)
- Heat-treated breast milk can be given to the infant using a cup during the transition to replacement feeds

- Health workers should support & continuously counsel the mother on exclusive replacement feeding up to 6 months and assist her to suppress lactation.
- Health workers should inform the mother that early cessation of breastfeeding reduces, but does not eliminate the risk of mother to child transmission of HIV.
- This option is more effective if combined with the use of condoms to reduce re-infection with HIV which could greatly increase the risk of mother to child transmission during breastfeeding.

b. Heat treated expressed breast milk

This option can be considered if:

- The mother wishes to give the baby her own milk
- Alternative milk is unaffordable or difficult to get or not accessible
- An infant is sick or has low birth weight and that the baby is at high risk of mortality from artificial feeding.

What to do:

- Health workers should teach the mother the correct techniques for expressing breast milk

- The mother should express the breast milk frequently, at least 8 times or more in a 24 hour period to maintain milk supply.
- She should bring the expressed breast milk to a boil and cool immediately.
- The boiled breast milk should be stored in a cool place and used within 12 hours if stored at room temperature, or 72 hours if refrigerated.
- If refrigerated, she should warm the breast milk to room temperature by standing the container in warm water (enough for 1 feed and discard any warmed left over milk).
- The mother should always use a clean cup for feeding the infant while holding the baby close to her to foster bonding.
- Always label all expressed breast milk with date and time and use the first milk to have been stored first (first in first out).

c. Wet Nursing

This option can be chosen if the mother identifies another woman to breastfeed her child or a woman who volunteers to breastfeed another woman's baby.

- The wet nurse must be informed of the risk of acquiring HIV from an infected baby.
- This option should be discouraged unless the following conditions are met:

- The wet nurse is counselled, tested and is HIV negative.
- The wet nurse is practicing safer sex e.g. condom use throughout the breastfeeding period.
- The wet nurse should be available to breastfeed the infant frequently and for as long as it takes.

- Consent should be obtained from parent/principle guardian

2. Replacement feeding

Some mothers who are HIV positive may choose not to breastfeed their infants. Such mothers should be assisted to choose other forms of milk to give their infants as long as it is affordable, sustainable, feasible, safe and acceptable. Replacement feeding options should be considered by HIV positive mother when the family has reliable access to sufficient supply of the chosen form of milk, and has adequate resources such as safe clean water, fuel, utensils, time and skill for preparation.

a. Commercial infant formula

Some HIV positive mothers who opt for replacement feeding, may decide to feed their infants on commercial infant formula. The health

care provider who works with such mothers should let them know the following:

- Commercial infant formula is already modified and only needs to add safe water to it according to given preparation instructions before use.
- Follow-up milk is not suitable for infants under the age of 6 months since it is less modified than infant formula.
- Safe formula feeding is expensive as the infant will need approximately 20kg (40 tins of 500g) in the first 6 months.

What to do:

- To ensure high levels of safety and to reduce rates of infection, this option requires a lot of support by the spouse, family, community and health workers.
- Health care providers should encourage the mother to exclusively feed the infant on the commercial formula for the first 6 months and introduce follow-up formula or other forms of milk e.g cow's milk with safe and appropriate complementary foods from 6 moths onwards.
- Health care providers should assist the mothers with appropriate commercial infant formula preparation techniques as stipulated in the manufacturers instructions for preparation, to ensure proper dilutions

- Health care providers should encourage the mothers to follow all the standard hygiene rules.
- Growth of the infant should be closely monitored for appropriate action
- Follow-up milk is not suitable for infants under the age of 6 months since it is less modified than infant formula. However, the infant formula may not be necessary for older infants who can be fed on unmodified cow's milk from six months onwards.

Where infant formula has been chosen as an infant feeding option, it is recommended that:

- Health workers should work with the caregiver on how to prepare the available formula for the baby.
- Commercial infant formula should be prepared only according to the manufacture's instructions to ensure proper dilutions and appropriate nutritional values.
- Washing of hands before preparing and handling formula is essential to prevent the risk of infections.
- Cups and spoons should be used in the preparation since they are easy to wash or disinfect. Use of sodium hypoclorite (5%) is an effective way of disinfecting utensils for infant feeding.

- A cup should always be used for feeding (Annex 4).
- The baby should be held close to the mother/father/care-giver during feeding to foster bonding.

b. Home prepared formula

Some HIV positive mothers who choose not to breastfeed may decide to feed their infants with home-prepared formula either in form of fresh cow or goat milk or full cream milk powder.

i. Fresh cow or goat milk

- Health care providers should inform mothers who decide to feed their infants with fresh cow or goat milk that the level of proteins and some nutrients in these milks is too high and it is difficult for an infant's immature kidneys to excrete extra waste. These milks require some modifications by adding appropriate amounts of water and sugar (Annex 7).
- Health care providers should encourage the mother to exclusively feed the infant on modified milk for the first 6 months.
- From 6 months the baby may be given unmodified cow or goat milk, or other forms of milk.

- Mothers should be informed that the infant will require about 92 litres of milk and 9 kg of sugar in the first 6 months.

Instructions for preparation

- Clean and boil all utensils and keep them in a clean covered container.
- Wash hands before preparing and handling the milk.
- Measure the required amount of water and milk as stipulated in Annex 7 and put them in the pot to boil.
- Stir-in the measured amount of sugar
- Cover and leave until cool enough to feed the baby (test it by putting a few drops on the front part of your wrist – it should feel the same temperature as your skin)
- Stir-in micronutrient supplements where available.
- Feed the infant using a clean cup while holding the infant closely for bonding.
- The infant will require 150 ml per kg of body weight per day (Annex 7).

ii. Full cream milk powder

What to do:

- Health care providers should inform mothers that:

- Full cream milk powder is fresh milk in which all the water has been removed.
- Just like cow or goat milk, it needs to be modified to make it suitable for the infant

- Health care providers should assist mother to prepare the milk correctly as follows:

Instructions for preparation

- Wash hands before preparing and handling the milk.
- Boil all utensils and keep them in a clean covered container.
- Measure the required amount of milk powder, water and sugar as follows:10g powdered milk + 80 ml of water to make 80 ml full strength milk which is similar to fresh cows milk, and additional 40 ml of water
- Stir the powdered milk in 80 ml of water in a cup slowly
- Add sugar and stir well
- Add 40 ml of additional water to make it more suitable for the infant
- Add micronutrient supplements where possible
- Feed the infant using a cup while holding it closely for bonding

- The amount of modified milk required by an infant is 150ml/kg per day (Annex 7).

- Health care providers should encourage the mothers to exclusively feed the infant on the chosen milk for the first 6 months.

ANNEX 7: AN INFANT'S MINIMUM REQUIREMENTS FOR REPLACEMENT FEEDS

Age (months)	Weight (kg)	Dilution: 100ml milk + 50ml water + 10g sugar = 150ml + 10g sugar = 160ml total volume of home prepared milk per day	Approximate amount required per day	Approximate amount of home-prepared milk per feed and number of feeds per day	Commercial formula per month
1	3	300ml milk + 150 water + 30g sugar	480ml	60ml x 8 feeds	4 x 500g tins
2	4	400ml milk + 200mls + 40g sugar	630ml	90ml x 7 feeds	6 x 500g tins
3	5	450ml milk+ 225ml water + 45g sugar	720ml	120ml x 6 feeds	7 x 500g tins
4	5	450 ml milk + 225ml water + 45g sugar	720 ml	120ml x 6 feeds	7 x 500g tins
5	6	560ml milk + 280ml water + 56g sugar	900ml	150ml x 6feeds	8 x 500g tins
6	6	560ml milk + 280ml water + 56 sugar	900ml	150ml x 6 feeds	8 x 500g tins

Therefore the baby requires approximately 92 litres plus 9 kg sugar if fresh cow's or goat milks is used for the first 6 months as actual intake. If commercial formula is used the child will need approximately 40 x 500g tins or 20 kg of milk. After 6 months the baby can be given full strength milk and clean water to drink 2 - 3 times a day.

ANNEX 8: REPLACEMENT FEEDING INDICATIONS FOR AN EMERGENCY SITUATION

- Where a mother is incapacitated physically, psychosociologically or traumatized and breastfeeding is not possible.
- When the mother goes through a process of relactation.
- Unaccompanied/orphaned infants and young children.
- Where an infant is accompanied by a relative who is not willing to breastfeed.
- A mother who is HIV positive and has opted not to breast feed.

ANNEX 9: SIX FOOD GROUPS AND MULTIMIX PRINCIPLE

The Six Food Groups

Unlike in the past when the teaching of nutrition centred on three food groups (i.e. energy-giving, body building, and protective groups), there are now six food groups which Malawi adopted namely:

- Staples
    - Cereals e.g. maize flour, rice, sorghum
    - Starchy roots e.g. cassava, potato, yams
    - Starchy fruit e.g. green bananas, plantains
- Legumes and nuts e.g. soybeans, groundnuts, beans, peas
- Green leafy and yellow vegetables e.g. amaranthus, pumpkin, carrots, spinach
- Food from animals e.g. meat, fish, milk, poultry, eggs, insects, rodents
- Fruits e.g. mango, papaya, guava, banana, tamarind, orange, baobab, custard apple
- Fats and substitutes e.g. cooking oil, margarine, groundnut butter, meat fat, dried coconut, avocado.

It is important that service providers should teach about the six food groups, and help households on how to choose the right food and eat healthy and

nourishing meals from the six groups. Training materials on the six food groups are available at the local agricultural office. A food composition table should be used to select foods that are rich in micronutrients such as vitamins A and C, and iron.

The user should be aware that locally grown foods are not good sources of iodine therefore individuals and households should take special effort to buy and use iodised salt only. Failure to do so may result in iodine deficiency disorders although the diet may be diversified.

The Multimix Principle

Multimix principle is a method of using foods from different groups at each meal, with the aim of making meals more nutritious. A basic multimix meal contains foods from at least three groups including the staple. However, meals made from 4 – 6 groups are more nutritious.

ANNEX 10: MANAGEMENT OF MODERATE AND SEVERE ACUTE MALNUTRITION

Supplementary feeding regimen

Referral criteria

The following should be referred to nearest health facility for consideration into supplementary feeding:

- Children (non regular to growth monitoring centres) with weight-for-age <80%.
- Children with weight-for-age <80% and with static or loss of weight for 3 consecutive visits (months).
- Children with weight-for-height <80%
- Children with bilateral oedema.
- Children above 1 year with MUAC <12.5 cm.
- Pregnant and/or lactating women with MUAC <22.5 cm.

Registration criteria

The following must be registered for supplementary feeding.

- Children 6 – 59 months with weight-for-height between 70 – 79%.
- Children over 1 year with MUAC 11 – 11.9 cm.

- Children discharged from NRU independent of their weight for height.
- Pregnant and lactating women with MUAC <22.5 cm
- Lactating women with MUAC <22.5 cm during the first 6 months of breastfeeding.

Discharge criteria (The cured)

The following should be discharged from supplementary feeding:

- Children aged 6 – 59 months with weight-for-height >85%.
- Children aged 6 – 59 months with MUAC > 12.5 cm for 2 consecutive measures.
- Pregnant and lactating women with MUAC >23 cm or 6 months after birth of a child.

Discharge criteria (Non-responders)

- All children without any improvement for 4 months should be sent to the nearest health facility for further examination and necessary action.

Supplementary feeding ration
Supplementary food rations should be given as follows fortnightly:

- 200 g Likuni Phala, 30 g oil, 30 g sugar per day should be given to every child.
- 100 g Likuni Phala, 250 g maize meal per day should be given to pregnant and lactating women.

Therapeutic feeding regimen

These guidelines should be used with reference to Therapeutic Feeding Guidelines.

Referral criteria

- Referral criteria is the same as in supplementary feeding

Admission criteria

Children and adolescents
The following should be admitted for therapeutic feeding:

- Children 6 months to 18 years with weight-for-height <70%.
- Children over 1 year with MUAC <11 cm.
- Children 6 months to 18 years with bilateral oedema.

Adults

- Adults with BMI <16 kg/m^2 or bilateral oedema and inability to stand.

Discharge criteria

The following should be discharged from therapeutic feeding:

- All children discharged from therapeutic feeding should be referred to supplementary feeding.
- Children with weight-for-height >75%.
- Children without bilateral oedema.
- Children with MUAC >11 cm.
- Adults with BMI >16 kg/m^2.
- Adults without oedema
- Adults who are able to stand.