

Promoting Nutrition in Climate Smart Agriculture



Correct Citation:

Itliong, K., Valdemoro C, Calica, M.,Barbon, W.J., Myae C., Su M.N., Gonsalves, J. 2020. Promoting Nutrition in Climate Smart Agriculture. International Institute of Rural Reconstruction, Myanmar

Considerable part of this work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada. The views expressed herein do not necessarily represent those of IDRC or its Board of Governors.

This publication is licensed under a Creative Commons Attribution – NonCommercial 4.0 International License.



August 2020

Introduction

This booklet resulted from the project titled, “Community Based Adaptation via Climate and nutrition smart village to address food insecurity in Myanmar funded by IDRC. This project was jointly implemented by the International Institute of Rural Reconstruction and RDA, KMSS, KMF and CDA. Consequently, the project aimed to contribute to food and nutrition security, food safety and hygiene in the communities where the project beneficiaries live.

Drawing from the project’s experiences and lessons, the booklet serves as a guide for enhancing food production, food safety and hygiene beginning from the smallest unit of the community - the family.



In the small village of Hteepu, U Kyaw and Daw Moe Moe live with their two children: Hla Hla their 7-year-old daughter, and Aung Aung, their 4-month old son. With an unknown virus that is spreading rapidly, the village was placed under quarantine. Families are not allowed to go outside except to buy food and medicine.

Read along their family's story to learn how they practice the following to help them stay well-nourished and safe from the virus:

1. Good Nutrition,
2. Food safety,
3. Hygiene, and
4. Home Gardening.

Meet our characters:

Father "U Kyaw"- 30 y/o, farmer

Mother "Moe Moe"- 28 y/o, lactating mother

Sister "Hla Hla" - 7 y/o child

Baby boy "Aung Aung"- 4 months infant

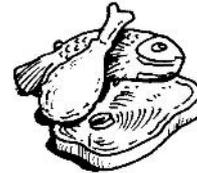
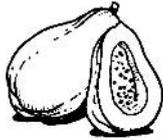
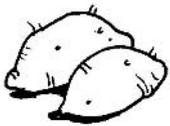


CHAPTER I

Balanced Diet and Preparing Healthy Meals

LEARNING OBJECTIVE

- Describe exclusive breastfeeding
- Cite benefits of a balanced diet
- Enumerate the three basic food groups and cite samples per food group
- Describe the recommended amounts of food per food group



Moe Moe and U Kyaw make sure that everyone in the family gets sufficient and nutritious food.

For Aung Aung, her 4-month-old baby, she feeds with her breastmilk. **Her breastmilk is all that Aung Aung needs from birth until six months.** It is enough to give him all the energy and nutrients he needs to grow strong and healthy. Aung Aung doesn't even need to drink water because his mother's milk has enough water in it. **When he reaches 6 months, he will also be given diverse and nutritious food to complement breastfeeding.**



Moe Moe made sure she was able to breastfeed her baby within the first hour after she gave birth. **Her breastmilk after giving birth is special. It is called colostrum and it gives her baby protection from common illnesses.**



Moe Moe keeps on exclusively breastfeeding her baby, and she will do so until he reaches 6 months.

For Moe Moe, U Kyaw and Hla Hla, they need to eat a diverse range of foods during meals and snacks. It helps children, like Hla Hla, grow strong and smart. It gives Moe Moe and U Kyaw the energy and thinking power they need to do their everyday tasks. For the whole family, it gives them protection against diseases by boosting their immunity.

Every day, Moe Moe prepares meals that include the three important food groups. These are energy giving foods, body-building foods, and protective foods.

Energy-giving foods include root crops, millet, corn, noodles, rice, and many more. It gives them the strength to do their work in the farm or in the household. It gives Hla Hla energy to learn better and enjoy play at school. Oils and sweets also belong to this food group, but they add just small amounts of it in their diet to avoid developing diseases when they grow old.

Body-building foods include fish, beans, egg, milk and meat. This food group helps Thanda produce breastmilk for her four-month old baby, U Kyaw. It helps Hla Hla grow tall and gain weight. She is growing very fast since she entered adolescence so eating enough body-building foods is very important. Body-building foods also helps U Kyaw have strong muscles. This helps him do his heavy work in the farm.

Protective foods include all the different colored fruits and vegetables. These, especially yellow and orange fruits and vegetables and dark green leafy vegetables, gives them protection from illnesses like COVID-19 and helps them have regular bowel movement every day.

Table 1. The three different food groups and some examples.

ENERGY-GIVING FOODS	BODY-BUILDING FOODS		PROTECTIVE FOODS	
Sweet potatoes Potatoes Taro Cassava Elephant's foot yam Millet Sorghum Corn Egg noodles Rice noodles Rice Sticky rice Bread Naan bread Biscuits Oil Sugar cane cake Jaggery	<u>Animal sources:</u> Fish Small fish Dried fish Shrimp Prawns Dried shrimp Duck eggs Quail eggs Chicken eggs Milk Chicken Beef Pork Pig liver Duck blood curd Egg, milk and meat	<u>Plant sources:</u> Black-eyed peas Red lentils Chick peas Dry soy cake Peanuts Tofu Bean curd	<u>Fruits:</u> Roselle Amla Pineapple Banana Papaya Orange Mango Lime	<u>Vegetables:</u> Drumstick plant (Moringa) Carrots Pumpkin Tomatoes Bean sprout Wing bean Long bean Bitter gourd Gourd leaf Spinach Bokchoi Pennywort Watercress

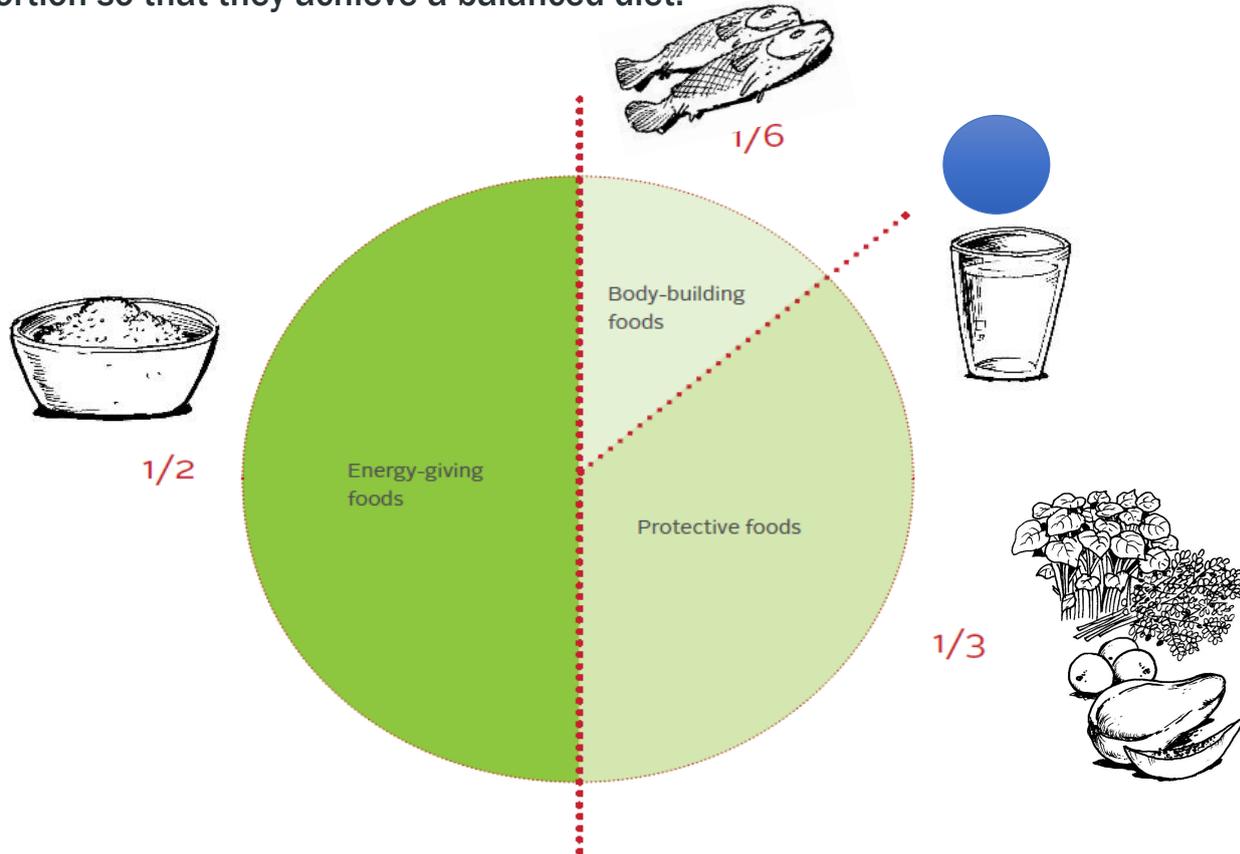
Today, they are having rice paired with Carp fish and roselle soup for lunch. They also have some fresh amla and papaya.

U Kyaw remembers what they learned from the community health worker about balanced diet. He helps Moe Moe serve their meal to make sure everyone eats these different kinds of foods in the right amounts. About $\frac{1}{2}$ of their meal should come from the energy-giving foods. About $\frac{1}{6}$ of their meal should come from body-building foods and the remaining, around $\frac{1}{3}$, should be protective foods.



Hla Hla also reminds her parents to drink plenty of water. She learned from school that each person should drink 8 to 10 glasses of clean, safe water. Frequently drinking sugar-sweetened beverages like soft drinks is bad for one's health.

U Kyaw made sure everyone in the family eats the different groups of food in the right proportion so that they achieve a balanced diet.



She also asks her father to bring home fruits, sesame or other seeds, and roots and tubers such as sweet potato, and cassava whenever he is allowed to go to their farm or go foraging. Sometimes, Hla Hla collects their chicken eggs so they can have boiled egg with sweet potato in the midafternoon. This helps their family have healthy nutritious snacks every day instead of processed and sweetened foods.



Moe Moe appreciates her daughter for always doing this. It helps her remember what the community health worker told her during her last check-up. **She must eat a balanced diet, drink plenty of water and eat foods with soup. Breastfeeding mothers need additional nutrition equivalent to an extra meal to help them produce enough milk for their baby.**



Soon, Aung Aung will be 6 months old. He will also need diverse nutritious food to complement his mother's breast milk. Thanda feels more confident in feeding her child because she and U Kyaw listened well to the community midwife during the community nutrition education sessions. U Kyaw already plans to establish their own homestead food garden. This will help them have more vegetables and crops available within their home while they have limitations in going to the farm and markets.

Moe Moe must eat a balanced diet, drink plenty of water and eat foods with soup. She also needs to eat an equivalent of an extra meal to help her produce enough milk for Aung Aung.

Key messages

1. Exclusive breastfeeding is best for babies up to six months. When they reach 6 months, they will need diverse and nutritious food to complement breastfeeding.
2. A balanced diet gives us strength and thinking power for our everyday tasks. It gives us protection against diseases and helps children grow strong and smart.
3. There are three (3) basic food groups: (1) energy giving foods, (2) body-building foods, and (3) protective foods.
4. A balanced meal is composed of a diverse range of food from the different food groups consumed in the right proportions: about $\frac{1}{2}$ comes the energy-giving foods, $\frac{1}{6}$ comes from body-building foods, and around $\frac{1}{3}$ comes from protective foods.
5. We should drink at least 8 to 10 glasses of clean, safe water.
6. A breastfeeding mother must eat a balanced diet and needs an equivalent of an extra meal to help her produce enough breastmilk.

Sources:

Brazier, A. and Saw Eden. (2015). *Learning about Nutrition: A facilitator's guide for food security & livelihoods field agents*. Myanmar: Ma Thusa.

Food and Agriculture Organization (FAO).2018. *FUTURE SMART FOOD Rediscovering hidden treasures of neglected and underutilized species for Zero Hunger in Asia, Executive summary*, Bangkok, 36 pp. Retrieved from: <http://www.fao.org/3/i8907EN/i8907en.pdf>

CHAPTER II

Agriculture and Nutrition

LEARNING OBJECTIVES:

- Describe the importance of integrated homestead food production
- Enumerate the important points to consider in planning a home garden
- Cite benefits of livestock and poultry in food security and nutrition
- Enumerate steps in proper seed selection and storage
- Cite the benefits of Integrated Homestead food production



With the new virus spreading in the community, various restrictions were imposed. Families were strongly advised to stay home while farming activities were reduced. Consequently, there was a surge in commodity prices, particularly in vegetables. The family only has a few vegetable plots, several chickens for eggs and some goats for milk.

U Kyaw then remembered the seminar he attended a few months ago - the Integrated homestead food production (IHFP) wherein the home garden is integrated with livestock. Within the IHFP system, the garden and home waste provide food for the animals, and animal manure enriches the garden. The father realized that it would be a good idea to begin IHFP in order to sustain their family in the coming months.

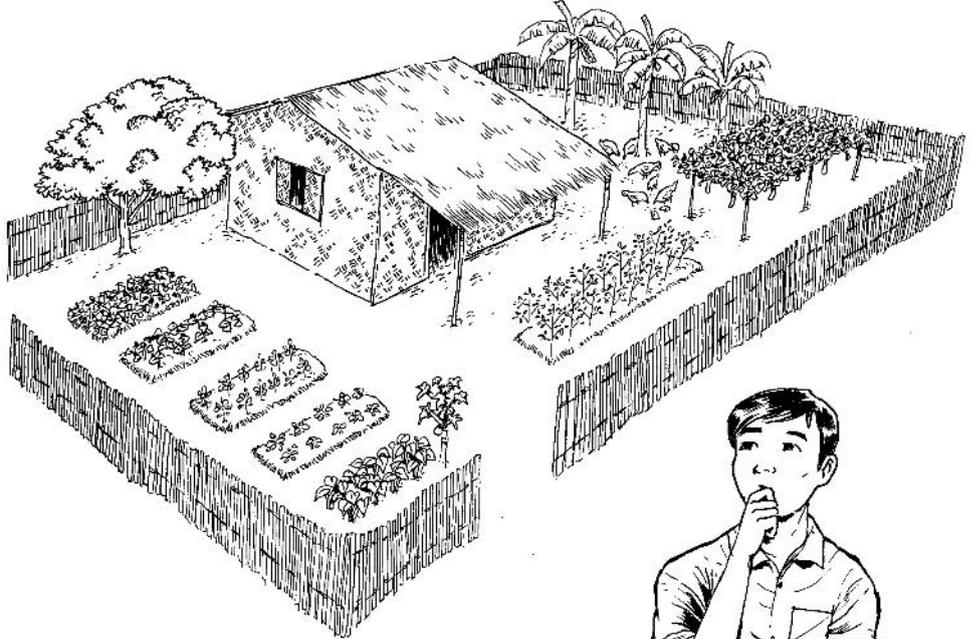


Figure 1. Father realized the need to set up home garden

Planning the home garden

U Kyaw began by planning on how to set-up the home garden. He lists down the important points to consider:

1. **Select vegetables to grow**
 - Local crops that are readily available, easy to grow and require less inputs
 - Nutritional needs, considering his lactating wife, and growing children
 - Family choice, he remembers all the favorite vegetables of each family member
2. Create a **crop rotation/production plan** to ensure continuous production for family consumption. Different vegetables from each type (leafy, legumes, fruit-bearing and root crops) will be grown to ensure dietary diversity and good nutrition for the family.
3. Consider the **location** on where to set up the garden (size, near the water source, receives sufficient sunlight).
4. Draw a **diagram** of the garden for better visualization (e.g. show kind of vegetables, distance between rows and protective fence).

5. Set-up a nursery for seedlings and a **seed bank**.
6. Install **fence** around the garden to protect against the animals.
7. Surround the area with **leguminous trees** such as *Gliricidia sepium* (Madre de Cacao) and *Calliandra sp.* which will serve both as fertilizer to crops and feeds to animals.



Figure 2. Father lists down things to consider in setting up the home garden

Homestead gardening is integrated with small livestock. The family owns 1 cattle, 2 goats and several chickens. The livestock produce protein sources for the family such as eggs, meat and milk. This in turn also increases the dietary intake of the family.

Animal manure is also being collected to be used in the compost, which serves as additional fertilizer for the crops in the home garden.

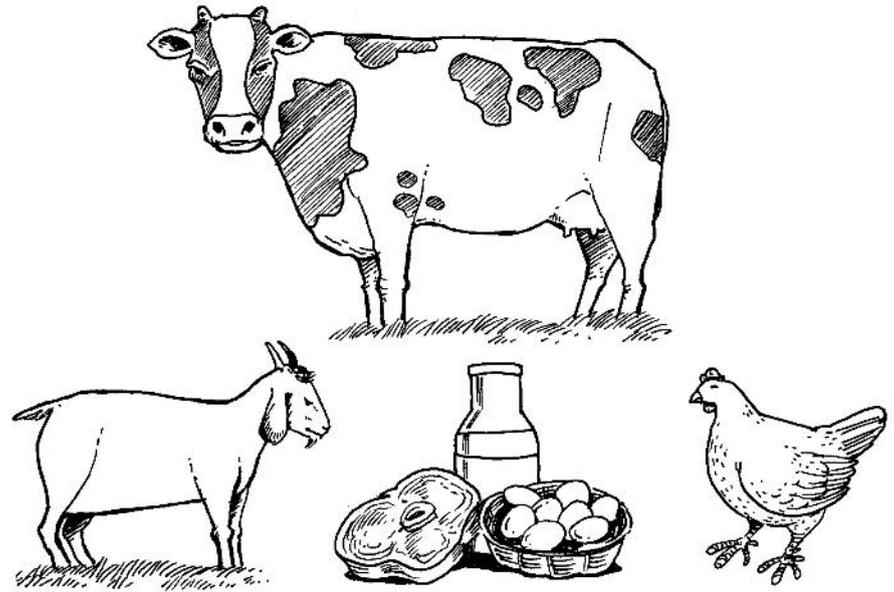


Figure 3. Livestock and poultry, and their by-products

The family practices seed saving in order to sustain their home garden and give planting materials to their community. Doing so would encourage more households to have their own nutritious food basket.

Steps in seed selection and storage:

1. Choose a healthy plant. Healthy seeds come from healthy plants.
2. Seeds should be dried before storing to reduce moisture thereby increasing its lifespan for the next planting season. This is usually done by 1-2 days air drying, followed by for 3 days sun drying.
3. Inspect the seeds well before storing them. Remove infested seeds to ensure that healthy seeds are spared from pests.

4. Keep seeds dry by including desiccants or materials that absorb moisture such as dry charcoal, dry ash, silica gel etc) inside the storage.
5. Select a container or cabinet which may serve as a “seed bank”. This is where seeds from different types of vegetables are kept.

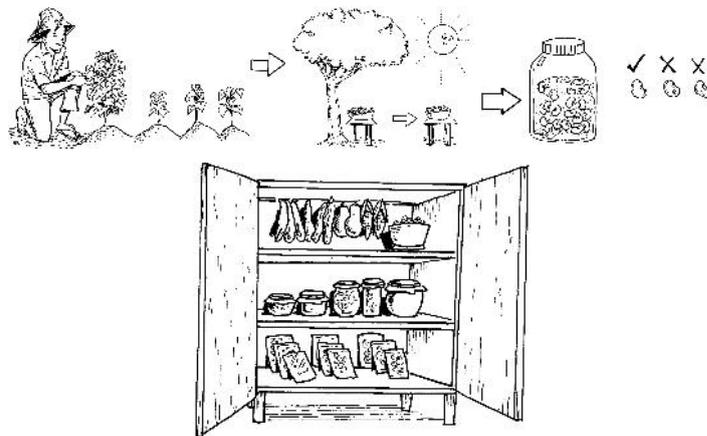


Figure 4. Seed-saving process. Seed bank

Amidst the COVID-19 pandemic, the family remains healthy and food secure. Below are the major benefits of the Integrated Homestead Food Production:

1. It is the most direct way of providing daily nutrition for the family. This also contributes to increased dietary intake and promotes dietary diversity.
2. It teaches children and adults about nutrition, climate, environment, plants, insects, water use, and waste management.
3. It is a means to produce non-food items such as medicinal herbs and spices.
4. It is a means of getting women involved in food production and earn income.

5. It saves money from buying vegetables

6. It became a source of income from the sale of excess vegetables and animal products.



Figure 5. Close-up of family doing garden activities together

Key Messages

- **Integrated Home Food Production (IHFP) can enhance a household's food availability, accessibility and diversity, primarily through increased production of food grown on the homesteads. Income may also be generated from surplus sales to purchase food.**
- **Planning a home garden is essential in meeting the family's nutritional needs and preferences while also identifying necessary structures (nursery, fence) for long term use.**
- **Livestock and poultry helps in food supply and family nutrition through meat, milk and eggs. Their manure also serves as fertilizer to the home garden.**
- **Proper seed selection and storage is a sustainable way of gardening. It is cost-efficient and essential in preserving local cultivars.**

References

International Institute of Rural Reconstruction (IIRR) (1993 May). The bio-intensive approach to small scale household food production.

International Fund for Agricultural Development (IFAD) (2015 November) Retrieved from:

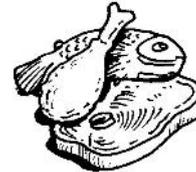
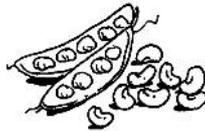
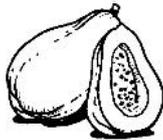
https://www.ifad.org/documents/38714170/40312880/Integrated+homestead+food+production_teaser.pdf/4430bf74-d0e3-42ae-9b96-f32d6e376f17 Accessed May 27, 2020.

CHAPTER III

Nutrition in the First 1000 Days

LEARNING OBJECTIVE

- Describe the First 1000 days of life and its importance
- Cite potential negative effects of poor nutrition in the First 1000 days
- Cite important reminders on how to achieve good nutrition in the First 1000 days of life
- Describe proper complementary feeding for infants 6 months and above



Moe Moe and U Kyaw apply all that they could remember the community trainings and nutrition sessions they attended. They want to provide good nutrition and health to their children especially during this pandemic. They established their own home food garden to have more vegetables and crops easily available. With some livestock too, they are able to feed their children with appropriate, diverse and nutritious food.

They do this because they understand it is very important for their children, especially their baby, to get good nutrition in the First 1000 days of life. The First 1000 days of life starts from the first day of pregnancy until his 2nd birthday. Thanda learned from the community midwife that children who do not get good nutrition in this critical period get sick easily. Some even die before they reach the age of 5. Others are able to survive but stay small in height and learn slowly in school.

First 1000 Days of Life: The Golden Window of Opportunity



Pregnancy to childbirth



Birth to six months



Six months to first two years



On the other hand, children who get good nutrition during the First 1000 days of their life grow to be strong and healthy. They are 10 times more likely to survive deadly childhood diseases. They are able to complete almost 5 more years in school than poorly nourished children, and they grow into more productive adults who earn 21 % more in wages. Also, they are more likely to raise their own healthier families.



This is the reason why U Kyaw and Moe Moe agreed not to have their first child, Hla Hla, until Moe Moe is more than 20 years old. Adolescents, especially girls, are growing quickly. Thanda's adolescent body was still preparing for the time she will become pregnant. While waiting, she ate plenty of energy-giving foods, body-building foods and protective foods.

When she became pregnant, U Kyaw encouraged her to eat more nutritious food every day. She ate dark green leafy vegetables, liver and eggs which are high in iron. She didn't drink coffee or tea, nor ate laphet (a tea-leaf snack) during meals and for one to two hours afterwards.

The community midwife taught her these foods can prevent her body from getting important nutrients in food. She also enjoyed eating yellow and orange fruits and vegetables high in Vitamin A.

She also took the iron-folate pills given to them by their community health worker. When cooking their meals, they used iodized salt. She also drank plenty of clean safe water. All these are important to help her baby grow healthy inside of her womb.

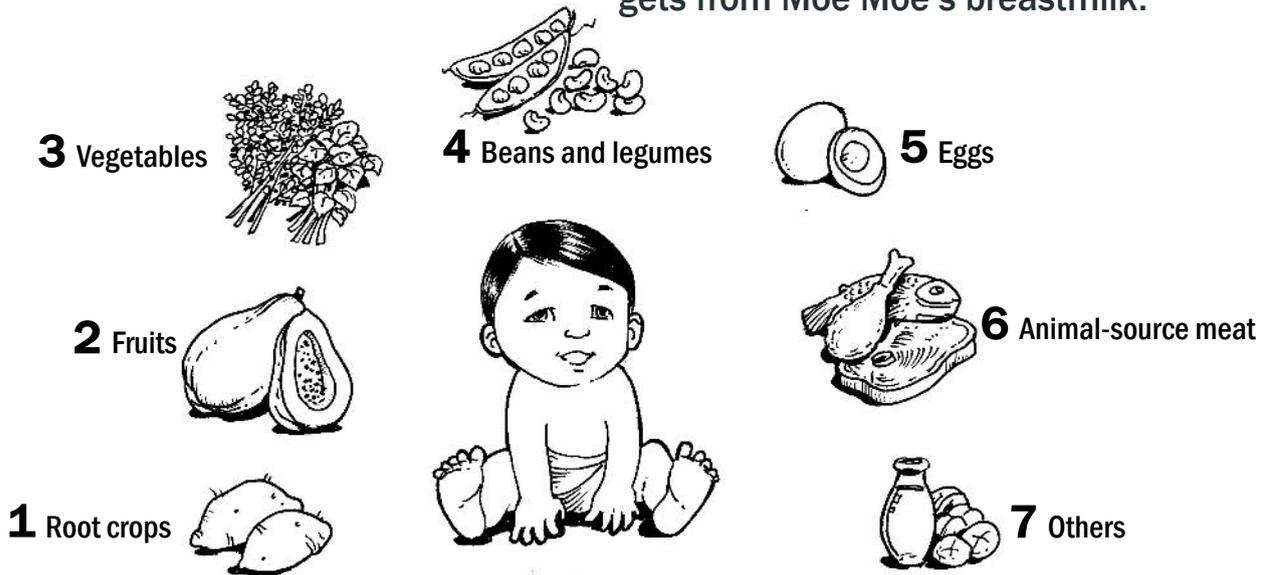


While breastfeeding, Moe Moe needed even more food than pregnant women. On top of her regular meals, ate additional foods equivalent to an extra meal. She also had to drink plenty of fresh, clean water and eat her meals with soup to help her produce enough milk for their baby.



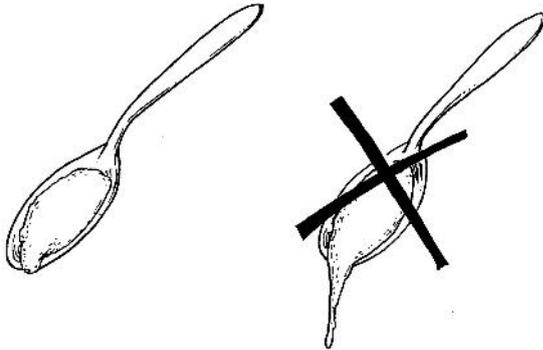
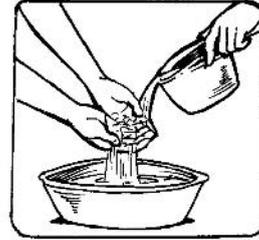
They will introduce him to different kinds of food one at a time following this order: rootcrops, fruits, vegetables, beans and legumes, eggs, animal-source meats, and other foods. This helps Aung Aung learn to like the different tastes and flavors. It also helps his parents know easier if he has food allergies.

All their efforts paid off. Hla Hla and U Kyaw are growing healthy and strong. Aung Aung, their second child, has grown fast. He is now 6 months old so Moe Moe and U Kyaw will slowly introduce him to semi-solid foods while continuing breastfeeding. These semi-solid foods are called complementary food because it complements the nutrition he gets from Moe Moe's breastmilk.



For his first semi-solid food, Moe Moe boiled and mashed some taro tuber. First, she washed her hands, and all the utensils and ingredient she will use with clean safe water. She is sure all her raw ingredients are safe because she stores them in a cool, dry and covered cupboard.

She added only a small amount of water so that the mixture is soft and fine but thick enough not to drip from a spoon.



Aung Aung's stomach is still small, so Moe Moe gives him her nutritious breastmilk before feeding him with the mashed root crop. $\frac{1}{2}$ cup of the soft, fine texture but thick consistency baby food is just enough for his little stomach. He needs to eat four times a day. He never feels hungry because he still feeds from Thanda's breast milk whenever he needs to. Every week Thanda will introduce him to other new kinds of food until he has become familiar with all the three food groups.

Soon, Aung Aung will be 9 months old. He will need to eat $\frac{3}{4}$ cup of coarsely ground or chopped foods from all the three food groups. He will need to eat solid food around 4-5 times a day while he still continues breastfeeding.

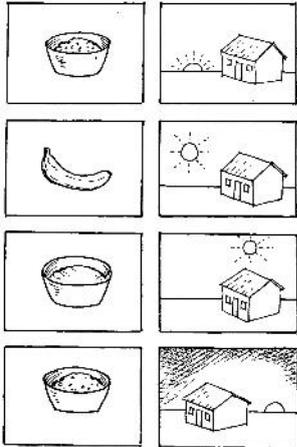
Then, when he reaches 12 months (or 1 year) old, he can already eat food similar to the rest of the family, just chopped into bite size for his small teeth and stomach.

Like his parents and sibling, he will need to eat all the three different kinds of food: energy-giving foods, body-building foods and disease prevention foods. By that time, he can already finish 1 cup of food 5 times a day.

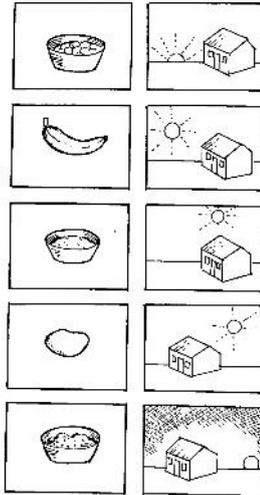
At the same time, he will continue to breastfeed from Moe Moe. She is willing to breastfeed him continuously because she knows it is best for her baby up to 2 years and beyond.



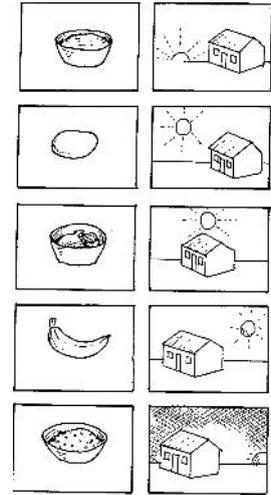
6 up to 9 months



9 up to 12 months



12 up to 24 months



Source: UNICEF. (2012). *Infant and Young Child Feeding: Counselling Cards for Community Workers*. Retrieved from: https://www.unicef.org/nutrition/files/counseling_cards_Oct._2012small.pdf.

Key Messages

1. The First 1000 days of life starts from the first day of pregnancy until the child reaches 2 years old. It is called the “golden window of opportunity” because it is the period when a child's brain and immunity (against diseases) begin to build its foundation.
2. Children who get poor nutrition during the First 1000 days of life grow slowly and develop health and learning problems throughout life. On the other hand, children who get good nutrition in the First 1000 days of their life are more healthy, more productive, and grow into adults who earn more and are able to raise their own healthy families.
3. Adolescents, especially girls, are growing quickly. The body of adolescent girls prepares for the time they will become pregnant. It is important that they eat foods rich in energy, iron, folate and protein. It is also better for teenage girls to wait until adulthood to become pregnant to allow their own body to finish growing.
4. Pregnant women should eat more nutritious food every day, drink plenty of clean water, use iodized salt and take the iron-folate pills given to them by their community midwife or health worker.
5. Breastfeeding mothers need even more food than pregnant women. They need additional nutrition equivalent to an extra meal to help them produce enough milk for their baby. They should also drink plenty of fresh, clean water.
6. Infants should be exclusively breastfed from birth until 6 months. By 6 months, they should be given diverse, nutritious, adequate and appropriate complementary food while continuing breastfeeding.

Sources

Brazier, A. and Saw Eden. (2015). *Learning about Nutrition: A facilitator's guide for food security & livelihoods field agents*. Myanmar: Ma Thusa.

Food and Agriculture Organization of the United Nations (FAO-UN). 2017. Gabay sa Pagsasagawa ng Participatory Cooking Demonstrations Upang Mapabuti ang mga Kasanayan sa Pagbibigay ng Karagdadagang Pagkain.

USAID Advancing Nutrition and UNICEF. (2020). *Infant and Young Child Feeding Recommendations when COVID-19 is Suspected or Confirmed*.

Retrieved from: [https://www.advancingnutrition.org/sites/default/files/2020-](https://www.advancingnutrition.org/sites/default/files/2020-05/IYCF%20in%20Context%20of%20COVID%2019%20Big%20%281%29.pdf)

[05/IYCF%20in%20Context%20of%20COVID%2019%20Big%20%281%29.pdf](https://www.advancingnutrition.org/sites/default/files/2020-05/IYCF%20in%20Context%20of%20COVID%2019%20Big%20%281%29.pdf). Accessed: 1 June 2020.

UNICEF. (2012). *Infant and Young Child Feeding: Counselling Cards for Community Workers*. Retrieved from:

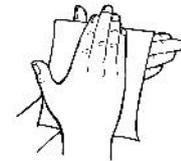
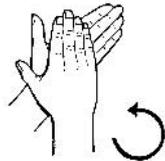
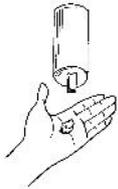
https://www.unicef.org/nutrition/files/counseling_cards_Oct._2012small.pdf. Accessed: 3 June 2020.

CHAPTER IV

Basic Household Sanitation and Food Safety

Topic Outline

- I. Importance of basic hygiene and sanitation and food safety
- II. Importance of handwashing
- III. Demonstration of Proper Handwashing
- IV. Proper and Safe Food Handling



The family learned about a new virus spreading among the community. It has no cure yet and was easily transmitted. The health of each of the family was at the utmost priority. They practiced how to maintain cleanliness and sanitation in their home to prevent any illnesses in the family. And so mama and papa taught the children to be safe in their own household.



Proper health and sanitation is crucial in curbing and preventing further spread of disease. Without these, poor sanitation and consuming contaminated foods can result in disease and illnesses.

We must be wary of the COVID-19 virus that are spreading! However, there are a lot of disease and illnesses out there that could also be caught from poor sanitation and consuming contaminated foods!



That's right! Our health is the most important! And your cleanliness as well as the food you eat will greatly affect your health.

Eating is one way to build a stronger immune system through nourishing the body. Only consume foods that are safe and healthy.

But before eating that delicious foods, make sure that both hands are properly washed so the bacteria will be killed and potential illness would not be spread through our meal.

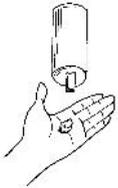
Soap and water is one of the best and cheapest way to remove disease-causing organisms and prevent intestinal worms and diarrhea!



Always conduct proper handwashing to remove disease-causing organisms and prevent intestinal worms and diarrhea.

1

Wet your hands and apply enough soap.



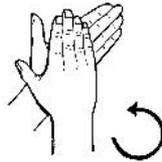
2

Rub your palms together.



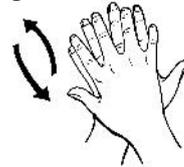
3

Rub the back of each hand.



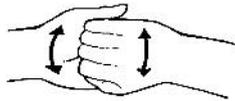
4

Rub both your hands while interlocking your fingers.



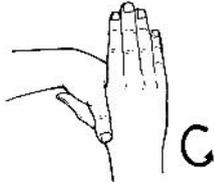
5

Rub the back of your fingers and the tips of your fingers.



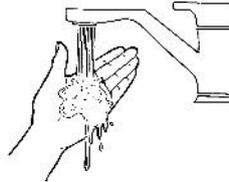
6

Rub your thumbs and the ends of your wrists.



7

Rinse both hands properly with water.



8

Dry your hands using a clean dry cloth.



In washing your hands, make sure the water is clean and not polluted by dirt or other contaminants.



Handwashing with soap is considerably more effective at cleaning our hands than handwashing with water alone. However, washing hands with water is desirable over not handwashing by any means, Proper hand washing requires soap and running water.

The most important times to wash our hands are before cooking, serving or eating food, and after coughing, sneezing, or using the toilet.

Aside from eating, always practice washing your hands even if it doesn't look soiled. So, wash your hands:



- after using the toilet or cleaning the toilet
- after sneezing, coughing, or blowing nose
- before and treating a sick or wounded family member
- after touching pets and animals, their feeds, or their wastes
- after touching the garbage
- after using tobacco

Food gives strength and nourishment to the body. Proper handling and thorough cooking will maintain the nutrients and prevent contamination. Contaminated food could result in disease, illness, or death. So, always ensure that foods served are safe and healthy at the same time.

WHEN PREPARING FOOD

- Use clean water to prepare and cook the dishes.
- Wash vegetables and fruits with clean water. Peel if possible.
- Don't cross-contaminate. Keep raw meat, poultry, fish, and their juices away from other ready-to-eat foods, fresh foods, fruits and vegetables.
- Cook at the right temperature to prevent foodborne illnesses.
- Cook or reheat food properly, avoiding overcooking which can destroy nutrients.
- Serve and eat vitamin A-rich plant foods with some fat to help improve absorption of vitamin A. For example, cook pumpkin and carrots with a small amount of oil.
- Prepare and eat iron-rich plant foods with vitamin C-rich foods to help absorption. For example, eat leafy green vegetables and salads with lemon juice.
- Avoid drinking, smoking and eating while preparing and cooking food.
- Also avoid sneezing or coughing on food and scratching or touching the head and body.

To ensure that prepared foods are safe and has the optimal nutrients in them, here are some guidelines in food preparation:



Proper food handling and preparation is important to maintain the food's nutrient and prevent contamination.

IN STORING AND HANDLING FOOD

- Wash surfaces, cutting boards and utensils before cooking and after cooking.
- Dry, non-perishable foods, such as flour, salt, sugar, legumes (beans, lentils), grains (rice, maize, oats) and seeds should be kept in a dry, clean place free from insects, rodents or other animals.
- Recognizing the signs of good or spoiled foods such as leakage, presence of molds, bad smell or unusual taste.
- Cover foods and store utensils in a clean place.
- Cover all foods to keep flies, dust and dirt away.
- Keep rubbish in a covered bin and empty frequently.
- Use clean, properly constructed latrines.

Storage and handling of food ingredients must be safe and clean in order to prevent contamination!



Lastly, aside from eating healthy and safe foods as well proper sanitation, here are some additional tips to improve the immune system of the body:

- Everyone must consume dark green and leafy vegetables, these are rich in vitamin A and iron that boosts the immune system. These vegetables also help in increasing the mother's milk production.
- Also, consume fruits and vegetables that are rich in vitamins and c to improve the resistance of the body to sickness.
- Mothers should continue breastfeeding to provide the infant with antibodies to protect them from infection.
- Maintain social distancing especially in crowded places.
- Regularly disinfect commonly used objects such as phone, keys, door knobs, etc.
- Strengthen the immunity through physical activity and enough sleep.



Key Messages

- Proper health and sanitation is crucial in curbing and preventing further spread of disease. Without these, poor sanitation and consuming contaminated foods can result in disease and illnesses.
- Handwashing with soap is considerably more effective at cleaning our hands than handwashing with water alone. However, washing hands with water is desirable over not handwashing by any means, Proper hand washing requires soap and running water.
- Always conduct proper handwashing to remove disease-causing organisms and prevent intestinal worms and diarrhea.
- Proper food handling and preparation is important to maintain the food's nutrient and prevent contamination.
- The most important times to wash our hands are before cooking, serving or eating food, and after coughing, sneezing, or using the toilet.
- Only consume foods that are safe and healthy.
- Aside from eating healthy and proper sanitation, continue breastfeeding, practice social distancing, regularly disinfect objects, and have enough sleep and physical activity to improve the body's immune system.

References

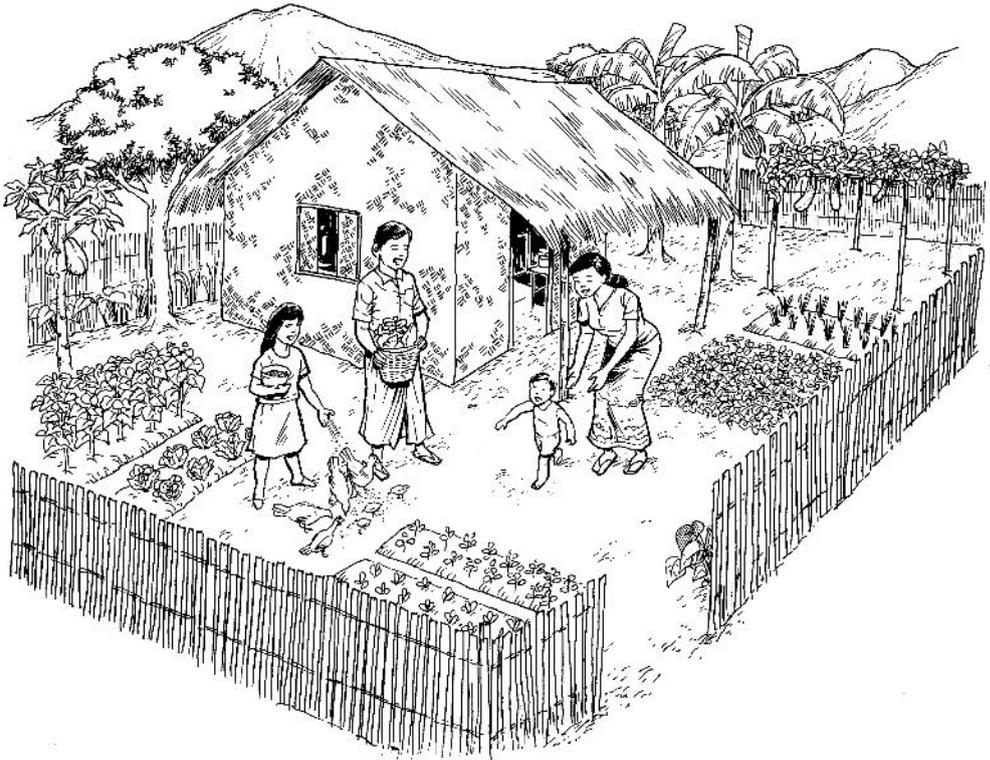
2019. Nutrition Health Service. *How to wash your hands*. Retrieved from: <https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/>

2019. Myanmar Water Portal. *Global Handwashing Day 2019: Focus on "Clean Hands for All"*. Retrieved from: <https://www.myanmarwaterportal.com/news/1514-global-handwashing-day-2019-focus-on-%E2%80%9Dclean-hands-for-all%E2%80%9D.html>

Eight months after the outbreak, the virus began to spread slowly. A vaccine is also being developed, raising hope to eventually treat the disease.

Meanwhile, the family is safe and healthy in their community. Their usual day goes like — Hla Hla feeds the chickens, and Moe Moe watches Aung Aung, now 1-year-old and healthier than ever, takes his first steps towards U Kyaw who just finished harvesting fresh vegetables for their meal.

The family hopes to continue their sustainable and healthy way of living, further influencing other households in their community.





INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

Room 402, (7+1) D Apartment,
Parami Condominium, U Thin Pe St., Hlaing Township, Yangon, Myanmar
Email: myanmar@iirr.org
Website: www.iirr.org



IDRC | CRDI

International Development Research Centre
Centre de recherches pour le développement international

Canada



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



RADANAR AYAR
for the Rural People

