Republic of the Philippines
Department of Health
NATIONAL NUTRITION COUNCIL

PHILIPPINE PLAN OF ACTION FOR NUTRITION

IMPLEMENTING GUIDELINES NO. 1

GUIDELINES ON DIETARY SUPPLEMENTATION

IN THE FIRST 1000 DAYS

11 FEBRUARY 2021

FOREWORD

The National Nutrition Council (NNC) being the highest policy-making and coordinating body on nutrition, aims to deliver quality policies that will better address the nutrition problems in the country.

The updating of the Guidelines on Food Assistance into the Guidelines on Dietary Supplementation in the First 1000 Days is an initiative of NNC in answering the need for technical guidance on the recommended level and kind of supplementation to achieve better and more cost-effective results from the program. It supports the Dietary Supplementation Program of the Philippine Plan of Action for Nutrition (PPAN) 2017-2022.

This set of guidelines was drafted by the NNC Secretariat as a result of the review of various literature and evidences available, including a 2018 study on dietary supplementation of pregnant women, lactating mothers and children under-five years old, and subjected for review by the different stakeholders who will be involved or are already involved in the program. Thus, the NNC would like to thank all the stakeholders and partners who took part in the development and review of this set of guidelines.

May this guidelines be strictly followed for the effective implementation of dietary supplementation all over the country.

We would appreciate receiving regular feedback on the utility of the guidelines and aspects of implementing dietary supplementation for the first 1000 days needing further policy directions.

Mabuhay! Sa PPAN, panalo ang bayan!

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1 RATIONALE

1.1 Supplementary Feeding in the Philippines

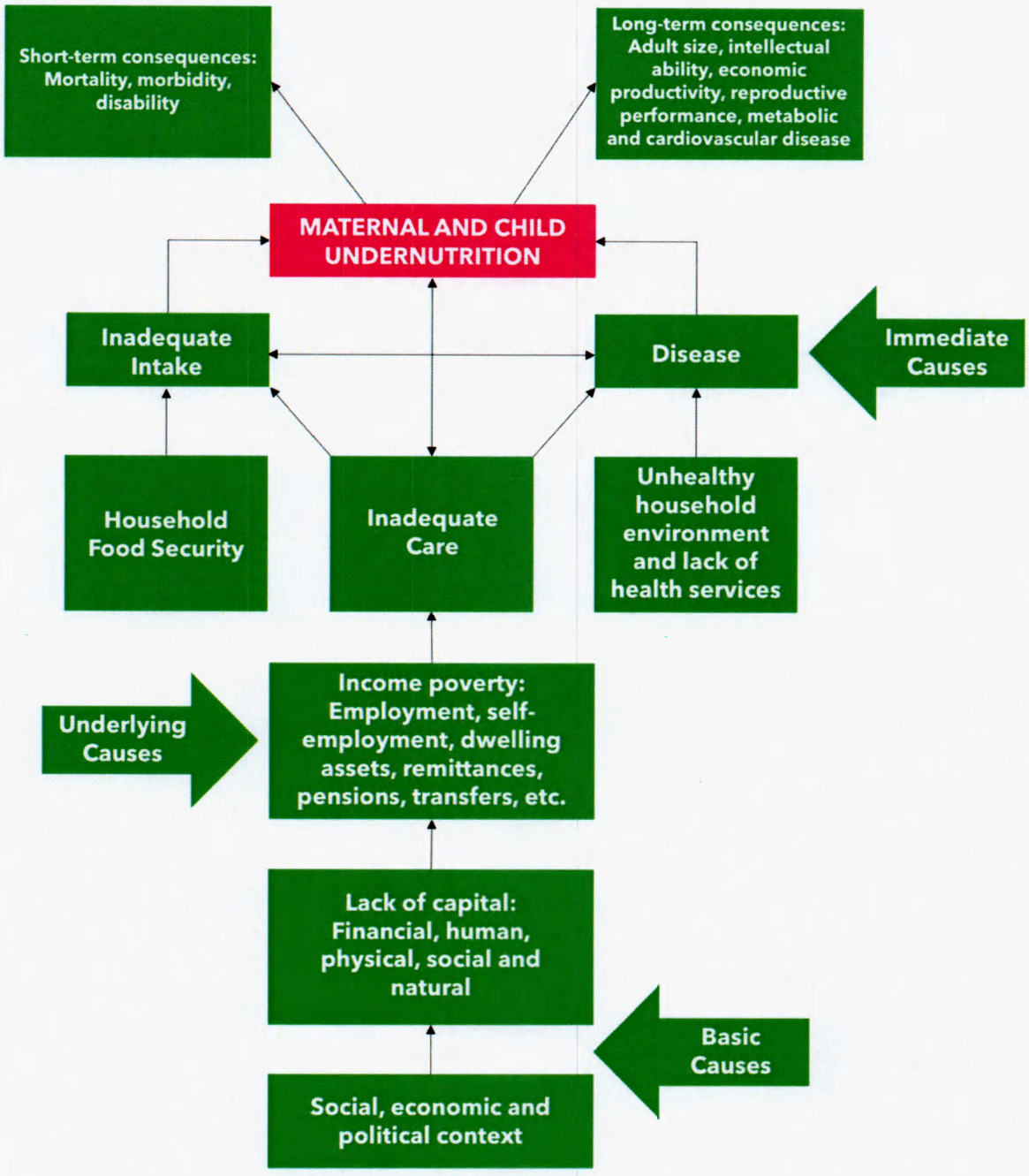
The framework on causes of child and maternal undernutrition notes that its immediate causes are inadequate food intake and disease (Figure 1). Thus, since the initiation of nutrition action in the Philippines in the 1950s, food assistance has been one of the key interventions for nutrition improvement.

Various documents on the then Philippine Nutrition Program, Philippine Food and Nutrition Program, and PPAN define food assistance as a "social safety net for nutritionally vulnerable groups and at-risk households in times of displacement". One of its components is supplementary feeding, which is the "provision of food to supply additional calories and protein to beneficiaries using foreign or local food sources. It is designed as a temporary measure to rehabilitate severely and moderately underweight children and prevent the worsening of their nutritional status, which in turn can adversely affect physical and mental development. It also serves as an entry point for the delivery of other nutrition activities" (PPAN 1993-1998).

Up to about 1985, supplementary feeding was done through the Maternal and Child Health Program cooperatively undertaken by the Department of Health (DOH) and CARE Philippines, Supplementary Feeding in Day Care Centers (DCCs), and nutribun feeding in public elementary schools undertaken by the Catholic Relief Services (CRS) with the Catholic dioceses, Department of Social Welfare and Development (DSWD) and Department of Education (DepEd), respectively. These programs used commodities (corn soya milk, corn soya blend, fortified flour, non-fat dried milk) donated by the United States of America (USA), with the Government of the Philippines shouldering freight and handling costs. These programs targeted calorie and protein supplementation levels of about ⅓ of the recommended dietary allowance for calories and protein.

Figure 1. Framework on causes and consequences of maternal and child undernutrition

Source: Black et al, Lancet 2008



The program was phased out in 1987 after the USA assessed that the Philippines no longer needed the assistance due to advances in the economic situation of the country.

Among the US PL 480 food assistance programs in the Philippines, only the supplementary feeding program (SFP) in day care centers and in public elementary schools continue to be implemented using government funds. The component of the DOH targeting pregnant

women and moderately and severely underweight children was discontinued. This component was, in a way, adopted by local government units (LGUs) and non-government organizations (NGOs) through their respective SFPs.

Some of these SFPs are as follows:

1. **Hapag-Asa Integrated Nutrition Program** that includes a component on supplementary feeding implemented through multi-sectoral partnerships including the dioceses of the Catholic church, NGOs, academe, LGUs and other non-Catholic churches;

2. **Kabisig ng Kalahi** supplemental feeding program;

3. **Testing of the positive deviance approach (PD Hearth)** for nutrition improvement that tapped into the community *bayanihan* spirit in the implementation of supplementary feeding of malnourished children; and

4. **DOST Pinoy Malnutrition Reduction Program** that involved the use of FNRI-developed food technologies for supplementary feeding programs.

1.2 Developments calling for the revision of guidelines on food assistance

Aside from the phase out of PL 480 Title II assistance, other key developments were as follows:

1. Decentralization that began in the 1990s under which LGUs have the primary responsibility of delivering basic services, including those related to nutrition. With this change, various forms of supplementary feeding in LGUs have evolved, many of which missed out on supplementation levels and duration, among others.
2. Adoption of the WHO Child Growth Standards (CGS) in the Philippines in 2008, and use of the more refined indices on stunting and wasting to describe the nutrition situation of children more specifically.

3. Adoption of guidelines and protocols on the management of severe and moderate acute malnutrition in 2015 and 2016.

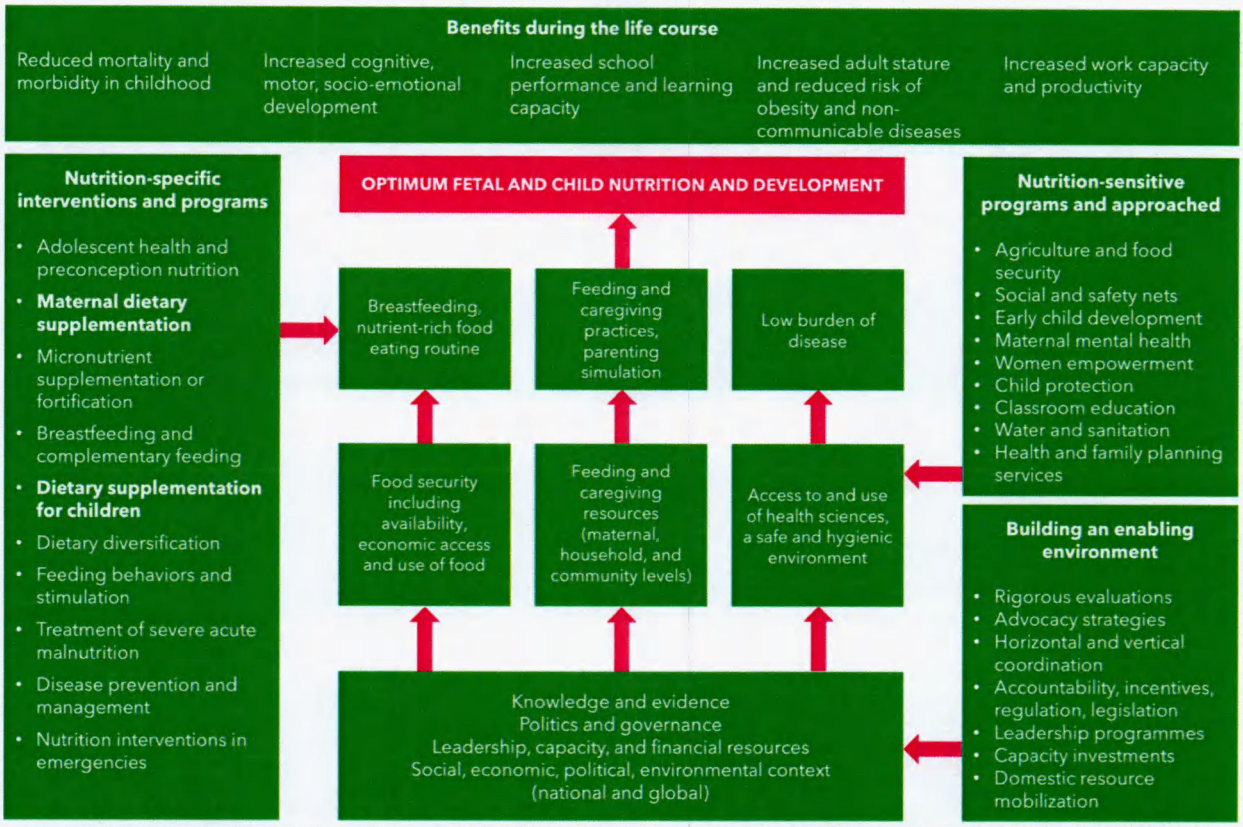
4. Release of the WHO recommendations on antenatal care for a positive pregnancy outcome, which among others noted the need for balanced energy and protein in 2016.

5. Release of the Lancet Series on Maternal and Child Undernutrition in 2008 and 2013 that took stock of the knowledge on maternal and child undernutrition and interventions that have been implemented to address the problem and recommended core nutrition-specific and nutrition-sensitive interventions that could provide sustainable solution to the problem (Figure 2). The proposed nutrition-specific interventions included maternal and child dietary

supplementation especially in food insecure populations and in times of food insecurity.

6. Release of DOH Department Memorandum 0092 Series of 2020 "Interim Nutritional Guidelines for Women of Reproductive Age (WRA)" which provides direction on the appropriate nutritional interventions (i.e., micronutrient or dietary supplements) to cover pregnant and lactating women and women of reproductive age (WRA).

Figure 2. Framework for actions to achieve optimum fetal and child nutrition and development



Source: The Lancet Series on Maternal and Child Undernutrition, 2013

7. Appreciation of the importance of the first 1000 days of life in ensuring full health, nutrition, psychosocial support to children from pregnancy up to the second year of life to ensure the achievement of full physical and mental development potentials.

The implementing guidelines on food assistance was adopted in the early 1980s and many developments along various concerns have happened since then. Thus, there is a need to update the implementing guidelines to be more responsive to the current situation. This set of guidelines responds to this need.

It is based on a review of both local and international literature and a 2018 study on the implementation of dietary supplementation of children under five years old and pregnant and lactating women.

Its development was guided by the collective wisdom of the members of the Technical Working Group on Dietary Supplementation as well as the comments raised during various conferences and meetings during which the draft guidelines was discussed.

1.3 The need for dietary supplementation

Its development was guided by the collective wisdom of the members of the Technical Working Group on Dietary Supplementation as well as the comments raised during various conferences and meetings during which the draft guidelines was discussed.

There is continued inadequacy of food intake among Filipinos especially the nutritionally vulnerable groups, that is, children under five years old and pregnant women.

As shown in Table 1, not only is the mean intake for Filipino households, children 6 months to 5 years old, pregnant women, and lactating women below the recommended intake for calories and protein, only a small percentage of these groups met the recommended intake for energy and protein.

Table 1. Mean energy and protein intake and percent meeting the recommended intake by specific groups, Philippines, 2013

Population Group	Energy		Protein	
	Mean Intake	% meeting the recommended intake	Mean Intake	% meeting the recommended intake
Household	1,810	31.7	56.5	62.7
Children, 6 mos. – 5 years old	868	232	27.6	76.6
Pregnant Women	1,623	16.1	52.5	23.8
Lactating mothers	1,631	9.8	50.7	13.6

Source of data: National Nutrition Survey 2013. Food and Nutrition Research Institute of the Department of Science and Technology (FNRI-DOST)

The deficiency in energy and protein intake of underweight-for-age children, nutritionally-at-risk pregnant women, and underweight pregnant women as suggested by the energy and protein intake at various points, i.e. mean, median, 75th, and 90th percentile is more severe (Table 2), i.e. the 90th percentile is still lower than the recommended intake.

Table 2. Mean, median, 75th and 90th percentiles of energy and protein intakes among children with normal weight-for-age, moderately underweight, and severely underweight

Age Group	Energy					Protein				
	Reqt	Mean	Mdn	P75	P90	Reqt	Mean	Mdn	P75	P90
Normal weight status										
6-11m	675	566	549	918	1166	13.5	18.3	15.2	27.7	38.5
12-35m	1135	799	757	992	1366	16.0	26.9	24.0	34.4	45.7
Moderately underweight-for-age										
6-11m	675	422	333	894	1028	13.5	13.5	10.4	23.6	41.4
12-35m	1135	619	586	780	1068	16.0	18.9	17.4	27.1	33.8
Severely underweight for age										
6-11m	675	251	120	511	511	13.5	7.0	4.3	13.8	15.5
12-35m	1135	521	546	662	754	16.0	14.7	13.2	19.8	24.8
Nutritionally-at-risk pregnant women										
<18 y	2840	1650	1643	2076	2122	71.0	50.5	45.7	64.6	70.1
19-29	2530	1780	1680	2218	2382	71.0	56.4	52.5	66.5	91.0
30-49	2445	1587	1529	1972	2742	71.0	49.3	60.3	61.8	74.1
Underweight lactating women										
<18 y	3040	1672	1672	1672	1672	71.0	115.8	115.8	115.8	115.8
19-29	2730	1584	1572	1892	2349	71.0	46.1	44.4	59.0	66.4
30-49	2645	1465	1378	1977	2116	71.0	39.4	39.5	50.1	55.1

Source of data: National Nutrition Survey 2013. FNRI-DOST

In addition, complementary feeding practices are far from desirable, with only 13.4 percent of children 6-23 months old meeting the minimum acceptable diet[1] in 2018 (Table 3). Unpacking the minimum acceptable diet would show a worse off situation for the component on diversity.

Table 3. Percentage of children 6-23 months old meeting minimum acceptable diet, minimum diet diversity, and minimum meal frequency, Philippines, 2013, 2015, 2018

Index	2011	2013	2015	2018
Minimum acceptable diet	12.1	6.4	18.6	13.4
Minimum diet diversity	21.6	15.5	29.2	23.0
Minimum meal frequency	87.9	94.1	91.7	89.0

Source of data: National Nutrition Surveys 2013, 2015, 2018. FNRI-DOST

Furthermore, the percentage of children 6-23 months old meeting the minimum acceptable diet, minimum diet diversity, and minimum meal frequency, is lower among the lower income levels compared to the higher income levels (Table 4). However, even in the richest group, the percentage of children 6-23 months old meeting minimum acceptable diet and minimum diet diversity is also low, barely making the 40% level.

[1] Please see section on definition of terms for the meaning of "minimum acceptable diet" on page 24

Table 4. Percentage of children 6-23 months old meeting minimum acceptable diet, minimum diet diversity, and minimum meal frequency by wealth quintile, Philippines, 2013, 2015, 2018

Index	2013	2015	2018
Minimum adequate diet			
- **Poorest**	4.3	13.2	11.7
- **Poor**	6.2	17.3	12.4
- **Middle**	8.4	20.9	13.3
- **Rich**	7.1	20.8	13.4
- **Richest**	6.6	22.8	18.9
Minimum diet diversity			
- **Poorest**	11.1	18.7	18.5
- **Poor**	13.7	26.8	21.6
- **Middle**	18.4	33.4	24.5
- **Rich**	18.5	34.4	25.7
- **Richest**	17.1	36.4	29.0
Minimum meal frequency			
- **Poorest**	90.9	85.9	84.1
- **Poor**	94.1	90.1	88.4
- **Middle**	94.6	94.1	90.5
- **Rich**	94.9	94.4	92.8
- **Richest**	97.3	96.3	93.1

Source of data: National Nutrition Survey 2013. FNRI-DOST

The foregoing data unequivocally show the need for a program that will fill the gap in energy and protein intake especially among the nutritionally vulnerable group in the first 1000 days, i.e. pregnant women, lactating women, and children 6-23 months old particularly in food insecure populations or at times of food insecurity, e.g. lean months in between harvest of rice.

This echoes a 1981 recommendation on the inclusion of nutrition assistance like dietary supplementation among the priorities for nutrition action (Zeitlin, 1981) as well as the recommendation of the 2008 and 2013 Lancet Series on Maternal and Child Undernutrition on key nutrition-specific interventions.

However, notwithstanding its importance, dietary supplementation does not represent the single solution to hunger and undernutrition. Other interventions (both nutrition-specific and nutrition-sensitive) should be complementary actions for sustained solution to undernutrition.

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OBJECTIVES OF THE GUIDELINES

This set of guidelines aims to provide key guideposts in the management of dietary supplementary programs, covering the processes of planning, implementation, coordination, monitoring and evaluation to ensure sustained and effective implementation as well as efficient use of resources. Its ultimate aim is to contribute to the improved nutrition situation of the country.

It aims to support the effective and efficient implementation of the Dietary Supplementation Program of the PPAN 2017-2022 and similar programs for succeeding national plans of action.

It updates the 1981 Philippine Nutrition Program Implementing Guidelines on Food Assistance, noting the changes in the nutrition landscape as well as the results of various local and international studies.

3 SCOPE AND COVERAGE

The guidelines cover technical and operational concerns for implementing dietary supplementation programs primarily to prevent low birth weight, stunting and wasting. It covers dietary supplementation in the first 1000 days of life or the period of pregnancy to the first two years of life. It may be adapted for use in emergency situations.

While the Dietary Supplementation Program of the PPAN includes feeding in child development centers and public elementary schools, the implementation of these programs will be covered by the Implementing Rules and Regulation of RA 11037 or the *Masustansyang Pagkain para sa Batang Pilipino* Act.

The guidelines do not cover the management of acute malnutrition, protocols of which are in the National Guidelines on Managing Severe Acute Malnutrition for Children Under Five Years[2], and the National Guidelines on Managing Moderate Acute Malnutrition for Children Under Five Years[3].

[2] The guidelines may be accessed from https://unicefeapronietoolkit.files.wordpress.com/2017/08/1-the-philippines-sam-guidelines-2015-final-print-ready.pdf

[3] The guidelines may be accessed from https://www.wfp.org/publications/2017-national-guidelines-management-moderate-acute-malnutrition-children-under-five-years

4

TARGET USERS OF THE GUIDELINES

Target users of the guidelines include policy makers, program planners, program managers, and implementors of national government agencies, LGUs, NGOs, and development partners that are involved in managing dietary supplementation programs.

5
DEFINITION OF TERMS

The following are definitions or description of terms used in the guidelines. Most of these definitions were derived from reputable sources, e.g. DOH, and agencies of the United Nations. Some definitions are operational or adaptations of formal definitions and contextualized for this set of guidelines.

Anthropometric measurements are measures that are used to assess the size, shape and composition of the human body, examples of which are the following:

- **Body height (standing)** is body length in an upright or standing position (Lagua and Claudio).

- **Body weight** is the amount or quantity of heaviness or mass of a person

- **Mid-upper arm circumference** is the circumference of the left upper arm, measured at the mid-point between the tip of the shoulder and the tip of the elbow (olecranon process and the acronium). Its utility is in identifying children who are not only wasted but are also at high risk of dying.

- **Recumbent length** is the analogous measure for the height of children less than two years of age; taken while the child is lying down.

Baseline is a benchmark that is used as a basis for measuring or comparing past, current and future past values

Beam balance is an equipment that is used to measure weight

Body mass index (BMI) is a simple index of weight-to-height commonly used to classify underweight, overweight and obesity; defined as the weight in kilograms divided by the square of the height in meters (kg/m2).

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants. It is also an integral part of the reproductive process with important implications for the health of mothers. (WHO)

- **Exclusive breastfeeding** is giving the infant no other food or drink, not even water, except breast milk (including milk expressed or from a wet nurse) for the first six months of life, but allows the infant to receive oral rehydration solution, drops and syrups, e.g. vitamins, minerals and medicines (WHO).

Calorie/Kilocalorie is a unit of heat used to indicate the amount of energy that foods will produce in the human body.

Child Growth Standards are standards of growth for all children based on breastfed infants and appropriately fed children of different ethnic origins raised in optimal conditions and measured in a standardized way. Its development was based on the WHO Multicenter Growth Reference Study (WHO).

Complementary feeding is giving of solid and semi-solid foods to infants to complement nutrients from breastmilk to meet the infant's nutritional requirements.

Complementary foods are solid, semi-solid and soft foods (both locally prepared and commercially manufactured) provided to children between the ages of 6 and 23 months to complement breastmilk (UNICEF Guidance on Complementary Feeding, 2020).

Complementary activities are other interventions/activities provided to participants of dietary supplementation programs as well their families to enhance the effectiveness of dietary supplementation in achieving good nutrition. The following are some of the suggested complementary interventions/activities.

- **Nutritional status assessment** is a comprehensive process of identifying and evaluating the nutritional needs of a person (or group) using appropriate measurable methods. These methods include anthropometric, biochemical (using body fluids like blood and urine), clinical, and dietary assessment.

  In the context of dietary supplementation, anthropometric measures of height and weight are usually used.

- **Nutrition education** is any combination of educational strategies, accompanied by environmental supports, designed to facilitate the voluntary adoption of food choices and other food- and nutrition-related behaviors conducive to health and well-being. It is delivered through multiple venues and involves activities at the individual, community, and policy levels (Contento). It aims to provide people in rural and urban areas with adequate information, skills and motivation to procure and to consume appropriate diets (WPHNA).

- **Nutrition counseling** is a "two-way interaction through which a client and a trained counselor interpret the results of nutrition assessment, identify individual nutrition needs and goals, discuss ways to meet those goals, and agree on next steps. Nutrition counseling aims to help clients understand important information about their health and focuses on practical actions to address nutrition needs, as well as the benefits of behavior change. Nutrition counselors may be nurses or other facility-based providers or community health workers or volunteers" (Food and Nutrition Technical Assistance III, USAID).

  Nutrition counseling can cover a range of subject matter, including but not limited to preparing for breastfeeding, techniques for effective breastfeeding, when to start complementary feeding, complementary foods to give infants, and responsive feeding[4].

[4] Responsive feeding is an approach to feeding where caregivers encourage children to eat, provide food in response to the child's appetite and satiety signals and feed their children with care. Responsive feeding helps children develop healthy eating habits (UNICEF Guidance for Complementary Feeding, 2020)

Counseling can also cover concerns other than nutrition, e.g. family planning and related reproductive health concerns, personal hygiene especially hand washing, responsive caregiving[5], and early stimulation[6].

- **Antenatal care** constitutes screening for health and socio-economic conditions likely to increase possibility of specific adverse pregnancy outcomes, providing therapeutic interventions known to be effective, and educating pregnant women about planning for safe childbirth, emergencies during pregnancy and how to deal with them (DOH, 2008). Regular contact with a doctor, nurse or midwife during pregnancy allows women to receive services vital to their health and that of their future children. A minimum of eight antenatal care contacts to reduce perinatal mortality and improve women's experience of care is recommended (WHO).

- **Postnatal care** refers to a range of services given to the mother who has just delivered and to the newborn immediately upon delivery and a month or so after, in the birthing facility and the home. The range of services include, among others, latching-on/early newborn contact, counseling on breastfeeding and family planning, provision of family planning supplies, micronutrient supplementation, management of maternal and newborn complications. Other elements of postnatal care are described further in the Maternal Newborn and Child Health and Nutrition (MNCHN) Manual of Operations (MOP)[7].

- **Lactation support** refers to a range of services that provide an environment that will facilitate optimum breastfeeding, i.e. exclusive breastfeeding for the first six months of life and continued breastfeeding by the sixth month onward with appropriate complementary feeding. This range of services include counseling on breastfeeding in the pregnancy stage, immediate skin-to-skin contact of mother and baby on delivery, kangaroo mother care or KMC[8] for premature infants, counseling on correct positioning of the baby for breastfeeding, establishing lactation stations in the workplace and public places like transportation terminals, public markets, shopping malls, etc., monitoring and regulation of the marketing of breastmilk substitutes,

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[5] Responsive caregiving refers to the method whereby the caregiver pays prompt and close attention with affection to what the child is signaling and provides a response that is appropriate to the child's immediate behavior, needs and developmental state (IRR of RA 11148)

[6] Early stimulation refers to the process where infants and young children receive external stimuli to interact with others and their environment to promote early child development. It provides different opportunities for the child to explore, develop skills and abilities in a natural way, and understand what is happening around them. Examples of early stimulation are language, motor, and sensory stimulation with the aim of optimizing their cognitive, physical, emotional, and social abilities to avoid undesired states in development.

[7] The MOP may be accessed from the DOH website, https://www.doh.gov.ph/sites/default/files/publications/MNCHNMOPMay4withECJ.pdf

[8] Kangaroo mother care is a method of care of preterm infants. The method involves infants being carried, usually by the mother, with skin-to-skin contact (WHO)

establishment of human milk banks that should be operated based on guidelines of the DOH[9].

- **Immunization** is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. It is a proven tool for controlling and eliminating life-threatening infectious diseases (WHO). A vaccine is a product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease. These are usually administered through needle injections but, can also be administered by mouth or sprayed into the nose.

- **Micronutrient supplementation** is a short- to medium-term intervention, intended to prevent and/or correct high levels of micronutrient deficiencies by providing large doses of micronutrients immediately until more sustainable food-based approaches (e.g. food fortification and diet diversification) are put in place and become effective (DOH MOP on Micronutrient Supplementation).

- **Growth monitoring and promotion** is an educational strategy for promoting child health, human development and quality of life through sequential measurement of physical growth and development of individuals in the community (DOH). It is also a prevention activity that uses growth monitoring, i.e. measuring and interpreting growth, to facilitate communication and interaction with caregiver and to generate adequate action to promote child growth (UNICEF).

  Results of the measurement, usually of weight, detects failure to gain weight among children under-five years old that could result to undernutrition. The detection of growth faltering should trigger actions to prevent the occurrence of undernutrition.

- **Monitoring of developmental milestones** is the process of determining if a child is developing his or her skills along movement (motor skills), helping him/herself, language, cognition (knowing and understanding), and along socio-emotional (understanding and managing emotions). Monitoring will help identify potential developmental delays that should trigger further assessment, and if needed referral to and care by a specialist. In the Philippine context, this can be done using the ECCD Checklist[10].

[9] The ManOps on human milk banks may be accessed here https://www.humanitarianresponse.info/en/operations/philippines/document/philippine-human-milk-banking-manual-operation-0

[10] Materials related to the ECCD Checklist may be accessed from https://eccdcouncil.gov.ph/resources.html

- **Management of childhood illnesses** involves the medical and related care of childhood illnesses. It includes case finding, referral to the appropriate health facility for appropriate care, and administration of the care protocol in the health facility. It includes the management of acute malnutrition.

- **Oral health services** that include oral examination, regular dental check-up, dental prophylaxis, supervised toothbrushing drills, oral urgent treatment (removal of unsavable teeth, referral of complicated cases, treatment of post-extraction complications, drainage of localized oral abscess).

- **WASH** stands for water and sanitation hygiene; refers to services along the provision of potable source of drinking water and appropriate sanitation facilities and services, and counselling and support on proper handwashing, personal hygiene, and environmental sanitation.

- **Deworming** is the giving of an anti-helminthic drug to get rid of intestinal parasites, such as roundworm or tapeworm.

- **Child protection** refers to efforts to ensure that children and adolescents grow up in a safe environment.

- **Home gardening support** refers to the promotion of the growing of fruits and vegetables and care of small animals like chicken in homeyards or common spaces in the community. Promotion activities can include the distribution of seeds, seedlings and small animals; and provision of technical advice on the care of these fruits and vegetables, and small animals.

- **Social welfare support** in the context of services that complement dietary supplementation in the first 1000 days refer to efforts to support individuals and families to have better economic access to goods and services, e.g. provision of seed capital or material support to improve income, skills development for better employability, and conditional cash transfer, among others.

Coverage refers to the number of people participating or receiving a service. This number can be compared with the total number of needy population or the number targeted to provide information useful for assessing efficiency of efforts.

Cycle menu refers to a list of dishes to be served at a meal over a specified period of time. It is called a cycle menu, because a dish can be served in certain intervals, preferably odd-numbered days. (Adapted from the Implementing Rules and Regulations (IRR) of RA 11037).

Dietary supplementation is an intervention that involves the provision of additional food (on top of the regular meal) to a target group not categorized as acutely malnourished for a specified calorie and protein level of supplementation and for a duration of at least 90 days (JMC on PPAN NDSP)

Energy in its broad sense, refers to the capacity to do work. In the context of food and nutrition, this is the form of energy produced when the body uses (metabolizes) food. It is measured in terms of calories or joules.

The body needs energy for muscular activity, to maintain body temperature and carry out metabolic processes (Adapted from Lagua and Claudio).

Evaluation is the systematic assessment of program implementation using a set of criteria or standards, usually with reference to the objectives. It aims to understand the factors contributing to such success or failure so as to better improve the program.

Feeding Center/Distribution Site is a facility or place where feeding is done or where food rations are distributed.

Hunger is usually understood as an uncomfortable painful sensation caused by insufficient food energy consumption. It is scientifically referred to as food deprivation (FAO).

Indigenous food are those that come from the natural environment, which have become included into the cultural food use patterns of a group of indigenous people (FAO).

Lipid-based nutrition supplement – small quantity is a food supplement that is intended to complement the diet of children aged 6 months and older with essential nutrients, such as micronutrients, macro-minerals, essential fatty acids and essential amino acids (WFP).

It is a lipid-based matrix with added vitamins and minerals. The most commonly used main ingredients are: peanut paste, vegetable oil, sugar, skimmed milk powder, vitamin and mineral premix (International Federation of Red Cross and Red Crescent Societies).

Low birth weight refers to weight at birth of an infant, whether born full term or preterm, of less than two thousand five hundred grams (2,500 g) or five and a half pounds (5.5 lbs), or five pounds and eight ounces (5 lbs, 8 0z) (DOH DM 2020-0092)
It is also "an indicator of poor maternal nutritional status before conception, maternal short stature due mostly to undernutrition and infections during childhood and poor nutrition during pregnancy. Infants with low birth weight are at risk of poor growth and development including brain development and of mortality (WHO).

Micronutrient powder is a form of supplement containing a premix powder of vitamins and minerals that are easily sprinkled once daily into any semi-liquid food without changing the color, taste, or texture of the food (DOH MOP on MS).
Micronutrient supplement vitamins and minerals in concentrated form alone or in combination taken to supplement the intake from the normal diet (DOH DM 2020-0092).

Microtoise is a lightweight and portable height-measuring instrument which can measure up to 2 meters. It is suitable for field measurements.

Minimum acceptable diet is an indicator of infant and young child feeding that is composed of two indicators of minimum meal frequency and minimum diet diversity

Minimum meal frequency, a proxy indicator for energy intake from foods other than breastmilk; minimum frequency is as follows: 2 times for breastfed infants 6–8 months old, 3 times for breastfed children 9–23 months old, 4 times for non-breastfed children 6–23 months old (WHO).

Minimum dietary diversity is a proxy indicator of dietary quality and nutrient adequacy of diets of children 6-23 months based on the number of food groups consumed by a child. The minimum score required is more than 4 food groups a day out of 7 food groups. The 7 food groups are: 1) Grains, roots and tubers, 2) Legumes and nuts, 3) Dairy products (milk, yogurt, cheese), 4) Flesh foods (meat, fish, poultry and liver/organ meats), 5) Eggs, 6) Vitamin-A rich fruits and vegetables, and 7) Other fruits and vegetables

Monitoring is the process of observing and checking the progress of the program being implemented in meeting the objectives and performance targets. It is done regularly.

Nutritional status is the condition of the body resulting from the intake, absorption and utilization of food.

Nutritionally at-risk pregnant women are those with a low pre-pregnancy body mass index (BMI), or those who do not gain sufficient weight during pregnancy, with any of the following predisposing factors: narrowly-spaced pregnancies and births, situated in families with low income, with large number of dependents where food purchase is an economic problem, has previously given birth to a preterm or low birth weight infant, or other unfavorable prognostic factors, such as obesity or anemia, with diseases which influence nutritional status such as diabetes, tuberculosis, drug addiction, alcoholism, and mental disorder. In the absence of a verifiable BMI, the mid-upper arm circumference (MUAC) measurement will be used (DOH DM 2020-0092).

Nutritionally affected are identified cases of malnutrition, e.g. children who are wasted or stunted or with deficiencies in Vitamin A, iron iodine or other vitamins and minerals.

Nutritionally vulnerable refers to groups who, because of increased nutritional need arising from age or physiologic condition, could become undernourished if not cared for properly.

Philippine Dietary Reference Intake is the collective term for the reference values for energy and nutrient levels of intakes, namely, the Estimated Average Requirement (EAR), the Recommended Energy/Nutrient Intake (RE/NI), the Adequate Intake (AI), and the Tolerable Upper Intake Level or Upper Limit (UL).

- **Recommended Energy Intake** refers to the level of intake of energy that is considered adequate for the maintenance of health and well-being (PDRI 2015).

- **Recommended Nutrient Intake** refers to the level of intake of nutrients that is considered adequate for the maintenance of health and well-being. It meets the nutrient requirement of nearly all healthy individuals in a particular life stage and sex group (PDRI 2015).

Philippine Plan of Action for Nutrition is the framework for nutrition actions in the country (Philippines). It identifies priority actions to achieve the outcomes. It should serve as a guide to LGUs, NGOs and all related stakeholders in planning for nutrition.

Poorest wealth quintile represents the poorest 20% of the population surveyed.

Positive Deviance Hearth is a well-established methodology for sustainably reducing malnutrition in young children using community wisdom. It was initiated in the 1970s in Vietnam by Save the Children Fund (SCF), and has since been implemented all over the world by many different organizations.

It is a community-based rehabilitation and behavior change intervention for families with underweight preschool children. The positive deviance approach is used to identify behaviors practiced by the mothers or caretakers of well-nourished children from poor families and to transfer such positive practices to others in the community with malnourished children. Community engagement and positive inquiry for positive deviant behaviors are done prior to the Hearth sessions. Home visits and counseling, on the other hand, are done after the Hearth sessions for improved and sustained positive deviant behaviors identified.

The 'Hearth' or home is the location for the nutrition education and rehabilitation sessions (SCF). It is a community-based behavior change programme with the aim of rehabilitating malnourished children in the context of their own homes. (World Vision)

Poverty incidence refers to the proportion of families or individuals with per capita income/expenditure less than the per capita poverty threshold to the total number of families or population (PSA).

Poverty threshold is the minimum income required to meet basic food needs, expanded to include basic non-food needs such as clothing, housing, transportation, health, and education expenses (PSA).

Standardized recipe is a set of instructions on how to prepare and cook a particular dish that has been "tried, adapted, and retried several times for use by a given food service operation and has been found to produce the same good results and yield every time when the exact procedures are used with the same type of equipment and the same quantity and quality of ingredients". (Adapted from the IRR of RA 11037, which is based on the definition of the United States Department of Agriculture).

Subsistence incidence is the proportion of families/individuals with per capita income/expenditure less than the per capita food threshold to the total number of families/individuals (PSA).

Food threshold is the minimum income/expenditure required for a family/individual to meet the basic food needs, which satisfies the nutritional requirements for economically necessary and socially desirable physical activities (PSA).

Supplementary feeding is the provision of food to supplement energy and other nutrients missing from the diet of those who have special nutritional requirements to prevent or alleviate malnutrition through reducing the nutrient gap between an individual's actual consumption and his/her requirement. Currently, this is known as "dietary supplementation" in the Lancet 2013. To avoid confusion, the term "supplementary feeding" will only be used in the context of the management of acute malnutrition or MAM.

Undernutrition is the outcome of insufficient food intake and repeated infectious diseases (UNICEF). Examples are

- **Acute malnutrition**, which is also termed as "wasting" or "low weight-for-height". It is also referred to as severe acute malnutrition (SAM) or moderate acute malnutrition (MAM)

  It usually indicates recent and severe weight loss, because a person has not had enough food to eat and/or they have had an infectious disease, such as diarrhea, which has caused them to lose weight. A young child who is moderately or severely wasted has an increased risk of death, but treatment is possible (WHO).

  To determine if a child is wasted, his or her weight, is compared with the standards for weight for a given height as per the Philippine's WHO-adapted WFH/L chart.

- **Stunting** is the result of chronic or recurrent undernutrition, usually associated with poor socioeconomic conditions, poor maternal health and nutrition, frequent illness, and/or inappropriate infant and young child feeding and care in early life. Stunting holds children back from reaching their physical and cognitive potential. This is also known as low height-for-age (WHO).

  To determine if a child is stunted, his or her height is compared with the standards for height for a given age as per the Philippine's WHO-adapted Height/Length-for-age charts.

- **Underweight-for-age** is also known as "low weight-for-age". A child who is underweight may be stunted, wasted, or both (WHO).

6

ACRONYMS AND ABBREVIATIONS USED

ARBO	Agrarian reform beneficiary organization
CGS	Child Growth Standards
C/ MNAO	City/municipal nutrition action officer
DOH	Department of Health
DOST	Department of Science and Technology
EAR	Estimated Average Requirement
FDA	Food and Drug Administration
FNRI	Food and Nutrition Research Institute
IRR	Implementing Rules and Regulations
LGUs	Local government units
LNS-SQ	Lipid-based nutrition supplement-small quantity
MAM	Moderate acute malnutrition
MOP	Manual of Operations
MUAC	Mid-upper arm circumference
NGOs	Non-government organizations
NGF	Nutritional Guidelines for Filipinos
NNC	National Nutrition Council
NNS	National Nutrition Survey
PDRI	Philippine Dietary Reference Intake
PL	Public Law
PPAN	Philippine Plan of Action for Nutrition
PSA	Philippine Statistics Authority
RA	Republic Act
REI	Recommended Energy Intake
RNI	Recommended Nutrient Intake
SAM	Severe acute malnutrition
SFP	Supplementary feeding program
SAM	Severe acute malnutrition
SCF	Save the Children Fund
UNICEF	United Nations Children Fund
WASH	Water, Sanitation and Hygiene
WFA	Weight-for-age
WFH	Weight-for-height
WFL	Weight-for-length
WFH/L	Weight-for-height/length
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
WPHNA	World Public Health Nutrition Association

7

OPERATIONAL DEFINITION OF DIETARY SUPPLEMENTATION

Dietary supplementation is an intervention that involves the provision of additional food (on top of the regular meal) to a target group not categorized as acutely malnourished for a specified calorie and protein level of supplementation and for a duration of at least 90 days.

Feeding activities that do not target a calorie and protein supplementation level or those that are done for less than 90 days are not considered dietary supplementation programs.

This is the equivalent of supplementary feeding of the "former" Food Assistance Program. However, the term "supplementary feeding" is now being "reserved" for use in managing moderate acute malnutrition.

8 TECHNICAL GUIDELINES

8.1 General objectives

8.1.1 To prevent low birth weight

8.1.2 To prevent stunting and wasting among children under two (2) years old

8.1.3 To contribute to increased practice of exclusive breastfeeding in the first six months old life and continued breastfeeding up to two years and longer

8.1.4 To contribute to improved complementary feeding practices of infants and young children 6 – 23 months old

8.2 Specific objectives

8.2.1 To provide sufficient and quality supplementary food among the targeted individuals

8.2.2 To teach the nutritional value of local/indigenous foods and how these can be used for improving the diet of the target groups

8.2.3 To ensure the complementation of dietary supplementation with other key interventions

8.3 Priority areas

8.3.1 Dietary supplementation programs should be implemented in areas (province, city, municipality, or barangay) with the highest need or vulnerability to undernutrition.

8.3.2 In determining these areas, various indices may be used singly or in combination, as follows:

8.3.2.1 Subsistence incidence

8.3.2.2 Poverty incidence

8.3.2.3 Stunting among children under-five years old

8.3.2.4 Population size

8.3.2.5 Children 6-23 months old meeting the minimum adequate diet

8.3.2.6 Presence or recent experience of a natural hazards and human-induced disaster or emergency, e.g. flooding, volcanic eruption, drought, armed conflict, fire

8.3.2.7 Others as may be identified by program planners and managers.

8.3.3 In determining priority areas, official data sources, e.g. PSA, FNRI, LGU-accepted official data sources should be used. Alternative data sources may be used if the official data source does not have the needed data.

8.3.4 The decision on indices and cut-offs to be used is best done by a team and in consultation with those who will be involved in the dietary supplementation either as implementor or participant.

8.3.5 Nationally-initiated programs shall follow priority areas as identified by the National Nutrition Council (NNC) in compliance with the provisions of RA 11037 and RA 11148.

8.4 Priority target groups[11]

8.4.1 While covering entire population groups is ideal, the magnitude of resource requirements make prioritization of target groups necessary.

8.4.2 Similar to the prioritization of areas, the selection of priority target groups should consider the group with the highest need or vulnerability.

8.4.3 To the extent possible, data to be used for identifying priority target groups should be validated. Validation can involve checking of records[12], and if needed, doing a round of measurements.

8.4.4 Target groups that could be considered as priority are as follows:

8.4.4.1 Pregnant adolescent

[11] Prioritization of target groups is in the context of planning and implementing a dietary supplementation program. However, prioritizing nutrition-specific programs, e.g. will resources be channeled to managing acute malnutrition first before dietary supplementation, is part of local nutrition action planning.

[12] Validation can involve checking correctness of computation of age in months as well as determination of weight or height status.

8.4.4.2 Nutritionally-at-risk pregnant women identified using the MUAC (Annex 1).

The presence of any of the following predisposing factors renders a pregnant woman nutritionally-at-risk:

a. situated in families with low income
b. with large number of dependents
c. narrowly-spaced pregnancies and births
d. where food purchase is an economic problem
e. has previously given birth to a preterm, small for gestational age, or low birth weight infant
f. other unfavorable prognostic factors, such as obesity or anemia, diseases which influence nutritional status such as diabetes, tuberculosis, drug addiction, alcoholism, and mental disorder.

8.4.4.3 Pregnant women of any age, regardless of nutritional status from poor families

8.4.4.4 Underweight-for-age infants 6-11 months old but are NOT wasted (Wasted children will be managed using a different set of protocols.)

8.4.4.5 Underweight-for-age young children 12-23 months old but are NOT wasted (Wasted children will be managed using a different set of protocol.)

8.4.4.6 Infants and young children 6-23 months old who are normal in weight and height status but come from poor households

8.4.4.7 Lactating mothers with infants less than 6 months old from poor households

8.5 Level of supplementation

8.5.1 The level of supplementation is the range of energy and protein content of the dietary supplementation for each day per person.

8.5.2 Table 5 shows the target level of daily supplementation for the priority target groups in the first 1000 days

Table 5. Target level of daily supplementation for target priority groups

Target Group	Level of supplementation per day
Infants, 6-11 mos old	150 – 200 kcal, 5 grams (13%) of protein, preferably with multiple micronutrient powder (This is NOT in addition to what is regularly distributed)
Children 11-23 mos old	200 – 300 kcal, 5-10 grams (10-13%) of protein, preferably with multiple micronutrient powder (This is NOT in addition to what is regularly distributed)
Pregnant women	4500 – 5700 kcal, 1015-1250 grams (10-12%) of protein, possibly with multiple micronutrient powder If available, a daily ration of 1 sachet/bar of RUSF providing at least 500 kcal should be given to: a. all adolescent pregnant women. b. adult pregnant women with MUAC S21 cm Micronutrient supplementation as recommended by DOH. Multiple Micronutrient Supplements (MMS)[13] containing 15 vitamins and minerals is recommended particularly for undernourished pregnant women in areas where undernutrition is prevalent.

[13] The MMS for pregnant, although recommended, is not yet part of the regular Micronutrient Supplementation Program of DOH. The MMS is still under study as a possible supplement for pregnant women to address micronutrient deficiencies among this group and will eventually replace Iron Folic Acid and Iodized Oil Fluid, if warranted.

	Pregnant women provided with MMS will no longer be provided with IFA and iodized oil capsules (IOC).
Lactating women	500 – 700 kcal, 10-20 grams (8-11%) of protein

8.5.3 The level of supplementation is intended to maintain the normal[14] nutritional status of the target population, prevent stunting and wasting and to augment the possible gap in energy and protein intake that may later on lead to undernutrition. The gap intake (as shown in Table 2) is too big and cannot be eaten by the participants in one sitting. Thus, a reasonable calorie requirement was recommended. The same was considered in the recommended protein supplementation but still making sure that this is still within the acceptable macronutrient distribution range (AMDR)[15] in the PDRI.

8.5.4 Micronutrient supplements such as micronutrient powder may be added to further improve the quality of the dietary supplementation.

8.5.5 These levels of supplementation need to be followed in developing the recipes for each age group. Each recipe needs to be evaluated using the Menu Eval Plus software.

8.5.6 These are supplementation levels for center-based dietary supplementation. For programs that will use the home-based mode, the level of supplementation should be increased by at least 50% to provide an allowance for food that will be consumed by other members of the family.

[14] The program should ensure that the feeding will not result to overweight and obesity among its participants.

[15] PDRI AMDR: Protein
Infants, 6-11 mo: 8-15%
Young Children, 1-2 yo: 6-15%
Adults: 10-15%

8.6 Duration, timing and time of feeding

8.6.1 For pregnant women, the ideal duration is the entire period of pregnancy. However, with limited resources, dietary supplementation in the last trimester may be done as studies have shown that supplementation during this period could still have a positive effect on birth weight.

8.6.2 For infants 6-23 months old, the ideal duration is for the whole 6-23 month-period. Again, with limited resources, dietary supplementation may be done for at least 6 months.

8.6.3 For center-based dietary supplementation, the time of feeding should not compromise the regular meal-time nor encourage substitution/replacement of meals of the targeted individuals. The recommended time is about 9:00 a.m. or 3:00 p.m. so that the program participants will not miss any meal.

8.7 Complementary services and activities

8.7.1 Dietary supplementation should NEVER be planned and implemented as a stand-alone intervention. It should be implemented with complementary services and activities to ensure that its gains are sustained beyond the supplementation period.

8.7.2 All children, one year old and above, who will be covered by dietary supplementation should be dewormed according to the standards of DOH as per Annex 2.

8.7.3 Pregnant women should also be dewormed according to the standards of the DOH. Pregnant women in the first trimester enrolled in dietary supplementation SHOULD NOT be dewormed.

8.7.4 Nutritional status assessment should be done at the start of the dietary supplementation to establish baseline information on the participants. Thereafter, measurement of weight and height should be done monthly to ensure that the participant, especially children, do not become acutely malnourished or overweight.

For the former, immediate referral to an inpatient or outpatient care facility for acute malnutrition (both severe and moderate) should be done.

The supplementation level for calories should be reduced for children who become overweight.

8.7.5 ALL dietary supplementation programs should include a nutrition education component to cover the Nutritional Guidelines for Filipinos (Annex 3) and the nutritional value of the food products to be used in the dietary supplementation.

Nutrition education can be done through a mix of approaches that include nutrition classes, one-on-one nutrition counseling, distribution of appropriate information and education materials.

Nutrition counselling for pregnant women should also include the following: - increase intake of iron-rich, vitamin A-rich, and iodine-rich foods, and restriction of caffeine intake.

The feeding sessions themselves should be tapped for nutrition education. For instance, food preparation and service can be an opportunity for sharing information on concerns related to nutrition-oriented meal planning as well as food safety. During feeding sessions various videos can be played on nutrition concepts.

Participants or targets of nutrition education activities should include not only the pregnant mother participant or the caregiver of the child participant, but also the husband or father and other members of the family.

8.7.6 In addition, nutrition-sensitive interventions such as home and community gardening, livelihood and income-generating activities are also relevant complementary services. These may help overcome food insecurity by improving the economic access to food.

Table 6 lists complementary activities that should be implemented with dietary supplementation.

Table 6. Services and activities complementary to dietary supplementation

Service/Activity	Population Group		
	Pregnant women, including pregnant adolescents	Lactating women	6 -23 mos old (intended for caregivers)
Nutritional status assessment	●*	●*	●*
Nutrition education and counseling	●*	●*	●*
Ante/Post-natal care including family planning	●*	●*	●*
Lactation support	●*	●*	●*
Immunization			●* (for ≥1yo only)
Micronutrient supplementation	●*	●	●*
Growth monitoring and promotion			●*
Monitoring of developmental milestones			●*
Management of childhood illnesses			●
Oral health	●	●	●
WASH	●	●	●
Deworming	at 2nd or third trimester		●
Child protection			●
Home gardening support	●	●	●
Social welfare support	●	●	●

* Priorities

9 OPERATIONAL GUIDELINES

9.1 General guidelines

9.1.1 The following provides a list of general tips and recommendations in managing a dietary supplementation program. However, these may be modified depending on the unique needs of the community.

9.1.2 Each program should have its own operating procedures/guidelines that consider the technical guidelines as well as the reminders or guideposts in this section.

9.1.3 Managers of dietary supplementation programs are encouraged to provide a copy of their program operational guidelines to NNC directly for programs of national government agencies and NGOs and through the city/municipal nutrition action officer (C/MNAO) for LGU-initiated dietary supplementation programs.

9.2 Planning the dietary supplementation

9.2.1 Having a document that describes the plans for the dietary supplementation is recommended. This will help clarify various elements of the program or project. This document can come in the form of implementing guidelines or as plans or both[16]. The plan should also consider risks to the successful implementation of the program and include provisions to address these risks. See Annex 4 for common issues and challenges and how these can be addressed.

9.2.2 The document (plan or guidelines) should make the following explicit:

9.2.2.1 The title of the program or project. While the program or project can be simply called dietary supplementation of a specific group, having a catchy title could be considered.

9.2.2.2 General and specific objectives of the program.

9.2.2.3 Target areas that lists the areas (province, city or municipality, barangay) to be covered, with a brief discussion on why these areas were chosen.

[16] If dietary supplementation will be implemented for the first time, a plan may have to be formulated especially if resources will be generated. Once funding is assured, program guidelines should be developed to provide the details of implementation. After the first year, the guidelines can just be updated based on implementation in the previous year.

9.2.2.4 Target population groups and the target number that will be covered, with a brief discussion on why this/these particular group/s was/were chosen.

9.2.2.5 The target level of supplementation, using the technical guide as reference.

9.2.2.6 The target duration (how long) and the frequency (how often)

9.2.2.7 Food commodities or food packs to use, decision of which should be the result of the consideration of the following concerns: target level of supplementation, availability, acceptability, mode of distribution.

9.2.2.8 Mode of food distribution, i.e. if center-based or home-based or a combination of both.

9.2.2.9 Complementary services and activities

9.2.2.10 Institutional arrangements that will indicate who (personalities) and agencies that will be involved and what their involvement will be. Among others, the arrangements should identify who is in charge of policy formulation, planning, coordination, monitoring and evaluation. It should also identify a program manager.

9.2.2.11 How the program will mainstream gender responsiveness in the program design.

9.2.2.12 How the program will be monitored, e.g. generation of accomplishment reports, preparation of status reports, monthly field visits, year-end program implementation review, etc., when and how these will be done. The evaluation should assess the extent to which objectives were met, determine factors that facilitated or hindered accomplishments. Results of monitoring and evaluation should be used in adjusting program elements as needed.

9.2.2.13 Implementation activities including who will be in charge and when the activities will be done. Important activities to include are as follows:

9.2.2.13.1 Getting approval for the project

9.2.2.13.2 Mobilizing funding needed

9.2.2.13.3 Organizing the program team

9.2.2.13.4 Undertaking social preparation activities

9.2.2.13.5 Identifying and recruiting participants, including filling up registration documents

9.2.2.13.6 Preparing standardized recipes and cycle menus

9.2.2.13.7 Procuring goods and services

9.2.2.13.8 Preparing foods to be served or distributed

9.2.2.13.9 Actual feeding or food distribution

9.2.2.13.10 Recording of key information, e.g. attendance, results of weighing or height measurement at start of program, at key points (e.g. monthly), and at end of target duration

9.2.2.13.11 Preparing and submitting reports, including liquidation and financial reports

9.2.2.13.12 Coordinating with providers of complementary activities or services

9.2.2.13.13 Implementing activities for building and strengthening capacities of implementors

9.2.2.13.14 Preparing annual report, including success stories

9.2.2.13.15 Organizing activities like forums, seminars and the like to share experiences and lessons learned

9.2.2.14 The mayor or the head of office of the implementing agency should approve the plans for the dietary supplementation.

9.2.2.15 Annex 5 shows a template for the program document that may be adapted. The same template can be modified to develop program guidelines.

9.3 Social Preparation

9.3.1 Social preparation activities should be undertaken before a dietary supplementation program is implemented.

These activities aim to not only inform stakeholders (e.g. field implementors, community-based organizations, intended targets, other members of the community) of the program and its importance but also to engage them to support the program in various ways.

9.3.2 There should be efforts to engage the husband or partner of the potential pregnant woman participant or other caregiver of the potential child participant.

9.3.3 These social preparation activities can include the following activities.

9.3.3.1 Orient municipality/ city/ barangay officials and the community on the program-- objectives, technical guidelines and expected output.

9.3.3.2 Enter into a MoA to define mutual agreements and obligations, especially for disposition and disbursement of funds for the implementation of the program, and liquidation of funds received in accordance with appropriate accounting and auditing rules.

9.3.3.3 Meet with the local committees in charge of finance and procurement to seek advice on efficient ways of managing program resources.

9.3.3.4 Prepare a master list of beneficiaries.

9.3.3.5 Organize the community and mother participants.

9.3.3.6 Coordinate with local health center for medical check-up, deworming, and with other agencies on complementary services as per Section 8.7.

For effective coordination, it is best to include those from the rural health unit in planning the dietary supplementation program.

Coordination can take the form of holding meetings to agree on services to be delivered, schedule of services to be delivered, and other relevant details.

To ensure the effectiveness of these meetings, agreements in terms of actions lines should be clear, i.e. what will be done, by whom, by when and agreed on by all parties.

It can also involve sending needed communications, e.g. if the one planning the dietary supplementation is not from the local health office and doing the needed follow-ups including holding a face-to-face meeting.

9.3.4 For successful social preparation, the following may be considered

9.3.4.1 Know the key persons or personalities (not just their names and positions but their advocacies and priorities and potential agreement and resistance points with the program) that have to be engaged for the program.

9.3.4.2 Schedule the activity ahead of time to ensure the participation of key stakeholders.

9.3.4.3 Prepare well, i.e. be clear on the messages and action points that is requested as a result of the orientation, if a PowerPoint presentation or audio-visual presentation will be used, make sure the presentations are clear in content and form.

9.3.4.4 Follow-through agreements and keep others informed on progress of actions.

9.4 Scheme of Food Distribution

9.4.1 The planners and managers of the dietary supplementation program or project should decide on the scheme of food distribution, e.g. if center-based or if home-based.

9.4.2 Center-based feeding may be considered if the intent is to ensure that the target actually consumes the dietary supplementation. This is also feasible when the following conditions are present:

9.4.2.1 A facility is available following the guidance given for such feeding centers (See Section 9.5.6 on Feeding Center/Distribution Center).

9.4.2.2 The participants can easily access the location of the feeding.

9.4.2.3 If for children, a responsible member of the family has the time to bring the child to the feeding center.

9.4.2.4 Human resources are available for the day-to-day management of the on-site feeding.

9.4.3 Home-based feeding can be considered if the beneficiaries will be challenged to come regularly to a feeding center.

9.4.3.1 For this case, the food ration should be more than the target supplementation to give allowance for food that will be consumed by other members of the household. (See item 8.5.4)

9.4.3.2 The program or project design should also include provisions for home visit to ensure that the food rations are being consumed. The home visit can also be opportunities for nutrition education and delivery of other services as appropriate.

9.4.4 A combination of center-based and home-based dietary supplementation can also be considered, e.g. five days for center-based feeding and two days for home-based feeding or any combination as appropriate.

9.5 Feeding center/distribution sites

9.5.1 Feeding centers or food ration distribution sites should be identified based on the following criteria:

9.5.1.1 Easily accessible to most of the beneficiaries of the program and should be less than an hour's walk to and from the site including distribution time.

9.5.1.2 Near the local health facility for easier linkage to routine health/complementary services and activities.

9.5.1.3 With adequate shade and ventilation in the area.

9.5.1.4 With access to safe drinking water and hand washing facilities.

9.5.1.5 With sanitary toilets and areas for proper waste disposal.

9.5.1.6 With benches or mats for caretakers and beneficiaries to sit while waiting.

9.5.1.7 Ropes may be placed to guide the routes/ flow of services in the site.

9.5.1.8 With amenities for food preparation and cooking if center-based operations will be used.

9.5.1.9 Physically safe especially for young children.

9.6 Kinds of food to use

9.6.1 The general guidance is to ensure variety in the types of food, with preference to a mix of calorie- and nutrient-dense food items rich in vitamin A, iron, calcium, zinc, folate, iodine for PLW.

9.6.2 For young children 6-23 months old, nutrient-dense foods rich in iron, vitamin A, zinc, calcium, vitamin B complex etc., semi-solid or soft foods, with consistency increasing with age, should be preferred.

9.6.3 Indigenous foods should be prioritized for dietary supplementation to help ensure availability. Cultural acceptability should also be considered.

Thus, in deciding on foods to use, it is best to involve those who are from the target communities and even the participants or the mothers and caregivers of the participants in deciding on foods to use. This can be done by interviewing key informants in the community or holding focus group discussions that will surface usual dishes eaten in the area. The involvement can be done at the planning stage or during implementation.

9.6.4 Most of the food items should be procured locally, preferably from agrarian reform beneficiaries organizations (ARBOs), or from catering services of beneficiaries of the Sustainable Livelihood Program of the Department of Social Welfare and Development or from recipients of similar livelihood activities of the implementing LGU or NGO. The Government Procurement Policy Board has issued guidelines for community-based participation in procurement that can be used in procuring food or catering services for dietary supplementation[17].

9.6.5 Existing food formulations like those produced by adaptors of FNRI technologies (Annex 6) may also be used in combination with indigenous foods. The NNC, in cooperation with FNRI and the technology adopters, will release every six months, information on these adaptors, e.g. name, address, products available, nutrition information of the products available.

9.6.6 Imported food formulations like the LNS SQ (lipid-based nutrition supplement small quantity) may be used but they should not be the only commodity for dietary supplementation to prevent taste fatigue.

9.6.7 Laws on food fortification should be followed, i.e. any salt to be used should be iodized, flour products should be made from fortified flour, cooking oil and sugar should be vitamin A-fortified. The presence of

[17] The guidelines may be accessed through https://www.gppb.gov.ph/downloadables/forms/CPPM.pdf

the diamond seal (Saktong Iodine sa Asin Seal for iodized salt) in the product label could be an indicator of being fortified.

9.6.8 Milk may be used but ONLY for pregnant women. However, the provisions of Sec 16 of RA 7884, "Nutrition Programs – The government's nutrition programs requiring milk and dairy products shall be sourced from small farmers and dairy cooperatives in coordination with the Authority" should be followed. Furthermore, there should be constant reminders that the milk is intended for the pregnant woman and not children less than two years old.

9.6.9 All processed food products to be used in dietary supplementation programs should be registered with the Food and Drug Administration (FDA).

9.6.10 Foods for center-based feeding are discussed further in the next section.

9.6.11 Sample food packs for dry ration that meet levels of supplementation are shown on Annex 7.

9.7 Menu planning and food preparation

9.7.1 Careful menu planning should be observed to ensure not only achievement of the target level of supplementation but also variety in food to be served. This can be done initially by a team led by a nutritionist-dietitian, but subsequent cycle menus can be worked out with program participants or the caregivers of child-participants. See Annex 8 for a sample cycle menu.

9.7.2 Standardized/quantified recipes should be used to ensure that serving portions approximate the targeted level of supplementation.

9.7.2.1 The services of the FNRI-DOST or local state universities and colleges may be tapped for standardizing recipes.

9.7.2.2 Local nutritionist-dietitians may also standardize recipes. Annex 9 provides a guide for a simple and practical way of quantifying recipes.

9.7.2.3 The development and sharing of these quantified recipes should be part of continuing capacity building efforts.

9.7.3 Involve family members in menu planning, food purchasing, and preparation of foods. These will be opportunities for sharing knowledge and good practices on nutrition and food safety.

9.7.4 Clean up and store supplies properly.

9.7.5 "First-in First-out" system shall be used.

9.7.6 Ensure the safety of foods being prepared/ served and distributed through safe food handling. Also, ensure that foods are covered and kept away from rats, flies, and other pests.

9.7.7 Those involved on food preparation should be trained and coached on food safety.

9.8 Feeding proper

9.8.1 Actual feeding should ensure the dignity of the participants or beneficiaries as well as of the child caregiver. Thus, the staff should be polite at all times.

9.8.2 Maximum waiting time from the arrival of the participant up to the completion of all the services shall not be more than 2 hours.

9.8.3 For take-home ration, the timing of distribution should consider the product being distributed. Thus, if the quality of products being distributed is assured only for say 2 weeks, then distribution should be done every 2 weeks. At the least, monthly distribution is recommended. The distribution days can be used for the delivery of other complementary activities or services.

9.8.4 Start the feeding session with a handwashing session.

9.8.5 Use the feeding session as opportunities for highlighting certain concerns, e.g. responsive feeding, table manners, importance of hand washing, the concepts of color, shape, texture, and taste, as well as the nutritional value of foods served.

9.9 Budgeting

9.9.1 The cost of dietary supplementation should consider the following factors and components:

9.9.1.1 Level of supplementation of the target group
9.9.1.2 Number of population/beneficiaries;
9.9.1.3 Inflation rate;
9.9.1.4 Administrative cost; and
9.9.1.5 Food and non-food components

9.10 Managing Donations

9.10.1 Any form of donations by the government should conform with the General Provisions Sections 5 and 6 of the General Appropriations Act (GAA) which states that departments, bureaus, and offices of the National Government, including Constitutional Offices enjoying fiscal autonomy and SUCs may accept donations, contributions, grants, bequests or gifts, in cash or in kind from various sources, domestic or foreign sources, for purposes relevant to their functions. Receipts from donations, whether in cash or in kind, shall be accounted in the books of the donee-government agency in accordance with accounting and auditing rules and regulations. The receipts from cash donations and proceeds from sale of donated commodities shall be deposited with the National Treasury and recorded as a Special Account in the General Funds and shall be available to the implementing agency concerned through a Special Budget pursuant to Section 35, Chapter 5, Book VI of E.O. No. 292. The cash value of the donations shall be deemed automatically appropriated for the purpose specified by the donor. Donations with a term not exceeding one (1) year shall be treated as trust receipts.

9.10.2 Donations from manufacturers of infant formula/breastmilk substitutes should follow DOH guidelines, i.e. no milk donations during emergencies and disasters; in non-disaster situations, the donor should secure DOH approval as prescribed by the Implementing Rules and Regulations of EO 51[18].

9.10.3 No donations should be accepted from tobacco companies as per RA 9211 "Tobacco Regulation Act of 2003".

[18] The Revised IRR of EO 51 can be accessed from the website of the FDA, https://ww2.fda.gov.ph/index.php/issuances-2/food-laws-and-regulations-pertaining-to-all-regulated-food-products-and-supplements/food-administrative-order/15842-ao2006-012

9.10.4 Imported food commodities may be used but these should be registered with the FDA. Imported food products to be used should also be acceptable to the target population group. However, the preference is still for local foods.

9.11 Entry into the program and monitoring

9.11.1 At the start of the program or at the start of each year, a list of those eligible to participate in the dietary supplementation should be identified and informed of their qualification for the program.

9.11.2 Managers and implementors of dietary supplementation should recognize that participants will not be static in the way that children participants in child development centers are the same throughout the year. For instance, as participating pregnant women who give birth will be "graduated" or "discharged" from the dietary supplementation program, new participants can come in as new pregnant women are identified.

9.11.3 Maintain a registry of all participants in the dietary supplementation. Annex 10 shows how the registry can be structured, while Annex 11 provides a sample attendance sheet

9.11.4 At the start of the dietary supplementation or as new participants are identified, give each participant a registration number. The program may establish its own numbering system as follows:

9.11.4.1 Straightforward numbering as 1-n

9.11.4.2 Numbering reflecting the year, e.g. 2020-100 is the 100th participant in 2020

9.11.4.3 Numbering reflecting the year and month of enrollment, e.g. 2020-02-100 could be the registration number of the 100th participant enrolled in February 2020

9.11.5 Take the baseline anthropometric measurements: weight using a beam balance, or a hanging weighing scale, (Bathroom weighing scales should not be used) and height/length (using a height board or microtoise).

9.11.6 Record the baseline information gathered (anthropometric measurements, personal information) in the record.

9.11.7 Explain to the mother or caregiver or participant the procedures of the program.

9.11.8 Carefully explain the objectives of the program and the expectations participation needed from the participant (regular attendance, supplementation not a replacement to the regular meals, participation in the complementary services).

9.11.9 Have a system for monitoring attendance, indication of consumption of ration, and progress in weight. Various recording tools can be used for this purpose[19]. Children beneficiaries who demonstrate slippage into acute malnutrition should be referred to the appropriate service.

9.11.10 Follow up cases who have been absent twice in a week for center-based feeding or for those who miss one food distribution day. Determine the cause/s of the absence and take action as appropriate.

[19] While program managers and implementors may find having to accomplish several forms as challenging, data from these monitoring tools will help in tracking individual participants to facilitate needed action, e.g. referral to another program but also in improving the overall management of the program.

9.12 Exit from the program

9.12.1 The woman who has delivered her baby or a child participant who reaches the age of 23 months are considered as having "graduated" from the program.

9.12.2 On the "last day" of the participant, measure weight and height and enter relevant data in the registry record.

9.12.3 Inform the participant that their participation in the dietary supplementation is over.

9.12.4 Link family for continuing services.

9.12.5 Follow-up after three months and refer to the appropriate service as may be needed.

9.13 Documentation and Reporting

9.13.1 Monitoring reports both for concerned NGAs and LGUs should also include detail of expenditures and budget utilization for the purpose of transparency and accountability

9.13.2 Monitoring reports as part of program and project implementation should be submitted as prescribed by the respective program guidelines. These monitoring reports should be used in determining adjustments that have to be done in the program. All monitoring reports should also be submitted to the LGU (barangay, city/municipality, province) concerned.

9.13.3 All those involved in dietary supplementation should submit annually to the NNC a report of accomplishments. LGUs should submit their reports through the Department of the Interior and Local Government. The report could include:

9.13.3.1 Short description of activities

9.13.3.2 Program accomplishments, in terms of outreach to specific target groups as well as complementary services provided to program targets, and achievement of outcome objectives

9.13.3.3 Issues encountered and actions taken

9.13.3.4 Good practices or lessons learned

9.13.3.5 Plans for the following year

9.13.4 Photo documentation

10 ENSURING SUSTAINABILITY

This section discusses ways to establish a permanent and sustainable dietary supplementation program, both at the national and local level. It specifically focuses on the design of an affordable dietary supplementation program embedded in national priorities and budgets, with links to local production and processing.

10.1 Have a source of regular funding

10.1.1 National and local budgets are potential sources of regular funding for dietary supplementation.

10.1.1.1 Thus, national government agencies involved shall include required resources in their annual budget proposal.

10.1.1.2 Similarly, LGUs should include dietary supplementation as part of a comprehensive plan for nutrition improvement as embodied in the local nutrition action plan, among its expressed priorities in development plans, including the Annual Investment Program.

10.1.2 Other sources of funding can be tapped as follows:

10.1.2.1 Foundations of business corporation

10.1.2.2 Social development NGOs

10.1.2.3 Pledges from members of the community living locally or abroad

10.1.2.4 Fund raising activities for dietary supplementation

10.2 Have a steady source of food

10.2.1 The use of indigenous foods will help ensure a steady source of food. Furthermore, having a supplier for one year could help ensure the steady source of food.

10.2.2 Having food gardens near feeding centers and food distribution points will also help ensure a steady source of food.

10.3 Mobilize community support and participation

10.3.1 Community mobilization and participation are important strategies to ensure sustainability.

10.3.2 In encouraging community participation, that dietary supplementation is not charity work but an investment to ensure good nutrition among targets for optimal physical and mental development should be emphasized.

10.3.3 Dietary supplementation is also a way of ensuring the right to adequate food, initially by giving food to the needy, but in the long run, capacitating them to be able to provide food for themselves through their own effort and resources.

10.3.4 Male members of the family and community should be encouraged to participate actively along one or more of the activities listed in item 10.3.5.

10.3.5 Community participation can be expressed in several ways as follows:

10.3.5.1 Pledges of financial or material support

10.3.5.2 Volunteering to help in marketing and food preparation

10.3.5.3 Volunteering to help care for the other children while participant is in the feeding center

10.3.5.4 Volunteering to deliver food rations

10.3.6 Those who volunteer for dietary supplementation may be given incentives, e.g. cash or a kilo of rice per week or some other non-cash incentive. This expense can be part of the non-food cost of the program.

11 INSTITUTIONAL ARRANGEMENTS

11.1 Policy and program formulation, implementation, coordination, monitoring and evaluation

11.1.1 National level

11.1.1.1 The NNC Governing Board will provide policy directions on dietary supplementation in the first 1000 days of life. Aside from this set of guidelines, the NNC Governing Board shall issue additional policy guidance as may be needed.

11.1.1.2 The NNC Technical Committee, aside from reviewing and clearing policy recommendations for consideration of the NNC Governing Board, shall review regularly the status of implementation of this set of guidelines and of the Dietary Supplementation Program of PPAN 2017-2022 to determine needed corrective actions, and facilitate intra-and inter-agency coordination as may be needed.

11.1.1.3 A Technical Working Group on Dietary Supplementation shall be organized as a sub-group of the NNC Technical Committee.

11.1.1.3.1 Its membership will include national government agencies and NGOs that coordinate or implement a dietary supplementation program.

11.1.1.3.2 It will, among others, harmonize national initiatives related to the implementation of this set of guidelines and the National Dietary Supplementation Program and this set of guidelines, e.g. dissemination of the guidelines, capacity building of implementors, advocacy for increased investments, etc. More specific

functions will be spelled out in the administrative issuance of the NNC Secretariat.

11.1.1.4 National government agencies and NGOs that initiate dietary supplementation shall manage (covering the processes of planning, organizing, directing, and controlling) and finance their respective dietary supplementation programs, consistent with the technical and operational guidelines. They shall likewise include activities that will constantly build and strengthen capacities of those involved in dietary supplementation. They shall also develop their respective program guidelines.

11.1.2 Regional level

11.1.2.1 The regional nutrition committee shall adopt region-specific policies, plans and programs; coordinate. and monitor initiatives related to the implementation of this set of guidelines. These initiatives shall include, but not be limited to, dissemination of the guidelines, advocacy for adherence to the guidelines, development and distribution of tools like cycle menus that use standardized recipes, capacity building of implementors, social mobilization, advocacy for increased investment.

11.1.2.2 The regional technical working group or its equivalent shall attend to needed staff work to assist the RNC in the aforementioned task. A more specific technical working group on dietary supplementation may also be organized as needed and feasible

11.1.2.3 Similar to the national level, region-based government agencies and NGOs that initiate dietary supplementation shall manage (covering the processes of planning, organizing, directing, and controlling), and finance their respective dietary supplementation programs, consistent with the technical and operational guidelines. They shall likewise include activities that will

constantly build and strengthen capacities of those involved in dietary supplementation. They shall also develop their respective program guidelines.

11.1.3 LGU level

11.1.3.1 Local nutrition committees shall plan, coordinate, monitor and evaluate their respective dietary supplementation program. They shall likewise include efforts to constantly build and strengthen capacities of those involved in dietary supplementation. They shall also develop their respective program guidelines.

11.1.3.2 A sub-group of the local nutrition committee may be organized to attend to staff work related to managing the dietary supplementation program.

11.1.4 All dietary supplementation programs shall be coordinated closely with local nutrition committees to ensure adequate coverage of the nutritionally vulnerable and affected, complementation with ongoing related initiatives, and sustainability.

11.2 Roles and responsibilities of agencies

Implementation of dietary supplementation program is the main responsibility and accountability of the organizing LGU, NGO or government agency. The cooperation of every agency at the national and local level is deemed necessary for the successful implementation of this policy. They are required to extend full support and make available such materials, data and other resources that may be of help in the dietary supplementation. However, specific agency roles are as follows:

11.2.1 NNC Secretariat

11.2.1.1 Organize and chair the inter-agency technical working group on dietary supplementation at the national level.

11.2.1.2 Lead in the dissemination of the guidelines and advocate for its adoption and implementation among stakeholders concerned.

11.2.1.3 Disseminate other guidelines and related references for programs on dietary supplementation.

11.2.1.4 Initiate the review and revision of this set of guidelines as necessary.

11.2.1.5 Provide the needed technical support in the formulation of cycle menu.

11.2.1.6 Make available necessary information and educational materials/ modules for the conduct of nutrition education as a complementary activity.

11.2.1.7 Establish and maintain a database on ongoing dietary supplementation programs as part of the Philippine Nutrition Surveillance System

11.2.2 FNRI-DOST

11.2.2.1 Provide data on the nutrition situation using anthropometric, biochemical, clinical, and dietary indices among others.

11.2.2.2 Formulate standard recipes for pregnant women and infants and young children ages 6-23 months and 11-23 months for use in dietary supplementation; and develop a four-week five-day cycle menu for both age groups.

11.2.2.3 Provide technical assistance in formulating or improving cycle menus and recipes.

11.2.2.4 Develop and test food formulations that can be used for dietary supplementation program.

11.2.2.5 Transfer technologies to interested potential adopters on tested food formulations.

- The technology transfer is effected through a Memorandum of Agreement between the entrepreneur and DOST-FNRI which stipulates the policies, rules and regulations on the transfer and commercialization of technologies.
- Provide consultancy services to successfully set up and operate the food processing facility.
- Provide necessary technical assistance for the monitoring and evaluation of the quality and safety of the manufactured products through tests and analyses for a fee.
- Monitor food processing facility to ensure compliance to quality standards of the products and safety.

11.2.2.6 Conduct research related to dietary supplementation, e.g. models for service delivery, impact assessment, etc.

11.2.2.7 Submit to the NNC Secretariat reports on accomplishments as per related guidelines.

11.2.3 DOH (national and regional levels)

11.2.3.1 Provide initial investments to address maternal undernutrition and current gaps for intervention in the health sector, in line with RA 11148, gradually shifting the schemes to local governments or through the Universal Health Care Act.

11.2.3.2 Assist LGUs to ensure that needed health and medical services and other related complementary activities or services are available.

11.2.3.3 Assist in the formulation of standardized recipes and cycle menus

11.2.4 DSWD (national and regional)

11.2.4.1 Provision of child minding services to children beneficiaries

11.2.4.2 Provision of child protection services to children beneficiaries

11.2.5 DILG

11.2.5.1 Release issuances encouraging all LGUs to fully support the implementation of NDSP through local ordinances;

11.2.5.2 Ensure that the implementation of this program is integrated in the local development plans and investment plans of LGUs;

11.2.5.3 Assist NNC in monitoring the compliance to NDSP standards by local government units and prepares feedback report for submission to NNC. Details of

reporting shall be referred to the NDSP reporting system.

11.2.6 LGUs (province, city, municipality)

11.2.6.1 Integrate programs and projects along dietary supplementation in their respective nutrition action plans.

11.2.6.2 Provide funding support for the implementation of dietary supplementation in the first 1000 days

11.2.6.3 Provide counterpart funds for externally-initiated dietary supplementation programs (e.g. by NGOs or by national government agencies).

11.2.6.4 Ensure availability of other resources for the program, e.g. human as well as material resources including weighing scales and height boards.

11.2.6.5 Ensure compliance to the technical and operational guidelines for dietary supplementation.

11.2.6.6 Ensure availability and complementation of dietary supplementation with other services and activities.

11.2.6.7 Establish systems for the effective location of the population in most need of dietary supplementation.

11.2.6.8 Submit accomplishment reports to DILG.

11.2.6.9 Mobilize the community and other partners for dietary supplementation programs.

11.2.7 Private sector / NGOs/ development partners

11.2.7.1 Assist government in the effective implementation of dietary supplementation programs.

11.2.7.2 Adopt and follow the technical and operational guidelines for dietary supplementation.

11.2.7.3 Generate resources for the implementation of dietary supplementation.

11.2.7.4 Assist in the conduct of research studies, including those on evaluation to further improve the implementation of dietary supplementation programs.

11.2.7.5 Review and adjust their recipes to meet the required estimated energy and nutrient contribution per age groups.

11.2.7.6 Share recipes and cycle menus used by their organizations for integration/ incorporation in the pool of NNC recipes for wider variation and choices of meals served.

11.2.8 Community-based organizations. Participate in dietary supplementation as partners and assist in the implementation of these programs and projects.

REVIEW OF IMPLEMENTATION

This set of guidelines should be reviewed after five years and updated as may be needed. Thereafter, the guidelines can be revisited whenever there is a new cycle of the national plan of action for nutrition.

REPEALING CLAUSE

All other orders and related issuances found inconsistent with the provisions of this issuance are hereby rescinded.

Any additional provisions or changes in this guideline shall be properly disseminated through the issuance of memorandum circulars.

EFFECTIVITY

This order shall take effect immediately upon approval/signature. The guidelines of the National Dietary Supplementation Program shall be enforced and implemented by all agencies and local government units once approved. Its widest dissemination is urgently enjoined.

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National Nutrition Council Governing Board

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ANNEXES

ANNEX 1. MUAC Classification for Pregnant Women

MUAC measurement	Classification/Recommendation
○ pregnant women with MUAC <23 ○ poor weight gain, especially in the first or second trimester, ○ pre-eclampsia/eclampsia ○ gestational diabetes mellitus (GDM) ○ GWG is less than the lower limit for the corresponding pre-pregnancy BMI class	Refer for nutrition management therapy/ dietary supplementation program
○ pregnant women with MUAC <21 at any time during pregnancy for management of acute malnutrition.	For management of acute malnutrition They should receive ready-to-use supplementary food (RUSF) rations daily and to be closely monitored. If RUSF is not available, enroll in Dietary Supplementation Program.

ANNEX 2. DOH Protocol for Deworming

1. The deworming medicine to use may be in the form of either tablet or syrup (Mebendazole or Albendazole).

2. The deworming medicine and dosage for children is as follows:

Age of child	Deworming medicine/ dosage
12 – 24 months old	Albendazole: 200 mg, single dose every 6 months; or Mebendazole: 500 mg, single dose every 6 months
24 months old and above	Albendazole: 400 mg, single dose every 6 months; or Mebendazole: 500 mg, single dose every 6 months

3. On the other hand, pregnant women may be dewormed once in the 2nd trimester of pregnancy in areas where hookworm is endemic.

4. The deworming medicine and dosage for pregnant women is as follows:

Hookworm prevalence	Deworming Medicine/ Dosage
20 – 30%	Albendazole: 400 mg once in the 2nd trimester; or Mebendazole: 500 mg once in the 2nd trimester
> 50%	repeat treatment in the 3rd trimester

ANNEX 3. Nutritional Guidelines for Filipinos

The 2012 Nutritional Guidelines for Filipinos (NGF) is a set of dietary guidelines based on the eating pattern, lifestyle, and health status of Filipinos. It contains all the nutrition messages to healthy living for all age groups from infants to adults, pregnant and lactating women, and the elderly.

The FNRI spearheaded the development of the NGF, with assistance from a team of experts as well as the consultations with experts and practitioners in various fields related to nutrition, e.g. health, agriculture, social welfare.

Adopted by the NNC Governing Board to be the substantive framework for nutrition messages, the NNC Secretariat popularized the NGF into the Ten *Kumainments*.

Below are the messages of the 2012 NGF together with the Ten *Kumainments*.

NGF	Ten Kumainments
Eat a variety of foods everyday to get the nutrients needed by the body.	Kumain ng iba't-ibang pagkain.
Breastfeed infants exclusively from birth up to six months and then give appropriate complementary foods while continuing breastfeeding for two years and beyond for optimum growth and development.	Sa unang 6 months in baby, breastfeeding lamang; mula 6 months, bigyan din siya ng ibang angkop na pagkain.
Eat more vegetables and fruits to get the essential vitamins, minerals, and fiber for regulation of body processes.	Kumain ng gulay at prutas araw-araw.
Consume fish, lean meat, poultry, egg, dried beans or nuts daily for growth and repair of body tissues.	Kumain ng isda, karne, at ibang pagkaing may protina.
Consume milk, milk products, and other calcium-rich food such as small fish and shellfish, every day for healthy bones and teeth.	Uminom ng gatas; kumain ng pagkaing mayaman sa calcium.
Consume safe foods and water to prevent diarrhea and other food-and water-borne diseases.	Tiyaking malinis at ligtas ang ating pagkain at tubig.
Use iodized salt to prevent Iodine Deficiency Disorders.	Gumamit ng iodized salt.
Limit intake of salty, fried, fatty, and sugar-rich foods to prevent cardiovascular diseases.	Hinay-hinay sa maaalat, mamantika at matatamis.

NGF	Ten Kumainments
Attain normal body weight through proper diet and moderate physical activity to maintain good health and help prevent obesity.	Panatilihin ang tamang timbang.
Be physically active, make healthy food choices, manage stress, avoid alcoholic beverage, and do not smoke to help prevent lifestyle-related non-communicable disease.	Maging aktibo. Iwasan ang alak; huwag manigarilyo.

ANNEX 4. Potential risks to successful implementation and how these can be prevented

The following is a list of risks and possible preventive action. The list is not exhaustive and can be updated based on issues that will evolve. The identified preventive actions are also indicative and should be used as guides and not "absolute truths". Preventive or corrective action should always start with a clear identification of the risk or issue, and an analysis of its causes especially the root causes (could be surfaced by asking a series of whys).

	Risk		Preventive or corrective action
1.	**Low participation rate of target participants**	a.	Include target participants in social preparation activities and explain why they qualify for the program, the benefits they will derive, their obligations, etc.
		b.	Mobilize the support of the barangay chairperson and other barangay officials in "recruiting" participants of the program
		c.	Involve the participants in deciding on certain details, e.g. time of feeding, venue of feeding or food distribution, foods or dishes to be served, etc.
		d.	Monitor attendance and visit those who fail to attend 3 consecutive sessions. During the visit, explore why sessions were missed and together with the participant, identify how the issue can be addressed.
		e.	"Collect" success stories of past participants and use them to inspire the "challenging" or "difficult" participant.
2.	**Duplication of programs and overlapping participants.**	f.	Close coordination among stakeholders concerned that should involve regular sharing of information, among others.
3.	**Delay in procuring needed goods and services**	g.	Start with a plan that has been well thought of, i.e. implementation details considered and decided on judiciously.

		h.	Consult those involved in administration and finance to identify the best way of proceeding with procurement and financial transactions.
		i.	Prepare Purchase Requests that have clear specifications on what will be procured, its quantity and quality requirements including payment arrangements.
		j.	Factor in the timetable of activities, a reasonable turn-around time for procurement processes.
		k.	For government entities, consider the use of advance procurement activities.
		l.	Assign a staff to follow up closely the progress of procurement and to take action depending on evolving issues.
4.	**Needed food supplies not readily available**	m.	Plan for the use of indigenous foods.
		n.	At the planning stage, find out if local suppliers can provide the volume needed by the program, and make adjustments accordingly.
5.	**Food spoilage**	o.	Coach those preparing the food on basic food safety guides, including handwashing.
		p.	Enforce "first in-first out" policy.
		q.	As much as possible, no leftover cooked food should be stored unless there are refrigeration facilities.
		r.	Ensure the availability of food keepers and covers.
6.	**Non-participation in complementary interventions**	s.	Explain the importance of the complementary interventions to participants during the social preparation phase, upon entry in the dietary supplementation program.
		t.	Ensure widespread dissemination of the schedule of the complementary interventions.
		u.	Plan the complementary interventions with the participants and the service providers.

7.	**Non-compliance to supplementation standards**	v.	Use and constantly develop standardized recipes.
8.	**Continuous funding not assured**	w.	Continuing advocacy on the importance of investing in dietary supplementation in the first 1000 days, emphasizing the consequences especially in brain development.
		x.	Document success stories to show that the investment in dietary supplementation programs is worthwhile.
		y.	Prepare, submit, disseminate, and popularize accomplishments of dietary supplementation programs

ANNEX 5. Template for a program document on dietary supplementation for pregnant women

This is just a sample template for a program document on a dietary supplementation for pregnant women. It may be adapted for dietary supplementation of children 6-23 months old or a combination of both.

As a generic template, it cannot provide all the details for all possible scenarios. The important thing is to think through the program concept and its implementation details.

The NNC regional office can provide technical assistance in preparing the program document.

Title of project	:e.g. OPLAN BATANG TANGKAD
Implementing unit :	Local government of _____
Lead local agency	:Nutrition Office
Program manager	:Name of person

Rationale (for dietary supplementation of pregnant women):

Child stunting among children under-five years old in the (province, city, municipality) has been recorded at ____% based on the results of OPT Plus for (month and year).

This is higher than the (national, regional, provincial) prevalence rate of ___, also based on OPT Plus for (month and year). **Or**

While this prevalence may seem small, it translates to about ____ children.

Furthermore, stunting rates among infants 6-11 months old is ___ percent higher than stunting among infants 0-5 months old. In addition, the stunting rate among children 1 – 3 years old is ___% higher than that among infants 6-11 months old.

Part of this situation can be traced to poor nutritional status during pregnancy. Based on ___, about ___ percent of pregnant women in the (province, city, municipality) are underweight-for-height based on data from the local health office. While there is no LGU-specific data on the food consumption of pregnant women, the National Nutrition Survey of the FNRI of the DOST reported that ___% of pregnant women in the Philippines are underweight-for-height. The situation in the (province, city, municipality) cannot be too different.

Furthermore, about ___ infants born in (year) recorded birthweight of less than 2500 grams or 2.5 kilos suggesting suboptimal nutrition among pregnant women.

Low birthweight has been identified to be a risk factor not only to mortality in the first month of life but also stunting, poor cognitive development and an increased risk of chronic diseases later in life.

Thus, there is a need to prevent low birthweight through improved prenatal care services that is proposed to include dietary supplementation.

General objective

1. To prevent low birth weight
2. To prevent stunting and wasting among children under two (2) years old
3. To contribute to increased practice of exclusive breastfeeding in the first six months old life and continued breastfeeding up to two years and longer.

Specific objectives

1. To provide sufficient and quality supplementary food among the targeted individuals
2. To teach the nutritional value of local/indigenous foods and how these can be used for improving the diet of the target groups
3. To ensure the complementation of dietary supplementation with other key interventions

Target areas

The program will be implemented in the (all the municipalities and barangays of the province OR all the barangays of the city/municipality of OR in selected municipalities and barangays in the province or selected barangays in the city/municipality).

(Note: The number of cities or municipalities or barangays can be included here. However, it is best to include the names of these LGUs.)

These areas were chosen because of (high levels of stunting among children under-five years old, OR high levels of low birthweight OR high levels of malnourished pregnant women based on MUAC measurement less than 23 cm.)

Target population group

The primary target group is pregnant women (from the first visit for prenatal care up to delivery OR pregnant women in their 6th month (or any other timing but no later than the 6th month) of pregnancy up to delivery.

About ___ pregnant women are targeted OR All (add number) pregnant women are targeted. OR All pregnant women who obtain prenatal care services in a government health facility will be targeted OR (an appropriate statement as intended).

Target level of supplementation

Hot meals are targeted to provide energy of about 500-700 kcalories per day, 15-20 grams of protein per day. While food rations should provide about 1,000-1,400 kcalories per day and 30-40 grams of protein per day.

Target duration and mode of supplementation

Dietary supplementation will be done from the time of enrollment up to the time of delivery. If resources permit, the feeding will extend for another three months after delivery of the baby.

The program will use a mix of hot meals for four days to be served in a place that is most accessible to the participating pregnant women as will be decided on with the participants.

Food rations will be distributed for the remaining three days of the week, which will be given on the fourth day of the hot meals part.

Foods to use

Foods locally available will be used for both the hot meals and the food rations. Food packs of ___, will also be used at least once in a week. A cycle menu will be developed together with the participants to the extent possible. OR Cycle menus and standardized recipes of the FNRI-DOST will be used for the purpose. In addition, students of state universities and colleges will be encouraged to develop cycle menus and standardized recipes that can be used in the dietary supplementation.

Complementary activities

1. Pregnancy tracking to identify pregnant women as early as possible in the pregnancy
2. Constant monitoring and follow-up to ensure regular pre-natal care services
3. Provision of appropriate post-partum and post-natal services
4. Nutrition counseling during pre-natal and home visits
5. Nutrition education classes using the Idol Ko si Nanay modules and Idol Ko si Tatay modules
6. Bench classes on nutritional care during pregnancy
7. Provision of iron-folic acid supplements
8. Lactation support through home visits by members of the IYCF support groups, lactation stations in (add specific spaces), enforcement of the Milk Code
9. Tetanus toxoid immunization
10. Deworming

11. Home visits to check on use of iron-folic acid supplements and food rations, progress in breastfeeding and complementary feeding, among others
12. Child protection
13. Provision of tools and resources for home gardening
14. Referral of family for income generating opportunities

Institutional arrangements

The local nutrition committee shall provide overall policy guidance to program implementation. It will also facilitate the coordinated delivery of needed services.

The C/MNAO shall be the program manager. Assisting the C/MNAO will be the district nutrition program coordinator assigned to the municipality. At the barangay level, barangay nutrition scholars will coordinate related activities in the barangay. He or she will work closely with the program participants, their husbands or partners, and other members of the community in carrying out specific tasks in implementing the dietary supplementation, e.g. marketing, cooking, cleaning up, storing food, etc.)

Other concerns

To ensure gender responsiveness, the program will encourage the participation of the father or male members of the families of program participants. Participation will be along marketing, cooking, cleaning up feeding/distribution centers, attending nutrition education classes, among others.

Monitoring and evaluation

Monitoring and evaluation will involve the generation of reports from the barangay using the program forms. It will also involve monthly field visits to program sites to observe feeding or distribution operations, as well as quarterly meetings with barangay coordinators. A year-end implementation review will also be conducted.

Particulars	Amount
Food cost of Php ___ per participant per day for hot meals for ___ participants x ___ days	
Food cost of Php __ per participant per day for food ration for __ participants x ___ days Non-food cost of Php ___ or __ % of food cost per participant per day for hot meals x ____ participants x ___ days Non-food cost of Php ___ or __ % of food cost per participant per day for food ration x ____ participants x ____ days One-time cost for cooking equipment, cooking and eating utensils, etc.	
Meals and snacks for social preparation activities at ___ per person for ___ persons Meals and snacks for nutrition education classes of mothers at Php per person per session x number of sessions Traveling expenses for monitoring at Php ___ person / trip for ___ trips /month x number of months Supplies and materials at ___ Contingency at __ percent of total cost **Total**	

Program of Activities[20]		
Activity	**In-Charge**	**Time Frame**
1. Clearance and finalization of program document	NAO	Weeks 1-2
2. Approval of the program document by local chief executive	LCE	Week 3
3. Organization of the program team	CMNAO	Weeks 3 - 5
4. Development and approval of program guidelines	NAO	Weeks 1-4
5. Social preparation	NAO	Weeks 5-6
6. Procurement of goods and services	BAC	Weeks 6-14
7. Launching of the program	NAO/nutrition committee	Week 16
8. Dietary supplementation	LGU staff	Weeks 16-52
9. Monitoring and evaluation	Monitoring team	Weeks 16-52
10. Payment of goods and services	Financial Group	As billings arrive
11. Preparation of reports	NAO and LGU staff	At prescribed intervals
12. Program implementation review	C/MNAO as lead	Last quarter of the year
13. Forum on good practices	C/MNAO as lead	July

[20] The list of activities is for a program that is about to start. For subsequent years of implementation, the list of activities will change.

ANNEX 6. Adopters of FNRI Technologies

REGION	NAME OF ESTABLISHMENT AND ADDRESS	PRODUCTS	BRANDING	CONTACT PERSON	DOST OFFICE
NCR	**ARETEI FOODS CORPORATION** 4 Gumamela Street Sampaguita Village, Malanday, Marikina City	RM Curls		**Atty. MARC-FABIAN B. CASTRODES** Mobile No.: +63 999 881 375 E-mail: originalcookiesticks@gmai.com	**Dir. JOSE B. PATILJUG III** Regional Director DOST-NCR Office, DOST Compound, Gen. Santos Avenue, Bicutan, Taguig City Tel/Fax No.: (02) 837 3162 E-mail: ncr@dost.gov.ph/ ncrdost@gmail.com
	SEAMAXX ENTERPRISES 47 Dragon Street, Midtown Subdivision, San Roque, Marikina City	RMS		**Ms. DORIS A. ANACAN** Mobile No.: +63 927 799 8138	
CAR	**ASC COMPLEMENTARY FOOD PROCESSING FACILITY** Payanan, San Gregorio, Luna, Apayao	RMS RM RM Curls	BIGBA	**Dr. NELIA Z. CAUILAN** President, Apayao State College Mobile No.: +63 927 794 4511 E-mail: nel_cauilan08@yahoo.com **Ms. LEILANI PARUGRUG** Apayao State College Project Leader	**Dr. NANCY A. BANTOG** Regional Director, DOST-CAR Km. 6 La Trinidad, Benguet 2601 Tel No.: (074) 422 0981 / 422 0979 Fax No.: (074) 422 2214 E-mail: nabantog@yahoo.com/ dost-car@dost.gov.ph **Engr. DEBBIE GLYNN V. MANANGKIL** Provincial S&T Director, Apayao San Isidro Sur, Luna, Apayao Mobile No.: +63 927 855 2087 E-mail: debbie_vm@yahoo.com
I	**NUTRIDENSE FOOD MANUFACTURING CORPORATION**	RMRM Curls	RIMO	**Mr. RACKY D. DOCTOR** Owner/ProprietorMobile No.: +63 916 641 8611Tel. No.: (075) 518 3571E-mail: nutridensefmc@yahoo.com.ph	**Dr. ARMANDO Q. GANAL** Regional Director, DOST-IDMMMSU-MLU Campus, Catbangen, San Fernando City, La UnionTel/Fax No.: (072) 888 3399E-mail:

REGION	NAME OF ESTABLISHMENT AND ADDRESS	PRODUCTS	BRANDING	CONTACT PERSON	DOST OFFICE
	Malanay, Sta. Barbara, Pangasinan				dostregion1@gmail.com/ od_namra@yahoo.com **Ms. FELICIDAD M. GAN** Provincial S&T Director, Pangasinan Alvear East Street, Lingayen, Pangasinan Fax. No.: (075) 529 1764
II	**FOOD INNOVATION CENTER - CAGAYAN STATE UNIVERSITY CARIG CAMPUS** Carig Sur, Tuguegarao City, Cagayan	RM RM Curls		**Dr. EVA MARIE C. DUGYON** President, CSU Tel. No.: (078) 304 0703 / 396 0102 Fax No.: (078) 304 1949 / 304 1104 E-mail: csudostfic@yahoo.com **Mr. DENNIS POLICAR** Program Manager, CSU	**Engr. SANCHO A. MABBORANG** Regional Director, DOST-II Dalan na Paccurofon cor. Matunung St., Regional Government Center, Carig Sur, Tuguegarao City, Cagayan Tel No.: (078) 396 0763 Fax No.: (078) 304 8654 E-mail: dost02.ord@gmail.com **Engr. SLYVIA T. LACAMBRA** Provincial S&T Director, Cagayan Nursery Compound, Bagay Road, Tuguegarao City Tel. No.: (078) 846 3301 Mobile No.: +63 917 5952 5679 **Engr. MARCELO G. MIGUEL** Provincial S&T Director, Isabela Sinabbaran Road, ISU Compound, San Fabian, Echague, Isabela Mobile No.: +63 998 552 9678 / +63 977 824 4360 E-mail: dostmigs@yahoo.com
	SMI MUNGGO PROCESSING FACILITY Brgy. San Marcos, San Mateo, Isabela	RMSB RM Crunchies	Nutri Blend Munggo Chips	**Mr. EMILIANO CAMBA** Officer-In-Charge LGU-San Mateo, Isabela Mobile No.: +63 917 108 6194 / +63 920 903 0045	
III	**COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-GUIGUINTO** Rosary Ville Subdivision Phase II, Brgy. Sta. Cruz, Guiguinto, Bulacan	RMSB RM Crunchies	SoooGud	**Ms. JOSEFINA JOAQUIN** Project Leader, MNAO LGU-Guiguinto, Bulacan Mobile No.: +63 933 560 6450 E-mail: joaquin.josie@yahoo.com	**Dr. JULIUS CAESAR V. SICAT** Regional Director, DOST-III Diosdado Macapagal Government Center, Maimpis, City of San Fernando, Pampanga **Ms. ANGELITA Q. PARUNGAO** Provincial S&T Director, Bulacan

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					2F Athlete's Bldg., BulSU Main Campus, McArthur Highway, City of Malolos, Bulacan Mobile No.: +63 932 855 7762 E-mail: dost.bulacan@yahoo.com.ph
IV-A	**ENRIQUE ZOBEL FOUNDATION, INC.** EZ Mart Compound, National Highway, Calatagan, Batangas	RMSBRM Crunchies	SIGLA	**Mr. JOSELITO B. RODRIGUEZ, Jr.** Executive Director, E. Zobel Tel/Fax No.: (043) 419 0084 Mobile No.: +63 917 577 7044 E-mail: enriquezobelfoundation@gmail.com	**Dr. ALEXANDER R. MADRIGAL** Regional Director, DOST-IV-AJamboree Road, Brgy. Timugan, Los Baños, Laguna Tel./Fax No.: (049) 536 4997 E-mail: alexrmadrigal@yahoo.com/ ivmasilungan@yahoo.com/ dost4a@gmail.com **Ms. FELINA C. MALABANAN** Provincial S&T Director, BatangasProvincial Engineering Compound, Kumintang Ilaya, Batangas City Tel. No.: (043) 723 6115 E-mail: fcmalabanan@dost.gov.ph/ felina_malabanan@yahoo.com **Ms. MARIA ESPERANZA E. JAWILI** Provincial S&T Director, Quezon2F Lianca Bldg., 177 Claro M. Recto St., Brgy. IX, Lucena City Tel. No.: (042) 710 6232 E-mail: dostquezon@yahoo.com
	COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-CALAUAG Calauag Livelihood Center, Calauag, Quezon	RMSB	LSV Mix	**Ms. KATHERINE P. RUBY, MD** Tel. No.: (042) 717 7129 Mobile No.: +63 998 575 7163	
	COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-MULANAY PUP-Mulanay Campus, Brgy. Sta. Rosa, Mulanay, Quezon	RMSB RM Crunchies	MULANAY	**Dr. ADELIA R. ROADILLA** Campus Director Mobile No.: +63 918 447 7750 **Ms. MARISSA P. CORTEZ** MPDO Mobile No.: +63 930 751 8169	
IV-B	**COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-BULALACAO** Brgy. Poblacion, Bulalacao, Oriental Mindoro	RMSB	Mete-Oryze		**Dr. MA. JOSEFINA P. ABILAY** Regional Director, DOST-IV-B MIMAROPA4F DOST-PTRI Bldg., Gen. Santos Ave., Bicutan, Taguig City Tel/Fax No.: (02) 837 2071 loc. 2092 E-mail: mjpabilay@yahoo.com/ mimaropa.dost@gmail.com/ dostmimaropa@dost.gov.ph **Ms. MA. ETHELWILDA G. CORONACION** Provincial S&T Director, Occ. MindoroHonrado "Ding" Lara Memorial Health Center, Lopez
	COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-SAN JOSE Acacia Park, Municipal	RMSB	MonRise	**Ms. LUCENA E. LAPUZ** President, BNSA Mobile No.:	

REGION	NAME OF ESTABLISHMENT AND ADDRESS	PRODUCTS	BRANDING	CONTACT PERSON	DOST OFFICE
	Compound, San Jose, Occidental Mindoro				Jaena Street, Brgy. 6, Poblacion, San Jose, Occidental Mindoro Tel/Fax No.: (043) 491 1372 E-mail: ethelcoronacion@yahoo.com.ph **JESSE M. PINE** Provincial S&T Director, Or. Mindoro2F HM Center Bldg., J.P. Rizal Street, Camilmil, Calapan City, Oriental Mindoro Tel/Fax No.: (043) 288 8791 E-mail: dost_ormin@yahoo.com **Engr. PACIFICO T. SARIEGO III** Provincial S&T Director, PalawanSta. Monica, Puerto Princesa City Tel/Fax No.: (048) 433 4369 E-mail: tabonman2002@yahoo.com
	COMPLEMENTARY FOOD PRODUCTION FACILITY OF LGU-BROOKE'S POINT Sitio Suring, Brgy. Pangonbilian, Brooke's Point, Palawan	RM	MONRICE	**Ms. SALVE CORAZON T. VILLARUEL** Municipal Civil Registrar Mobile No.: +63 936 658 0176 E-mail: mpdobrookespoint @yahoo.com lgubrookespointpalawan@yahoo.com	
V	**LGU-IRIGA FOOD PROCESSING CENTER** Zone 1, De Lima St., San Isidro, Iriga City, Camarines Sur	RMSB		**Ms. JEANNIE P. BOLIVAR** Nutrition Officer IIMobile No.: +63 920 248 5024 E-mail: jeanniebolivar@yahoo.com	**Dr. ROMMEL R. SERRANO** Regional Director, DOST-VRegional Center Site, Rawis, Legazpi City Tel/Fax No.: (052) 742 0911 E-mail: dost.ro5.ord@gmail.com **Ms. PATROCINIO N. FELIZMENIO** Provincial S&T Director, Cam. Sur2F Bicol Science Centrum, J. Miranda Ave., Naga City Tel. No. (054) 472 3827 E-mail: pstc_cs@yahoo.com **Ms. JOSIE D. ALBAO**
	COMPLEMENTARY FOOD PRODUCTION FACILITY AT CENTRAL BICOL STATE UNIVERSITY OF AGRICULTURE San Jose, Pili, Camarines Sur	RMSB RM Crunchies		**Ms. ROCELYN M. IMPERIAL** Project Head Mobile No.: +63 910 256 8330 E-mail: rocelynimperial@cbsua.edu.ph	

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VI	**INSUMIX PRODUCTION FACILITY (OFFICE OF THE PROVINCIAL AGRICULTURIST)** Roxas City, Capiz	RMSB	NUTRIBLEND	**Ms. IVY C. DE ASIS** PA II, PSTC-Capiz Tel. No.: (036) 522 1044 Mobile No.: +63 929 346 2580 E-mail: ivydeasis.dost6@gmail.com	**Engr. ROWEN R. GELONGA** Regional Director, DOST-VI Magsaysay Village, Lapaz, Iloilo City Tel. No.: (033) 330 1565 / 508 6739 Fax No.: (033) 320 0908 E-mail: rrgelonga@yahoo.com/ orddostvi@gmail.com/ marisol_77ph@yahoo.com **Mr. GERBE B. DELLAVA** Provincial S&T Director, Capiz CapSU Compound, Fuentes Drive, Roxas City, Capiz Tel. No.: (036) 522 1045 Mobile No.: +63 921 284 9610 E-mail: gdellava@gmail.com **Engr. ABRAHAM R. FABILA** Provincial S&T Director, Antique Old Provincial Capitol Bldg., San Jose de Buenavista, Antique Tel. No.: (036) 540 8025 **Engr. ALLAN FRANCIS P. DARA-UG** Provincial S&T Director, Negros Occ. Cottage Rd. (Fronting Hall of Justice), Bacolod City Tel No.: (034) 435 9175 Mobile No.: +63 905 283 6100 E-mail: afpdaraug@gmail.com
	COMPLEMENTARY FOOD PROCESSING FACILITY AT UNIVERSITY OF ANTIQUE - SIBALOM CAMPUS Mayor Santiago Lotilla St., Sibalom, Antique	RMSB RM Crunchies	BigMo	**Dr. MARIE ANN RAYMARO** Project Manager Mobile No.: +63 917 575 8653 **Dr. NANETTE DIONISIO** VP Research and Extension Mobile No.: +63 917 724 5075 E-mail: nanette_dionisio@yahoo.com	
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VIII	**CATARMAN COMPLEMENTARY FOOD PRODUCTION CENTER** Brgy. Old Rizal, Catarman	RMSB RM Crunchies	Monrise	**Ms. MYRNA T. LUCERO** Supervising Manager Mobile No.: +63 329 613 4148 Email: maesolgucatarman2019@gmail.com	**Engr. ERNESTO M. GRANADA** Officer-In-Charge, Office of the Director DOST-VIII Government Center, Palo, Leyte Tel. No.: (053) 323 6356 E-mail: dost8ord@gmail.com **Dr. JOHN GLENN D. OCAÑA** Provincial S&T Director, Leyte Government Center, Candahug, Palo, Leyte Tel. No.: (053) 323 5252 E-mail: jg_0815@yahoo.com **Engr. VERONICA A. LAGUITAN** Provincial S&T Director, Northern Samar University of Eastern Philippines Compound, Catarman, Northern Samar Tel. No.: (055) 251 7258 E-mail: val_dost@yahoo.com
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	COMPLEMENTARY FOOD PRODUCTION FACILITY OF MASAGANA RIC ZONE I ASSOCIATION Baybay City, Leyte	RMSB RM Curls	RiceMo		
IX	**LGU-TUNGAWAN LIVELIHOOD CENTER** Poblacion, Tungawan, Zamboanga Sibugay	RMRM Curls	BIMO	**Ms. GLORIA M. DELOS REYES** Mobile No.: +63 926 337 1773 E-mail: cfptungawan@gmail.com	**Mr. MARTIN A. WEE** Regional Director, DOST-IXPettit Barracks, Zamboanga City Tel. No.: (062) 991 1024 E-mail: mawee65@yahoo.com

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X	**COMPLEMENTARY FOOD PRODUCTION FACILITY AT XAVIER UNIVERSITY** 73 Corrales Ave.,Cagayan de Oro City, Misamis Oriental	RMSBRM Crunchies	BIGMO	**Ms. SLYVIA T. AGUHOB** Center Head Mobile No.: +63 929 359 6782 E-mail: staguhob.xu.ed.ph	**Dir. ALFONSO P. ALAMBAN** Regional Director, DOST XJ.R. Borja Memorial Hospital Compound Carmen, Cagayan de Oro City Tel. No.: (088) 858 3931 Mobile No.: +63 919 376 6158 E-mail: al.alamban@gmail.com dleoren2002ph@yahoo.com **Ms. EUFRESNIE ANN D. SIMBAJON** Officer-In-Charge Provincial S&T Director, Misamis Occidental Tel. No.: (088) 531 1332 Mobile No.: +63 908 861 6597 E-mail: eufresnie@yahoo.com **Engr. JUNELYN-LOUVENA B. RUIZ** Officer-In-Charge Provincial S&T Director, Misamis Oriental Tel. No.: (088) 880 3627 Mobile No.: +63 917 677 3336 E-mail: dost10mor@hotmail.com
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	COMPLEMENTARY FOOD PROCESSING FACILITY OF LGU-OZAMIZ Ozamiz City, Misamis Occidental	RMSB RM Crunchies	AweZamiz	**Ms. LELITA G. NAVAREZ** CNAO Mobile No.: +63 908 891 3243 E-mail: lelitgnavarez@yahoo.com	
XI	**FOOD INNOVATION CENTER - DAVAO DEL NORTE STATE COLLEGE** Panabo, Davao del Norte	RMSB RM Crunchies		**Dr. JESEBEL R. BESAS** Dean/Project Leader Mobile No.: +63 929 385 9301 E-mail: jillbesas@gmail.com **Ms. VANESSA S. EROY** Staff	**Dr. ANTHONY C. SALES, CESO III** Regional Director, DOST-XI cor. Friendship and Dumanlas Rds., Bajada, Davao City Tel. No.: (082) 227 5672 E-mail: dr.acs_dostxi@yahoo.com/ acsales@dost.gov.ph/

REGION	NAME OF ESTABLISHMENT AND ADDRESS	PRODUCTS	BRANDING	CONTACT PERSON	DOST OFFICE
				Mobile No.: +63 907 955 0479 E-mail: vanessaeroy@gmail.com	**Engr. JUDY DONNA D. NUEVA ECIJA** Provincial S&T Director, Davao del Norte Tel. No.: (084) 216 2415 E-mail: jdvdane.dost@gmail.com
XII	**SULTAN KUDARAT STATE UNIVERSITY, REGIONAL COMMUNAL FOOD PROCESSING CENTER** Tacurong City, Sultan Kudarat	RMRM Curls	BIMON	**Ms. EUFEMIA DAMPIL** Mobile No.: +63 932 283 8926 E-mail: eufemiadampil@gmail.com	**Engr. MAHMUD L. KINGKING** Officer-In-Charge, Office of the Director DOST-XIIORG Compound, Cotabato City Tel. No.: (064) 421 1586 E-mail: mail.dost12@yahoo.com **Engr. NORMINA P. PAHM** Provincial S&T Director, N. Cotabato Mobile No.: +63 917 752 2980 **Engr. SZALINAH S. MERCADO** Provincial S&T Director, Sultan Kudarat
	COMPLEMENTARY FOOD PROCESSING CENTER OF LGU-KIDAPAWAN De Mazenod, Kidapawan City, North Cotabato			**Ms. MELANIE EPINA** CNAO Mobile No.: +63 948 237 0612	
CARAGA	**COMPLEMENTARY FOOD PROCESSING CENTER OF LGU-GUIGAQUIT** Guigaquit, Surigao del Norte			**Ms. LORALYN O. TORREGOSA** SWO-I Mobile No.: +63 910 200 3216	**Dir. DOMINGA D. MALLONGA** Regional Director, DOST-CARAGA Caraga State University Campus, Ampayon, Butuan City Tel. No.: (085) 342 5684 E-mail: ddmay@yahoo.com/ dostcaraga@yahoo.com **Mr. GODOBERTO AMORA** Provincial S&T Director, Surigao del Norte Tel/Fax No.: (086) 826 5392 E-mail: godoberto_amora2000@yahoo.com

REGION	NAME OF ESTABLISHMENT AND ADDRESS	PRODUCTS	BRANDING	CONTACT PERSON	DOST OFFICE
BARMM	**MAMASAPANO - MAMAGAYON PEOPLE'S ORGANIZATION** Brgy. Manungkaling, Mamasapano, Maguindanao	RMSB	ALRISE-MO		**Engr. AIDA M. SILONGAN** Chief Minister, MOST-BARMM ORG Compound, Cotabato City

ANNEX 7. DOST-FNRI-developed food packs

Name of food pack	Developer	Target Groups	Serving Size (Grams)	Energy content (calories)	Protein content (g)	Cost per serving (PhP)
BigMo curls	FNRI/ Nutridense Food	1-3 yo	30	130	4	-
Rice mongo crunchies	FNRI/ Nutridense Food	1-3 yo	30	170	2	-
Rice mongo sesame	FNRI/ Nutridense Food	1-3 yo	30	130	4	-
Momsie	FNRI/ Nutridense Food	6mos-3 yo	25	145	3	16.00
RiMo curls	FNRI/ Nutridense Food	6-24 mos.	30	130	4	8.00
RiMo instant blend	FNRI/Long Live Pharma	6-24 mos.	30	120	4	7.50
SeMoRoz w/ malunggay (Sesame- Monggo Arroz)	Camino Nuevo Nutrition Center, Zamboanga City	6 mos. and above	50	182	6	-
Brown rice bar	FNRI/ Nutridense Food	-	25	110	3	25.00
Go & Grow MGM (Zn, Fe,I, Ca, Vit A, Folic acid)	FNRI/ Nutridense Food	1-3 yo	2	5	0	3.20
Nutri Dense Rice (iron-for tified)	FNRI/ Nutridense Food	-	65	230	4	45.00/k

ANNEX 8. Sample FNRI-developed recipes for PLW19


Ingredients:
Pork, kasim, cubed 2 ½ cups
Water for boiling 9 cups
Onion, bombay, sliced ¼ cup
Salt, iodized 1 tsp
Black pepper, whole 1 Tbsp
Kamote, yellow, cubed 1 ½ cups
Banana, saba, medium ripe, sliced 3 pcs
Baguio beans, sliced 2 cups
Pechay baguio, sliced 5 ½ cups
Procedure:
1. In a pan, combine pork and water. Cover and bring to a boil.
2. Lower the heat and simmer until the pork is tender.
3. Add onion, salt and pepper. Cover and bring to a boil. Simmer.
4. Add kamote and saba. Cover and simmer for 2 minutes.
5. Add baguio beans and pechay. Simmer for another 2 minutes.
Pork nilaga
5 Servings
Serving Size: 3 matchbox size pork + 1 1/4 cup vegetables
Total cooking time: 1 hour and 15 minutes
Cost per serving: Php 35.45
JULY 2017


Ingredients:
Procedure:
1. In a pan, heat oil. Deep fry tokwa until golden brown. Drain to remove excess oil. Set aside.
2. In another pan, heat oil. Sauté garlic, onion and kimchay.
3. Season with soy sauce, sugar, pepper and salt.
4. Add water. Cover and simmer for 5 minutes.
5. Add tokwa. Blend well. Simmer for another 5 minutes.
Tokwa steak
5 Servings
Serving Size: 12 slices
Total cooking time: 1 hour and 15 minutes
Cost per serving: Php 16.25
Ingredients:
Procedure:
1. Steam squash in a steamer for 15 minutes.
2. In a mixing bowl, mash the steamed squash. Set aside.
3. In a pan, heat oil. Sauté garlic and onion.
4. Add squash. Simmer for 5 minutes.
5. Add water. Season with salt and pepper. Cover and bring to a boil.
6. Add the milk and reduce heat to medium until nearly boiling. Do not let the soup boil or the milk will curdle.
7. Add sugar. Simmer for 1minute.
8. Add saluyot. Cook for 1 minute.
Squash soup with saluyot
5 Servings
Serving Size: 1¼ cups
Total cooking time: 1 hour and 5 minutes
Cost per serving: Php 12.10
AUGUST 2017


Ingredients:
Cooking oil 3 Tbsps
Ginger, crushed ¼ cup
Onion, Bombay, chopped 3 Tbsps
Garlic, crushed, chopped 3 Tbsps
Chicken, breast, fillet, sliced 3 cups
Salt, iodized 2 tsps
Papaya green, unripe, sliced 3 ¼ cups
Water 5 cups
Malunggay leaves 3 cups
Procedure:
1. In a pan, heat oil. Sauté ginger, onion, garlic and chicken. Cover and cook until chicken is tender.
2. Season with salt.
3. Add papaya. Cover and cook .
4. Add water. Bring to a boil and simmer for 10 minutes.
5. Add malunggay. Simmer for another 1minute.
Chicken tinola
5 Servings
Serving Size: 3 matchbox size chicken + 1 cup vegetables
Total cooking time: 1 hour and 25 minutes
Cost per serving: Php 33.30
SEPTEMBER 2017


Ingredients:
Galunggong, cleaned 15 pcs
Salt, iodized 2 tsp
Cooking oil for frying 4 cups
Procedure:
1. Clean and wash galunggong. Drain.
2. Season with salt.
3. In a pan, heat oil. Fry galunggong. Drain excess oil.
Fried galunggong
5 Servings
Serving Size: 3 pieces
Total cooking time: 45 minutes
Cost per serving: Php 44.40
Ingredients:
Procedure:
1. In a pan, heat oil. Sauté garlic, onion, tomato and alamang.
2. Add squash. Cover and cook for 15 minutes.
3. Add water. Simmer for 2 minutes.
4. Add okra, sitaw and eggplant. Simmer for another 5 minutes or until the vegetables are cooked.
Pinakbet
5 Servings
Serving Size: 1 cup
Total cooking time: 1 hour and 10 minutes
Cost per serving: Php 14.60
OCTOBER 2017


Ingredients:
Chicken, drumstick 10 pcs
Patis ½ cup
Calamansi juice 2 Tbsps
Garlic, crushed, chopped ¼ cup
Black pepper, ground ½ tsp
Cooking oil for frying 4 cups
Procedure:
1. Marinate chicken with patis, calamansi, garlic and pepper for 30 minutes to one hour.
2. In a pan, heat oil. Deep-fry chicken until golden brown or cooked.
3. Drain the excess oil.
Fried chicken
5 Servings
Serving Size: 2 pieces
Total cooking time: 50 minutes
Cost per serving: Php 37.40
Ingredients:
Procedure:
1. In a bowl, combine cabbage, carrot, apple and raisin. Toss lightly.
2. In another bowl, combine mayonnaise, salt and sugar. Blend well.
3. Pour dressing on prepared salad. Toss lightly.
4. Chill for 1 hour before serving.
Coleslaw
5 Servings
Serving Size: 1 cup
Total cooking time: 55 minutes
Cost per serving: Php 25.15
DECEMBER 2017


featured recipe
Ingredients:
Cooking oil 3 Tbsps
Garlic, crushed, chopped 3 Tbsps
Onion, Bombay, chopped 3 Tbsps
Chicken, breast, fillet, strips 3 cups
Soy sauce 1/3 cup
Salt, iodized 1 tsp
Black pepper, ground ¼ tsp
Sugar, white 2 Tbsp
Cauliflower, sliced 3 cups
Carrot, sliced 2 cups
Baguio beans, sliced 2 cups
Bell pepper, red, strips ½ cup
Water ½ cup
Procedure:
1. In a pan, heat oil. Sauté garlic, onion and chicken. Cover and cook until chicken is tender.
2. Season with soy sauce, salt, pepper and sugar.
3. Add cauliflower, carrot, baguio beans, bell pepper and water.
4. Cover and bring to a boil. Simmer for 10 minutes.
Chopsuey with chicken strips
5 Servings
Serving Size: 3 matchbox size chicken + 1 ¼ cups vegetables
Total cooking time: 1 hour and 25 minutes
Cost per serving: Php 54.10

ANNEX 9. Guide to Quantification of Recipes

To achieve the target level of supplementation, there is a need to use recipes that have been standardized so that each serving of the recipe will, more or less, provide the targeted level of calorie and protein supplementation.

While dietary supplementation programs may use standardized recipes of FNRI, local managers and implementors may opt to develop more recipes based on what are commonly eaten in the locality.

State universities and colleges offering nutrition and related courses may also be tapped for developing standardized recipes.

However, if an LGU is interested in developing its own standardized recipes, the following steps can be used.

1. Start with an already existing recipe that indicates in detail the ingredients, quantity of ingredients and preparation method. To the adventurous, one can "invent" one's recipe that will indicate the ingredient, quantity of each ingredient and the preparation method.

2. Using the chosen recipe, prepare the dish, following the quantity of each ingredient. The ingredients may be weighed for better accuracy or households measuring tools may be used. The final cooked dish should also be weighed and measured using household measuring tools like measuring cups or the probable utensil that will be used to dish out the hot meals in the dietary supplementation program, e.g. ladle or coffee cup.

3. Calculate the nutrient content (calories, protein, vitamin A, iron, and calcium) of the dish prepared using the FNRI Food Composition Table.

4. Divide the calculated nutrient content by the target calorie level (if a range is targeted, the mid-point may be used. The upper limit may be used). The resulting quotient is the number of servings that the prepared dish can yield to meet the target level of calorie supplementation.

5. Validate if the target content is reached with the serving size. If the serving size does not meet the target level of protein, adjust the serving size so that the target protein level is achieved. Recheck the level of calorie supplementation to make sure that it does not go way beyond the upper limit of the target level of supplementation.
6. Calculate the cost of the recipe, i.e. sum of cost of all ingredients used. Divide the total cost by the number of servings per steps 5-7. This will be the unit cost of the dish.

7. Repeat steps 2 – 5 several times, e.g. 3 times to determine if about the same yield and serving size is obtained.

8. The average of the trials can be used for the final recipe.

9. In doing this process, observing the serving size to ensure that its bulk can be consumed in one sitting.

10. To adjust the recipe for a dietary supplementation program, the following steps can be followed"

    a. Determine the estimated number of participants in a hot-meal session, e.g. 15? 20? 25? 30?

    b. Divide the estimated number of participants with the total number of servings that the standardized recipe can produce. The resulting quotient is the factor that will be applied to the main ingredients. For instance, if a standardized recipe will produce 6 servings and if the expected number of participants in a hot meal session is 25, the factor to apply would be 4.2 from 25/6.

    c. Apply the factor to each of the ingredients in the recipe. This is now the standardized recipe for the estimated number of participants. This can be used for preparing the market list.

ANNEX 10. Sample Registry of Participants

The following are samples of a registry of participants in a dietary supplementation program. The proponent NGA, NGO or LGU may decide on how the registry will be set up. It could consist of individual cards per participant.

<table>
<tr><td colspan="4">DSP Registry</td><td colspan="2">Pregnant women</td></tr>
<tr><td colspan="3">Province</td><td colspan="2">City/Municipality</td><td>Barangay</td></tr>
<tr><td colspan="4">Name (Family Name, Given Name, Middle Initial)</td><td colspan="2">Registration number</td></tr>
<tr><td colspan="6">At enrollment</td></tr>
<tr><td>Date (MM/DD/YYYY)</td><td>Age</td><td>Month of pregnancy</td><td>Parity</td><td colspan="2">Expected date of delivery (MM/YYYY)</td></tr>
<tr><td colspan="2">Weight (In kg)</td><td colspan="2">Height (In cm)</td><td colspan="2">Weight-for-height status
___ Normal
___ Nutritionally-at-risk</td></tr>
<tr><td colspan="6">Participation in dietary supplementation ____ No. of hot meal sessions participated in
____ No. of days of food ration received.</td></tr>
<tr><td colspan="6">Participation in complementary services</td></tr>
<tr><td colspan="6">Total number of prenatal visits at end of dietary supplementation _____</td></tr>
<tr><td colspan="4">Tetanus toxoid immunization ___ Yes ___No</td><td colspan="2">Deworming ___ Yes ___No</td></tr>
<tr><td colspan="6">Iron-folic acid supplementation
No. of iron-folic acid tablets received _____ No. of iron-folic acid tablets consumed _____</td></tr>
<tr><td colspan="6">Nutrition education classes participated in, number of sessions _____</td></tr>
<tr><td colspan="6">Other services, e.g. referral of family member to income generating activities</td></tr>
<tr><td colspan="4">Date of delivery (MM/DD/YYYY</td><td colspan="2">Birthweight of infant in kg</td></tr>
</table>

DSP Registry				**6-23 mos old**
Province	City/Municipality			Barangay
Name (Family Name, Given Name, Middle Initial)				Registration number
Name of mother (Family Name, Given Name, Middle Initial)				Occupation
Name of father (Family Name, Given Name, Middle Initial)				Occupation
At enrollment				
Date (MM/DD/YYYY)	Birthday	Age in months	Child No	Weight, in kg _____ Height, in cm _____
Weight-for-height status _____ Wasted _____ Severely wasted _____ Not wasted				Height-for-age status _____ Stunted _____ Not stunted
Participation in dietary supplementation				____ No. of hot meal sessions participated in ____ No. of days of food ration received.
Participation in complementary services				
Total number of prenatal visits at end of dietary supplementation _____				
Immunization (Type and date)				Deworming ___ Yes ___No Date
Vitamin A supplementation (Date) _____				
Micronutrient powder _____ Given as part of hot meal _____ Given as part of food ration, no of packs				
Developmental milestone assessment, date/s _____				
Other services, e.g. referral of family member to income generating activities, provision of facilities for WASH, 4Ps, etc				
Date of last day in the program (MM/DD/YYYY				Weight, in kg _____ Height, in cm _____
Weight-for-height status _____ Wasted _____ Severely wasted _____ Not wasted				Height-for-age status _____ Stunted _____ Not stunted

A form can also be used such that all information needed are set in a column, and the name of participant is added as new one are enrolled in the program. If resources allow, the registry can be in the form of a computerized data base that can generate various reports. This can be worked out with the local information technology office.

ANNEX 11. Sample Sheet and Attendance Sheet

Having an attendance sheet is useful to track attendance of participants. Participants who fail to participate in the dietary supplementation session should be visited at home to determine the reason for the absence and institution of needed actions to ensure regular attendance.

The suggested attendance sheet below is just for 30 days or one month. Additional sheets may be used for the next months.

The attendance sheet should be kept on file for reference in validating accomplishments. They could also be used in reporting on the dietary supplementation program, especially to the local chief executive and the local *Sanggunian*.

Name of participant	Day No/Date																													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30