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MINISTRY OF HEALTH



GUIDELINES ON MATERNAL, INFANT, YOUNG CHILD AND ADOLESCENT NUTRITION

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FOREWORD

Nutrition is the foundation for good health. World Health Organization recognizes that about 45 per cent of under five deaths are associated to undernutrition. Globally, recognized evidence links the nutritional status and feeding practices of children with their health, growth, survival and development status. The first 1,000 days (the period between conception to 24 months of age), is the golden window of opportunity, to ensure that children receive optimal nutrition, proper health care and nutritional care and support, to ensure a long-lasting impact on their lives and wellbeing. The first 1,000 days set the foundation for an individual's life-long physical health and intellectual development, which contributes towards a positive impact on the community's long-term health and thus towards national development.

Nutrition-related challenges tend to be multi-faceted and these include malnutrition and nutrition related Non-Communicable Diseases(NCD). Malnutrition can present in the form of undernutrition (wasting and stunting), over nutrition (overweight, obesity) and micronutrient deficiencies. Nutrition related non-communicable diseases such as Cardiovascular diseases, Diabetes Mellitus (Type 2) and cancers are linked with increased consumption of unhealthy foods and beverages high in sugar, fat, and salt. The different forms of malnutrition often co-exist within the same community, household or individual during the lifecycle. Consequently, effective, and sustainable responses require a life-cycle approach that addresses the three major underlying causes of malnutrition related to food, care, and the environment.

The Ministry of Health recognizes the important role of nutrition in the health of women, infants, young children, and adolescents who account for more than half of the population in Uganda. Nevertheless, nutrition has been a comparatively neglected aspect of maternal, new-born, child, and adolescent health.

These guidelines provide the framework for the standardization and improvement of the quality and coverage of nutrition interventions targeting mothers, infants, young children, and adolescents across delivery platforms in the country. It provides the necessary guidance for the health sector with the support of the development partners, to deliver high quality nutrition interventions to the prioritized vulnerable target groups. The overall aim is to contribute towards the commitments and targets stipulated under the Sustainable Development Goals (SDGs).

It is within this context that I reiterate the commitment of the Ministry of Health to prioritize nutrition and call on all the health workers to prioritize nutrition within the health system. More resources and support will be needed to ensure the availability and access to quality maternal, infant, young child and adolescent nutrition services. I acknowledge that the Ministry of Health is committed to working with all relevant ministries, departments, agencies, development partners as well as implementing partners, towards prioritization and implementation of the prioritized nutrition interventions.

I hereby call upon all health care service providers in the maternal, infant, young child, and adolescent nutrition arena to make use of these guidelines. I particularly urge the respective national and district level technical officers to support the implementing partners to ensure the delivery of high-quality nutrition services at all levels of the health care delivery system.

Dr. Henry G. Mwebesa



**DIRECTOR GENERAL HEALTH SERVICES
MINISTRY OF HEALTH**

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Finally, the Ministry of Health wishes to convey special thanks the team of consultants that led the drafting of the MIYCAN guidelines, led by the Lt. Dr. Gelasius Mukasa.

ABBREVIATIONS AND ACRONYMS

ART	Antiretroviral Treatment
BFHI	Baby-Friendly Health-facility Initiative
BMI	Body Mass Index
BMS	Breast Milk Substitutes
CBO	Community-Based Organization
DOT	Directly Observed Therapy
ECD	Early Childhood Development
ENA	Essential Nutrition Action
FAL	Functional Adult Literacy
GMP	Growth Monitoring and Promotion
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IEC	Information, Education, and Communication
ILO	International Labour Organization
IMNCI	Integrated Management of Neonatal and Childhood Illness
IPT	Intermittent Preventive Treatment
IYCF	Infant and Young Child Feeding
ITN	Insecticide Treated Nets
MIYCAN	Maternal, Infant, Young Child & Adolescent Nutrition
MNCH	Maternal, New-born and Child Health
MHM	Menstrual Hygiene Management
MUAC	Mid-Upper Arm Circumference
NGOs	Non-Governmental Organization
NTD	Neural Tube Defect
NCD	Non-Communicable Disease
RBC	Red Blood Cells
RUIF	Ready to Use Infant Formula
RUSF	Ready to Use Supplementary Foods
SDG	Sustainable Development Goal
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
UDHS	Uganda Demographic and Health Survey
UHT	Ultra-Heat-Treated
UNICEF	United Nations Children's Fund
VHT	Village Health Team
WASH	Water and Sanitation Hygiene
WHO	World Health Organization

GLOSSARY OF TERMS

Adolescent	MoH defines adolescent as a young person from 10 years to 19 years of age
Anaemia	A condition characterized by reduction in haemoglobin levels or red blood cells, which impairs the ability to supply oxygen to the body's tissues.
Complementary Feeding	The feeding of a child from 6 months of age using of age-appropriate, adequate and safe solid, semi-solid or liquid food in addition to breast milk or a breast milk substitute.
Continuum of Care with Life-cycle Approach	Interventions integrated at all service contact points within health facilities and the community targeting the new-born, infants, young children, adolescents, and women.
Dietary Diversity	Diverse diets includes meals consisting of foods from a variety of food groups in each day including: breast milk; greens, roots and tubers; beans, nuts and seeds; dairy (milk, yoghurt, cheese); flesh foods (meat, fish, poultry and liver/organ meats); eggs; Vitamin A rich fruits and vegetables (carrots, mangoes, dark green leafy vegetables, pumpkin, orange fleshed sweet potatoes); and other fruits and vegetables. Dietary diversity is a measure of the number of foods or food groups consumed in a given time period.
Disability	Persons with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.
Governance	Defined as the network of actors whose primary, designated function is to improve nutrition outcomes through processes and mechanisms for convening, agenda setting, decision making (including norm-setting), implementation and accountability.
Infant	MoH defines an infant as a baby from birth to 12 months of age.
Integration	Provision of interventions to avoid duplication, improve efficiency and promote synergy.
New-born (Neonate)	MoH defines a New-born as a baby from birth up to 28 days of age.

Stunting	A form of undernutrition, also known as chronic undernutrition. It is growth failure resulting from prolonged or repeated episodes of undernutrition. Stunting or low-height for age is defined by a height-for-age (HAZ) z-score below two SDs of the median WHO standards.
Systems Approach	<p>A systems approach to health is one that applies scientific insights to understand the elements that influence health outcomes; models the relationships between those elements; and alters design, processes, or policies based on the resultant knowledge in order to produce better health at lower cost.</p> <p>It also refers to actions by different sectors or systems to improve maternal infant, young child and adolescent nutrition. Systems approach engages other systems including food, health water and sanitation, education and social protection to deliver nutritious diets, essential nutrition services, and positive nutrition practices for children, adolescents and women.</p>
Undernutrition	Undernutrition includes wasting (low weight for height), stunting (low height for age) and underweight (low weight for age). Illness and insufficient intake and/or inadequate absorption of energy, protein or micronutrients to meet an individual's needs required by the body for maintenance and growth that in turn leads to nutritional deficiency.
Wasting	Also known as 'acute malnutrition', wasting is characterized by a rapid deterioration in nutritional status over a short period of time. In children, it can be measured using the weight-for-height nutritional index or mid-upper arm circumference. There are different levels of severity of acute malnutrition: Moderate Acute Malnutrition (MAM) and Severe Acute Malnutrition (SAM). Technically defined as below minus two standard deviations from median weight-for-height of a reference population
Women of Reproductive Age	MoH defines WRA as females from the age of 15 years and above up to 49 years of age
Young Child	MoH defines a young child as a child from the age of 12 months up to 59 months of age.
Low Birth Weight babies	Babies with a birth weight less than 2.5kg or 2500g at birth.
Very Low Birth Weight	Babies with a birth weight of between 1000g to 1500g.

EXECUTIVE SUMMARY

Uganda has developed the Maternal, Infant, Young Child, and Adolescent Nutrition guidelines in recognition of the critical role played by optimal nutrition in the health and well-being of women, mothers, adolescents, and children. There is an urgent need to implement interventions to improve the nutritional practices and health of women, infants and young children, and adolescents (girls and boys) for optimal child survival and development outcomes. If implemented with quality and at scale, these programmes have proven to break the intergenerational cycle of malnutrition.

According to the WHO global nutrition targets (2025)¹, Uganda is still off-track in achieving two out of the six critical indicators of: 40 per cent reduction in the number of stunted children, and 50 per cent reduction in anaemia prevalence among women of reproductive age (15–49 years). The Uganda Demographic and Health Survey (UDHS,2016)² shows that one third of children under five are stunted (29 per cent) and 13 per cent of adolescent girls are thinner than normal. While the prevalence of stunting has been reduced over time, the total number of children that are stunted are still high at over 2,230,000 of under five children. Over a half of children 6–59 months of age (53 per cent) and 32 per cent of the women 15–49 years old are anaemic.

Malnutrition especially among pregnant women and adolescents heightens the risk of maternal and neonatal mortality and morbidity, low birth weight babies, impeded growth, impaired cognitive development, which all often translates to an intergenerational cycle of malnutrition.

Policies on mothers, infants, children, and adolescents exist in Uganda but they have either not been officially approved, reviewed, or updated to address nutrition in totality. Those that are approved have not been adequately implemented at all levels. Gaps exist in planning, linkages, partnerships, budgeting, co-ordination, and accountability mechanisms for delivering nutrition actions.

These guidelines will provide the framework for standardization of the prioritized nutrition-related interventions and address nutrition along the life course in totality using evidence-based, integrated, multi-sectoral and system approaches.

The aim is to improve the quality of nutrition actions and recommended actions targeting mothers, infants, young children, and adolescents in the country. It provides the necessary guidance for health workers, partners, and other stakeholders under leadership of the health sector, to deliver optimal and high-quality nutrition interventions to the prioritized vulnerable target groups.

RECOMMENDED ACTIONS FOR NUTRITION

1. Infant and Young Child Nutrition

Infants 0–6 Months:

- Counsel and support all mothers on optimal breastfeeding practices i.e. support immediate skin-to-skin contact, early initiation of breastfeeding (within an hour of delivery), give colostrum, establish and maintain exclusive breastfeeding for the first six completed months unless medically contra-indicated.
- Promote growth monitoring and identify infants under six months of age with acute malnutrition (undernutrition) and refer appropriately.
- Counsel and support all mothers to practice responsive care giving and age appropriate play and stimulation for the proper growth and development of the baby.

Children 6–23 Months:

- Counsel and support caregivers, parents to introduce nutritionally diverse, adequate, safe and age appropriate complementary foods to the infant at six completed months while they continue breastfeeding for up to two years or beyond.
- Feed children on a variety of locally available foods from the main food groups i.e. energy-giving foods (carbohydrates, fats, and oils), body-building foods (plant and animal proteins), and protective foods (vegetables and fruits) and in recommended frequency and quantities.
- Counsel and support all mothers living with Human Immunodeficiency Virus (HIV) on adherence to Antiretroviral Therapy (ART) while they continue breastfeeding until the baby is 12 months of age.
- Feed sick and recuperating infants and children on small, frequent meals of soft consistency and enriched with high protein, fat and mineral content while continuing breastfeeding.
- Counsel and support all mothers to practice responsive care giving and age appropriate play and stimulation for the proper growth and development of the baby.
- Deworm children aged 12 months and older
- Provide Vitamin A supplementation for infants and children aged 6–23 months
- Provide zinc supplementation with increased fluids and including continued feeding in management of diarrhoea in children
- Provide iron-containing multiple micronutrient powders for point-of-use fortification of foods for infants and young children aged 6–23 months in settings in which the prevalence of anaemia in children under two years of age or under five years of age, is 20 per cent or more
- Conduct routine weight and height or length assessments for children 6–23 months of age and nutrition counselling for children under five years of age, including children with disabilities
- Counsel and support mothers, caretakers, and families to practice recommended infant and young child feeding of children with moderate and acute malnutrition in line with national guidelines

- Counsel and support mothers, caretakers and families to practice recommended infant and young child feeding during emergencies and other exceptionally difficult/special circumstances including but not limited to HIV, Ebola Virus Disease, Zika virus, Corona Virus Disease (COVID-19) and/ or disabilities.

Children 24–59 Months:

- Encourage consumption of a variety of locally available foods from the main food groups i.e. energy-giving foods (carbohydrates, fats, and oils), body-building foods (plant and animal proteins) and protective foods (vegetables and fruits) and in recommended frequency and quantities.
- Avoid foods and drinks high in sugar, salt and fat
- Provide preventive deworming
- Provide Vitamin A supplementation
- Conduct routine weight and height or length assessments for children under five years of age to monitor growth and provide nutrition counselling, including for children with disabilities
- Provide zinc supplementation with increased fluids and continued feeding for management of diarrhoea in children.
- Counsel and support all mothers to practice responsive care giving and age appropriate play and stimulation for the proper growth and development of the baby.

2. Adolescent Nutrition

- Counsel adolescent girls and boys on healthy eating to prevent all forms of malnutrition
- Promote fortified foods, bio-fortified foods, and targeted micronutrient supplementation among adolescents in line with national guidelines
- Promote physical activity/exercises among adolescent girls and boys
- Educate and counsel adolescent girls on delaying first pregnancy. (For pregnant adolescents, refer to section on pregnant women of reproductive age)
- Promote provision of quality adolescent-friendly nutrition services in schools, at the health facility, and community levels
- Promote access to clean, safe water and sanitation hygiene services and practices and provide deworming medications for adolescent girls and boys 10–15 years of age

3. Women of Reproductive Age (15–49 years)

Pre-conception:

- Counsel all women to consume diverse and nutritionally rich local foods from varied sources (grains, green leafy vegetables, vitamin rich vegetables and fruits, nuts, meats, eggs, fish) that are rich in iron, folate, iodine, vitamin A, D, E, K
- Promote consumption of clean and safe drinking water and personal and environmental hygiene
- Provide folic acid as a supplement, in addition to adequate intake of foods rich in folic acid (e.g. green leafy vegetables, eggs, legumes) to women prior conception in order to prevent Neural Tube Defects (NTD) in new-borns
- Promote physical activity to stay healthy.

Pregnancy:

- Counsel pregnant mothers to consume sufficient and varied diets from locally available foods including fruits and vegetables, animal products and fortified foods (including use of iodized salt). All pregnant women should be screened for anaemia and corrective action taken
- Provide iron and folic acid to pregnant women, in addition to counselling on consuming adequate foods rich in folic acid (e.g. green leafy vegetables, eggs, legumes)
- Promote physical activity to stay healthy and prevent excessive weight gain
- Promote the consumption of an extra adequate meal for all pregnant women
- Educate partners, household, and community members on the importance of reducing workload and providing sufficient rest for pregnant mothers
- Encourage all pregnant women to attend at least eight recommended ANC contacts at health facilities during which they receive services including weight monitoring, nutrition counselling, screening for anaemia, and daily iron and folic acid supplementation according to nationally accepted protocols to prevent anaemia
- Expectant mothers should be supported to prevent anaemia by sleeping under ITNs, receive IPT and be given deworming medicines
- Counsel and encourage all individuals to practice adequate personal and environmental hygiene.
- Counsel pregnant women on early childhood development including newborn development and support them with birth preparedness.

Post-natal Care and Lactation:

- Counsel and encourage early initiation of breastfeeding, provide nutrition and breastfeeding counselling to ensure optimal nourishment for both mother and baby
- Promote the consumption of two extra adequate meals for all breastfeeding women
- Promote and support access to at least four post-partum care visits where mothers can receive appropriate support, nutrition, and breastfeeding counselling
- Counsel women on the role of exclusive breastfeeding as a method of family planning in addition to other family planning recommendations.
- Provide guidance on ECD; counsel and support women on birth preparedness and discuss newborn development; Pay attention to maternal health

Nutrition during Emergencies:

- During emergency situations, humanitarian aid programmes should prioritize vulnerable groups that include children, pregnant women, and lactating mothers to meet their energy and other nutrient needs
- Depending on the emergency context, nutrition specific and complementary nutrition sensitive interventions to include management of severe and moderate acute malnutrition, treatment and prevention of micronutrient deficiencies, and support, promote, and protect appropriate infant and young child feeding and nutrition care for groups with special needs (e.g. HIV and disabilities)
- Nutrition sensitive interventions could include: livelihood support, voucher schemes, emergency school feeding, food for work, public health and wash interventions.



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INTRODUCTION

1.1 Background

The global momentum to address all forms of malnutrition has increased significantly over the past several years with an overall drive to fight malnutrition in all its forms i.e. undernutrition (stunting and wasting), overweight, and obesity as well as micronutrient deficiencies. The World Health Organization set global nutrition targets for 2025¹ and 2030 for member states, which were endorsed by the World Health Assembly in 2012³. As illustrated in Table 1 below; Uganda is on-track for four indicators, and off-track in two indicators.

Table 1. Progress meeting the MIYCAN World Health Assembly Targets for 2030

Indicator	Baseline (2012) ⁴	Target (2025)	Current (2016) ²	Status
50% reduction in the number of stunted children	2,318,000	≤1,391,000	2,230,000	Off track
Reduce and maintain wasting prevalence to below 3%	4.3%	<5%	3.6%	On-track
50% reduction in anaemia prevalence among women of reproductive age (15–49 years)	29.6%	≤14.8%	31.7%	Off-track
Reduce and maintain child overweight prevalence to 3%	5.8%	≤5.8%	3.7%	On-track
Increase the percentage of exclusively breastfed children to at least 70%	63.2	>50%	65.5%	On-track
30% reduction in low birth weight	10.2	≤7.1	9.6	Additional analysis Required

⁴Baseline estimates and targets from UNICEF Nutrition Targets Tracking Tool: <https://data.unicef.org/resources/nutrition-targets-tracking-tool/>

²Current estimates from Uganda Demographic and Health Survey 2016

Failing to achieve these targets undermines progress towards the targets set under the Sustainable Development Goals (SDGs)⁵, particularly in relation to poverty, maternal, infant, young child and adolescent health. Despite being preventable, malnutrition exerts a big burden on the health sector with costs that span generations and contributes towards deepening poverty at the community level. Proven cost-effective nutrition intervention strategies exist, which if implemented on a wide scale could significantly reduce mortality and morbidity as well as greatly lower the costs of health care.

The World Health Organization (WHO) Essential Nutrition Actions (ENA): mainstreaming nutrition through the life-course⁶, proposes strategies that should meet people's health needs through comprehensive promotive, preventive, curative, rehabilitative, and palliative care through the life cycle. These strategies should systematically address the broader determinants of health (including social, economic, and environmental factors, as well as people's characteristics and behaviours); empower individuals, families, and communities to optimize their health, as advocates for policies that promote and protect health and well-being.

The strategic direction for this guideline is provided by the Uganda Vision 2040 (Uganda Vision, 2014)¹ and the National Development Plan III (2020) priorities, the draft Uganda Nutrition Action Plan II (2020), sector aspirations of Health Sector Development Plan 2020–2025⁹ Vision of *‘having a healthy and productive population that contributes to economic growth and national development’* and the sector Objective 2 of *‘contributing to the production of a healthy human capital for wealth creation.’* It seeks to address six SDGs⁵ specifically for the SDG-2 to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture. The guidelines serve to re-position nutrition and nutrition-related interventions prominently within the national health care delivery system, with reference to the health of mothers, neonates, children and adolescents in the country. Recognizing the multi-sectoral nature of the nutrition challenge, as well as the pivotal roles of different stakeholders from the public, private and civil society, these guidelines also provide the framework for the health sector to support the multi-sectoral actions on nutrition.

1.2 Situation Analysis

At the national level, several policy documents exist which partly address the nutrition situation of mothers, infants, children, and adolescents but some have neither been officially approved nor adequately implemented. At institutional level, there are inadequate systems for building and strengthening health workforce competency, inadequate integration of nutrition services at various key points, including proper monitoring of nutrition interventions. In communities, there is limited capacity to deliver integrated nutrition and care services, and sometimes the existing community health workers are not functional. There is an urgent need to step up multi-sectoral programming, advocate for more investments on nutrition and to ensure a more effective approach to improve nutrition practices and behaviours among target groups and vulnerable populations.

There is evidence of the intergenerational effects of malnutrition, as the issues and concerns in one age group may derive from the nutritional issues and concerns in the earlier age-group. Interventions focusing only to one or few age groups may not be enough for sustainable improvements in health and nutrition outcomes and may result in an inefficient use of resources.

Hence, if malnutrition is not addressed across all the different stages of the life cycle, the consequences will lead to increased levels of maternal and neonatal mortality and morbidity, low birth weight babies, impeded growth, and impaired cognitive development of children.

1.2.1 Infant and Young Child Nutrition

The UDHS 2016 report shows that 9.6 per cent of all babies are born with a low birth weight (weighing less than 2.5kg)². Twenty-nine per cent of the children of 6–59 months are stunted from 33 per cent in 2011, 11 per cent are underweight from 14 per cent in 2011, 4 per cent wasted and 4 per cent overweight, with a slightly higher prevalence among the males as compared to females (Figure 1).

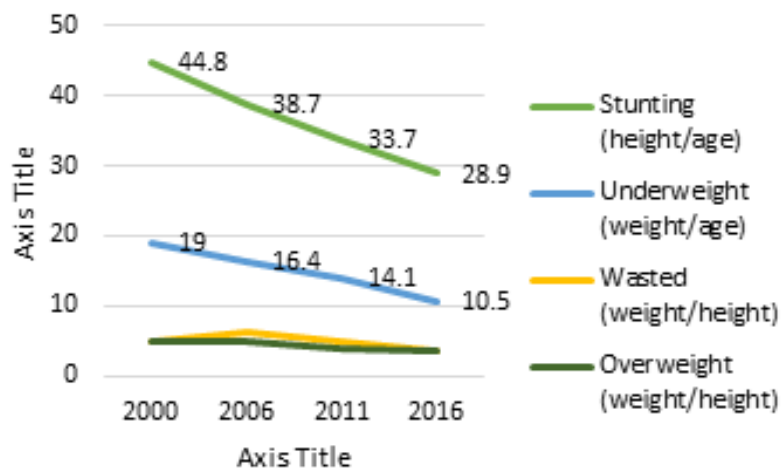


Figure 1: Prevalence of Malnutrition among Under-Five

While Uganda has been progressive in reducing malnutrition, more than 2 million children in Uganda are still stunted, while 1.3 per cent are severely wasted. Regional variations have been noted in malnutrition trends as well as child feeding practices. Regions of Karamoja (35.2 per cent); West Nile, a region that hosts refugee populations (33.9 per cent); Acholi (30.6 per cent); and Lango (22.3 per cent) have some of the highest prevalence rates for stunting as shown in Figure 2 below. In 2017, stunting levels in refugee settlements, varies between 16 per cent to 33 per cent¹⁰.

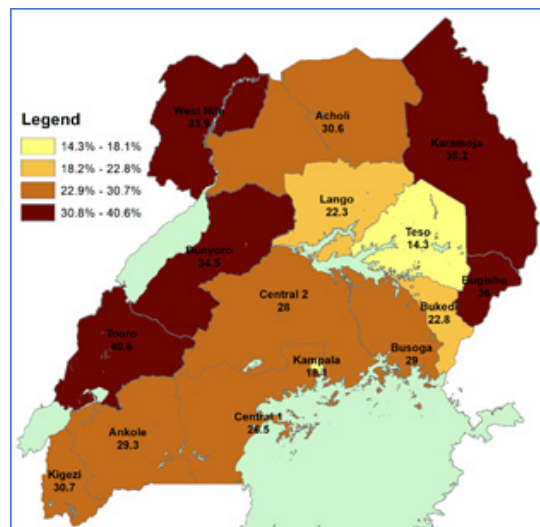


Figure 2: Child stunting by region

Infant and Young Child Feeding (IYCF) practices have remained suboptimal throughout the country. Only 66 per cent of children are initiated on breastfeeding within the first hour of life and only 66 per cent are exclusively breastfed². Of the new-borns, 26.6 per cent still receive pre-lacteal feeds. Continued breastfeeding drops to 43.2 per cent by the age of two years². Complementary feeding practices are even much worrying with only 15 per cent of children 6–23 months consuming a minimum acceptable diet (Figure 3).

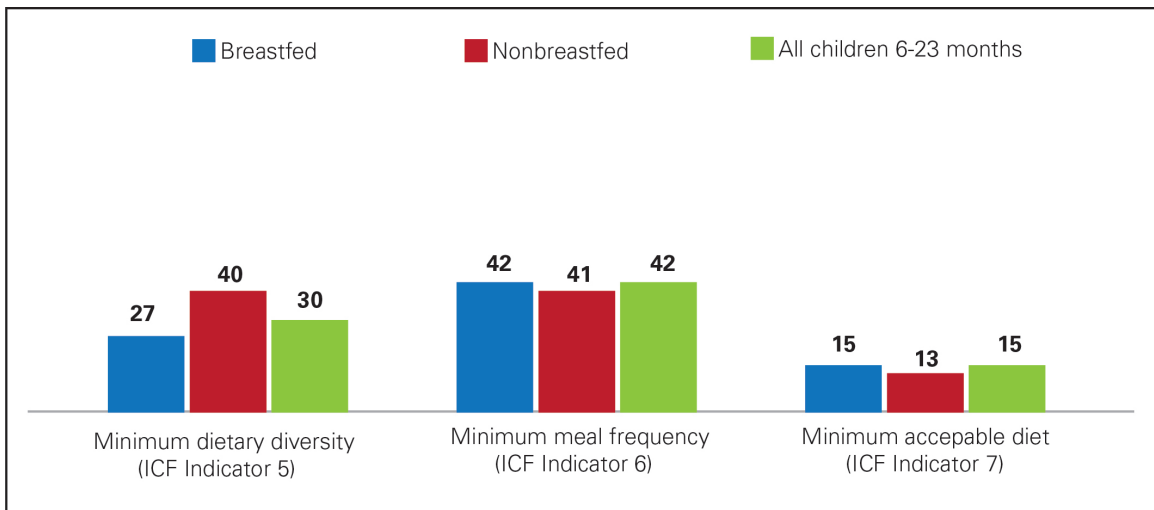


Figure 3: Infant and young child feeding indicators, by breastfeeding status

Rates of anaemia are also alarming, affecting half of children under five (53 per cent). The prevalence is higher among younger (6–23 months) than older infants (24–59 months) and higher in rural (54 per cent) than urban areas (48 per cent)².

1.2.2 Adolescent Nutrition

The total population of adolescents in Uganda is about 8.8 million, accounting for 25.6 per cent of all people in the country. According to UDHS 2016, one out of every three adolescents in the country (32 per cent) is stunted. On the other hand, 13 per cent of all adolescents in the country are underweight, while 11 per cent are overweight, with 1 per cent being obese².

Teenagers who become pregnant are more likely to have low birth weight babies, and in Uganda 25 per cent of women age 15–19 had begun childbearing in 2016². In Uganda, nearly 50 per cent of adolescents are married by age 18 and 15 per cent are married by age 15 and this increases the risk of adverse pregnancy and birth outcomes and only exacerbates the vicious cycle of malnutrition. The UDHS 2016 also reported anaemia prevalence of 32.9 per cent among females aged 15–19 years, compared to 26.0 per cent among males of the same age.

1.2.3 Maternal Nutrition

There has been an improvement over the 10-year period, in reducing the proportion of thin women 15–49 years old from 12 per cent to 9 per cent while those who are overweight and obese increased from 17 per cent to 24 per cent² (Figure 4). The same report (UDHS 2016) revealed that overweight and obesity increases with age and is higher among the urban residents compared to those in rural areas (34 per cent and 20 per cent, respectively). Anaemia, associated with increased maternal mortality, poor birth outcomes, and reduced work productivity, is prevalent among 32 per cent of the women 15–49 years old, which is public health problem².

Gender norms combined with limited availability of resources such as access to quality health care, money and decision-making power to seek professional care puts women and children

at a disadvantage in accessing healthcare and adopting appropriate maternal and child feeding practices. Boys are considered as an economic asset. Girls are married off early which negatively impacts their nutritional literacy and ability to plan their births and seek health care. There is very limited engagement of men in supporting women and children's health and nutrition. Additionally, social taboos regarding certain food types exist in some parts of the country. For example, a pregnant woman may not be given animal ribs or pancreas due to the belief that child may become weak¹¹.

1.3 Goal, Purpose, and Objectives

Goal

To reduce all forms of malnutrition in children under five years of age, adolescent girls, pregnant and lactating women in Uganda by 2025.

Purpose

These guidelines will support health care providers, programme managers, and stakeholders in health and nutrition, and other relevant sectors in the provision of nutrition care and support services with focus on the mothers, infants, children, and adolescents.

Objectives

The general objective of the guidelines is to provide guidance to health and nutrition service providers at all levels in the protection, promotion, and support for appropriate maternal, infant, and young child and adolescent nutrition.

Specifically, the guidelines are expected to:

1. Improve knowledge of health service providers at all levels to respond to the nutritional needs of mothers, infants, children, and adolescents
2. Strengthen integration of nutrition interventions for mothers, infants, young children, and adolescents within existing health care delivery systems and across other relevant sectors and support services in the community.

1.4 Rationale

These guidelines are evidence-based and have been developed in response to the global and regional agreements as well as the existing national legislation, policies and guidelines. The development of the guidelines has served as a review of the Infant and Young Child Feeding Policy Guidelines 2012, so as to include the continuum of care along the life cycle¹².

These guidelines provide the basis for harmonising and standardising maternal, infant, child, and adolescent nutrition services into a holistic package. The guidelines focus on the need to improve the quality of delivery of maternal, infant, and young child and adolescent nutrition interventions and services to make progress in attaining the national and global targets.

1.5 Target Audience

Primary Target: Nutritionists, dieticians, midwives, nurses, clinical officers, medical doctors, health promoters and educators, community health workers, development partners, and organizations implementing nutrition interventions with a focus on mothers, infants, young children and adolescents. The use of community-based resource persons, health workers, peer counsellors, and mother support groups as well as links with agricultural and other extension workers shall be promoted

Secondary Target: Nutrition teachers, academic institutions, line ministries such as Education and Sports; Agriculture, Animal Industry and Fisheries; Gender, Labour and Social Development; Local Government; and Water and Environment

1.6 Scope and Implementation of the Guidelines

The guidelines will be implemented in line with the MIYCAN Action Plan, and the components of these guidelines are structured along the life cycle continuum from adolescence through the pre-pregnancy period, pregnancy and childbirth, breastfeeding period for the woman, and on to the child under-five years of age (Figure 5).

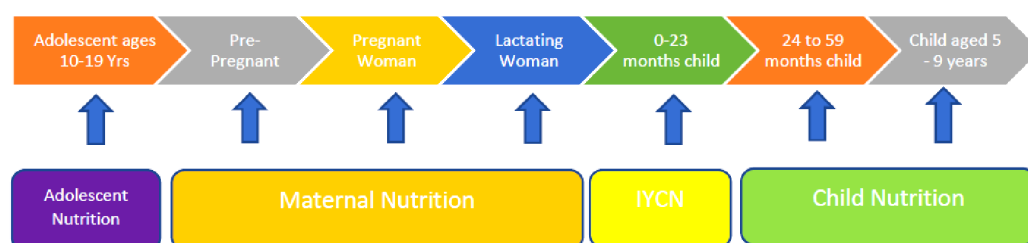


Figure 5: Nutrition Interventions along the Life Cycle Continuum

Implementation of these guidelines follows an integrated approach within the existing facility and community-based services: antenatal care, labour and delivery, postnatal care, immunisation, young child clinics, adolescent health clinics, family planning clinics, school health programmes targeting adolescent, Human Immunodeficiency Virus (HIV) and Tuberculosis (TB) clinics, Non-Communicable Disease (NCD) clinics and nutrition rehabilitation units.

In line with the global priorities for maternal, infant, young child, and adolescent nutrition, the primary focus of these guidelines will be on the following areas:

- The first 1,000 days for the child that begins at the time of conception, through the period of pregnancy and childbirth: and from birth of the baby till the age of two years
- Adolescent girls
- Pregnant women and breastfeeding mothers
- Birth and delivery, which are critical periods in an individual's life.

The implementation of these guidelines will require human, material, organizational and financial resources. The Ministry of Health in collaboration with development partners and other key stakeholders shall mobilize the necessary resources, which are required for its effective implementation. The guidelines are aligned with the overarching government strategies of the MoH including the Uganda Nutrition Action Plan (2018 to 2025), Nutrition Policy guidelines on Infant and Young Child Feeding 2012, Second National Health Policy 2010, Health Sector Development Plan (2015/16 to 2019/2020) and the National Integrated Early Child Development Policy in Uganda 2016.



02

PRIORITY AREAS

2.1 Infant and Young Child Nutrition

2.1.1 Introduction

Improving infant and young child nutrition requires the implementation of a series of concerted and systematic actions across the life cycle in normal and difficult circumstances that need to be prioritized in Uganda.

This guideline explicitly incorporates guidance on IYCF practices in two broad categories:

1. Nutrition care and support under normal circumstances
2. Nutrition care and support in special circumstances including but not limited to emergencies, HIV infection, disabilities, pandemics etc. Children in these circumstances are at a high risk of malnutrition and, therefore, require special attention and support to ensure optimal IYCF.

2.1.2. Recommended Actions to Promote Optimal Nutrition in Children in normal circumstances

Key implementation practices are recommended to ensure the protection, promotion, and support of infant and young child nutrition in Uganda.

Recommended Action 1:

Counsel and support all pregnant women and mothers of children less than two years to initiate breastfeeding within the first hour of life and to exclusively breastfeed their infants for the first six completed months of the infant's life.

Recommended Action 2:

Counsel and support parents to introduce nutritionally adequate, safe, and appropriate complementary foods at six completed months of the infant's age while they continue breastfeeding for up to two years or beyond.

Recommended Action 3:

Counsel and support caregivers and families to feed their children a diversified diet from a variety of locally available foods from the main food groups (fresh fruits and vegetables, cereals and grains, proteins from plant or animal sources and vegetable oil).



BREASTFEEDING

Breast milk is the ideal food for a child as it contains all nutrients that a child needs for healthy growth and development. Breast milk, including the first milk, colostrum, contains protective factors that provide immunity to the child against several illnesses including diarrhoea and respiratory illnesses. No other food, including water is required as breastfeeding alone is adequate to meet the nutritional needs of a child for the first six months of life. However, medicines that are prescribed by the medical professional can be provided.

Babies should be placed on skin-to-skin contact with their mothers immediately after birth and all mothers should be encouraged and supported to initiate breastfeeding their newborn baby within the first hour of life. Mothers should be encouraged to recognize cues when their babies

are ready to breastfeed and counselled to breastfeed on demand, day and night. All mothers should be counselled and supported to exclusively breastfeed their infants for the first six months of the infant's life unless medically contraindicated.

Successful breastfeeding hinges largely on the Baby Friendly Health Facility Initiative (BFHI)¹³, and other facility and community-based interventions and involves the 14 requirements to Successful Breastfeeding (Annex 1), including compliance with the National Regulations on Marketing of Infants and Young Foods (Annex 2). At the same time, it is very important to continue advocating with employers to protect and support breastfeeding women also in the workplace (Annex 3).

The recently revised draft BFHI standards reaffirm key principles¹⁴ (Annex 4) for implementation and assert the importance of looking at the responsibility of the health facilities for the provision of the maternity and new-born services, to ensure that all health facilities comply with the revised BFHI guidelines of Uganda¹⁴. At the same time, the 14 requirements provide all the needed information and guidance for the health workers to perform their work and responsibilities to promote, protect and support breastfeeding.

Successful implementation of the interventions to promote nutrition of children include breastfeeding counselling for pregnant women and mothers of children less than 2 years of age, counselling and support should be continued throughout the breastfeeding period. Caregivers should be counselled on the importance of good hygiene practices while caring for the child to reduce the risk of diarrhoea and other illnesses (Box 1 for summary on key considerations for optimal breastfeeding).



Box 1: Summary of Key Considerations for Optimal Breastfeeding

- Ensure that all health facilities offering maternity services implement the Baby Friendly Health Facility Initiative (BFHI) and become certified as baby-friendly, according to the BFHI requirements
- Implement monitoring and enforcement of the Regulations on the Marketing of Infant and Young Child Foods according to the national law
- Ensure rooming in/bedding in of mothers and new-born infants
- Support mothers to initiate early contact with their new-born babies for at least one hour, combined with the initiation of breastfeeding within the first hour
- Encourage mothers to feed their infants colostrum or “first milk”
- Counsel mothers to breastfeed frequently on demand, both by day and night
- Strengthen information and communication on the importance of avoiding pre-lacteal feeds such as water, glucose water, teas, and herbal preparations for new-born babies
- Support mothers to position and attach, the baby to the breast correctly, and to completely empty one breast before offering the second, in order to ensure that the infant gets the rich hind milk as well as to avoid breast problems
- Counsel and educate mothers on how to identify breastfeeding difficulties, including breast conditions, and the need to promptly seek medical care from a Ministry of Health approved provider, preferably in a baby friendly health facility
- Counsel mothers to maintain a child health card or mother/child health passport to monitor the growth and development of the child, to take their children to health promotion sessions or the nearest health facility, to ensure timely immunisation and to make sure that the child sleeps under an Insecticide Treated Mosquito Net (ITN)
- Advocate for and ensure that employers protect and promote Maternity Rights and Benefits
- Counsel mothers to practice responsive caregiving, and age appropriate play and stimulation for the proper growth and development of the baby



Complementary Feeding

When a child reaches six months of age, the child should receive safe, adequate, nutritious, and age-appropriate complementary foods alongside continued breastfeeding. Appropriate complementary foods (locally available) should be nutrient rich with adequate energy, vitamins, and minerals and without excess fats, salt, and sugar and should follow the Frequency, Amount, Thickness/consistency, Variety, Active/responsive feeding, Hygiene recommendations (FATVAH) per age groups as shown in Table 2 and 3.

Children have small stomachs, and therefore should be fed on nutrient dense foods, starting with two meals at 6–8 months and gradually increasing 3/4–1 cup, 4–5 times a day at 12–23 months. The consistency of food should gradually evolve with age of the child and according to the child's requirements and abilities. At one-year, young children should progress from eating soft to semi-solid then to solid food and finally family foods.

Recommended Actions for Optimal Complementary Feeding Practices

- Counsel mothers to introduce age appropriate nutritionally adequate complementary foods at six completed months of the infant's age, while continuing to breastfeed until two years or beyond. Locally available and acceptable foods should be used as complementary foods (Annex 5).
- Encourage mothers to feed their children regularly. Depending on the age of the child, the caregiver should be advised to feed their children (6–8 month-old child) twice a day and 4–5 times a day for older children: three main meals and two extra foods between meals (snacks)
- Encourage mothers and caregivers to feed their children foods that are age appropriate. Feeding should be as frequent as needed by the child. The food to be given should be thick in consistency and nutrient rich and diverse
- Counsel caregivers to avoid giving drinks and foods high in sugar, salt and fat (e.g. fast foods, sugar sweetened beverages).
- The mothers and caregivers should be patient while feeding, actively encouraging the child. Children with disabilities may need more time to be fed.
- All mothers and caregivers will need to ensure that good sanitation and hygiene practices are followed strictly. Complementary foods should be hygienically prepared stored, and fed with clean hands, dishes and utensils.
- Encourage parents to practice active feeding, meaning that they should interact with the infant during feeding times
- Encourage parents to ensure that their infants and children receive vitamin A supplements every six months starting at six months of age, and de-worming medicines every six months starting at one year of age until the children are five years old
- Counsel parents to continue monitoring the growth of their children through five years of age and maintain the child growth card or mother/child health passport for recording this growth
- Counsel and support parents to space births 2–3 years apart to achieve the optimal duration of breastfeeding.
- Counsel mothers and caregivers on optimal IYCF practices, hygiene and sanitation practices and to seek timely medical care if the child falls sick.



Table 2: Summary of the Complementary Feeding Practices

Age Group	6–8 Months	9–11 Months	12–23 Months
Frequency	<ul style="list-style-type: none"> 2–3 meals per day plus frequent breastfeeding; based on a child’s appetite, 1–2 snacks may be offered 	<ul style="list-style-type: none"> 3–4 meals per day plus frequent breastfeeding. Based on a child’s appetite, 1–2 snacks may be offered. 	<ul style="list-style-type: none"> 3–4 meals per day plus frequent breastfeeding. Based on a child’s appetite, 1–2 snacks may be offered.
Amount	<ul style="list-style-type: none"> Start with 2–3 tablespoons per feed, increasing gradually to ½ of a 250 ml cup 	<ul style="list-style-type: none"> ½ cup of a 250 ml at each meal 	<ul style="list-style-type: none"> ¾ of a 250 ml cup at each meal
Thickness (consistency)	<ul style="list-style-type: none"> Start with thick porridge, well mashed foods. Continue with mashed family foods Foods prepared with treated water. 	<ul style="list-style-type: none"> Finely chopped or mashed food and foods that the baby can pick up with his/ her fingers Wash child’s hands if feeding him or herself. 	<ul style="list-style-type: none"> Family foods, chopped or mashed if necessary Wash child’s hands if feeding him or herself.
Variety	<ul style="list-style-type: none"> Encourage mothers to include at least one type of locally available food from the three main food groups: Carbohydrates/fats/oils (energy-giving foods), plant/animal protein (bodybuilding), and vegetables and fruits (protecting foods) 		
Active/ responsive feeding	<ul style="list-style-type: none"> Mothers should be encouraged to feed their infants and young children patiently and actively and to use a separate plate for the infant to ensure adequate intake. 		
Hygiene	<ul style="list-style-type: none"> Counsel mothers on hygienic food preparation and handling to avoid food contamination leading to diarrhoea and illness. Encourage the use of clean, open cups. Discourage use of feeding bottles, teats, or spouted cups as they are very difficult to clean. 		

Please note in the case of a not breastfed child consider the following:

Table 3: Complementary Feeding Options for a Non-breastfed Child

Age	Frequency	Amount	Thickness	Variety
6–24 months	Add 1–2 extra meals 1–2 snacks may be offered	Same as above according to age group	Same as above according to age group	Same as above, plus 1 to 2 cups of milk per day + 2–3 cups of extra fluid especially in hot climates.

Source: UNICEF Community IYCF Counselling Package, 2013

Table 4: Recommendation Actions across the Life Cycle for IYCN

Life cycle Stage	Recommended Actions
0–6 Months	<ul style="list-style-type: none"> • Delay cord clamping as part of the essential new-born care package for Uganda • Encourage and support mothers to initiate breastfeeding within one hour after birth • Promote and support mothers to Exclusively Breastfeed (EBF) for the first six months of life • Promote and support early childhood stimulation through age responsive feeding, responsive care, play and psycho-social stimulation • Protect, promote, and support optimal breastfeeding practices with the implementation of the national 14 BFHI requirements for successful breastfeeding in all facilities offering new-born and maternity services • Promote growth monitoring and promotion • Advocate to other sectors to protect breastfeeding; and provide support to mothers to breastfeed, by complying with the recommendations of the national regulations on foods for Infant and Young Children, the International Code of Marketing of Breast Milk Substitutes and subsequent relevant World Health Assembly Resolutions • Counsel lactating mothers to take sufficient and varied locally available food, along with adequate rest and support from family.
6–23 Months	<ul style="list-style-type: none"> • Counsel caregivers to introduce nutritionally adequate, safe, varied and age appropriate complementary foods at six completed months of the infant’s age with continued breastfeeding until two years of age or beyond • Promote and support early childhood stimulation through age appropriate responsive feeding, responsive care, play and psycho-social stimulation • Promote use of fortified foods (e.g. fortified flour, oil) • Promote use of micronutrient supplements (e.g. vitamin A) and multiple micronutrient powders • Promote the use of deworming tablets according to schedule (i.e. from one year of age and after every six months) or when needed • Promote growth monitoring and promotion • Increase integration initiatives with other sectors to increase access to safe, affordable and appropriate complementary foods.
24–59 Months	<ul style="list-style-type: none"> • Promote consumption of a nutritious, affordable, and safe diets • Promote use of fortified foods (e.g. fortified flour, oil, iodized salt) • Promote use of micronutrient supplements (vitamin A supplementation) and micronutrient powder • Promote the use of deworming tablets according to schedule (i.e. from one year of age and after every six months) or when needed • Promote and support early childhood stimulation through age appropriate responsive feeding, responsive care, play, and psycho-social stimulation.

2.1.3 Nutritional Care and Support for Children 0–59 months old under “Special” Circumstances

This section presents the recommended actions to be followed in relation to special circumstances where children are at higher risk of morbidity, malnutrition, and mortality. The section provides guidance on nutrition care and support for low birth weight infants, infant feeding in the context of HIV, Ebola, COVID-19, and infant feeding in emergencies.

2.1.3.1 Infant Feeding Practices for Low Birth Weight babies

Low birth weight (LBW) is defined by the World Health Organization (WHO) as a weight at birth of less than 2500 grams⁶.

Being born with a low birth weight is a disadvantage for the infant and it contributes directly and indirectly to neonatal deaths. National infant mortality rate can be reduced significantly by improving nutrition care of low birth weight infants alongside temperature maintenance, hygienic cord and skin care, and early detection and treatment of infections.

Recommended Action 4:

Counsel and support mothers of infants who are born with low birth weight but can suckle to breast feed, unless there is a medical contraindication

Recommended Action 5:

Counsel and support mothers of low birth weight infants who cannot suckle well to express breast milk and to give it by cup, spoon, or nasogastric tube.

Successful Implementation of interventions for nutrition of children with Low Birth Weight should be in line with the WHO recommendations on Infant Feeding and Low Birth Weight¹⁵ (Annex 6) and will involve the following:

- Low birth weight infants, including very low birth weight infants (weight between 1000g and 1500g), should preferably be fed on breast milk and this should be exclusively until six months
- Low birth weight infants who are clinically stable should be put to breastfeed as soon as possible after birth
- Low birth weight babies less than 30 weeks gestational age should be cared for in a health facility together with their mothers because pre-matures usually require feeding through nasogastric tubes
- For very low birth weight infants in resource-limited settings, enteral feeds of 10ml/kg per day should be provided, preferably of expressed breast milk, starting from the first day of life, with the remaining fluid requirement met by intravenous fluid
- As they develop and are able to suckle on the breast, they can be cared for at home using the kangaroo mother care technique

- Low birth weight infants who need to be fed by an alternative oral feeding method should be fed by a cup (or palladia, a cup with a beak) or should be fed by a spoon
- Low birth weight infants who are fully or mostly fed by an alternative oral feeding method should be fed on demand/infant hunger cues. Infants sleeping for more than three hours should be woken up to feed
- Advise mothers to return as a follow up for all LBW babies to make sure that the agreed action points are followed
- Very low birth weight (VLBW) infants fed on mother's own milk or donor human milk should be given 2–4mg/kg per day iron supplementation starting at two weeks until six months of age.

2.1.3.2 Infant Feeding in the Context of HIV Infection

Appropriate breastfeeding practices for HIV affected mothers are necessary because of the crucial benefits of breast milk to exposed infants that include; ability to provide optimal nutrition, protection against common childhood infections and the high risk of death associated with malnutrition. The risk of mother to baby transmission greatly decreases if exclusive breast feeding and complementary feeding is practised as the mother adheres to Anti-Retroviral Therapy (ART).

Recommended Action 6:

Counsel and support all mothers to initiate breastfeeding within an hour of delivery and to exclusively breastfeed their infants for the first six completed months of the infant's life

Recommended Action 7:

Counsel and support all mothers living with HIV on adherence to antiretroviral therapy while they continue breastfeeding until the baby is 12 months of age. Adherence counselling should include all other prescribed medicines for the mother and her baby.

Successful implementation of interventions for nutrition of children within the context of HIV infection should be in line with the National Consolidated Guidelines for the Prevention, Care and Treatment of HIV in Uganda (2018)¹⁶ and will involve the following:

- Counsel all women living with HIV on the benefits of exclusive breastfeeding for the first six completed months of the infant's life and establish the HIV exposure status of those infants with unknown status.
 - **HIV Exposed Infants:** Encourage mothers to discontinue breastfeeding at 12 months of age for infants who are HIV negative. At least 500ml (1 NICE cup) a day of alternative forms of milk (cow's milk, goat's milk and soya) should be given after breastfeeding has been discontinued

- **HIV Infected Infants:** Encourage mothers to continue breastfeeding on demand, day and night up to 24 months to maintain the baby's health and nutrition
- **HIV Exposed Sick Infant:** Counsel the mother/caregiver to feed the child even more frequently than usual to meet that child's nutritional requirements (at least two extra meals and one snack).
- Counsel the mothers living with HIV who decide to stop breastfeeding at any time, to do so gradually. This transition period should be between one to two weeks which is not too long to increase exposure and not too short to cause physical and psychological trauma to the mother and baby. The mechanisms of transition include:
 - Expressing breast milk and feeding infant or child by cup
 - Encourage heat treatment in situations where the mother is non adherent to ARVs
 - Substituting the expressed breast milk with suitable replacement feed gradually.
- Follow-up all HIV exposed infants and continue to offer infant feeding, counselling and support to mothers/ caregivers
- Monitor growth and development of baby
- Introduce complementary feeding at six months and continue breastfeeding until 12 months
- Promptly manage breast problems like mastitis, cracked nipples etc.

2.1.3.3 Infant Feeding during Sickness (feeding the sick child)

Sickness in infants and young children, especially when associated with febrile illness, tends to increase the metabolic rate, and thus contribute towards increased requirements for nutrients. However, sickness often results in loss of appetite and decreased capacity of the infant and young child to eat. It is important for the mother or caregiver to pay close attention to the amount, frequency, consistency, and quality of the food being given to the sick infant and young child.

Recommended Action 8:

Continue to breastfeed Sick and recuperating infants and children and feed them on small, frequent meals of soft consistency and enriched with high protein, fat, and mineral content.

Successful implementation of nutrition support for the sick child will involve the following:

Sick Child less than six months:

- Encourage mothers to breastfeed more frequently during illness, including diarrhoea, to fight illness and to recover more quickly

- Counsel mothers to give only breast milk and medicines prescribed by the doctor/ health care provider
- Encourage mothers to increase the frequency of breastfeeding to help the child regain health and weight after recovery from illness.

Sick Children six months and above:

- Encourage the breastfeeding mothers to continue breastfeeding
- Counsel the mothers to give one extra snack to children who are well; one extra meal (or two snacks) at onset of sickness; and three extra meals (or two extra meals and one snack) when sick and losing weight
- Encourage mothers to feed the child on high energy high protein foods for example; enriching porridge with milk, groundnut paste, silver fish powder, eggs, and thickened soups.

2.1.3.4 Infant Feeding for Children with Disabilities

Children with disabilities are at a particularly high risk of malnutrition. Also, malnutrition can lead to or exacerbate disabilities. Studies suggest that children with disabilities may be up to three times as likely to be malnourished as their peers. Many children with disabilities (around 80 per cent) have feeding difficulties such as choking, aspirating, or trouble sucking, chewing, and swallowing^{17,18}. In addition to the nutrition care and support that all children 0–59 months old should receive, children with feeding difficulties require adapted feeding and nutrition care. Children with disabilities who are supported with growth monitoring, adequate nutrition, safe and responsive feeding, and meaningful stimulation can thrive.

Recommended Action 9:

Counsel and support all mothers with children with disabilities to breastfeed their infants as recommended under “normal” circumstances in these guidelines.

Start breastfeeding within one hour after birth, exclusively breastfeed for six months and have timely introduction of adequate, safe, and properly prepared complementary foods while continuing to breastfeed for two years of age or beyond.

Counsel mothers and caretakers of children with disabilities on safe feeding and appropriate nutrition practices.

Successful implementation of nutrition support for children with disabilities will involve the following:

- Monitor growth and development of children with disabilities using appropriate tools and techniques
- Counsel parents and caretakers that good nutrition and responsive feeding help children with disabilities to develop
- Encourage and support mothers to breastfeed or provide expressed milk for infants with disabilities
- Counsel parents and caretakers in safe feeding practices for children with feeding difficulties, including safe positioning and appropriate food textures
- Counsel parents and caretakers to provide a diverse diet to children with disabilities using locally available, nutrient-dense foods
- Encourage parents and caretakers to help children with feeding difficulties develop feeding skills safely
- Provide health workers with information on the relationship between nutrition and disability, managing nutrition and feeding among children with disabilities, and addressing related stigma
- Build the skills of health workers for the provision of skilled counselling and support to caregivers with children with disabilities
- Link families with children with disabilities to community support systems.

2.1.3.5 Infant Feeding in the Context of Emergencies

Breastfeeding remains an important practice in emergency situations because it is safe, acceptable, and affordable to many affected families. The focus, therefore, should be on eliminating practices that undermine breastfeeding. Only when the mother is absent or otherwise unable to breastfeed should replacement feeding be implemented. The special needs of the women feeding infants and young children should be recognized and appropriate support extended to them.

Recommended Action 10:

Counsel and support mothers, caretakers, and families to practice optimal infant and young child feeding for all children (breastfed and non-breastfed) in emergencies and other exceptionally difficult/special circumstances.

Successful implementation of nutrition interventions targeting children in emergency should be in line with the global guidance on infant feeding in emergencies¹⁹ and will involve the following:

- Protect, promote, and support early initiation of exclusive breastfeeding for all new-born infants

- Protect, promote, and support exclusive breastfeeding in infants under six months of age and continue breast feeding in children aged 6 months to 2 years or beyond
- Support caretakers to provide appropriate replacement feeds to infants whose mothers are unavailable
- During emergencies, donations of infant formulas and infant foods are not encouraged, EXCEPT in special circumstances where there is; mass loss of mothers, infants who have medical indications or exposure of breastfeeding mothers to a life threatening agent such as infections and radioactive materials, which may endanger the health of the child, then donations in this case should comply with the standards, recommendations, and principles of the Regulation for the Marketing of Infant and Young Child Foods¹⁹:
 - Donated or subsidised supplies of breast milk substitutes (for example infant formula) should be avoided. Donations of bottles and teats should not be accepted in emergency situations. Any donations of breast milk substitutes, bottles, and teats should be approved through the Nutrition Department, Ministry of Health.
- A strict and evidence-based criteria for the provision of a breast milk substitute should be used, and the procurement, management, and decisions regarding the use of breast milk substitutes for those cases that have no other safer alternatives will be co-ordinated by the MoH
- Ensure that children continue to be fed when they or their mothers fall sick. The feeding should be even more frequent during illness and while the child is recovering.
- Integrate skilled breastfeeding counselling in services that target pregnant and breast-feeding women and children 0-24 months
- Avoid separating mothers and their infants to facilitate continued feeding and care
- Health workers providing nutrition services in emergencies should have up to date information about infant feeding policies, guidelines, practices and skills required to support children and their caregivers in all aspects of IYCF
- Implement BFHI, as well as other forms of protection and promotion of breastfeeding, and provide the necessary support to prevent spill-over of artificial feeding for those mothers where breastfeeding is the best option
- Provide counselling and support on appropriate complementary feeding practices
- Appropriate foods should be provided to pregnant women, lactating mothers and their children (6-23 months)
- Provide micronutrient supplementation (Vitamin A for children 6-59months, promote use of fortified and bio fortified foods and point of use fortification with multiple micronutrient powders, as needed
- Address the nutritional needs of the women and children living with HIV in emergency situations

- Collaborate with other sectors like WASH, gender, food security to ensure that MIYCAN sensitive activities are carried out.

2.1.3.6 Infant Feeding during Hepatitis Infection

Hepatitis A virus is transmitted predominantly through the oral faecal route, through person-to-person contact or ingestion of contaminated food or water. The infection is characterized by an acute febrile illness and with jaundice (yellow colouration of the skin and eyes). New-born babies are rarely infected, severe disease is rare and chronic infection does not occur.

Hepatitis B virus is transmitted through sexual intercourse, perinatally, and rarely from mother-to-child during pregnancy. Hepatitis B virus antibodies have been detected in breast milk, but studies have shown that breastfeeding by positive women does not significantly increase risk of infection among their infants.

Hepatitis C virus can be transmitted by contact with blood or blood products through transfusion, sexual intercourse, or needle-stick exposure. Overall, the risk of perinatal transmission appears extremely low and several studies demonstrate no increased risk of transmission through breastfeeding⁶. The recommendations below focus on Hepatitis B infections.

Recommended Action 11:

Counsel and support all mothers with Hepatitis A, B, and C to breastfeed their infants as recommended under “normal” circumstances in these guidelines.

Start breastfeeding within one hour after birth, be exclusively breastfed for six months and have timely introduction of adequate, safe, and properly prepared complementary foods while continuing to breastfeed for two years of age or beyond.

Vaccinate mothers and children against hepatitis according to the National Hepatitis Immunisation Guidelines.

Implementation of nutrition interventions targeting women and children affected by Hepatitis A, B, and C are similar to interventions of children born to women in normal circumstances. Other interventions include:

- Utilize families and communities, who are central in supporting optimal infant and young child feeding and improving infant health, to serve as resources for counselling, practical support to mothers for breastfeeding and complementary feeding, solving problems, negotiating with caregivers and facilitating interactive peer sessions
- Observe appropriate WASH practices in relation to Hepatitis A virus.

2.1.3.7 Infant Feeding in Context of Haemorrhagic Viral Infections

The epidemic prone haemorrhagic viral infections such as Ebola and Zika viruses, pose special challenges to breastfeeding due to the incubation period after exposure that is usually asymptomatic. The specific guidance provided as part of the epidemic response should be closely adhered to.

Zika Virus

For the case of infants born to mothers with suspected, probable, or confirmed Zika Virus infection, or who reside in or have travelled to areas with ongoing Zika Virus transmission, should be fed according to normal infant feeding guidelines. They should start breastfeeding within one hour after birth, be exclusively breastfed for six months and have timely introduction to adequate, safe and properly prepared complementary foods, while continuing breastfeeding up to two years of age or beyond⁶

Recommended Action 12:

Counsel and support all mothers with haemorrhagic viral infection whether suspected or confirmed Zika cases to feed their infants according to the normal infant feeding guidelines.

Start breastfeeding within one hour after birth, exclusively breastfeed for six months and have timely introduction to adequate, safe, and properly prepared complementary foods while continuing to breastfeed for two years of age or beyond.

Successful implementation of interventions for nutrition support during cases of haemorrhagic viral infections will involve the following:

- Provide skilled support in initiation and continuation of breastfeeding to mothers who decide to breastfeed, whether they or their infants have suspected, probable or confirmed Zika Virus infection
- Provide skilled feeding support from health professionals to mothers and families of infants born with congenital anomalies (e.g. microcephaly), or those presenting with feeding difficulties, to breastfeed their infants
- Utilize families and communities, who are central in supporting optimal infant and young child feeding and improving infant health, to serve as resources for counselling, practical support to mothers for breastfeeding and complementary feeding, solving problems, negotiating with caregivers and facilitating interactive peer sessions
- Make health workers aware of the complex set of values around breastfeeding, to better equip them to support pregnant and lactating women with their infant-feeding choices, even in the context of an outbreak

- Engage multidisciplinary teams for infants who need specialist support in infant feeding, especially for infants who have difficulty breastfeeding. This may be the case for infants born with congenital anomalies, including microcephaly, and long-term management may be necessary.

Ebola Virus Disease.

Ebola Virus Disease (EVD) can be transmitted via body fluids, including breast milk. A breastfeeding mother with symptoms of Ebola increases the risk of transmission to the baby. Although replacement feeding with breast milk substitutes has high risks of morbidity and mortality, the safest feeding option for infants less than six months of age in the context of Ebola is Ready to Use Infant Formula (RUIF) due to presence of Ebola virus in breast milk and high risk of spread of EVD through contact²⁰.

Recommended Action 13:

Counsel and support all mothers and children exposed to the virus to use Ready to Use Infant Formula (RUIF) for all infants below the age of six months in the context of EVD. Start complementary foods, including animal milk, at six months of age until they make 23 months.

Successful implementation of interventions for nutrition support of cases of EVD will involve counselling on replacement feeding as well as psychosocial support to all mothers and children who have been exposed to the virus.

Asymptomatic Infant less than six months of age + Confirmed Ebola Infected mother:

- Isolate the mother from the child
- Start replacement feeding with Ready to Use Infant Formula (RUIF)
- Give psycho-social support to child and mother.

Confirmed Ebola Infected infant less than six months of age + Confirmed Ebola Infected mother:

- Support mother to continue breastfeeding if she can do so
- Provide replacement feeding with RUIF if mother is not able to breastfeed
- Give psycho-social support to child and mother.

Negative EVD mother + Confirmed Ebola Infected infant less than six months:

- Separate mother from child
- Support mother to express breast milk if she is able to do so
- Start replacement feeding with RUIF if mother not able to express breast milk

- Give psycho-social support to child and mother.

Asymptomatic Child 6–23 months of age + Confirmed Ebola Infected mother, or Confirmed Ebola Infected Child 6 –23 months of age + Asymptomatic Mother:

- Separate the mother from the child
- Provide nutritionally adequate, safe and age appropriate complementary foods, including Ultra Heat-Treated milk (UHT) or animal milk
- Give psycho-social support to child and mother.

Infant and Young Child Feeding recommendations after recovery from Ebola Virus Disease:

- Do not resume breastfeeding of infants and young children whose mothers have recovered from Ebola
- Ebola virus remains in breast milk including other body fluids even if cleared from blood
- Children below six months of age whose mothers have recovered from Ebola should be fed on RUIF until six complete months of age
- However, if the mother and baby are both Ebola survivors, resume breastfeeding if the mother is able
- Introduce appropriate nutritionally adequate, safe and age appropriate complementary foods (see Annex 5), including Ultra Heat-Treated milk (UHT) or animal milk at six completed months of age
- Provide Ready to Use Supplementary Food (RUSF) (100g) or super cereal flour (200g) to all recovered infants and young children (6–23 months) for 30 days
- Ensure psycho-social support and follow up at community level.

The recommendation to discontinue breastfeeding if both the breastfeeding woman and the breastfed child have acute EVD is based on a hypothetical risk of viral ‘boosting’ between two infected individuals. This viral boosting could theoretically increase disease severity through additional viraemic exposure. Evidence to directly support this recommendation is lacking.

- Rapid testing of breast milk of women with recovered EVD, who would like to continue to breastfeed, should be prioritized.
- Women’s choices related to stopping breastfeeding or continuing after EVD recovery and testing of breast milk, should be respected, and supported by health care workers to facilitate the choice.

2.1.3.8 Infant Feeding in Context of Influenza and Covid -19

There has been no documentation of vertical transmission of COVID-19 during pregnancy, delivery, or breastfeeding. The recent evidence show that no active virus has been found in the breast milk samples from the mothers after the first lactation, at the same time it is important to reaffirm that breastfeeding protects against morbidity and death in the post-neonatal period and throughout infancy and childhood. Breast feeding protects against infectious diseases through direct transfer of antibodies and other anti-infective factors and long-lasting transfer of

immunological competence and memory.

Therefore, during COVID-19, standard infant feeding guidelines should be followed with appropriate precautions for Infection Preventive Control (IPC) as stated in the recommendations below^{21,22,23,24,25,26}.

Recommended Action 14:

Counsel and support all mothers with influenza to feed children according to normal infant feeding practices. Start breastfeeding within one hour after birth, be exclusively breastfed for six months and have timely introduction of adequate safe and properly prepared complementary foods while continuing to breastfeed for two years of age or beyond.

Successful implementation of interventions for nutrition support during cases of influenza will involve the following:

In line with WHO recommendations⁶ all infants should be fed according to normal infant feeding guidelines.

- They should start breastfeeding within one hour after birth, be exclusively breastfed for six months, and continue to breastfeed up to two years of age or beyond, with the addition of adequate complementary foods from about six months of age, including during periods of pandemic influenza A (H1N1) circulation
- If the mother is ill with influenza, she should follow measures to prevent transmission. These include covering mouth and nose when she coughs and sneezes while caring for and breastfeeding the baby, as well as performing frequent hand hygiene. The mother can continue breastfeeding, even if she is ill and on antiviral medicines. She should take additional fluids, especially if she has fever. If severe maternal illness prevents the mother from feeding the infant at her breast, she should be helped to express her breast milk and feed it to the infant by cup or cup and spoon.

For Coronavirus (SARS 2, COVID-19)

Recommended Action 15:

Counsel and support all mother with COVID-19 whether suspected or confirmed to practice the normal infant feeding guidelines while adhering to the recommended Infection Prevention and Control measures.

They should start breastfeeding within one hour after birth, continue exclusive breastfeeding for six months and have timely introduction of adequate safe and properly prepared complementary foods while continuing to breastfeed for two years of age or beyond.

In line with Global recommendations^{21,22,23,24} and the Ministry of Health^{25,26}, the following Infection Prevention and Control (IPC) for infant and young child feeding during COVID-19 should be followed:

- Always wear a medical mask when feeding or near a child if mother/caregiver has respiratory symptoms
- Wash hands with soap and water before and after contact with the child
- Routinely clean with soap clothes for both mother and child
- Routinely clean with soap surfaces and other areas of contact for both mother/caregiver and child
- Maintain physical distancing with other people and avoid touching eyes, nose, and mouth.

Follow the infant and young child feeding decision tree in line with the MoH guidance (see Annex 7).

When the Mother and/or the Child are Negative:

- Mothers and infants should be enabled to practice skin-to-skin contact, kangaroo mother care and to remain together and to practice rooming-in throughout the day and night. This is important especially immediately after birth during establishment of breastfeeding, whether they or their infants have suspected, probable, or confirmed COVID-19
- Support the mother to initiate breastfeeding within one hour after birth
- Support the mother to give only breast milk to infants below six months of age
- Ensure appropriate complementary feeding practices for children 6–23 months at least five times a day
- Encourage frequent breastfeeding to increase fluid intake
- Provide breastfeeding counseling to the mother
- Provide psychosocial support to both the mother and child
- Children should continue breastfeeding during and after recovery from COVID-19.

When Confirmed COVID-19 Positive Breastfeeding Mother and Negative baby:

- Infected or affected lactating mothers should not be isolated together with other general patients. A separate isolation room should be offered to provide an enabling environment for breastfeeding and to reduce the exposure to the baby
- Support the mothers to breastfeed according to the above guidelines while taking necessary precautions to limit viral spread to the baby for example wearing a face mask, avoid coughing or sneezing on the baby while feeding at the breast, washing hands before and after touching the baby or breast pump

- Support mothers to hand express their breast milk and feed the infants using a cup
- Always provide psychosocial support to both the mother and infant.

When the baby is COVID-19 positive, but the mother is negative:

- Isolate the baby and mother away from other COVID-19 patients on the ward if possible, in a side room. In case a side room is not available, a designated section of the ward should be reserved for only mothers and their children
- Encourage the mother to continue breastfeeding according to the above guidelines. The mother should be given full PPE (mask, eye protection, gown, and gloves) to wear to avoid contracting COVID-19 infection from other positive patients on the ward.

When the child is not breastfeeding or above two years of age is confirmed COVID-19 positive and the mother is negative:

Priority should be given to nursing the child in a side room. Two options can be considered:

- The children can be separated from the mother and the child nursed and taken care of by the nursing staff on the ward
- The mother can be taught and given clear instructions and provided with full PPE (mask, eye protection, gown, and gloves) to protect her from getting infected by the baby or other positive patients on the ward BUT allowed to take care of her child on the ward. The mother should be encouraged to undertake regular hand hygiene with soap and water or alcohol-based hand rub after handling the child.

When the Mother is Suspected, Probable, or Confirmed COVID-19 but unable to continue direct Breastfeeding.

- Support mother to express breast milk:
 - The milk can be given to the infant using a cup with a wide mouth, or using a spoon Using a bottle is not advised; bottles are difficult to clean, they require sterilisation and can be a source of infection if not well cleaned. In addition, using a bottle makes it more difficult for the baby to return to the mother's breast when she becomes well again
 - Expressed breast milk in a closed container or covered with a cloth or plate at room temperature stays for up to eight hours
 - If stored in a sterile container, expressed breast milk can be kept for 24 hours at 18–20 degrees centigrade in a shady place, for about 72 hours in a refrigerator and for about four months in a freezer (at -18 to -20 degrees centigrade)
- Start replacement feeding with Ready to Use Infant Formula (RUIF) if the infant is less than six months of age and mother is unwell to express breast milk
- Provide psychosocial support to both the mother and infant.

During COVID-19 pandemic, the Complementary Feeding for children 6–23 months of age remains critical and needs to be supported as following:

- Encourage mother to continue breastfeeding on demand
- Provide Ultra-Heat Treated (UHT) milk and complementary feeds if the infant is 6–23 months of age
- Young children need to consume a variety of foods to meet their nutrient needs and expose them to various tastes and textures
- Avoid drinks or foods with low nutritional value, such as sugar-sweetened beverages, candy, chips, and other foods high in sugar, salt and trans fats
- Provide psychosocial support to both the mother and infant.



2.2

ADOLESCENT NUTRITION

2.2.1 Introduction

Adolescence is a period characterized by rapid physical growth as the individual transitions from childhood to adulthood, which results in increased demand for nutrients.

Improving adolescent girls' nutrition and delaying their first pregnancy is an effective intervention to break the intergenerational cycle of malnutrition that Uganda is currently facing. This guideline is in line with the existing policies and global recommendations on adolescent health ^{27,28,29} and points out how adolescents should receive health and nutrition services plus support from health facilities, schools, their families, and communities.

Optimal nutrition and sufficient physical activity improve child well-being and learning ability, leading to better academic performance. School settings offer many opportunities for delivering simple health and nutrition interventions to school children including promoting physical activity.

2.2.2 Objectives

Within the context of adolescent nutrition, the objectives of the guidelines are as follows:

1. To provide guidance on prevention and managing under nutrition, overweight and obesity among adolescents in Uganda
2. To promote provision of quality adolescent-friendly nutrition services at the health facility and community levels.

2.2.3 Recommended Actions to Promote and Support Optimal Nutrition among Adolescents

2.2.3.1 Promoting Healthy Diet

Adolescence is a period characterized by rapid physical growth as the individual transitions from childhood to adulthood, which results in increased demand for nutrients. However, adolescence is also associated with atypical behaviour especially among females, which includes food fads and selective preference for types of food. This can influence the amount of food intake and/or reserves of different nutrients, which in turn can predispose the adolescent to malnutrition. The strategic intervention is based upon the adoption of a healthy eating lifestyle by adolescents.

Recommended Action 16:

Counsel and support adolescent girls and boys on healthy eating behaviours (eating a variety of nutrient rich foods, avoiding foods high in salt, sugar, and fats)

Successful implementation will involve the following to prevent overweight and obesity, undernutrition and micronutrient deficiencies among adolescent girls and boys:

- Education and counselling on healthy eating behaviours to include;

- Eating a variety of foods and avoiding foods with high salt, fat, and sugar content (e.g. sweetened or carbonated drinks, fast foods, sweet and salty snacks)
- Promote consumption of fortified foods (e.g. fortified flour) and bio fortified foods at home and in schools
- Provide iron and folic acid supplementation to menstruating adolescent girls to prevent anaemia in line with the national implementation guide for Health Sector Component of the Uganda Multi-Sectoral Food Security and Nutrition 30
- Promote the use of iodized salt among adolescents for the prevention and control of iodine-deficiency disorders
- Provide periodic deworming treatment to control and/or prevent iron deficiency and anaemia in adolescents (10–14 years)30
- Integrate good nutrition and physical exercise for adolescents in relative seminars, classes, orientations and other adolescent friendly spaces and school health clubs.

2.2.3.2 Promoting Physical Activity

The adolescence period is usually associated with a relatively high level of physical activity/exercises. Nevertheless, there is a growing trend towards less physical activity among adolescents due to preference for computerized indoor games over the outdoor vigorous exercises. This has contributed towards overweight and obesity among the adolescents as well as other conditions associated with sedentary lifestyles.

Recommended Action 17:

Promote physical activity/exercises among adolescent boys and girls.

Successful implementation should be in line with global recommendations³¹ and MoH policies and guidelines²⁸ and will involve the following:

- Counselling for adolescents to accumulate at least 60 minutes of moderate-to vigorous-intensity physical activity daily, most of which should be aerobic. Physical activity of at least 60 minutes daily will provide additional health benefits
- Vigorous-intensity activities, including those that strengthen muscle and bone, should be incorporated at least three times per week
- Encourage adolescents to engage in physical activities like play, games, sports, riding, cycling, walking, recreation, physical education, or planned exercise, in the context of family, school, and community activities.

2.2.3.3 Prevention of Sexually Transmitted Diseases

Sexually Transmitted Diseases (STDs) and other infections that affect the adolescent's sexual

and reproductive health can have a negative impact on the nutritional status of the individual. This is partly due to the stigma that accompany such conditions and the challenge faced by adolescents in accessing good quality care services.

Recommended Action 18:

Educate and counsel adolescents on prevention of sexually transmitted diseases and other infections.

Successful implementation will involve the following:

- Counselling on prevention of Sexually Transmitted Infections (STIs) including HIV
- Prevention of malaria and other infestations e.g. hookworms
- Early and timely management of STDs and other infections.

2.2.3.4 Prevention of Early Pregnancies

The nutritional needs of pregnant adolescents are like those of other mothers, since their bodies are still developing, younger adolescents compete with the foetus for nourishment, thus exhausting iron, and other nutrient reserves. As a result, nutritional deficiencies such as iron deficiency anaemia are more common among the pregnant adolescents, and their babies are more likely to be born prematurely and tend to have high levels of morbidity and mortality.

Recommended Action 19:

Educate and counsel adolescents on delaying first pregnancy

Successful implementation will require following:

- Encourage adolescents to remain longer in schools and increase educational opportunities through formal and non-formal channels
- Educate and counsel on family planning and delay first pregnancy till at least 18 years of age
- Encourage political and community leaders to enforce by-laws and policies that prohibit marriage of girls before the age of 18 years. The Ministry of Gender Labour and Social Development relies on 1) the Penal Code Act that out-laws sex before the age of 18 years, therefore, marriage and 2) The Constitution of Uganda that states start of family from the age of 18 years. Hence, the child protection prohibits marriage of girls before the age of 18 years.

2.2.3.5 Adolescent-Friendly Nutrition Services

All adolescents are eligible for health services, provided in a friendly environment and manner that meets their needs regardless of education, gender, age, religion, or any other discriminatory factor. Adolescent-friendly nutrition services shall be integrated within the existing health care delivery system at all levels and within the community interventions.

Recommended Action 20:

Integrate nutrition services in adolescent-friendly platforms at the health facility, community, and school levels.

Successful implementation will involve the following actions:

- Assess nutrition status of the adolescent girls and boys
- Provide nutrition counselling among adolescents on all forms of malnutrition
- Provide adolescent nutrition counselling across the different reproductive health services
- Include nutrition in school curriculum of adolescents
 - Provide safe and clean water, sanitation, and hygiene
 - (WASH) and promote appropriate hygiene practices to reduce the risk of illnesses.



AKUSA	Payu Buzze Ompa Malembe Namba Arida Karamuna
AKAYA	Akaya Kobuta Nkhi Drachia

≤1499	00	00	00	01	00	02
1500-2499	01	00	00	48	00	48
>2500	00	00	00	00	00	00
Missing Weights	00	00	00	49	00	50
Total	01	00	00			

2.3

MATERNAL NUTRITION

2.3.1 Introduction

Malnutrition in pregnant women contribute to an intergenerational cycle of nutrition problems, which manifest as stillbirths, miscarriages, low birth weight babies, growth failure, increased risk of maternal and neonatal mortality, impaired cognitive development, sub-optimal productivity in adults and reduced economic growth for the nation. Efforts geared to preventing malnutrition in women with a focus before, during and after pregnancy and during breastfeeding is the direction of the government in breaking this intergenerational cycle and its manifestations.

A mother's nutritional status, diet and lifestyle, therefore, influences pregnancy and lactation outcomes and can have lasting effects on her offspring's health. For optimal child development outcomes, maternal physical and mental health should be coordinated. In other words, interventions to promote the survival and wellbeing of both children and their caregivers should be prioritized for optimal early childhood development. Preventing maternal malnutrition should encompass programmes empowering women with knowledge and information on healthy diets and nutrition to improve their nutrient intake as well as monitoring weight gain during pregnancy and prevention and control of micronutrient deficiencies. This guideline builds onto the maternal nutrition guidelines of 2010³².

2.3.2 Objectives

Within the context of maternal nutrition, the objectives of the guidelines are as follows:

1. To provide a framework for prevention of under nutrition, anaemia, overweight, and obesity among the pregnant women and breastfeeding mothers
2. To promote provision of quality maternal nutrition services at the health facility and community levels.

2.3.3 Recommended Actions to Promote and Support Optimal Maternal Nutrition

2.3.3.1 Nutrition Education and Counselling on Healthy Diet

There are increased macro- and micro-nutrient needs during pregnancy to cater for growth of the foetus, placenta, and other maternal tissues, which call for extra energy and protein intake. Without corresponding increased intake, the body's own reserves are used, leaving the pregnant woman weakened and vulnerable to maternal and foetal complications, including death. Antenatal care offers an opportunity to assess and monitor the nutritional status of a pregnant woman throughout the period.

Nutritional requirements during the post-partum period are greater than during pregnancy due to the need to produce breast milk, promote recovery and sustain the mother's health. The postnatal care visits provide an opportunity for assessing the nutritional status of women in the post-partum period.

Recommended Action 21:

Educate and counsel women on adoption of healthy eating behaviour during preconception, pregnancy, the breastfeeding and post-natal period.

Successful implementation will involve the following actions:

Comprehensive nutrition assessment should be conducted on the woman's first contact and with every visit at the health facility, which includes the psycho-social, nutrition and medical history, physical assessment, and relevant laboratory investigations

Recommended Weight Gain	
Pre-pregnancy BMI	Recommended Gain
Normal(> 1.85 - < 24.9 kg/m ²)	11.5- 16.0kgs
Underweight (< 1.85)	12.5- 18.0kg
Overweight(≥ 25.0 - 29.9 kg/m ²)	7.0-11.5kg
Obese(≥ 30.0 kg/m ²)	≥ 6.0 kg
Twin Pregnancy	16.0kgs-20.5kg

Adopted from the institute of Medicine's Nutrition during Pregnancy, 1990

Table 5: Recommended Pregnancy Weight gain

- Encourage pregnant women, breastfeeding, and post-partum women to eat a variety of foods, based on local availability and accessibility in adequate amounts to meet their nutritional requirements (Annex 5):
 - It is particularly important that underweight women increase their energy intake to gain the recommended weight during pregnancy (Table 5). A woman at pre-conception is considered underweight when the Mid Upper Arm Circumference (MUAC) reading is < 21 cm. A pregnant or lactating woman whose MUAC is less than 23cm is considered to be underweight.
 - Counsel pregnant and breastfeeding mothers to eat at least four meals a day, to meet the energy needs of lactation ensuring variety of the different food groups.
 - Greater investment to support social behaviour change programs to provide information on food and the importance of vegetables, their preparation, consumption and utilisation to address food and nutrition challenges
- Promote nutrition education on increased daily energy and protein intake for all pregnant women to reduce risk of low birth weight neonates
- Advise the pregnant women identified as malnourished and at-risk of malnutrition (underweight, obesity, and overweight), to have more frequent visits to receive

appropriate care and thus benefit from closer nutritional and medical attention:

- The average weight gain under normal Body Mass Index (BMI) during pregnancy is 0.5kg per month in the first trimester: and 1kg to 1.5kg per month in the second and third trimesters
- Promote intake of folic acid during the preconception period and during the first trimester to prevent neural tube defects in new-born babies
- Encourage mothers to avoid intake of alcohol and other harmful substances (e.g. tobacco, nicotine, marijuana).

2.3.3.2 Promoting Physical Activity

The benefits of physical exercises include preventing excess weight gain, combating health conditions and diseases, improving mood, and boosting energy as well as promoting better sleep. Physical activity during pregnancy helps to reduce constipation, improves posture, and promotes muscle tone and strength.

Recommended Action 22:

Promote physical activity/exercises during pregnancy, breastfeeding, and post-partum period.

Successful implementation should be in line with global recommendations³¹ and MoH policies and guidelines²⁸ and will involve the following:

Counsel on the benefits of regular physical exercises

- Encourage pregnant women, post-partum women and breastfeeding mothers to engage in exercises, particularly those whose routine does not involve physical activity, for example recreational or leisure-time physical activity, walking or cycling, occupational (i.e. work), household chores, play, games, sports, or planned exercise, in the context of daily, family, and community activities. Women should choose activities with minimal risk of loss of balance, fetal trauma. However, women involved in work overload should be counselled to undertake rest to minimize energy over expenditure
- For non-pregnant women of reproductive age, encourage the mother to accumulate at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week.

2.3.3.3 Micro-nutrient Supplementation

The increased demand for micro-nutrients during pregnancy, post-partum, and the breastfeeding period implies that deficiencies are likely to occur when the mother has insufficient intake and/or reserves. The deficiencies can increase the risk of morbidity and mortality during the pregnancy, delivery, and post-partum period.

Recommended Action 23:

Provide folic acid and iron supplementation to all pregnant and lactating mothers within three months after delivery.

Successful implementation will require support to the following:

- Assess all pregnant women attending antenatal care for anaemia using physical, clinical and/ or laboratory tests. Iron and folic acid are important in production of red blood cells (RBC), new genetic material and normal development of the foetus;
 - Pregnant women with normal haemoglobin levels, mild or moderate anaemia shall be counselled on diversification of their diet, with supplementation of iron and folic acid (Table 6)
 - Pregnant women should be counselled on dietary diversification and supplementation. Pregnant women with severe anaemia (haemoglobin levels of <7.0g/dl) (Table 7), shall be counselled on diversification of their diet and treated for anaemia, which may include blood transfusion as advised by a medical professional³³.

Table 7. Recommended cut-offs for categorizing anaemia in pregnancy and recommended actions

Category of Anemia	Haemoglobin Levels	Recommended Action
Normal	>11g/dl	Dietary diversification and supplementation
Mild	10- 10.9g/dl	Dietary diversification and supplementation
Moderate	7 – 9.9g/dl	Dietary diversification and supplementation
Severe	<7g/dl	Dietary diversification and treatment for anemia which may include blood transfusion

Source: WHO haemoglobin concentrations for the diagnosis of anaemia 2011

- Counsel pregnant women to consume foods rich in micronutrients and calcium such as pumpkins, green leafy vegetables, soya beans, okra, pawpaw, and foods fortified with vitamin A like cooking oil and wheat flour fortified with iron
- The following micronutrient supplementation or nutrition practices should be adhered to:
 - Vitamin A is important during pregnancy for embryonic development, mucous membranes, infection resistance, bone growth and fat metabolism. Dietary intake of foods containing vitamin A is recommended. For example, carrots, pumpkins, green leafy vegetables, paw paws, foods fortified with vitamin A like vegetable cooking oil and margarines
 - Supplementation with vitamin A is NOT recommended because it provides high doses that could be harmful to the foetus leading to birth defects and liver toxicity
 - Daily oral iron and folic acid supplementation with 30–60mg of elemental iron and 400µg (0.4mg) of folic acid is recommended for pregnant women, to prevent maternal

- anaemia, puerperal sepsis, low birth weight and preterm birth
- In settings where anaemia in pregnant women is a severe public health problem (≥ 40 per cent of pregnant women have anaemia with haemoglobin concentration < 11.0 g/dl), 60mg of elemental iron is the preferred dose
- Provide de-worming tablets to all pregnant women during the second and third trimesters. 400mg of albendazole during the second trimester, and 400mg during the third trimester in line with the Uganda Maternal Nutrition Guidelines 201032.
- All postnatal women should be given routine iron and folic acid supplementation within six weeks of delivery and be counselled to ensure compliance with the recommended dosage of one tablet per day for three months.
- Counsel pregnant and breastfeeding women to consume iodized salt to prevent iodine deficiency diseases;
 - Iodine is important for foetal development and deficiency during pregnancy leads to cretinism that is characterized by mental retardation, stunted growth, with hearing and sight defects. Deficiency of iodine is associated with enlargement of the thyroid gland (goitre) in the mother.
- Pregnant women should sleep under ITNs and receive IPT with Fansidar (three tablets of Fansidar during the second trimester, and three tablets during the third trimester) as Directly Observed Therapy (DOT).

2.3.4 Maternal Nutrition in Emergency Situations.

Hunger and malnutrition tend to be rampant in emergency situations making pregnant women and breastfeeding mothers in particular more vulnerable. Besides wasting, micronutrient deficiencies are common in emergency-affected populations.

Recommended Action 24:

Counsel and support pregnant women and breastfeeding mothers in emergency settings to have a balanced diet.

Successful implementation of nutrition interventions within emergency situations will involve the following:

- Prioritize the pregnant women, breastfeeding mothers, and mothers of children under the age of two years during the distribution of food rations by the humanitarian programmes to meet their energy and other nutrient needs
- Provide balanced energy and protein food supplementation rations for pregnant women and, breastfeeding mothers for better health and nutritional outcomes
- Provide nutrition education on increasing daily energy and protein intake and fortified foods for pregnant women to reduce the risk of low birth weight neonates
- Continue provision of iron and folic acid supplements to all the pregnant women and

- breastfeeding mothers
- Provide deworming tablets.

2.3.5 Maternal Nutrition in the Context of COVID-19

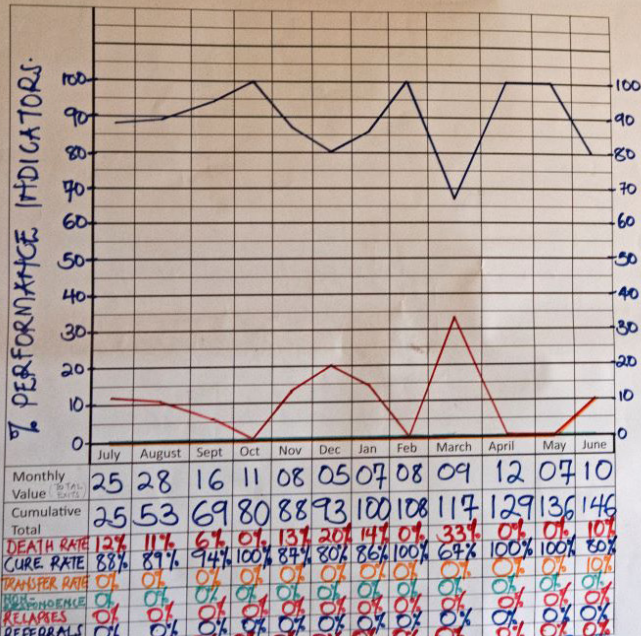
Women of reproductive age, pregnant and lactating women should continue accessing health and nutrition services even in the context of COVID-19 in line with the global recommendations³⁴ (Annex 8) and national guidance on continuity of essential health services²⁶:

- Maintain continuity of ANC and PNC as essential services for all pregnant and lactating women in the context of COVID-19
- Prioritize the needs of at-risk women as per WHO and/or national guidelines where the COVID-19 response requires scaling back of service delivery
- Adapt service delivery platforms and schedules to maintain continuity of nutrition services and supplies for target beneficiaries while protecting health care workers
- Provide nutrition care and support services to all women (e.g. counselling, access to nutrient dense local food, micronutrient supplements)
- Mainstream and integrate nutrition services in ongoing COVID-19 response
- Ensure psychosocial support to women during ANC and PNC periods
- Prevent commercial exploitation of COVID-19 through unnecessary use of specialized foods and supplements, and spill over to those who do not need them
- Collaborate with gender-responsive social protection programmes (e.g. in-kind food, vouchers, cash) and other emergency economic schemes to cover the needs of at-risk women in food insecure households
- Counsel on importance of healthy diets for boosting an individual's immunity, safe food preparation, eating well on a budget, hygiene, managing stress, as well as information on assistance for mental health.



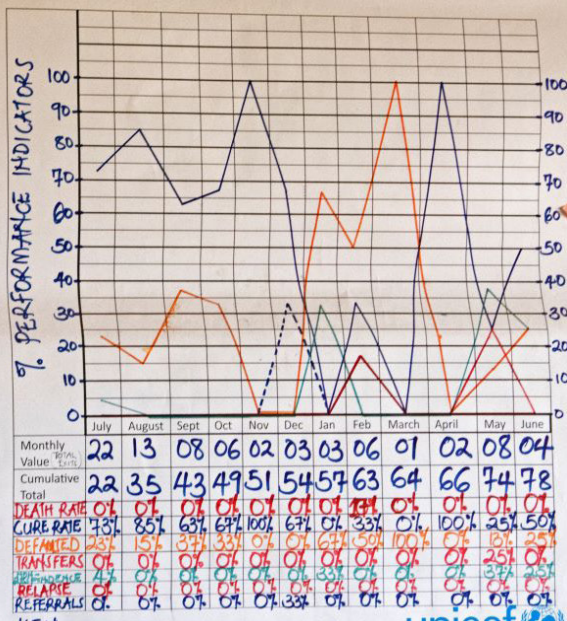
HEALTH UNIT PERFORMANCE MONITORING CHART

Health Unit PADIBE HC IV District LAMKID Financial Year 2017/2018
HSDP Indicator ITC DISCHARGE RATES Catchment Population 10,290
Target Population (6-59 MONTHS) FY target (Numbers and %)



HEALTH UNIT PERFORMANCE MONITORING CHART

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Target Population (6-59 MONTHS) FY target (Numbers and %)



03

MONITORING AND EVALUATION

3.1 Introduction

Monitoring and evaluation at all levels will be done to ensure that the implementation of the guidelines is proceeding well and that the desired results are being achieved and documented. The indicators for monitoring and evaluation of these guidelines are aligned to the Global Strategy for Women’s, Children’s, and Adolescents’ Health³⁵ which is aligned to the Sustainable Development Goals (SDGs).³ It has been structured to include the core set of indicators for monitoring progress towards attainment of the SDGs. It includes output indicators to support monitoring the programme and situation-specific progress, which in-turn inform decision-making at the implementation level.

The Ministry of Health will track indicators through the available Health Management Information System (HMIS) from which quarterly reports will be generated for dissemination during scheduled meetings and other related fora. Capacity building will be required to strengthen utilization of data captured for MIYCAN throughout the Health Management Information System.

3.2 MIYCAN Indicators

The following indicators (Tables 8, 9, 10) shall be used for monitoring implementation of the MIYCAN service delivery and should be disaggregated by gender and where applicable by disability:

3.2.1 Primary Outcome Indicators

Table 8: *MIYCAN Primary Outcome Indicators*

Indicator	Source	Frequency
Wasting in Children: Prevalence of wasting (weight for height <-2 standard deviation from the median of the WHO Child Growth Standards) among children under five years of age	UDHS	5 years
Stunting in Children: Prevalence of stunting (height for age <-2 standard deviation from the median of the WHO Child Growth Standards) among children under five years of age	UDHS	years
Overweight in Children: Prevalence of overweight (weight for height >+2 standard deviation from the median of the WHO Child Growth Standards) among children under five years of age	UDHS	5 years
Anaemia in Adolescent girls: Percentage of anaemia in adolescent girls 10–14 years of age	UDHS	5 years
Anaemia in Non-pregnant Women: Prevalence of anaemia in non-pregnant women age 15–49 years, disaggregated by age	UDHS; UNPS	5 years
Anaemia in Pregnant Women: Prevalence of haemoglobin <11 g/dl in pregnant women	UDHS; UNPS	5 years
Exclusive Breastfeeding: Percentage of children 0–6 months on exclusive breastfeeding	UDHS	5 years

Indicator	Source	Frequency
Anaemia in Children: Prevalence of anaemia in children age 6–59 months	UDHS	5 years

3.2.2 Intermediate Outcome Indicators

Table 9. MIYCAN Intermediate Outcome Indicators

Indicator	Source	Frequency of collection
Early Initiation of Breastfeeding: Percentage of children 0–23 months who initiated breastfeeding within one hour of delivery	UDHS	5 years
IYCF Counselling: Number of pregnant and lactating women who received IYCF counselling session during the first 1,000 days	HMIS	Quarterly
Continuation of Breastfeeding up to one year of age: Percentage of children that continued breastfeeding up to one year (12 months)	UDHS	5 years
Continuation of Breastfeeding up to two years of age: Percentage of children that continued breastfeeding up to two years and beyond	UDHS	5 years
Timely introduction of Complementary Feeding: Percentage of children who received complementary foods (solids, semisolids, and soft foods) at 6–8 months	UDHS	5 years
Minimum Dietary Diversity: Percentage of children 6–23 months receiving minimum dietary diversity	UDHS	5 years
Minimum meal frequency: Percentage of children 6–23 months receiving minimum meal frequency	UDHS	5 years
Minimum acceptable diet: Percentage of children 6–23 months receiving minimum acceptable diet	UDHS	5 years
Minimum dietary diversity in women: Proportion of women of reproductive age consuming a minimum diversity diet	UDHS	5 years
Vitamin A Supplementation in Children: Percentage of children aged 6–59 months who received vitamin A in the previous semester	UDHS	5 years
Deworming in Children: Percentage of children aged 12–59 months who received de-worming tablets in the previous semester	UDHS	5 years
IFA Supplementation: Percentage of pregnant women receiving IFA supplementation	UDHS	5 years
BMI in Women: Underweight in women: Proportion of women aged 15–49 years with low body mass index (<18.5kg/m ²)	UDHS	years
Obesity in Women: Percentage of obese women aged 15–49 with BMI of ≥30kg/m ²	UDHS	5 years

Indicator	Source	Frequency of collection
Overweight in Women: Percentage of overweight women aged 15–9 with BMI of ≥ 25 - 29.9 kg/m^2	UDHS	5 years
Overweight in Adolescents: Percentage of adolescent girls 10–19 years of age with BMI of ≥ 25 - 29.9 kg/m^2	UDHS	5 years
Infant Feeding and HIV: Percentage of HIV positive mothers who continue to breastfeed up to one year.	HMIS	Quarterly

3.2.3 Policy and Capacity Indicators

Table 10. MIYCAN Policy and Capacity Indicators

Indicator	Source	Frequency of collection
Number of violations of the food safety (including the Code-Marketing of Infant and Young Child Foods) regulations	Report	Bi annually
Percentages of health facilities with maternity services that are certified 'baby friendly'	MOH, BFHI assessment reports	Annually
Number and proportion of health workers trained on MIYCAN	MOH/partners Training reports	Quarterly
Number and proportion of community workers trained on MIYCAN	MOH/partners Training reports	Quarterly



04

ROLES AND RESPONSIBILITIES OF HEALTH SECTOR WORKERS

The successful implementation of the MIYCAN Guidelines will depend on the concerted efforts of relevant stakeholders at different levels. The following sections provide guidance on the roles and responsibility by level of engagement.

National Level

1. Provide technical guidance, finalize relevant tools, and job aids to be used in the different health facilities
2. Conduct training of trainers for the different districts
3. Engage, advocate partners and other sectors for the uptake and implementation of the MIYCAN Guidelines
4. Lead the national annual planning and budgeting of the MIYCAN activities
5. To review the routine data from HMIS and DHIS2 and work with the districts to address the challenges and monitor the progress towards achieving the planned targets
6. Contribute to relevant national research and assessments to ensure the inclusion of relevant MIYCAN indicators and considerations
7. Carry out supportive supervision and monitoring visits at the district level
8. Provide technical assistance to the different districts as needed
9. Monitor and ensure compliance with the Regulations on the Marketing of Foods for Infants and Young Children.

District Level (DHT, DNCC)

1. Develop a MIYCAN annual costed plan for the district
2. Train district level workers on MIYCAN
3. Provide technical support to the district level health workers
4. Ensure timely request of relevant MIYCAN supplies
5. Ensure timely submission of relevant MIYCAN reports to the national level
6. Carry out supervision and monitoring visits to build capacity and improve service delivery
7. To review the monthly data from routine monitoring systems, identify gaps and take timely actions
8. Actively participate in national level strategic, technical, and planning meetings for MIYCAN
9. Monitor and ensure compliance with the Regulations on the Marketing of Foods for Infants and Young Children
10. Report to relevant national authorities all alleged violations to the Regulations on the Marketing of Foods for Infants and Young Children.

Sub-County Level (Health Assistants and Health Inspectors)

1. Contribute to the training of the local health workers
2. Provide technical support as needed in MIYCAN
3. Advocate to local chiefs for the support of relevant MIYCAN recommendations
4. Consolidate relevant sub county nutrition action plans that include MIYCAN from the communities within the sub-county

5. Carry out community mobilization
6. Contribute to the development of the annual district nutrition action plans.

Health Facility Level

1. Provide quality MIYCAN and nutrition counselling to pregnant women, caregivers, and their children under two years of age and adolescents
2. Conduct MIYCAN health educations
3. Ensure the provision of relevant and appropriate micronutrient supplementation for pregnant women, women of reproductive age, adolescent girls and children
4. Conduct regular nutrition assessments
5. Conduct growth monitoring and promotion
6. Carry out timely reporting through the Health Management Information System
7. Promote recommended MIYCAN practices to all pregnant women, women of reproductive age, and adolescents in schools and schools related activities
8. Manage the stocks of MIYCAN supplies and timely request for its replenishment
9. Comply with the Regulations on the Marketing of Foods for Infants and Young Children.

Community Level (Health Workers and Community Volunteers)

1. Mobilize communities
2. Promote recommended MIYCAN practices
3. Conduct MIYCAN education activities
4. Ensure that pregnant women, women of reproductive age, adolescents and children access relevant MIYCAN services
5. Support relevant MIYCAN screenings at the community level
6. Carry out GMP activities at the community level
7. Identify and refer all cases of malnutrition
8. Support vitamin A and deworming administration
9. Collect relevant data
10. Comply with the Regulations on the Marketing of Foods for Infants and Young Children.



05

**ROLES AND
RESPONSIBILITIES
LINE MINISTRIES,
GOVERNMENT
AGENCIES**

Ministry of Health

The Ministry of Health (MoH) is overall responsible for strengthening health systems capacity for quality MIYCAN service delivery at all levels and ensuring universal health coverage reaching all children adolescents and all women with equity. The key roles and responsibilities include:

- Act as the principal implementer and coordinator of all the interventions aimed at achieving the goal and objectives of these guidelines and ensure that other health and other related policies and strategies are in harmony with these guidelines and the MIYCAN action plan
- Liaise with and coordinate the MIYCAN activities of the line ministries assigned responsibility in this document
- Ensure MIYCAN is part of the essential health services packages
- Cost for MIYCAN interventions and mobilise for human resource, material, and financial resources to spearhead implementation and coordination of these guidelines and strengthen the capability of other divisions to implement
- Ensure inclusion of budget lines for nutrition specific interventions in the national budget
- Disseminate policies, guidelines, strategies, regulations, and standards related to MIYCAN. Ensure alignment and coherence of other health sector policies and guidelines with the MIYCAN guidelines e.g. reproductive health, HIV/AIDS, IMCI, ICCM etc.
- Disseminate and monitor the Regulations on Marketing of Breast milk Substitutes, maternity protection legislation, food fortification
- Develop promotional and educational materials to support implementation of these policy guidelines, including counselling tools, job aides, and related materials
- Strengthen MIYCAN service delivery at all health service points. Map stakeholders in other relevant sectors and identify platforms for delivery of appropriate MIYCAN interventions
- Facilitate competency-based training of health professionals who work with women and caregivers on MIYCAN. Building capacity includes pre-service and in-service and supportive supervision of health service providers to implement integrated MIYCAN counselling.
- Develop standard tools/checklist for supportive supervision that includes counselling and service delivery
- Review and/or revise MIYCAN indicators in HMIS in addition to strengthening the HMIS data reporting and utilization. Routinely monitor the data to examine progress and to take timely corrective actions in collaboration with the districts when needed to ensure progress to achieve results is on track
- Lobby for financing of nutrition supplies through the national budget and manage nutrition supplies
- Plan and coordinate with other departments/units within the MoH (MNCH, Community Health, DHI, NMS, Pharmacy) and with district local governments for integrated health and nutrition service delivery
- Advocate for inclusion of MIYCAN in the job description of primary health care service providers

- Support supervision, coaching, and mentorship at all levels of MIYCAN service delivery.
- Strengthen gender sensitivity of existing health and nutrition policies and strategies by adopting the following key actions:
 - Review the existing maternal, adolescent and child health and nutrition policies, guidelines and training manuals for gender responsiveness.
 - Build capacity of the nutritional focal points to track and better use gender data at national, departmental, district and institutional levels.
 - Strengthen the integration of gender and disability into the M&E systems and tools for better tracking of gender and disability-related outcomes by designing and developing disability and gender equality outcomes, results, and indicators for nutrition.

District Local Governments

- Provide leadership and governance structures required to facilitate the implementation of these guidelines.
- Disseminate policies, guidelines, strategies, regulations, and standards related to MIYCAN
- Support orientation of health workers and other relevant officers on issues related to MIYCAN as well as the training of health facility and community-based health workers
- Conduct support supervision, coaching, and mentorship at all levels of MIYCAN service delivery using standard checklists to monitor progress
- Support planning for integrated health and nutrition service delivery by health service providers (fixed sites and outreach)
- Develop annual district health plans that incorporate nutrition interventions with funding details. Ensure the plans prioritize supportive supervision, procurement and logistics for supplies, and capacity building of service providers. Mobilize support from development partners in the district
- Mobilize technical and financial support from development partners for MIYCAN implementation in the districts
- Strengthen the health facility and a community-based monitoring/ feedback system for MIYCAN practices and the quality of care given to women, adolescents, and children
- Sensitize communities with the knowledge about the available MIYCAN services.
- Strengthen reporting and data use for MIYCAN indicators and feedback discussions of the HMIS results. Routinely monitor to examine the progress and to take timely corrective actions when needed
- Carry out intensive social mobilization of all stakeholders in the district on MIYCAN
- Designing and employing assessment tools to assess gaps in the functioning and coordination of DNCCs, revised to include gender and disability indicators.

Uganda National Medical Stores

- Procure essential medicines and medical (including nutrition) supplies
- Provide warehouse facilities for all essential medicines and medical supplies
- Distribute, essential medicines and medical supplies, primarily to government health facilities.

Health Facilities

- Plan for and deliver MIYCAN services to infants, young children, adolescents, and women of reproductive age including pregnant and lactating women in health facilities and outreach sites
- Provide counselling support to caregivers on MIYCAN. Support mothers with breastfeeding difficulties and counsel caregivers on appropriate maternal and child nutrition practices
- Build capacity of community health resource persons to implement MIYCAN activities in the community
- Coordinate with District Health Team, communities, other relevant sectors, and development partners for timely service delivery with optimal coverage ensuring continuity of care in normal times and emergencies
- Collect quality data and report in a timely manner through routine health information systems (HMIS/DHIS2)
- With district mentors, provide support supervision for community health workers (e.g. VHTs) for implementation of MIYCAN activities.
- Continued implementation of integrated behaviour change communication on optimal maternal, adolescent and infant and young child feeding and care practices, health-seeking behaviour, hygiene and sanitation practices.
- Design communication strategies for greater engagement of men and to promote joint decision making at household levels for improved maternal and child health seeking and child care.

The Employers (Private and Public)

- Adhere to the Regulation on Marketing of Infant and Young Child Foods
- Provide maternity and paternity entitlement to employees in accordance with the Employment Act of 2006
- Create a working environment that promotes MIYCAN
- Establish/create facilities/spaces and allocate time for breastfeeding, expression of breast milk and/or preparation of replacement feeds.

Non-Governmental, Community Based and Religious Organizations (NGOs and CBOs)

- In collaboration with the relevant central and local government officials:
 - Mainstream MIYCAN into their agendas
 - Advocate for the child's rights to food and nutrition
 - Provide technical and financial support to national, districts, sub-counties, and communities to implement MIYCAN guidelines and action plan
 - Where possible provide direct support to mothers, families, communities or congregations.

United Nations Agencies, Other Bilateral and Development Partners

- Enhance advocacy for MIYCAN
- Contribute to the mobilization of resources
- Provide funds for implementation of this guideline
- Provide technical support on staff training, development of appropriate tools, manuals, and job-aides in an integrated manner
- Support the Ministry of Health at national and district levels to implement their roles and responsibilities
- Provide technical assistance and timely dissemination of latest guidance around MIYCAN.

Uganda National Bureau of Standards

- Ensure that foods and equipment for infants and young children, adolescents and maternal nutrition comply with the standards specified by the Uganda National Bureau of Standards, the Regulations on Marketing of Infant and Young Child Foods and the Codex
- Support MoH to monitor the implementation of the Regulations on Marketing of Infant and Young Child Foods and report findings to the Ministry of Health and the Ministry of Justice and Constitutional Affairs
- Sensitize government, investors, traders, and community at all levels on the importance of abiding by the food standards.

Universities and Tertiary Health Training Institutions

- Integrate MIYCAN in pre-service curriculum
- Ensure that training on MIYCAN includes sufficient hands-on experience for empowering the graduates
- Promote research in priority topics related to MIYCAN
- Support mothers in their institutions to practice optimal IYCF.

Political Leaders

- Advocate for and support budgetary allocations for the implementation of these guidelines and any other related MIYCAN laws and policies at all levels and across sectors
- Support the dissemination of MIYCAN advocacy messages to emphasize the importance of MIYCAN as part of the national development.

Media

- In collaboration with all relevant stakeholders, central and local government officials, the print, electronic and theatre media shall:
 - Educate the public on all recommended MIYCAN practices
 - Adhere to the Regulations of Marketing of Infant and Young Child Foods especially regarding advertisement
 - Provide a platform for the continuous and sustained dissemination and promotion of recommended MIYCAN practices during relevant events.

Communities and Families

- Raise their demand and utilization of integrated nutrition services available at the community level and in health facilities
- Engage and mobilize members to form and participate in mother support groups
- Engage men in protecting, promoting, and supporting MIYCAN, in addition to actively participating in decision making on IYCF in the family
- Involve community leaders in the sensitization and mobilization of their members in activities relevant for optimal MIYCAN
- Organize social support networks for affected families and take steps to minimize stigmatization and discrimination
- Mothers and primary caregivers participate and take responsibility to learn and practice what is required in safely preparing foods and feeding infants and young children
- Mothers and primary caregivers pay more attention to the recommended hygiene practices.

Community Health Resource Persons

- Educate and counsel households on nutrition of mothers, children, and adolescents
- Mobilize and provide linkages to health services
- Collect and report data on nutrition of mothers, children and adolescents and submit to health facilities.



06

LINKAGES WITH OTHER SECTORS

Ministry of Education and Sports

- Ensure that primary, secondary, and tertiary institutions, and ECD centres incorporate age appropriate nutrition education and physical activity for children and adolescents into their curricula
- Orient education managers at all levels on optimal MIYCAN
- Promote and scale up school based feeding programmes
- Promote school health and nutrition interventions like school clubs, school gardens and edutainment.
- With support from MoH conduct orientation for teachers on MIYCAN in primary, secondary, and tertiary institutions.
- In collaboration with MoH, to establish healthy food environments in schools with appropriate strategies and policies for the monitoring of school canteens and school vendors
- Conduct regular school food environment audits to ensure healthy food environments in schools and surrounding areas.
- In collaboration with MoH implement integrated school health and nutrition programmes to address micronutrient deficiencies and helminth infections
- Develop guidelines that outline strategies to promote gender equality in school nutritional plans and policies.
- Increase the fund allocation for school feeding programmes and school gardens to improve knowledge, understanding, and appreciation of the environment and food production system among students.
- Increase fund allocation to improve the availability of sex specific sanitation facilities and Menstrual Hygiene Management (MHM) facilities in schools and communities, including sanitary napkins and safe and hygienic disposal mechanisms.

Ministry of Gender, Labour and Social Development

- Advocate for the ratification and enactment of the International Labour Organization (ILO) Convention 183
- Develop, disseminate, and monitor implementation of maternity protection guidelines based on the Employment Act of 2006
- Advocate with employers to support mothers to practice optimal IYCF
- Link children, orphans and vulnerable children including children with disabilities, with nutrition care and support, and advocate for the role of nutrition in caring for vulnerable children.
- Develop guidelines that outline strategies to promote gender equality in nutritional plans and policies effectively.
- Utilize the existing Functional Adult Literacy (FAL) classes as a delivery channel for creating nutrition awareness, especially for men.

Ministry of Agriculture, Animal Industry and Fisheries

- Empower its extension workers to support families and communities to produce and consume locally available nutrient rich foods and to rear animals of improved nutritional quality
- Strengthen agriculture interventions focused on homestead food production to increase year-round availability of, and access to, nutrient-rich foods at the household level. For example, fruits and vegetables, nutrient-dense cereals, pulses and animal source foods
- Technologies for post-harvest food processing, handling, storage, preservation, and preparation to help ensure that food is both nutritious and diverse
- Training to improve nutrition-sensitive agriculture knowledge and practice among farmers
- Training to improve nutrition-sensitive livestock and fishery development knowledge and practice among farmers through behaviour change communication.
- Educate engage and empower children, adolescents, parents, families and communities through nutrition education to improve diet quality
- Review policies and guidelines to ensure the strategies reflect gender equality.
- Encourage use of farming machinery, promote women in mechanised farming, support women farmers for the procurement of livestock (e.g. pigs, poultry, goats), build capacity of women in animal care to improve livestock productivity (vaccination, deworming, and support access to markets¹

Ministry of Trade and Industry

- Promote local initiatives to fortify foods
- Engage customs, police, and port authorities in implementing the relevant laws and regulations for imports related to optimal MIYCAN.

Ministry of Water and Environment

- Ensure access to clean and safe water in communities, health facilities and in different contexts i.e. urban, rural, pastoralists
- Promote the use of household water treatment practices
- Promote improved access to, availability and use of free and safe drinking water in schools.
- Sensitize communities on safe and hygienic preparation and handling of food
- Promote hand washing with soap and water
- Promote construction of and utilization of community latrines
- Promote safe and clean waste management for poultry, small ruminants and household waste.
- Promote education on effective water treatment methods
- Strengthen strategies within existing WASH programmes to address gender power relations; train women to repair boreholes and hand pumps and conduct water quality testing.¹¹

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ANNEXES

Annex 1: BFHI requirements to successful breastfeeding

14 Requirements to successful breastfeeding

Critical Management Procedures

1. Comply fully with the Foods and Drugs Regulations (marketing of Infant and Young child foods) for Uganda
2. Have a written health facility BFHI SOP for successful infant and young child feeding that is routinely communicated to all health care providers and parents
3. Establish ongoing monitoring for BFHI
4. Ensure that staff (both clinical and non-clinical) have sufficient knowledge, competence, and skills to support breastfeeding.

Key Clinical Practices

5. Discuss the importance and management of breastfeeding with pregnant women and their families/ partners
6. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding within an hour after birth
7. Support mothers to initiate and maintain breastfeeding and manage common difficulties
8. Do not provide breastfed new-borns any food or fluids other than breast milk, unless medically indicated
9. Enable mothers and their infants to remain together and practice rooming-in and bedding-in 24 hours a day
10. Support mothers to recognize and respond to their infants' feeding demand
11. Counsel mothers on risks of use of feeding bottles, artificial teats or pacifiers also called dummies or soothers to infants
12. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Additional requirements for Uganda

13. Counsel and Support Mothers on Infant Feeding in the context of Infectious Diseases
14. Provide mother-friendly care to sustain breastfeeding

Annex 2: Provisions for the regulations on marketing of Infant and Young Child foods (The Code)

Summary of the main provisions of the CODE on Marketing Breast Milk Substitutes for Uganda

- No advertising of breast milk substitutes and other similar products to the public
- No free samples to mothers
- No promotion in health service facilities
- No company personnel to advise mothers
- No gifts or personal samples to health workers
- No pictures of infants or other pictures idealizing artificial/replacement feeding, on the labels of the products
- Information to health workers should be scientific and factual
- Information on artificial/replacement feeding, including that on labels, should explain the
- Benefits of breastfeeding and the costs and dangers associated with artificial/replacement feeding
- Unsuitable products, such as sweetened condensed milk, should not be promoted for babies.

Annex 3: Maternity Protection

The main provisions of the 2000 Convention can be summarized as follows:

- Applies to all employed women,- including those in atypical forms of dependent work
- Provides for 14 weeks maternity leave (12 weeks in the previous 1954 Convention)
- Maternity leave shall include a period of six weeks compulsory leave after childbirth
- Where cash benefits are paid with respect to leave based on previous earnings, this must be at least 2/3 previous earnings
- Includes the right to return to the same position or an equivalent position at the same rate as at the end of maternity leave
- Includes the right to one or more daily breaks or a daily reduction of hours of work to breastfeed her child
- These breaks or the reduction of daily hours of work shall be counted as working time and remunerated accordingly.

Recommendation 191 of MPC 183 of 2000 (still in draft):

- An increase in the length of maternity leave from 14 to 18 weeks
- Facilities for breastfeeding at or near the workplace
- Adoptive parents have the right to maternity leave
- Adoptive parents have a right to maternity benefits.

Annex 4: The BFHI Principles

- 1) Appropriate care to protect, promote, and support breastfeeding is the responsibility of every facility providing maternity and new-born services. This includes private facilities, as well as public ones, and large as well as small facilities
- 2) Compliance with the national standards for the protection, promotion, and support for breastfeeding in all facilities providing maternity and new-born services, based on the updated 14 requirements to Successful Breastfeeding for Uganda
- 3) The Baby-friendly Hospital Initiative must be integrated with other initiatives for maternal and new-born health, health-care improvement, health-systems strengthening and quality assurance
- 4) To ensure that health-care providers have the competencies to implement the BFHI, this topic needs to be integrated into pre-service training curricula. In addition, in-service training needs to be provided when competencies are not yet met
- 5) Public recognition of facilities that implement the 14 requirements to Successful Breastfeeding and comply with the national guidance criteria is one way to incentivize quality improvement. Several other incentives exist, ranging from compliance with national facility standards to performance-based financing
- 6) Regular internal monitoring is a crucial element of both quality improvement and ongoing quality assurance.
- 7) External assessment is a valuable tool for validating the quality of maternity and new-born services
- 8) External assessments should be sufficiently streamlined into existing mechanisms that can be implemented sustainably.

Annex 5: Recommended Food groups for Dietary Diversity

FOOD GROUP	EXAMPLES
Breast milk	Breast milk (breastfeeding, expressed breast milk or breast milk from banks)
Grains, roots and tubers	Millet, Sorghum, Rice, Wheat, Maize, Cassava, Potatoes, yams
Legumes and nuts	Beans, Peas, Soya beans, Groundnuts, Cashew nuts, chickpeas, lentils
Dairy and dairy products	Milk, cheese, yoghurt, butter, ghee
Meat and meat products	Beef, fish, poultry, pork, liver and other organ meats
Eggs and egg products	Eggs for; chicken, ducks, pigeons and turkeys
Vitamin A rich fruits and vegetables	Carrots, paw paws, mangoes, oranges, tangerines, Kale, spinach, Broccoli
Other fruits And vegetables	Passion fruits, pineapples, guavas, lemons, amaranths, Cabbages, dark green leafy vegetables etc.

Annex 6: WHO Infant Feeding and Low Birth Weight(LBW)

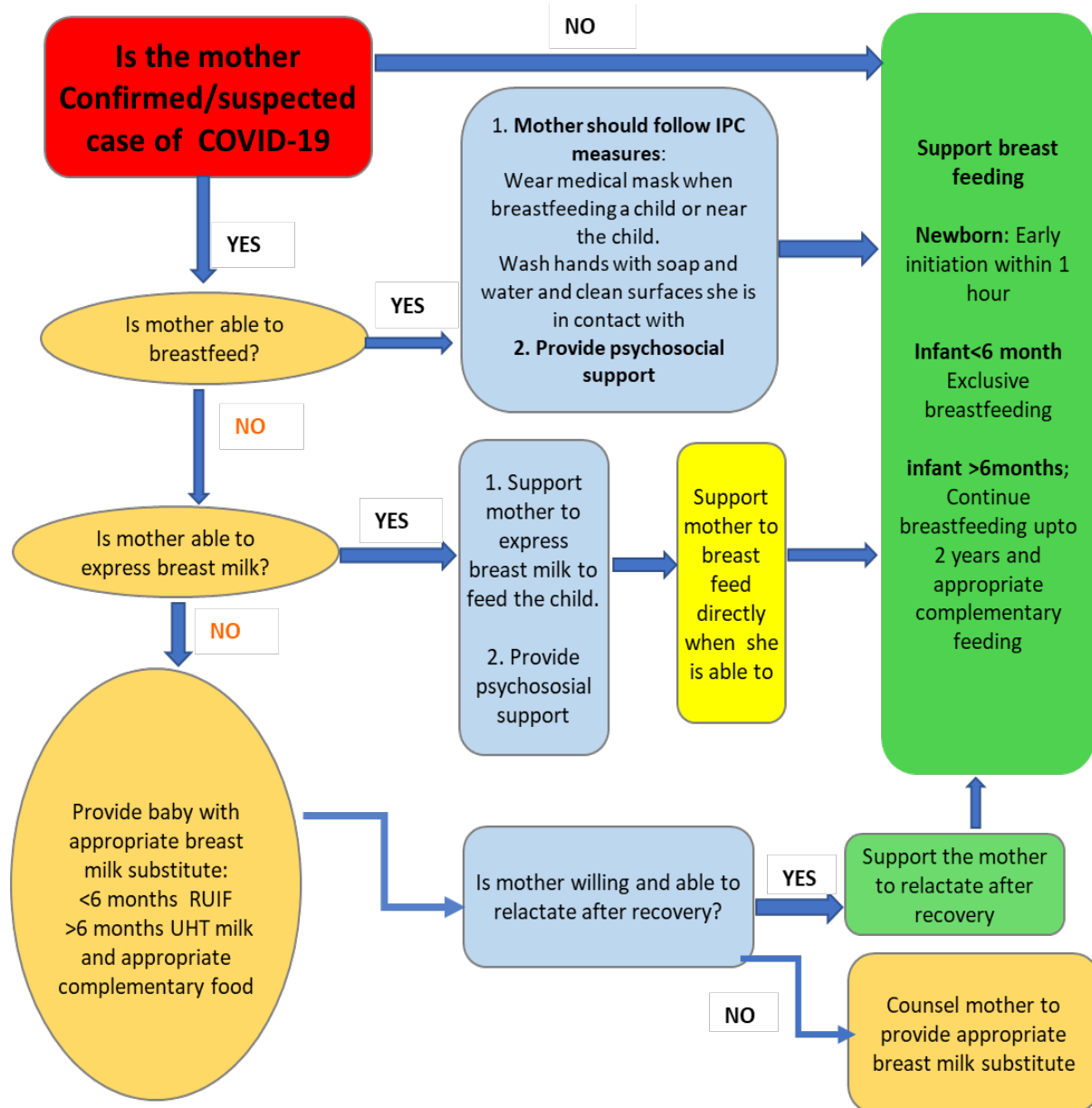
No	Recommendation*	Type of recommendation	Quality of evidence (at least 1 critical outcome)
What to feed?			
a. Choice of milk			
1.	Low-birth-weight (LBW) infants, including those with very low birth weight (VLBW), should be fed mother's own milk.	<i>Strong</i>	<i>Moderate</i>
2.	LBW infants, including those with VLBW, who cannot be fed mother's own milk should be fed donor human milk (recommendation relevant for settings where safe and affordable milk-banking facilities are available or can be set up).	<i>Strong situational</i>	<i>High</i>
3.	LBW infants, including those with VLBW, who cannot be fed mother's own milk or donor human milk should be fed standard infant formula (recommendation relevant for resource-limited settings). VLBW infants who cannot be fed mother's own milk or donor human milk should be given preterm infant formula if they fail to gain weight despite adequate feeding with standard infant formula.	<i>Weak situational</i>	<i>Low</i>
4	LBW infants, including those with VLBW, who cannot be fed mother's own milk or donor human milk should be fed standard infant formula from the time of discharge until 6 months of age (recommendation relevant for resource-limited settings).	<i>Weak situational</i>	<i>Low</i>
5.**	VLBW infants who are fed mother's own milk or donor human milk should not routinely be given bovine milk-based human-milk fortifier (recommendation relevant for resource-limited settings). VLBW infants who fail to gain weight despite adequate breast- milk feeding should be given human-milk fortifiers, preferably those that are human milk based.	<i>Weak situational</i>	<i>Low</i>
b. Supplements			
6	VLBW infants should be given vitamin D supplements at a dose ranging from 400 i.u to 1000 i.u. per day until 6 months of age.	<i>Weak</i>	<i>Very low</i>
7.**	VLBW infants who are fed mother's own milk or donor human milk should be given daily calcium (120-140 mg/kg per day) and phosphorus (60-90 mg/kg per day) supplementation during the first months of life.	<i>Weak</i>	<i>low</i>
8.**	VLBW infants fed mother's own milk or donor human milk should be given 2-4 mg/kg per day iron supplementation starting at 2 weeks until 6 months of age.	<i>Weak</i>	<i>low</i>

9	Daily oral vitamin A supplementation for LBW infants who are fed mother's own milk or donor human milk is not recommended at the present time, because there is not enough evidence of benefits to support such a recommendation.	Weak	<i>low</i>
10	Routine zinc supplementation for LBW infants who are fed mother's own milk or donor human milk is not recommended at the present time, because there is not enough evidence of benefits to support such a recommendation.	<i>Weak</i>	<i>Moderate</i>
When and how to initiate feeding?			
11	LBW infants who are able to breastfeed should be put to the breast as soon as possible after birth when they are clinically stable.	<i>Strong</i>	<i>Low</i>
12. **	VLBW infants should be given 10 ml/kg per day of enteral feeds, preferably expressed breast milk, starting from the first day of life, with the remaining fluid requirement met by intravenous fluids (recommendation relevant for resource-limited settings).	<i>Weak situational</i>	<i>Low</i>
Optimal duration of exclusive breastfeeding			
13.	LBW infants should be exclusively breastfed until 6 months of age.	<i>Strong</i>	<i>Low</i>
How to feed?			
14.	LBW infants who need to be fed by an alternative oral feeding method should be fed by cup (or palladai, which is a cup with a beak) or spoon.	<i>Strong</i>	<i>Moderate</i>
15. **	VLBW infants requiring intragastric tube feeding should be given bolus intermittent feeds.	<i>Weak</i>	<i>Low</i>
16 **	In VLBW infants who need to be given intragastric tube feeding, the intragastric tube may be placed either by oral or nasal route, depending upon the preferences of health-care providers.	<i>Weak</i>	<i>Very low</i>
How frequently to feed and how to increase the daily feed volumes?			
17	LBW infants who are fully or mostly fed by an alternative oral feeding method should be fed based on infants' hunger cues, except when the infant remains asleep beyond 3 hours since the last feed (recommendation relevant to settings with an adequate number of health-care providers).	<i>Weak situational</i>	<i>Moderate</i>
18*	In VLBW infants who need to be fed by an alternative oral feeding method or given intragastric tube feeds, feed volumes can be increased by up to 30 ml/kg per day with careful monitoring for feed intolerance.		

*None of the recommendations address sick LBW infants and infants with birth weight less than 1.0 kg.

** These recommendations specifically address infants with birth weight between 1.0 and 1.5 kg.

Annex 7: Ministry of Health: Decision tree on Infant Feeding in the Context of COVID-19



Annex 8: Maternal Diets and Nutrition in the Context of COVID-19

01. Service Delivery for women should be Guided by Local Adaptations of International recommendations.

- Maintain continuity of ANC and PNC as essential services for all women in the context of COVID-19 including delivery of essential maternal nutrition interventions which includes nutrition and breastfeeding counseling, weight gain monitoring, MUAC screening, micronutrient supplements, and deworming prophylaxis while implementing infection prevention and control procedures to risk COVID-19 transmission [3, 4, 17]
- Introduce multiple micronutrient supplements (MMS) for women to ensure adequate micronutrient intake in populations with a high prevalence of nutritional deficiencies or where food distribution is disrupted [5, 6]
- Prioritize the needs of at-risk women as per WHO and/or national guidelines where the COVID-19 response requires scaling back of service delivery.
- Adapt service delivery platforms and schedules to maintain continuity of health services while protecting health care workers and women such as:
 - Apply WHO or national operational guidance on essential services, PPE and infection prevention and control during health care and for health care workers caring for patients [3, 9, 10]
 - Modify workflow and standard operating procedures (SOPs) to reduce waiting times and promote physical distancing
 - Consider alternative service delivery modalities (telemedicine, mobile phone, home visits) for counseling and screening at-risk women for danger signs
 - Deploy staff to COVID-19 hot-spots and task shift services to community health workers/volunteers in settings with a high case load
 - Identify approaches to activate community outreach in urban settings.
- Postpone routine ANC and PNC services or provide alternative delivery platforms for women with suspected, probable, or confirmed mild COVID-19 not requiring hospitalization until cases are resolved
- Provide nutritional support (e.g. counselling, access to nutrient dense local food, micronutrient supplements) for at-risk women or women with suspected or confirmed COVID-19 and isolated at home. Refer to WHO and/or national guidelines on home care and clinical management of patients with COVID-19 [7, 8]
- Promote, protect, and support skin-to-skin contact for new born babies, timely-initiation of breastfeeding, exclusive breastfeeding. Prioritize continuation of optimal breastfeeding counselling and support for all pregnant women and mothers with infants and young children
- Ensure psychosocial support to women during ANC and PNC contacts

- Develop plans to resume routine service delivery as soon as mobility restrictions are lifted

2. Essential Nutrition commodities should be available for Women for Service delivery.

- Forecast and pre-position essential nutrition commodities (e.g. MMS, iron and folic acid, deworming prophylaxis, calcium) for 2–3 months, close to service delivery while ensuring adequate storage conditions
- Organize food distribution close to homes/communities to facilitate women’s access [11]. Refer to IASC and WFP SOPs on alternative food distribution in the context of COVID-19 [12]
- Increase the amount/reduce the frequency of essential nutrition commodities dispensed to women (e.g. a 3-month supply) where disruptions in routine healthcare service contacts are likely, supported by sensitization on their appropriate storage and use.

3. Food Systems should Protect the Diets of Women.

- Undertake a rapid assessment of markets to identify immediate and longer-term policy and programme actions to ensure access to locally available, nutritious, safe, affordable, and sustainable foods
- Support and maintain local food production systems to ensure availability of staple foods, fresh fruits and vegetables, and high protein foods in markets and retailers
- Ensure that major retailers, local markets, and shops remain open and retailers follow hygiene, marketing and social distancing recommendations
- Strengthen food safety monitoring capacities (including for food fortification)
- Report price gouging and other violations
- Ensure safeguards are in place to avoid conflict of interest from companies marketing breast milk substitutes and foods for infants and young children and women and ensure that donations or free supplies are prohibited. Prevent commercial exploitation of COVID-19 through unnecessary use of specialized foods and supplements, and spill over to those who do not need them.

4. Social Protection Programmes should be expanded to cover the needs of Women.

- Introduce or expand gender-responsive social protection programmes (e.g. in-kind food, vouchers, cash) and other emergency economic schemes to cover the needs of at-risk women in food insecure households
- Consider the appropriateness of modalities to effectively reach and support the nutritional needs of at-risk women
- Advocate for the inclusion of high-quality nutritious foods (such as lentils, fortified cereals, and oil) in food-based safety net schemes

- Ensure discussions on safety net transfers includes an understanding of the cost of nutritious diet to help set the transfer value
- Mainstream effective social behaviour change communication for maternal and child nutrition into social transfer programmes and platforms for greater nutrition impact on women and children.

5. Communication Strategies should focus on Healthy Eating and Food Hygiene among women.

- Use a human rights approach to assessments of gender and social norms to inform a gender-responsive approach to the design of communications strategies. Also involve women wherever possible in planning
- Identify innovative channels to support culturally appropriate messaging on healthy eating, hygiene, and physical activity/rest (social media, television, radio, digital platforms/mobile phone) specific to the needs of women [13-15]. Refer to WHO (EMRO) guidance on nutrition advice for adults during the COVID-19 pandemic [16]
- Consider use of digital platforms to inform and counsel women and families on services changes, measures to ensure the safety and health of women, to dispel fears of using services, and provide information on danger signs
- Adapt counselling to emphasize importance of healthy diets for immunity, safe food preparation, eating well on a budget, hygiene, managing stress, as well as information on assistance for mental health
- Modify training materials and train frontline health, nutrition, and community workers to support healthy diets and hygiene practices, safeguarding against conflicts of interest.

6. Nutrition Information Management, Surveillance and Monitoring should include Indicators for Women.

- Ensure that data collection activities and reports include key indicators on women. Where feasible, use existing indicators that have been previously collected to allow for continuity. Refer to GNC/ GTAM guidance on nutrition information management, surveillance and monitoring in the context of COVID-19
- Support innovations such as use of MUAC by family members to screen for underweight women
- Undertake assessments to determine functionality of local markets, food availability, price tracking of basic food commodities, and adequate market supply of nutritious foods. Ensure that assessments consider the potential impact of food supply chains, food environments, and behaviours on women and the quality of women's diets
- Encourage adoption of regulations and laws that control marketing of ultra-processed foods and prevent misleading commercial messaging and exploitation
- Support analysis of market price and strength to include an understanding of availability and cost of nutritious food.

