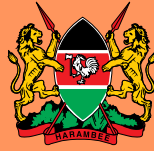


REPUBLIC OF KENYA



MINISTRY OF HEALTH



POINT-OF-USE FORTIFICATION WITH MICRONUTRIENT POWDERS (MNP)

IMPROVING THE NUTRITION OF INFANTS AND YOUNG
CHILDREN AGED 6-23 MONTHS

PARTICIPANTS'
M A N U A L | Community
Health
Volunteers

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Foreword

Kenya is experiencing the triple burden of malnutrition, with co-existence of undernutrition (stunting, underweight and wasting), over nutrition (overweight and obesity), and micronutrient deficiencies. One in four children under five years are stunted, 4% are wasted while 11% are underweight. Further, 28% of adults 18-69 years and 4% of children under 5 years are overweight and obese. Additionally, micronutrient deficiencies of iron, folate, iodine, vitamin A and zinc are widespread. About 42% of pregnant women, 22% of non-pregnant women, 9% of men and 26% of preschool children are anaemic, while 32% of pregnant women have folate deficiency. Overall, 24% of the population have marginal Vitamin A Deficiency (VAD) and preschool children are the worst affected with a prevalence of 53%. Besides, zinc deficiency is an emerging public health concern affecting at least 70% of the population.

Malnutrition increases the risk of morbidity and mortality and contributes close to half of all deaths in children under five years. It is also associated with lower educational achievement and cognitive development during childhood and leads to long-term impairment, including increased risk of chronic diseases and lower productivity during adulthood. The Cost of Hunger in Africa (COHA) Study conducted in Kenya in 2019 revealed that Ksh 374 billion shillings or equivalent to 6.9% of the Gross Domestic Product was lost in 2014 due to child undernutrition. The economic impact of undernutrition in the health sector alone was estimated at Ksh 18.6 billion.

The Ministry of Health is committed to addressing the triple burden of malnutrition as outlined in the Kenya Health Policy (2014-2030) and National Food and Nutrition Security Policy, 2012. One of the objectives of the Kenya Health Policy is to minimize exposure to health risk factors and promotion of control of micronutrient deficiencies is one of the interventions. The Ministry is implementing the Kenya Nutrition Action Plan (KNAP) 2018-2020 which is aligned to both the Kenya Health Policy and the National Food and Nutrition Security Policy, 2012.

The harmonized training package for Point-of-use-fortification using micronutrient powders has been developed to guide in training frontline health workers. The micronutrient powders will be distributed at the health facilities where instructions on use will be provided by Health Care Providers. Community Health Volunteers will educate, counsel, and mobilize caregivers at the community level to visit health facilities for nutrition assessment and provision of the micronutrient powders.



Dr. Patrick Amoth

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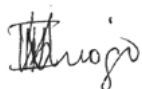
Acknowledgement

The Point-of-Use Fortification with Micronutrient Powders Participants Manual for Community Health Volunteers was developed through wide consultation with expertise drawn from government and partner organizations, under the leadership of the Ministry of Health (MOH) through the Division of Nutrition and Dietetics (DND).

Sincere appreciation to the members of the Micronutrient Technical Working Group for their commitment and dedication in developing the manual. Special compliments go to Julia Rotich (DND) for leading the process. Further, DND appreciates the invaluable inputs from technical officers from Kenyatta National Hospital (KNH), University of Nairobi (UON), Division of Health promotion (MOH), UNICEF, Action Against Hunger (ACF), DSM, Kenya Red Cross, World Food Programme (WFP), Elgeyo Marakwet and Nairobi Counties. Much thanks to County Nutrition Coordinators from Kwale, Kilifi, Nakuru, Bomet and Nandi counties for pre-testing the manual and providing inputs for improvement.

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Acronyms and Abbreviations

BFCI	Baby Friendly Community Initiative
CHV	Community Health Volunteers
HINI	High Impact Nutrition Interventions
HIV	Human Immunodeficiency Virus
IYCN	Infant and Young Child Nutrition
KNAP	Kenya Nutrition Action Plan
MAD	Minimum Acceptable Diet
MDD	Minimum Dietary Diversity
MND	Micronutrient Deficiency
MNP	Micronutrient Powders
RUSF	Ready-to-Use Supplementary Foods
RUTF	Ready-to-Use Therapeutic foods
SBCC	Social and Behaviour Change Communication
VMP	Vitamin and Mineral Powder
WHO	World Health Organization

Operational Definitions

Adverse effects: The body's undesired response to MNPs which is unintended and harmful

Behaviour Change Communication: An interactive process with communities to develop tailored messages and approaches using a variety of communication channels to develop positive behaviours to promote and sustain individual, community and societal behaviour change and maintenance

Community Health Volunteer: Any person within the community willing to work on voluntary basis, is able to read and write, is a permanent resident in the community, has served and/or is committed to the service of neighbours.

Complementary feeding: The process of introducing age-appropriate solid or semi-solid foods at six months of age with continued breastfeeding up to 2 years or beyond

Complementary food: Any food, whether manufactured or locally prepared, suitable as a complement to breastmilk and introduced from six months of age

First 1,000 days: Period between conception and a child's second birthday

Micronutrient Powder: This powder is a mixture of 15 important vitamins and minerals that can be added directly to soft mashed semi-solid or solid cooked complementary foods to improve the nutritional quality of foods for young children. Also known as vitamin and mineral powders.

Minimum acceptable diet: A measure of both the minimum feeding frequency and minimum variety in the number of food groups consumed among children aged 6-23 months, as appropriate for various age groups

Minimum Dietary Diversity: Measure of proportion of children who were feed on the minimum appropriate number of food groups e.g. at least four out of the recommended seven food groups

Point-of-use fortification: Addition of MNPs to already prepared/cooked complementary or other foods just before consumption

Responsive feeding: Feeding infants and young children slowly and patiently, encouraging them to eat without forcing them and maintaining eye contact. The caregiver provides the food, and is responsive to the cues provided by the child, creating a positive feeding experience.

Stunting: Is when a child has a low height for their age compared to other children of the same age, usually due to undernutrition from before birth and repeated infections.

Underweight: Is when a child has a low weight for their age compared to other children of the same age, an indication of wasting or stunting, or a combination of both.

Wasting: Is when a child has a low weight for their height compared to other children of the same age. An indication of an acute period of malnutrition and/or illness.

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Session 1:

Course Introduction

Background

The Government of Kenya is committed to ensuring equitable access to and uptake of High Impact Nutrition Interventions (HINI).

Point-of-use fortification with Micronutrient Powders (MNPs) is a HINI and one of the strategies to reduce micronutrient deficiencies among children aged 6-23 months.

Prevention, control and management of micronutrient deficiencies is one of the key result areas of the Kenya Nutrition Action Plan (KNAP), 2018-2022.

MNPs have been included in the National Infant and Young Child Nutrition strategy and guidelines as a component of complementary feeding.

The overall objective of the MNP supplementation in Kenya is to improve the micronutrient status of children aged 6-23 months by improving the quality of their complementary foods.

About this training

This training is designed to equip community health volunteers with knowledge and skills for creating awareness about MNPs to increase demand, coverage, utilization and adherence.

Course Participants

This one-day training is designed for CHVs who deliver nutrition education and counselling services to caregivers of children aged 6-23 months during home visits within their community units.

Handout 1.1: Course Objectives

By the end of the course, the participants will be able to;

- Demonstrate an understanding of Micronutrient Deficiency (MND) situation in Kenya and its consequences on health
- Explain the benefits, dosage, frequency, administration, and safety of MNPs for children aged 6-23 months
- Demonstrate the point-of-use fortification using MNPs to improve the quality of complementary foods
- Demonstrate skills in completing the MNP service register for tracking supplies and reporting
- Demonstrate the appropriate client-service provider interaction skills
- Develop community level Plans of Action for activities

Handout 1.2: Training Programme

Time	Sessions
8.00 – 8.30 a.m.	Arrival and registration
8.30 – 8.50 a.m.	SESSION 1: Course Introduction <ul style="list-style-type: none"> • Introduction and welcome remarks • Objectives and training approach
8.50 – 9.30 a.m.	SESSION 2: Background on Micronutrient Deficiencies <ul style="list-style-type: none"> • Background on micronutrient deficiencies • Current situation and approaches to address Micronutrient Deficiencies (MNDs) in Kenya and county • Effects of undernutrition
9:30 – 10.00 a.m.	SESSION 3: Role of Point-of-Use Fortification with MNPs in Infant and Young Child Nutrition <ul style="list-style-type: none"> • Importance of optimal IYCN • Criteria for complementary feeding and reasons for addition of MNPs to Complementary foods
10.00 – 10.30 a.m.	SESSION 4: Point-of-use Fortification with MNPS <ul style="list-style-type: none"> • Purpose and benefits of point-of-use fortification with MNPs • MNP Formulation, target group, dosage, frequency and safety
10.30 – 10.45 a.m.	BREAK
10.45 – 11.25 a.m.	Demonstration: How to use the MNPs to fortify complementary food
11.25 a.m. – 12.00 p.m.	SESSION 5: Commodity Management and Reporting on MNPs <ul style="list-style-type: none"> • The importance of monitoring MNPs supplies • Tools used to document and report MNPs
12.00- 1.00 p.m.	SESSION 6: Role of BCC in improving the uptake of MNPs <ul style="list-style-type: none"> • Introduction to BCC and target audiences • Desired changes, facilitating factors and barriers
1.00 – 1.40 p.m.	LUNCH BREAK
1.40- 3.00 p.m.	Case study scenarios on MNP message dissemination <ul style="list-style-type: none"> • BCC role plays with generic and local context scenarios
3.00 – 3.30 p.m.	SESSION 7: Action Planning for MNP Activities
3:30 – 4:00 p.m.	Way forward and Departure

Session 2:

Background on Micronutrient Powders

Handout 2.1: Background on Micronutrient Deficiencies

MND mainly affects children during the first 1,000 days of life due to the high nutrient requirements (including vitamins and minerals) to support their rapid growth and adequate development.

It is estimated that nutritional risk factors, are responsible for 3.9 million deaths (4 out of every 10) in children aged less than 5 years¹ due to underweight, sub-optimal breastfeeding, and vitamin and mineral deficiencies, particularly of vitamin A, iron and zinc.

Iron deficiency is the most prevalent micronutrient deficiency in the world. About 300 million children globally had anaemia in 2011².

Zinc deficiency is also very common, particularly in countries where diets are dominantly cereal-based with low protein content.

Zinc is an essential nutrient for growth and recovery from childhood illness such as diarrhoea; therefore, its deficiency can lead to stunted growth.

Handout 2.2: Current situation and approaches to address MNDs in Kenya

Micronutrient Deficiencies in Kenya³

In Kenya, the most common MNDs include iron, vitamin A and zinc. Among children aged 6-59 months old:

- 1 out of every 4 (26.3%) suffers from anaemia
- Vitamin A Deficiency (VAD) affects 1 out of every 10 (9.2%) children
- 1 out of every 2 (52.6%) children are at risk of VAD (Marginal)
- Zinc deficiency affects 8 out of every 10 (81.6%) children

1 Global health risk. Mortality and burden of disease attributable to selected major risks. Geneva: World Health Organization; 2009

2 The global prevalence of anaemia in 2011. Geneva: World Health Organization; 2015

3 Kenya National Micronutrient Survey, 2011

Effects of Undernutrition

- Low weight-gain and wasting
- Frequent illnesses resulting in high cost of healthcare and child deaths
- Reduced learning ability and poor performance in school
- Stunting: currently affects 1 in every 4 (26%) children and is highest in children aged 18-23 months affecting 1 in every 3 (36%)

Approaches used to Address Micronutrient Deficiencies

There are several approaches that have been used at different times and in different populations to address micronutrient deficiencies⁴. The focus of this training is point-of-use (home) fortification with MNPs

Strategy	Description
Dietary diversification	This refers to the consumption of a variety of food groups that provides the necessary micronutrients in adequate amounts
Supplementation	It is the distribution of minerals and vitamins in different forms such as capsules, tablets, oil solutions or food, as well as by injection when substantial or immediate benefits are necessary for the group at risk.
Mass fortification	This involves addition of micronutrients to commonly consumed foods. In Kenya, it is mandatory to fortify salt, maize flour, wheat flour, fats, and oils during processing
Point-of-use or Home fortification	This involves the addition of micronutrient powders to already prepared foods just before consumption
Bio-fortification	It involves improvement of nutritional quality of food crops during production. Example: orange-fleshed sweet potatoes
Public Health Measures	Public health plays a critical role in micronutrient deficiency control through different avenues, including improved sanitation, malaria control and treatment, routine deworming of children, nutrition and health education

Table 2.1: Approaches to Address Micronutrient Deficiencies

⁴ Operational Guidelines for Health Workers in Kenya: Home Fortification with Micronutrient Powders

Handout 2.3: Use of MNPs in Malaria Endemic Areas

Childhood anaemia is a major public health problem in malaria endemic regions.

Anaemia has many causes with both malaria and iron deficiency as major contributing factors.

Point-of-use fortification should be implemented in conjunction with measures to prevent, diagnose and treat malaria.

- All children, including those receiving MNPs, should sleep under an Insecticide Treated Net.
- Children with fever should be tested for malaria without delay, and, if found positive, treated before being given MNPs.

Efforts between malaria control and nutrition programs providing MNPs can help ensure increased health benefit for children.

Key Health Messages⁵ :

- Taking iron does not make a child more likely to be infected with malaria
- However, children taking iron may get sicker than children not taking iron:
 - **IF** they become infected and;
 - **IF** they do not receive treatment promptly
- Iron supplementation is important in treating anaemia
- Providing iron in the context of malaria control will have a greater impact on anaemia than malaria control alone
- Coordination of efforts between malaria control and nutrition programs providing MNP can help to ensure improved health outcomes for children

⁵ Home Fortification Technical Advisory Group. Key messages for developing training materials for health workers implementing Micronutrient Powders (MNP) in malaria endemic areas. Home Fortification Technical Advisory Group, 2018.

Session 3:

Role of Point-of-Use Fortification with MNPs in Infant and Young Child Nutrition

Handout 3.1 Importance of Optimal Infant and Young Child Nutrition

The period during pregnancy, and a child's first two years of life, are considered a critical window of opportunity for preventing growth faltering.

There is need for early interventions to prevent growth failure that happens during the first two years of life including the promotion of appropriate infant feeding practices.

Appropriate feeding practices are important for health, nutrition, survival and development of infants and children.

Exclusive breastfeeding for the first six months of life and continued breastfeeding for the first two years of age or beyond with timely introduction of appropriate, adequate and safe complementary foods at six months increases child survival.

Use of MNPs is a cost effective strategy to improve the vitamin and mineral quality of complementary foods where dietary diversity is low.

Handout 3.2 Criteria for Complementary Feeding

Foods should meet the basic criteria for complementary feeding which includes Frequency, Amount, Texture (thickness), Variety, Active/responsive feeding and Hygiene (FATVAH)⁶

- **Frequency:** The meal frequency should be based on age appropriate recommendations.
- **Amount:** The amount of food given to the young child at each meal should be adequate for the age and provide sufficient energy, protein and micronutrients to meet the growing child's nutritional needs.
- **Texture:** The food consistency should be age appropriate and adapted to the child's requirements and abilities.
- **Variety:** A child should eat a variety of foods that provide different nutrients to meet the child's nutritional needs.
- **Active feeding:** Supervising and encouraging a child to eat enough food at each meal.
- **Hygiene:** Foods should be hygienically prepared, stored and fed with clean hands using clean utensils – bowls, cups and spoons.

⁶ GoK-MOH National Baby-Friendly Community Initiative Trainers' Guide, 2018

THINK! Hygiene, Frequency, Amount, Thickness, Variety, and Active/responsive feeding

Note:

- Use fortified complementary foods or vitamin-mineral supplements, including point-of-use fortification with MNPs as needed and
- during illness, increase fluid intake including more breastfeeding, and offer soft, favourite foods

Current Complementary Feeding Practices

In Kenya complementary feeding practices among children aged 6-23 months are poor⁷ with

- Only 2 in 5 receiving the variety of foods groups in the recommended number for age.
- Half (1 out of every 2) of the children are fed the minimum number of times appropriate for their age
- 22% (1 in 5) eat the recommended variety in terms of minimum food groups and fed for the recommended number of times for their age

MNPs have been included in the Baby Friendly Community Initiative (BFCl) as a component of complementary feeding.

Handout 3.3 Reasons for addition of MNPs to Complementary Foods

The first 1,000 days of life offer an opportunity to effectively prevent any form of malnutrition whose consequences are irreversible after the second year of life.

Children whose diets do not provide enough iron risk developing iron-deficiency anaemia which impairs cognitive development and also increases the risk of illnesses and death.

There is evidence that point-of-use or home fortification using MNPs is an effective strategy to improve the nutrient content of complementary foods.

MNPs can be added to complementary food to ensure adequate iron intake thus reducing anaemia and symptoms of common childhood illnesses such as diarrhoea, fever, cough, and other illnesses.

MNPs also provide an opportunity to speed up reduction in stunting, wasting and underweight among young children.

Use of MNPs for point-of-use fortification have been shown to have an impact on the micronutrient status of children 6-23 months and helps to:

7 Kenya Demographic and Health Survey (KDHS), 2014

- Improve the body's immune system (ability to fight illnesses)
- Improve the child's appetite
- Improve a child's ability to learn and develop
- Make children healthy, strong and active
- Prevent vitamin and mineral deficiencies

Session 4:

Point-of-Use Fortification with MNPS

Handout 4.1: Purpose and Benefits of Point-of-Use Fortification with MNPs

Point-of-use (Home) fortification is used to improve the nutritional quality of the diet for nutritionally vulnerable groups aged 6-23 months by adding specific nutrients immediately before consumption.

MNPs are also essential for increasing immunity, physical strength, promoting good cognitive development and productivity in later life.

MNPs are a food-based, rather than a medicinal (curative), approach which is more in line with the long-term sustainable goal of a population-wide preventative approach.

It is easy to use MNPs compared to other interventions such as iron drops and tablets resulting in improved acceptability and compliance among users.

Handout 4.2: MNP Formulation, Target Group, Dosage, Frequency and Safety

Micronutrient Powder Formulation

MNPs are packaged in a one-gram sachet (**Figure 4.1**) that contains 15 micronutrients (vitamins and minerals). The composition is based on the requirement of each micronutrient per dose for children aged 6-23 months old.



Front side

Back side



Figure 4.1: Kenya Government Approved MNP Package

Target Group for MNPs in Kenya

In Kenya, our target group is children aged 6–23 months, starting at the time when complementary foods are introduced and are likely to be given in limited food varieties and quantities.

Dosage and Frequency of MNPs

National Policy Guidelines on Home Fortification with MNPs for Children aged 6-23 months in Kenya specifies that only 60 sachets be used for 6 months (**Refer to Annex I**).

- Each eligible child to consume 10 sachets of MNPs per month and therefore, the health worker should distribute per child/month to their caregiver along with clear instructions on their use.
- Each child should receive a minimum of 60 sachets within 6 months.
- The mother/caregiver should administer one sachet of MNPs every third day (**Figure 4.2**)

One Sachet of MNP every Third Day for 1 Child	
Day 1	
Day 2	
Day 3	
Day 4	
Day 5	
Day 6	
Day 7	

Figure 4.2: Dosage and Frequency of Vitamins and Minerals

Safety of MNPs

MNPs are tasteless which discourages accidental overconsumption by children.

In malaria-endemic areas, MNPs should be offered together with programmes for preventing and treating malaria.

Children aged 6–23 months receiving food-based ready-to-use therapeutic and supplementary foods or fortified blended food such as a wheat-soy blend, corn-soy blend and lipid-based nutrient supplements should not receive MNPs as the products already have similar or higher amounts of micronutrients

Children with specific conditions such as HIV or tuberculosis can benefit and should be given MNPs which have been shown to be effective in managing the conditions. However, this should proceed with caution as such children may already be receiving RUTF or RUSE.

It is safe to give MNP to children who are receiving their age-appropriate Vitamin A supplements every six months

If a child is sick, the caregiver should inform the HCP whenever their child is using MNPs to avoid adverse effects from drug-nutrient interactions (DNI).

Side Effects of MNPs

Any side effects are minimal and usually of short duration (don't last long). Examples include:

- Colour of Stool: Dark stool indicates the presence of unabsorbed iron. This is harmless and supplementation with MNP should continue.
- Consistency of stool: the child may have softer stools or a mild form of constipation during the first 4-5 days of using MNPs. Continue giving the child MNPs

Adverse Effects

Despite reports of diarrhoea and vomiting occurring in children using MNPs, there is insufficient evidence or inadequate information linking these symptoms to MNP use.

- Diarrhoea and stomach upset are sometimes reported by caretakers when children start using vitamin and mineral powder, usually by <1% of the population.
- No adverse events were reported in over 800 children between the ages of 6-59 months from 7 community-based trials in 4 countries.

If a child suffers from diarrhoea, caregivers should

- take him/her to the nearest health facility for treatment that includes zinc tablets and ORS
- continue giving increased fluids
- continue giving the child the MNPs as recommended

Handout 4.3: How to use Micronutrient Powders

Key points on using MNPs

- Once the food is ready, serve the child's portion in a separate plate and mix with one sachet of Micronutrient Powder (MNP).
- The powder can be added to warm solid and semi-solid foods.
- At no time should the MNP be added to HOT food.
- If MNPs are added to very hot food, the lipid (oil) coating around the iron particles in the powder will melt and change the colour and taste of the food to be undesirable hence less food is consumed affecting acceptability.
- To prevent changes in the taste and colour of food to which MNP is added, it is therefore recommended that MNPs be added to warm food after it is cooled.
- Similarly, MNPs should not be added to liquid foods or drinks. If added to liquid, the powder will float to the top and stick to the sides of the cup/bowl hence losing some of the nutrients.

Directions for Use of MNPs

STEP 1: Tear open the sachet

STEP 2: For one child, mix one sachet of Micronutrient Powders (MNPs) with food. Use one sachet every third day.

STEP 3: Mix into warm solid or semi-solid food. **DO NOT** add MNPs to hot food or liquid foods.

STEP 4: Mix the powder in a small amount of food which a child can consume at a single sitting; when s/he is most likely to eat and finish the food. (See the illustrations below)

STEP 5: Food mixed with MNPs should be fed to a child within half an hour of mixing. **DO NOT** reuse or reheat food into which MNP has been added after the 30 minutes

DO NOT add MNPs to food while cooking

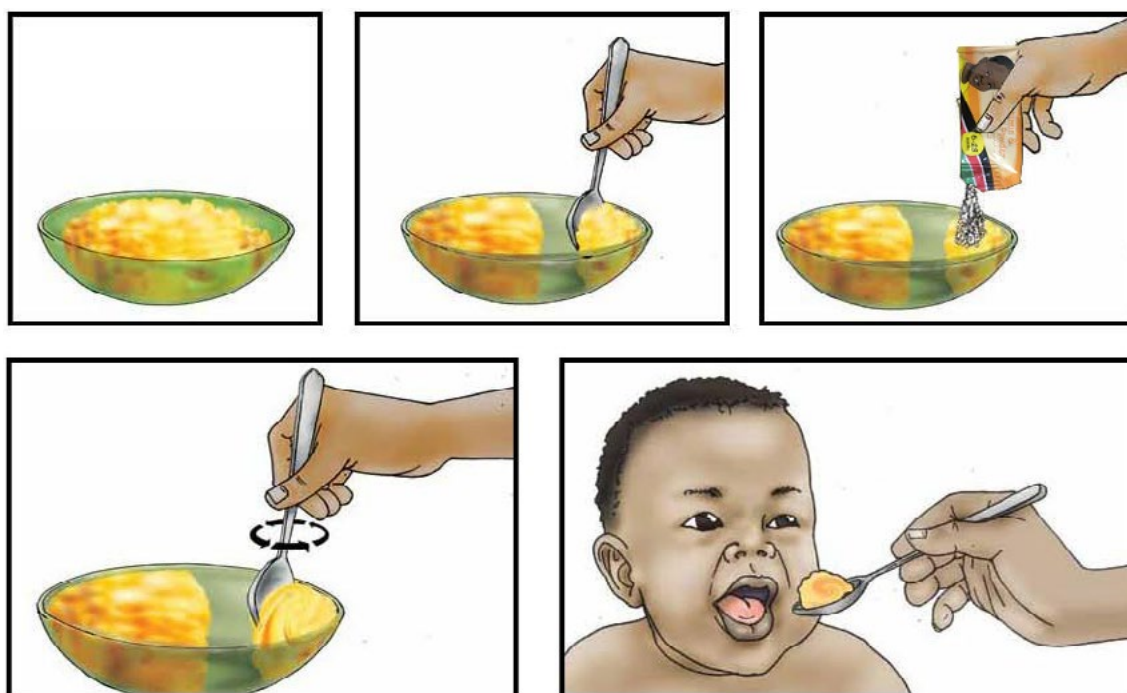


Figure 4.3: How to add Micronutrient Powders (MNPs) to Complementary Foods

Session 5:

MNPs Supply Management and Reporting

Handout 5.1 Importance of Monitoring MNP Supplies

1. To ensure that the right quantities of MNPs are available for children aged 6-23 months when they need them.
2. To ensure that the records are correctly maintained, and reports submitted on time.
3. For timely and accurate refill or restocking of MNPs when supplies run out.

Handout 5.2 Utilization, Coverage and Access to MNPs

CHVs can assist in assessing utilization, coverage and access to MNPs by clients within their community units (CUs) by answering the following questions:

1. **Utilization:** Are MNPs being consumed by the target population (children aged 6-23 months)?
2. **Coverage:** Are MNPs being distributed to the target population?
3. **Access:** Are MNPs available to the target population in the health facility?

This information can then be shared with the Community Health Extension Worker (CHEW) for follow-up in case of any problems for decision making and planning at subsequent levels

Handout 5.3: Proposed Tools for Documenting and Reporting MNPs

These two are examples of tools that have been improvised for use in a pilot study and can be adapted for community level distribution which has been effective in driving up coverage in other countries and regions

- CHV MNP Service Register
- CHV Commodity Consumption Report and Request Register

Sample CHV MNP Service Register from Elgeyo Marakwet County

Sub County _____ Name of the Community Unit _____

Village _____ Name of CHV _____

Date	CWC No.	Full Names	Age in Months	Sex	Weight During Previous HF Visit	MNP Sachets Given	Did He/She Receive Last Month Yes/No	Remarks

CHVs Kit Commodities Consumption Data Report & Request Form

Name of Community Unit: _____ For the Month/Year _____

CHW KIT COMMODITIES										
Commodity	Unit of Issue	Beginning Balance	Quantity Received	Quantity Issued	Losses	Adjustment	Physical Count/ Ending Balance	Earliest Expiry Date		Quantity Requested
								Date	Amount	
		A	B	C	D	E	F	G	H	I
MNPs	Sachets									

Comments: _____

Compiled By: _____ Date: _____

Session 6:

Role of Behaviour Change Communication in Improving the Uptake of MNPs

Handout 6.1: Target Audiences for MNPs for Children aged 6-23 Months

Primary audience: The primary audience (the person most affected by the problem) is the mother/caregiver of a child aged 6-23 months who is responsible for addressing its needs.

Secondary audience: These are people who have close contact with the caregiver and bear influence on them including: husbands, extended family, support group members, Community Health Assistances, Community Health Volunteers, Chama members, Religious and Community leaders, Healthcare Providers

Handout 6.2: Desired Changes, Facilitating Factors and Barriers

Desired Changes

Caregivers: They should be targeted for:

- Knowledge of the importance of optimal complementary feeding practices and dietary diversity.
- Increased knowledge and skills in preparing meals using locally available foods and resources.
- Increased knowledge of benefits of MNPs within the context of complementary feeding to create demand for the supplies (pull system).
- Improved skills in preparation of complementary foods with the addition of MNPs to increase the micronutrient content.
- Adherence to recommended MNP dosage and usage.

Husbands: They are a vital target to:

- Support caregiver's knowledge on complementary feeding practices and dietary diversity.
- Support food purchasing/consumption decisions that enhance optimal complementary feeding practices and dietary diversity.
- Support caregiver in adherence to recommended MNP dosage and usage.
- Promote and support positive health seeking behaviour by the primary caregiver.

Community Health Workers: They are a vital link for community mobilization to support improved infant feeding practices and referrals to health facilities: They should therefore be targeted for:

- Improved/reinforced knowledge on optimal complementary feeding practices and dietary diversity
- Community mobilization for optimal complementary feeding practices and dietary diversity.
- Increased knowledge and skills to create demand for MNPs and ensure caregiver adherence

to recommended usage within the context of complementary feeding.

- Support for MNP programme particularly in disseminating the information during community activities and household visits.
- Promote community knowledge and skills on consumption of balanced diets using locally available resources.
- Promote positive health seeking behaviour.

Opinion Leaders

- Awareness and increased knowledge on the challenges in nutrition status of children aged 6-23 months
- Support the programme by disseminating information during community activities.
- Serve as ambassadors of the programme.

Facilitating Factors and Barriers to MNP Uptake

Some of the behavioural factors that may facilitate or act as barriers to MNPs uptake are the following:

Facilitating factors

- Knowledge of the immediate benefits for the health and nutritional status of the child.
- Increased level of knowledge by the caregivers and positive attitudes towards the product.
- Improved health seeking behaviour by caregivers.
- Increased understanding, acceptance and adoption of IYCN practices by caregiver.
- Information seeking attitude and practice by CHVs.
- Improved quality of information and counselling support provided to caregivers by health workers.
- Clear instructions and demonstration on how to use the MNPs.
- Ease of using MNPs by the caregiver once the procedure is understood.
- Knowledge that MNP does not alter the colour or taste of food; this can enhance acceptance.
- Motivation and willingness of CHV to mobilize and educate the community as well as make referrals to health facilities.
- Continuous supply of MNPs that reaches the target audience.
- Adequate knowledge on the safety of MNP use and any possible unexpected effects.

Barriers at the Individual level

- Low levels of knowledge and skills about MNPs.
- MNP is a relatively new product on the Kenyan health scene and it may take some time before the population gains adequate knowledge of its benefits to facilitate uptake. This is expected to improve with increased information dissemination and improved knowledge.
- General poor health seeking behaviour by mothers/caregivers.
- Non-adherence to procedures on dosage, frequency, preparation and use of MNPs by caregivers may result in undesirable outcomes.

- Food sharing habits within the community may impact on the required quantity for each child.
- Negative attitudes may be occasioned by misgivings of the product by caregivers and opinion leaders which may affect uptake.
- Non-compliance to recommended IYCN practices may result in health benefits of MNPs not being realized.
- CHVs have not received training hence lack knowledge to support community mobilization.

Barriers related to facility and policy level

- Most healthcare providers have not received training and may not have the requisite information to support caregiver counselling on MNPs.
- Limited access to the MNP operational guidelines for health workers to support information and operational practices.
- Attitude of health workers towards the products.
- Heavy workload of frontline health workers may result in lack of adequate time for counselling mothers on MNP use and thus inappropriate usage.
- The reporting process may be hindered by heavy workloads at facilities.
- Inadequate follow-up by healthcare providers due to heavy workload and limited time
- MNPs stock-outs.
- Policy restriction to the formal health care system as the only delivery platform for MNPs in Kenya.

Myths and Misconceptions across different audiences

Myth: A widely held but false belief or idea about a product or service

Misconception: A view or opinion that is incorrect because it is based on a faulty thinking or understanding

- Myths and misconceptions are major barriers to social and behaviour change which are more common within the community with a lot of influence to individuals based on religion and culture.
- Therefore, in the context of MNPs, they will be addressed guided by those identified in the local community settings in which the MNP programme implementation is taking place.
- This may be obtained through a formative assessment to enable tailoring messages to specific myths and misconceptions that are relevant to the local communities.

Handout 6.3: Case Study Scenarios on MNPs Message Dissemination

Group 1 Primary audience: Caregivers of children aged 6-23 months

Case study scenario 1

Mary is 29 years old. She is a mother of three children; Kevin who is 5 years old, Brian 3 years and Consolata 9 months old. She resides in Khwisero and always visits the health facility for routine growth monitoring and immunization for her children. She is currently at the health facility for routine follow up and immunization for Consolata. Using the MNPs leaflet provide information and guidance to Mary on use of MNPs.

The role play will assess sharing of key messages; what MNPs are, why MNPs are needed, the target for MNPs, dosage and frequency, where to get MNPs and how to use MNPs

Group 2 Secondary audience: Community Health Volunteers

Case study scenario 2

Halima who is the community strategy officer in Naivasha Sub-County is attending a community health workers feedback session taking place at Gilgil. The health facilities in Naivasha Sub-county were recently issued with a 4 months' supply of MNP commodities. Apart from the health providers, the CHVs and community members do not know about MNPs. The CHVs are discussing other health issues in this meeting. Simulate a feedback session integrating MNPs in the CHV feedback session.

The role play will assess sharing of key messages by CHVs; what MNPs are, why MNPs are needed, the target for MNPs, dosage and frequency, where to get MNPs and how to use MNPs.

Key MNP Messages for Caregivers

1. Ensure that your child is fed with clean and fresh food
2. Introduce complementary foods at six months with continued breastfeeding for up to 2 years and beyond
3. Commonly used complementary foods lack some key essential nutrients (vitamins and minerals) required for young children's growth and development
4. Include foods from different groups that are easy to find locally to ensure a wide range of nutrients are available for the growing child
5. Add MNPs to solid or semi-solid warm complementary foods of children aged 6-23 months just before feeding. DO NOT add to hot or liquid foods
6. Add MNPs to regular complementary food of target children every third day
7. DO NOT share MNPs with other children

Session 7: Action Planning

What is Action Planning?

It is a process through which a team or individual organizes strategies or ideas then sets out the steps involved in achieving them.

The process enables one to focus on the goals and objectives as well as the requirements to achieve them.

Importance of action plans

An action plan helps an individual or organization to realize its goals by organizing time effectively, identifying steps needed to reach a goal and preparing plans for unforeseen events.

An action plan should be reviewed in line with changes taking place.

Handout 7.1 Sample CHVs Action Plan for MNP Implementation

Strategic objective

Increase uptake of MNP from 6% to 20% by 2021 and to 80% by 2024

Objective	Activity	Responsible	Resources	Timelines	Indicators
Advocacy for MNP implementation	Health talks	CHV	CHV manual & Fact sheet, MNP sachets		No. of community members sensitized
	Barazas	CHV/CHEW	Training manuals, MNPs		No. of barazas held
	Dialogue days	CHEW/CHV	Training manuals, MNPs		No. of dialogue days held
Scale up demand and uptake of the MNPs	Home visits	CHEW/CHV	Training manuals, MNPs		No. of action days held
	Action days	CHEW/CHV	Transport, Lunch allowances, MNPs		No. of action days held
	Outreaches	CHEW/CHV	Transport, Lunch allowances, MNPs		No. of outreaches held Outreach report
	Malezi bora days	CHEW/CHV	Transport, Lunch allowances, MNPs		No. of action days held Malezi bora report

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Annexes

Annex I: National Policy Guidelines on Fortification with MNPs for Children aged 6-23 months



Ministry of Health

NATIONAL POLICY GUIDELINE ON HOME FORTIFICATION WITH MICRONUTRIENT POWDER (MNP) FOR CHILDREN 6-23 MONTHS IN KENYA

Purpose of Micronutrient Powder (MNP) Supplementation

To improve the micronutrient status of children 6-23 months by improving the quality of their complementary feeding

Target Group	6-23 months
Dose and Frequency	Each child should receive 10 sachets per month to be consumed every third day and no more than one sachet per day
Duration	Each child should receive 60 sachets within 6 months
Delivery System	Health facility

Sachet formulation (1gram)	Vitamin A: 400µg RE, Vitamin D : 5µg, Vitamin E: 5mg, Vitamin C: 30 mg, Thiamine (Vitamin B1): 0.5 mg, Riboflavin (Vitamin B2) : 0.5 mg, Niacin (Vitamin B2) : 0.5mg, Nicin (Vitamin B3) : 6mg, Vitamin B6 (pyridoxine): 0.5mg, Vitamin B12 (Cobalamine): 0.9µg, Folate: 150µg, Iron: 10mg, Zinc: 4.1 mg, Copper: 0.56mg, Selenium: 17µg, Iodine: 90.0µg
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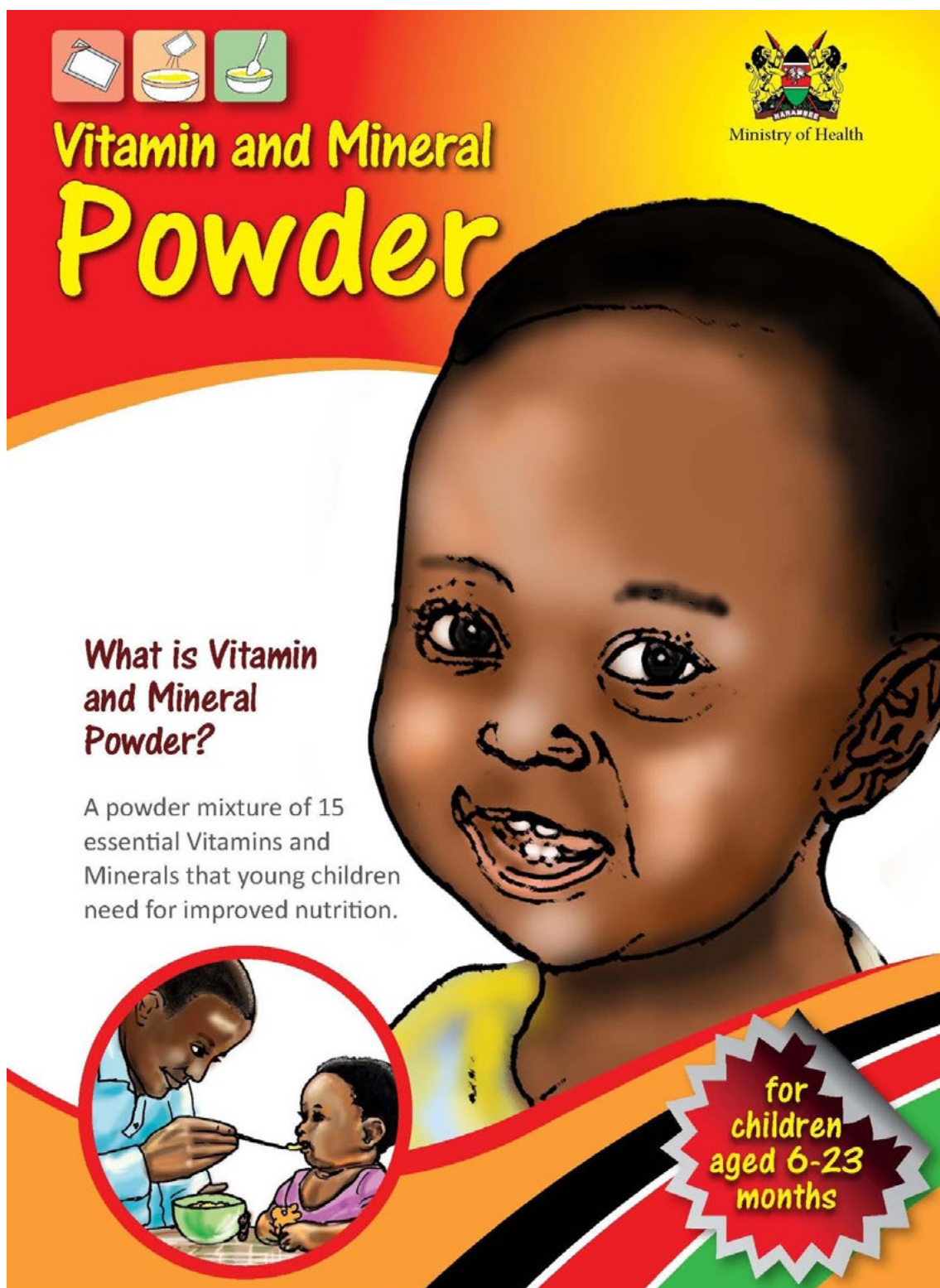
Note:

1. Do not combine MNPs with other specially formulated products, such as RUTF (Ready-to-use therapeutic food) for treatment of SAM (Severe Acute Malnutrition) and RUSF (Ready-to-Use Supplementary Food) or fortified blended foods such as WSB++ (wheat-soy-blend) or CSB++ (corn-soy-blend) for treatment MAM (Moderate Acute Malnutrition)
2. MNPs should also be given in malaria endemic areas
3. Behavior change communication strategy should promote awareness and correct use of MNP alongside the recommended breastfeeding practices and commencement of complementary foods at 6 months.

5/12

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Director of Public Health and Sanitation
Ministry of Health, Kenya
9th August 2013

Annex II: Vitamin and Mineral Powder Leaflet – English



Benefits

Vitamin and Mineral Powder helps:

1. Improve the body's immune system
2. Improve a child's appetite
3. Improves a child's ability to learn and develop
4. Makes children healthy, strong and active
5. Prevent vitamin and mineral deficiencies

Directions of Use

1. For one child, mix one sachet of Vitamin and Mineral powder per day with food
 - Use one sachet every third day
2. Mix in warm solid or semi-solid foods
 - Vitamin and Mineral powder **SHOULD NOT** be added in hot or liquid foods
3. Mix the powder in the amount of food which a child can consume at one time when then the child eats the most
4. Food mixed with Vitamin and Mineral powder should be fed to a child within half an hour OF MIXING.

Direction to use vitamin and mineral powder:

- Step 1**
Tear to open the sachet
- Step 2**
Pour sachet content on cooked meal when it is warm and ready to feed
- Step 3**
Mix the food well after adding the vitamin and mineral powder
- Step 4**
Feed a child with the meal mixed with vitamins and minerals within half an hour

Key Messages

Give Vitamin and Mineral Powder to children aged 6-23 months

1. Exclusively breastfeed children from birth to 6 months
2. Introduce complimentary foods at six months with continued Breast feeding for upto 2 years and beyond
3. Ensure that your child is fed with clean and fresh food
4. Vitamin and Mineral Powder should be added to regular complementary food of children every third day
5. Avoid sharing of Vitamin and Mineral powder with other children
6. Vitamins and Minerals are necessary for your child's physical growth and development



FOR MORE INFORMATION:
Please contact nearest health facility or community health worker

Annex III: Vitamin and Mineral Powder Leaflet – Swahili



The leaflet features a large illustration of a smiling young girl's face on the right side. The background is a gradient of red and orange. At the top left, there are three small icons: a packet of powder, a bowl of food, and a spoon. The title 'Poda ya Vitamini na Madini' is written in large, bold, yellow letters with a black outline. Below the title, there is a section titled 'Poda ya Vitamini na Madini ni nini?' followed by a paragraph explaining the importance of the powder. In the bottom left corner, there is a circular inset showing a woman feeding a child. In the bottom right corner, there is a red starburst shape containing text about the target age group. The Kenyan coat of arms and the Ministry of Health logo are in the top right corner.

JAMHURI YA KENYA
Wizara ya Afya

Poda ya Vitamini na Madini

Poda ya Vitamini na Madini ni nini?

Mchanganyiko wa
poda wenye vitamini
na madini 15 muhimu
ambao watoto wachanga
wanahitaji kwa lishe bora.

Kwa
watoto wenye
kati ya miezi
6-23

Faida

Poda ya Vitamini na Madini inasaidia:

1. Kuboresha kinga ya mwili.
2. Kuboresha hamu ya kula kwa mtoto.
3. Kuboresha uwezo wa ubongo na maendeleo ya mtoto
4. Humfanya mtoto kuwa na afya, nguvu na kuchangamka.
5. Huzuia pungufu za vitamini na madini.

Namna ya kutumia

1. Kwa mtoto mmoja, changanya sacheti moja ya poda ya vitamini na madini katika chakula kwa siku.
 - Tumia sacheti moja tu kila siku ya tatu.
2. Changanya kwenye vyakula vilivyopondwa au rojorojo.
 - **USIONGEZE** poda ya vitamini na madini kwenye vyakula moto au vya majimaji
3. Changanya poda hiyo kwenye kiasi cha chakula ambacho mtoto mchanga anaweza kukimaliza katika mlo mmoja, kwa kufanya hivyo, mtoto atakula zaidi.
4. Mtoto mdogo anapaswa kulishwa chakula ambacho kimechanganywa poda ya vitamini na madini ndani ya nusu saa ya KUCHANGANYA.

1

Maelezo ya kutumia poda ya vitamini na madini

Hatua ya 1
Fungua sacheti kwa kukata pembeni.

2

Hatua ya 2
Nyunyiza poda iliyomo ndani ya sacheti kwenye chakula kilishapikwa wakati kimepoa na kiko tayari kupewa mtoto.

3

Hatua ya 3
Baada ya kunyunyiza poda ya vitamini na madini, changanya chakula vizuri.

4

Hatua ya 4
Mlishe mtoto mlo uliochanganywa vitamini na madini ndani ya nusu saa.

Ujumbe muhimu

Wape watoto wenye umri kati ya miezi 6-23, poda ya Vitamini na Madini

1. Kuanzia siku ya kuzaliwa mpaka miezi sita, mtoto anyonye maziwa ya mama peke yake.
2. Mwanzishie vyakula vya ziada akiwa na miezi sita huku ukiendelea kumnyonyesha maziwa ya mama mpaka afikie miaka 2 na kuendelea.
3. Hakikisha mtoto wako analishwa chakula safi na freshi.
4. Kila siku ya pili, poda ya vitamini na madini inapaswa kunyunyizwa katika vyakula vya ziada vya mtoto.
5. Epuka kumlisha mtoto poda ya vitamini na madini ukishirikisha watoto wengine.
6. Vitamini na madini vinafaa kwa ukuaji wa watoto na maendeleo yao kimwili.



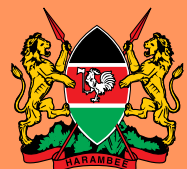
KWA MAELEZO ZAIDI:

Tafadhali wasiliana na kituo cha afya kilichoko karibu au mhudumu wa afya ya jamii

Canada



REPUBLIC OF KENYA



MINISTRY OF HEALTH