

THE PHILIPPINE PLAN OF ACTION FOR **NUTRITION** 2017–2022

Sa PPAN, panalo ang BAYAN!

A call for urgent action for Filipinos and its leadership.



Philippine Plan of Action for Nutrition 2017-2022

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NNC Governing Board Resolution Approving and Adopting the Philippine Plan of Action for Nutrition (PPAN) 2017-2022

Republic of the Philippines
NATIONAL NUTRITION COUNCIL

NNC GOVERNING BOARD RESOLUTION

Resolution No. 1, Series of 2017

Approving and Adopting the Philippine Plan of Action for Nutrition (PPAN) 2017-2022

WHEREAS, maternal and child undernutrition continue to be of alarming levels in the Philippines as reported by the National Nutrition Surveys conducted by the Food and Nutrition Research Institute;

WHEREAS, these nutritional problems have economic and social costs to the country;

WHEREAS, these nutritional problems deprive Filipinos of their right to food and good nutrition;

WHEREAS, the country has committed to pursue the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, particularly the goal on ending hunger, achieving food security, and improving nutrition; and the Global Targets 2025 for Maternal, Infant and Young Child Nutrition;

WHEREAS, global evidence has established the need for nutrition-specific and nutrition-sensitive interventions, the former referring to interventions that address the immediate causes of undernutrition most of which are in the health sector and the latter to interventions that have other objectives but have been tweaked to contribute to nutritional outcomes, and enabling strategies;

WHEREAS, the attainment of nutritional well-being is a main responsibility of families but duty bearers like government organizations and non-government organizations should help the families especially the marginalized, to be able to provide for their own nutritional needs;

NOW, THEREFORE, BE IT RESOLVED AS IT IS HEREBY RESOLVED, in consideration of the foregoing, we the National Nutrition Council Governing Board as the country's highest policy-making body on nutrition do hereby approve and adopt the PPAN 2017-2022;

RESOLVED FURTHER, that we commit our departments or agencies or organizations to:

1. Pursue the programs and projects herein specified and continue to identify new ones in the course of the plan's implementation and in ensuring availability of needed resources;
2. Ensure the availability of needed resources, by, among others, including related budgetary requirements in the agency budget proposal;

3. Ensure reporting of related physical and financial accomplishments and nutrition statistics as applicable;
4. Advocate for nutrition to be a perspective and component of our policies, plans and programs;

RESOLVED FURTHER, for the National Nutrition Council Secretariat to ensure that the plan is disseminated as widely as possible to enable stakeholders to align their efforts along the priority concerns;

RESOLVED FURTHER, for the National Nutrition Council Secretariat to facilitate the formulation of annual program plans for the PPAN 2017-2022;

RESOLVED FURTHER, for the National Nutrition Council Secretariat in coordination with relevant agencies, to complete the results framework and to facilitate the formulation of annual program plans thereafter;

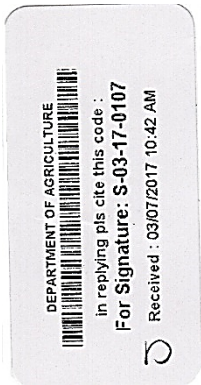
RESOLVED FURTHER, for the National Nutrition Council Secretariat to monitor and to ensure the full implementation of this resolution.

Approved this 21st day of February 2017.

PAULYN JEAN B. ROSELL-UBIAL, MD, MPH, CESO II
Secretary of Health and Chairperson
National Nutrition Council Governing Board

Attested:

Assistant Secretary of Health Maria-Bernardita T. Flores, CESO II
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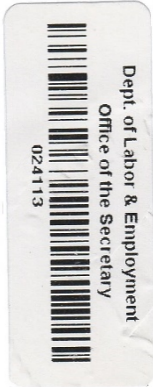
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ACKNOWLEDGEMENT

The NNC thanks all the stakeholders and partners who took part in the development of the Philippine Plan of Action for Nutrition 2017-2022.

We recognize the continued support of various agencies and personalities who participated in various consultations. They are the Officers and members of the Board of the Luzon Visayas Mindanao BNS Federation, the District/City Nutrition Program Coordinators Association of the Philippines, and Nutrition Action Officers Association of the Philippines; representatives from government agencies, specifically DA, DBM, DepEd, DOH, DOST-FNRI, DSWD, DTI, FDA, NAPC, NEDA, NFA, PCA, Office of the Cabinet Secretary; non-government agencies, particularly the Philippine Coalition of Advocates for Nutrition or PhilCAN represented by ICM, IIRR, KMI, SCF, *Kabisig ng Kalahi* Inc.; development partners particularly, FAO, UNICEF, WFP, WHO, the academe (Ateneo, UPLB-BIDANI), and the LGU of Calamba.

We likewise express our appreciation to Dr. Juan Solon of the Nutrition Center of the Philippines for sending very incisive comments and Dr. Rodolfo F. Florentino, who while long retired continues to participate in efforts to achieve good nutrition in the Philippines.

PPAN 2017-2022 was formulated with technical support from a team of consultants led by Cecilio L Adorna. Members of the consulting team are: Dr. Corazon VC. Barba, Mr. Richard Prado, Dr. Jocelyn Juguan, Ms. Ellen Villate, Ms. Mary Ann Maglipon, Ms. Maru Tinio, Ms. Rhea De Leon, and Mr. Michael Timbang. The Micronutrient Initiative and UNICEF provided funding support for plan formulation.

Philippine Plan of Action for Nutrition 2017-2022

A call to urgent action for Filipinos and its leadership

The Philippine Plan of Action for Nutrition (PPAN) 2017-2022 is an integral part of the Philippine Development Plan 2017-2022. It is consistent with the Duterte Administration 10-point Economic Agenda, the Philippine Health Agenda, the development pillars of *malasakit* (protective concern), *pagbabago* (change or transformation), and *kaunlaran* (development), and the vision of *Ambisyon 2040*. It factors in and considers country commitments to the global community as embodied in the 2030 Sustainable Development Goals, the 2025 Global Targets for Maternal, Infant and Young Child Nutrition, the 2014 International Conference on Nutrition.

It is a results-based plan with SMART results at different levels designed in a results framework.

It consists of 8 nutrition-specific programs, 5 major categories of nutrition-sensitive programs, and 3 enabling programs. Member agencies of the National Nutrition Council (NNC), namely, Department of Health, Department of Agriculture, Department of Social Welfare and Development, Department of Education, Department of Budget and Management, Department of Labor and Employment, Department of Trade and Industry, National Economic Development Authority, Department of Interior and Local Government, and the Department of Science and Technology, other national government agencies, local government units (LGUs), non-government organizations (NGOs), academic institutions, and development partners can undertake one or more of these programs. For better accountability, a member agency of the NNC Governing Board has been designated as lead for these programs. For some programs, the designated lead is the NNC Secretariat.

At the regional level, a Regional Plan of Action for Nutrition (RPAN) will be formulated to capture initiatives of regional offices of member agencies of the Regional Nutrition Committee along the PPAN programs for 2017-2022. The National PPAN Implementation Plan will be updated annually.

At the local level, local nutrition committees will formulate or reformulate their respective nutrition action plans (LNAPs). These plans, while formulated along the PPAN programs, will consider the locality's nutrition problems, and causes. Per guidelines these LNAPs should cover the three-year term of the local chief executive, and relevant items integrated in the annual investment program of the LGU.

The National Nutrition Council Secretariat led and coordinated plan formulation. Plan formulation started with the conduct of a nutrition landscape analysis commissioned by NNC with support from Micronutrient Initiative, now Nutrition International, and the United Nations

Children's Fund (UNICEF). A team of Filipino consultants conducted the assessment from August to October 2016 using landscape analysis based on document reviews, focus group discussions, key informant interviews, inter-sectoral consultations, and validation meetings with a wide range of stakeholders. The results of the analysis are contained in a separate document "Situation Analysis of Nutrition in the Philippines". However, its key findings are in the first part of the plan document.

Plan formulation was participatory, inter-sectoral, and multi-level. It engaged the participation of the NNC member agencies and their department senior officials at the national and regional levels as well as members of provincial and municipal nutrition committees of LGUs where the FGDs were held, i.e., 6 regions, 5 provinces, and 22 cities and municipalities.

Two consultation meetings, prior to the drafting of the plan and after the plan was drafted, were convened to ensure a wide participation in plan formulation. The first round of consultation with an inter-sectoral group of 16 agencies joined by development partners and the academe was held in Tagaytay City on 12-16 September 2016. During the consultation, the national nutrition situation was reviewed together with issues related to policy and program formulation and implementation. The overall strategy and programs for PPAN 2017-2022 was agreed on during this consultation.

The second round of consultation was held in Cebu on 17-18 November 2016. During this consultation, more specific directions for the programs identified in the Tagaytay workshop were discussed and refined.

This was followed by two more meetings of the NNC Technical Committee on 23 November 2016, and 12 January 2017 before the final approval of the NNC Governing Board on 21 February 2017.

Even as the PPAN 2017-2022 was being formulated, related concerns were brought into discussions of relevant sectors of the Philippine Development Plan, e.g. agriculture, fisheries and forestry.



SITUATIONAL ANALYSIS

1.1 Snapshot of the Nutrition Situation in the Philippines

The nutrition situation in the country in 2016 is alarming. The snapshot below gives a loud call to action.

Current indicators of nutritional status show the prevalence of wasting, stunting, micronutrient deficiencies and overweight among children and women are high and of public health significance.

The trend of indicators of nutritional status shows a lack of improvement and in some cases worsening from 2003-2015.

The country did not reach major targets in the two six-year (2005-2010 and 2011-2016) Philippine Plans of Action for Nutrition and the food and nutrition security goals of the Millennium Development Goals (MDGs).

The cost of malnutrition in the country in terms of mortality and productivity, has reached excessive levels for the country to ignore. Child malnutrition is associated with the two major diseases affecting children and with about half of under-five mortality.

The Philippines' nutritional status ranks among the poorest among ASEAN and other developing countries.

Higher prevalence of malnutrition is exhibited in Regions ARMM, Eastern Visayas, MIMAROPA, geographically isolated and disadvantaged areas (GIDAs), territories where indigenous peoples are living, regions vulnerable to climate and man-made disasters including conflict. There appears to be a pattern associating malnutrition with poverty, isolation, vulnerability to natural and man-made disasters. Added to this is the growing prominence of adolescent pregnancy.

While recent poverty and hunger reports in 2016 show a decline in the incidence of poverty and hunger, food security is precarious, particularly among the poor who constitute a significant proportion of Filipino households.

1.2 Manifestations of Nutritional Problems

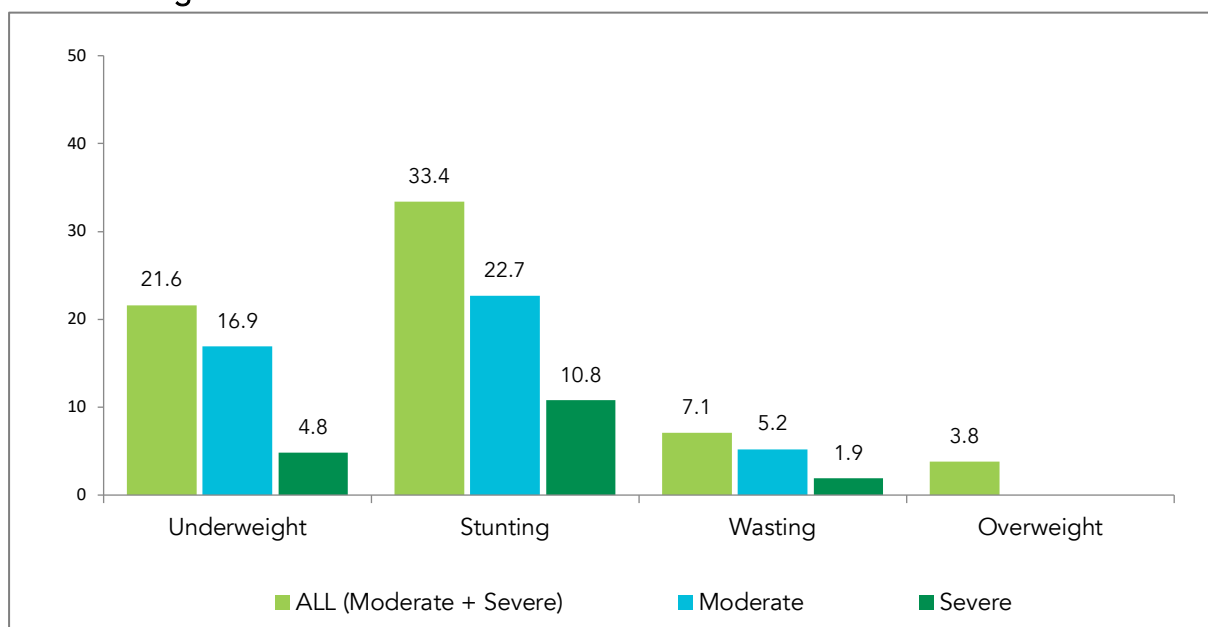
1.2.1 Current State of Malnutrition

Of the total 11.4 million preschool children, 33.4 percent are stunted, equivalent to 3.8 million children. There are 807,057 (7.1 percent) wasted children 0-59 months. Overweight children are estimated at 443,313 (3.9 percent) in 2015, a condition that often has its origin in childhood malnutrition (**Figure 1**). For the older 5-10 years and the 10.08-19 years old, the corresponding figures are 8.6 percent and 9.2 percent, equivalent to about 927,000 children and 1.7 million children, respectively. Overweight and obesity are two forms of overnutrition. While there is an indication that overnutrition is an emerging concern in children 0-19 years old, this is overt in adults 20 years and above. In 2015, three in ten (31.1 percent) adults were overweight/obese.

Deficiency in key nutrients in child survival, iron, and vitamin A, remain a public health concern among infants 6-11 months, while iodine deficiency disorders (IDD), critical in brain development of the unborn and very young child, has not been eliminated among pregnant and lactating women.

Hunger continues to be a major concern as 69.0 percent (about 15.8 Filipino households) were reported as not meeting the recommended energy intake in 2015.

Figure 1. Prevalence of Malnutrition in Children Under Five Years Old

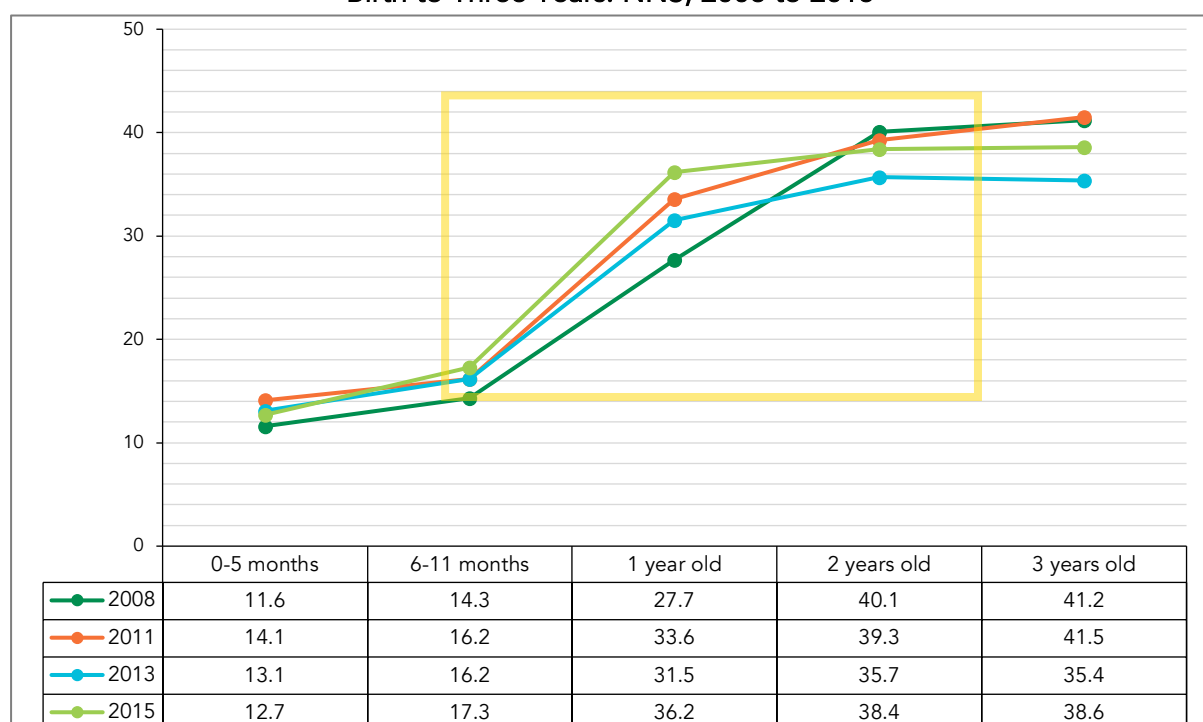


Source: 2015 NNS, DOST-FNRI

1.2.2 Stunting in the First 1000 days is irreversible.

Four National Nutrition Surveys (NNS) from 2008 to 2015 consistently show that between 10 and 15 percent of children below six months are already stunted and at this level, stunting is considered a low public health problem but a problem, nonetheless. Between the 6-11 months of life, the stunting prevalence worsen and continue to get worse in the second year, then plateau between the second and third year. **Figure 2** clearly illustrates the pattern of deterioration and subsequent prevalence of stunting in later life suggests that the damage has been done by the first two years in a child’s life.

Figure 2. Trends in the Prevalence of Stunting in Children from Birth to Three Years: NNS, 2008 to 2015

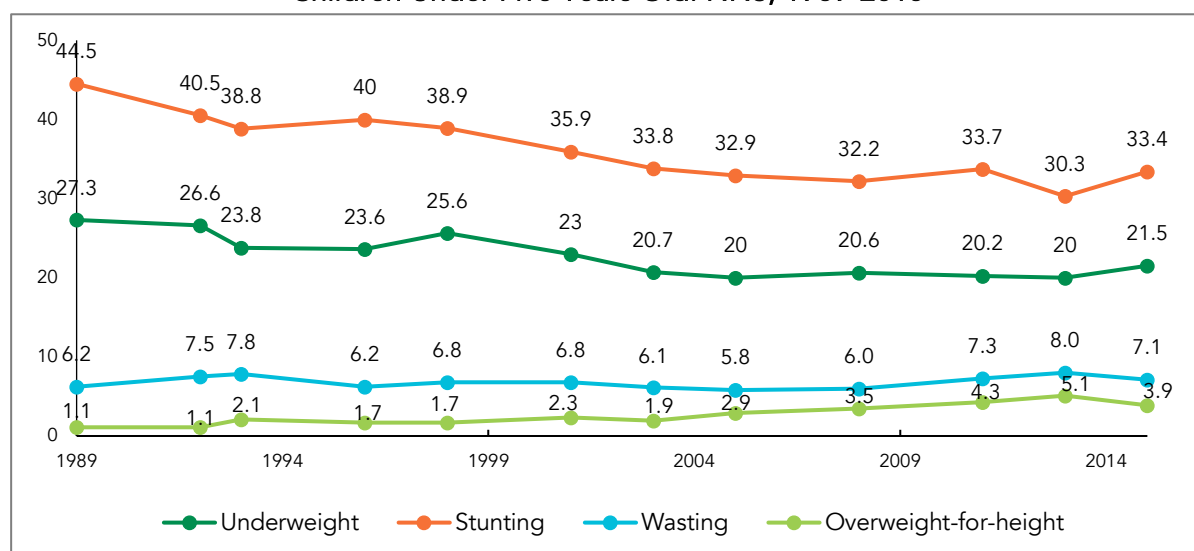


Source: 2015 NNS, DOST-FNRI

1.2.3 Trends in child malnutrition

The trend in four major indicators of nutritional status is also worrying. **Figure 3** shows the trends from 2003 to 2015, equivalent to about 13 years and coincides largely with the two six-year PPANs of 2005-2010 and 2011-2016. The problems of underweight and stunting have not changed significantly from their levels between 2003 and 2015 while the problem of wasting and overweight even worsened. Wasting at 7.1 percent as per 2015 NNS is above the threshold that WHO considers of public health significance.

Figure 3. Trends in the Prevalence of Malnutrition among Children Under Five Years Old: NNS, 1989-2015



Source: 1989-2015 NNS, DOST-FNRI

1.2.4 Performance of PPAN and MDG

Table 1 shows the PPAN 2005-2010 and 2011-2016 targets and accomplishment.

In the PPAN 2005-2010, targets were defined for underweight and stunting and for micronutrient deficiencies but were left undefined for wasted children under-five and thin children 6-10 years old, as well as for overweight and obesity.

Of the 16 listed targets, only five were achieved and the rest were not. Worth noting is that the target for underweight children under five years old was achieved (target: 21.6%, 2011 NNS: 20.2%) while the target for stunting (25.4%) was missed (2011 NNS: 33.6%).

Among the micronutrient deficiencies, the targets for anemia in pregnant and lactating women were met, while the target for infants and preschool children was not met. For vitamin A deficiency (VAD), the targets for pregnant women and lactating mothers were achieved but not for pre-school children 6-60 months old. The targets for iodine deficiency disorders (IDD) reduction in children 6-12 years old was achieved but not for pregnant women and lactating mothers. Figures in red font indicate that target was not achieved based on the results of the NNS.

Table 1. Performance of PPAN 2005-2010 and PPAN 2011-2016

Prevalence/Proportion (%)	Target, PPAN 2005-2010	NNS data, 2008 and 2011	Target, PPAN 2011-2016	NNS data, 2013 and 2015
HUNGER				
Households with inadequate calorie intake	44.0	66.9	32.8	69.0
UNDERWEIGHT-FOR-AGE, STUNTING, WASTING				
Underweight under-five children	21.6	20.2	12.7	21.5
Stunted under-five children	25.4	33.6	20.9	33.4
Wasted under-five children	N/A	7.3	<5.0	7.1
Underweight children 5-10 years old (IRS)	22.6	32.0	21.8	31.2
Thin children 5-10 years old	N/A	8.5	8.1	8.3
CED among pregnant women (2005-2010) or nutritionally- at-risk pregnant women (2011-2016)	20.9	25.0	22.3	24.7
Low birth weight	contribute to reduction in LBW ¹	19.6	< 19.6	21.0 ²
OVERWEIGHT & OBESITY				
Children, 0-59 months old	N/A	4.3	≤3.3	3.9
Children 5-10 years old	N/A	7.4	≤6.5	8.5
Adults, 20 years and above	N/A	28.4	≤26.6	31.1
MICRONUTRIENT DEFICIENCIES				
Anemia, percent with hemoglobin level below recommended level				
Infants (6-11 months old)	41.7	55.7	<40	40.5
One-year old children	N/A	No data	<40	24.7
Children 1-5 years old	15.1	20.9	N/A	11.2
Children 6-12 years old	25.5	19.8	N/A	11.1
Pregnant women	42.1	42.5	<40	24.6
Lactating mothers	N/A	31.4	<40	16.7
Vitamin A deficiency (VAD), percent of population with low to deficient serum retinol, umol/L				
Pre-school children, 6-60 months	14.9	15.2	<15	20.4
Pregnant women	10.9	9.2	<15	9.0
Lactating mothers	14.9	6.0	<15	5.0
Iodine deficiency based on urinary iodine concentration (UIC)				
Children, 6-12 years old				
Median UIE (ug/L)	At least 100	132	At least 100	168
Moderate and severe (%)	<20%	19.7	<20%	14.6
Pregnant women				
Median UIE (ug/L)	N/A	105	At least 150	105
Lactating mothers				
Median UIE (ug/L)	N/A	81	At least 100	77
Moderate and severe (%)	20.0%	34.0	N/A	34.3

¹Low birth weight in 2003 was 20.3 percent, according to the National Demographic and Health Survey (NDHS)

²LBW data from NDHS

N/A – no target set

Sources: National Nutrition Council; Food and Nutrition Research Institute; and Philippine Statistics Authority

PPAN 2011-2016 had 22 outcome targets, only seven of which were achieved.

Four key PPAN outcomes for underweight, wasting, stunting and overweight are included in those targets that were not met. As a signatory to the Millennium Declaration, the Philippines committed to achieve the targets and milestones of the Millennium Development Goals in 2015: elimination of extreme poverty and hunger, halving the prevalence of underweight in children under five years old, and halving the proportion of households meeting the minimum calorie requirement between 1990 and 2015. The NNS data from 1989 to 2015 were used to track the country's progress and achievements in these indicators.

Halving the 27.3 percent 1989 baseline means a target prevalence of 13.6 percent in 2015, requiring annual reductions of 0.53 percentage points. At the end of MDG period, the actual prevalence of underweight among children less than five years old is 21.5 percent, eight percentage points off target. Halving the 1993 prevalence of 74.2 percent households who had deficient energy intakes to 37.1 percent in 2015 could not be achieved. The NNS result in 2015 for households who had deficient energy intakes stood at 69.0 percent.

1.2.5 Cost of malnutrition to the economy

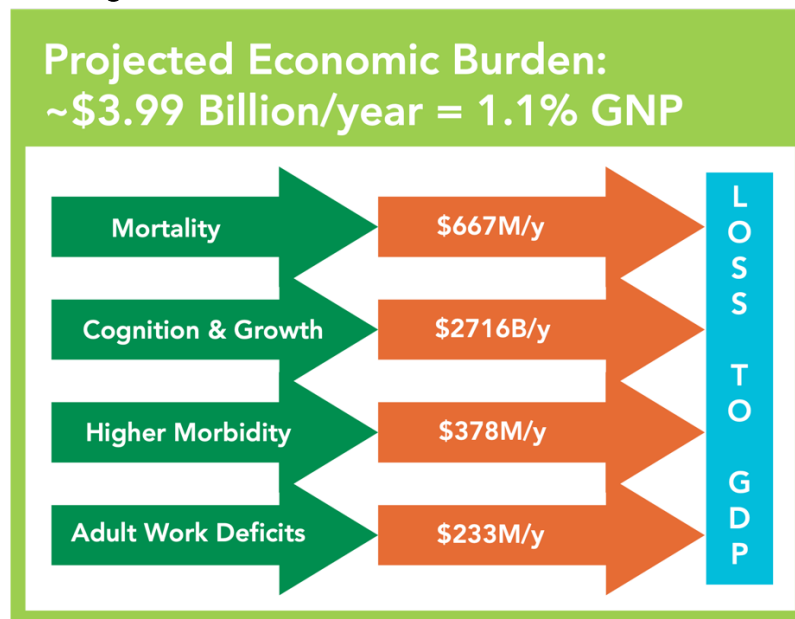
The Philippine economy lost a total of Php 328 billion in 2013 due to the impact of child stunting on education and productivity, equivalent to 2.84 percent of the country's gross domestic product (Save the Children Philippines, 2016)¹. The cost covers grade-level repetition based on the Department of Education data and productivity loss due to low grade level achievement or premature deaths among economically active adults.

The estimate of Save the Children, while higher than the estimate of the UNICEF study, is consistent. The latter study estimated about USD 3.99 billion annual cost of the status quo of nutrition programming in the Philippines.

¹The costs of grade-level repetitions and keeping primary and secondary students in school was calculated at 1.23 billion pesos, equivalent to 0.01 percent of the 2013 GDP. There were 48,597 stunted students from the total repeater population of 330,418. Grade-level repetition in 2013 was 33 percent higher among the stunted before age five compared to those who were not and were more common among primary students. Forty-three (43) percent of the total cost was shouldered by the families; the rest was subsidized by the public education system. Stunting among all the indicators, is considered to be more predictive of economic outcomes like productivity and income (Hoddinott et al., 2013 cited in Save the Children Philippines, 2016).

Estimates of workforce productivity loss due to child stunting amount to 326.5 billion pesos or 2.83 percent of the GDP. They consist of 166.5 billion pesos for lost income because of lower education level achieved by workers who suffered childhood stunting and 160 billion pesos for productivity loss due to 830,000 premature deaths of potential workers. The 57 percent of working-age population who were stunted during their early years have lower completed years of schooling (5.74 years compared to 7.16 years for the non-stunted). Less work opportunities and reduced potential income translate to 1.44 percent of the GDP. On the other hand, premature under-5 deaths among stunted children leads to complete loss of potential income or 1.39 percent of the GDP.

Figure 4. Economic Burden Due to Undernutrition



Source: UNICEF Philippines, 2016

The costs go beyond the dimensions used in both studies. The status of malnutrition and the lack of progress over more than a decade is of great concern and an urgent call for more effective programs and management to bring about improved nutrition for the population, especially children and women.

The costs of grade-level repetitions and keeping primary and secondary students in school was calculated at 1.23 billion pesos, equivalent to 0.01 percent of the 2013 GDP. There were 48,597 stunted students from the total repeater population of 330,418. Grade-level repetition in 2013 was 33 percent higher among the stunted before age five compared to those who were not and were more common among primary students. Forty-three (43) percent of the total cost was shouldered by the families; the rest was subsidized by the public education system. Stunting among all the indicators, is considered to be more predictive of economic outcomes like productivity and income (Hoddinott et al., 2013 cited in Save the Children Philippines, 2016).

Estimates of work force productivity loss due to child stunting amount to 326.5 billion pesos or 2.83 percent of the GDP. They consist of 166.5 billion pesos for lost income because of lower education level achieved by workers who suffered childhood stunting and 160 billion pesos for productivity loss due to 830,000 premature deaths of potential workers. The 57 percent of working-age population who were stunted during their early years have lower completed years of schooling (5.74 years compared to 7.16 years for the non-stunted). Less work opportunities and reduced potential income translate to 1.44 percent of the GDP. On the other hand, premature under-5 deaths among stunted children leads to complete loss of potential income or 1.39 percent of the GDP.

1.2.6 Malnutrition is associated with child mortality and morbidity

The cost-estimates already factor the improvement in child mortality rate (CMR) over the past decades.

The Philippines' mortality rate dropped from 80 to 30 deaths out of 1,000 live births from 1990 to 2011. The infant mortality rate (IMR) also decreased from 57 to 22 in the same year. According to the Department of Health's data, pneumonia, diarrhea, and congenital anomalies are the leading causes of death among children below 5 years of age. On the other hand, bacterial sepsis, pneumonia, and respiratory distress are the top leading causes of infant mortality. Most of these deaths are due to infections and parasitic diseases, and many if not most of the children die malnourished.

The "malnutrition-infection" complex remains the most serious public health problem in the world today. The 2013 National Demographic and Health Survey (NDHS) shows that the child mortality in ARMM (54/1000), SOCCSKSARGEN (52/1000), Northern Mindanao (44/1000), and MIMAROPA (42/1000) and in CARAGA (38/1000) is about double and more than double in these Mindanao Regions and the MIMAROPA. Malnutrition in terms of wasting and vitamin A deficiency levels in these regions are of primary concern. Globally, about 45 percent of child mortality is associated to malnutrition. While nutrition and health are closely linked, there is no death certification in the country that ascribes death to malnutrition either as primary or secondary cause.

1.2.7 Comparative position of the Philippines with similar countries.

The Philippines lags in nutritional outcomes in comparison to its ASEAN neighbors and other developing countries: second shortest in the ASEAN region, ninth among the 14 countries that account for 80 percent of burden in stunting (**Figure 5**), and tenth among countries with highest burden in wasting (**Figure 6**). Despite a small population, the country surprisingly ranked high in the wasting problem, together with countries like India, Bangladesh, Nigeria, and Pakistan that have much larger population than the Philippines.

It is sad to note that as the Philippines experiences stagnation in malnutrition, other countries in the region have shown rapid improvements. In China, stunting decreased from more than 30 percent in 1990 to 10 percent in 2010². In Vietnam, underweight among under-five children was reduced from 44 percent in 1994 to 17 percent in 2010. In Thailand, the rate of underweight children was halved from 50 percent to 25 percent in the period 1980 to 1986. What is common among these three countries is that they have become part of the Scaling Up Nutrition (SUN) Movement and all three countries have adopted strategies that position nutrition central to the country's development.

²Source: MDG Achievement Fund. (n.d.). Vietnam leads drop in child malnutrition. Retrieved from <http://www.mdgfund.org/node/3384>

Figure 5. Ranking of Countries with the Highest Burden of Stunting

Ranking	Country	Year	Stunting prevalence (%)	% of global burden	Number of stunted children (moderate or severe, thousands)
1	India	2005-2006	48	38	61,723
2	Nigeria	2008	41	7	11,049
3	Pakistan	2011	44	6	9,663
4	China	2010	10	5	8,059
5	Indonesia	2010	36	5	7,547
6	Bangladesh	2011	41	4	5,958
7	Ethiopia	2011	44	3	5,291
8	Democratic Republic of the Congo	2010	43	3	5,228
9	Philippines	2008	32	2	3,602
10	United Republic of Tanzania	2010	42	2	3,475
11	Egypt	2008	29	2	2,628
12	Kenya	2008-2009	35	1	2,403
13	Uganda	2011	33	1	2,219
14	Sudan	2011	35	1	1,744

Note: The countries in bold are profiled beginning on page 55 of this report. Updated data from Afghanistan and Yemen were not available, but these countries are likely to contribute significantly to the global burden of stunting – last reported data of stunting prevalence were 59 per cent for Afghanistan in 2004 and 58 per cent for Yemen in 2003.

Source: UNICEF Global Nutrition Database, 2012, based on MICS, DHS and other national surveys, 2007–2011, except for India.

Figure 6. Ranking of Countries with the Highest Burden of Wasting

Ranking	Country	Year	Stunting prevalence (%)	% of global burden	Number of stunted children (moderate or severe, thousands)
1	India	2005-2006	20	6	25,461
2	Nigeria	2008	14	7	3,783
3	Pakistan	2011	15	6	3,339
4	Indonesia	2010	13	6	2,820
5	Bangladesh	2011	16	4	2,251
6	China	2010	3	-	1,891
7	Ethiopia	2011	10	3	1,156
8	Democratic Republic of the Congo	2010	9	3	1,024
9	Sudan	2010	16	5	817
10	Philippines	2008*	7	-	769

*Data differ from the standard definition or refer to only part of a country.

Source: UNICEF Global Nutrition Database, 2012, based on MICS, DHS and other national surveys, 2007–2011, except for India

1.3 Dimensions of Philippine Malnutrition

1.3.1 Reproductive health and malnutrition

Too many, too soon and too frequent births among Filipino households impact negatively on malnutrition in the Philippines. While birth rate has gone down in the last 25 years, the still high birth rate among the poorer households remains a cause for malnutrition. On another hand, nutritional issues are also of significance among adolescents. Births accounted for by adolescent girls and women ages 15-19 are estimated at about 8-10 percent of all live births.

Results of the 2013 NDHS indicate that 27 percent of young women aged 15-24 years old have begun childbearing. Of these teenage mothers, 24 percent have given birth, and 3 percent are pregnant with their first child. As expected, the proportion of women who have begun childbearing rises with age, from less than 2 percent among women aged 15 years old to 22 percent of women aged 19 years old and to 59 percent of those aged 24 years old. According to the Demographic Research and Development Foundation and the University of the Philippines (UP) Population Institute (2015), the proportion of teenage childbearing in the Philippines has doubled over the past 10 years, from 6.3 percent in 2000 it increased to 13.6 percent in 2013³.

The results of the 8th NNS in 2013 highlighted the important issues on teenage pregnancy that need immediate attention. Results show that teenagers (<20 years old) who are pregnant are more at risk to undernutrition and anemia than pregnant women (PW) who are 20 years old and above. To cite, the prevalence of nutritionally at-risk pregnant women is higher in teenagers than those who are adult pregnant women (37.4 versus 22.6 percent), and the prevalence of anemia is also higher (30.6 versus 22.6 percent). In terms of health-seeking behaviors, the percentage of teenage PW who went for prenatal check-up on the prescribed first trimester is lower compared with the percentage in adult PW (60.8 versus 69.2 percent). The late prenatal care can be attributed to the behavior of teenage PW to conceal their pregnancy because of their young age, fear of parents and embarrassment to the community. The data also indicate that because of their vulnerable situation, teenage PW seek appropriate health care as 94.5 percent delivered their babies under the care of health professionals/ health workers. However, there is a need to reach to more teenage PW for nutrition education and infant and young child feeding (IYCF) counseling. Only a few received nutrition education and fewer have the intention to breastfeed their babies after delivery.

The NDHS 2013 also shows that child survival is affected by the age of mother, birth order of child and birth interval. **Table 2** shows these important facts. One, all types of childhood deaths (neonatal, post neonatal, infant and under five per 1,000 live births) are higher in teenage mothers (<20 years old) than mothers with ages 20-39 years old (“too soon”). Two, mortality rates generally increase with higher birth order, indicating that risk of children to die “prematurely” is increased when a mother has many children (“too many”), and the youngest

³Laguna, E. (2015). Sizing Up: The Stunting and Child Malnutrition Problem in the Philippines. Retrieved from <https://resourcecentre.savethechildren.net/node/13449/pdf/save-the-children-lahatdapat-sizing-up-the-stunting-and-child-malnutrition-problem-in-the-philippines-report-september-2015.pdf>

children are more at risk. Three, the risk of children to die is decreased when birth spacing or interval between children is longer (“too frequent”).

In terms of nutrition impact, the results of the 8th NNS also disclose the poor nutritional status of children with teenage mothers. The prevalence of stunting and wasting is higher in children with teenage mothers than in children with older moms (>20 years old). The likely impact of this birth order and birth interval, though collected in the 8th NNS, is not yet analyzed.

Table 2. Early Childhood Mortality Rates by Demographic Characteristics, Philippines 2013

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN) ¹	Infant mortality (i _{q0})	Child mortality (c _{q1})	Under-five mortality (s _{q0})
CHILD'S SEX					
Male	13	12	25	9	34
Female	14	8	22	9	31
MOTHER'S AGE AT BIRTH					
<20	19	12	31	8	39
20-29	13	8	22	8	30
30-39	11	10	21	10	31
40-49	24	20	44	(11)	(55)
BIRTH ORDER					
1	15	6	22	4	26
2-3	10	8	19	9	27
4-6	15	14	29	13	41
7+	19	21	40	19	58
PREVIOUS BIRTH INTERVAL²					
<2 years	16	14	30	16	45
2 years	11	15	26	13	39
3 years	10	8	18	9	26
4+ years	13	8	20	5	26

¹Computed as difference between infant and neonatal mortality rates

²Excludes first-order births

³Rates for the five-year period before the survey

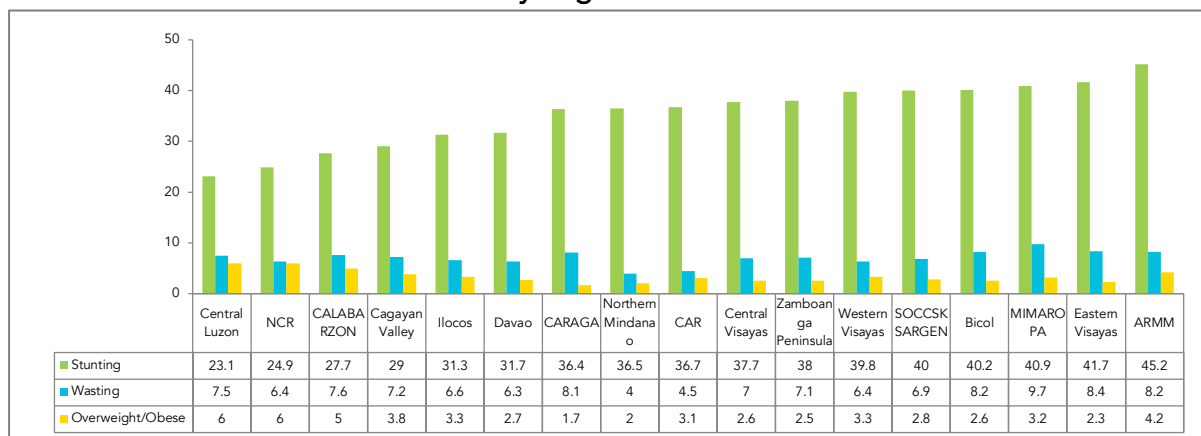
Source: 2013 NDHS, PSA

1.3.2 Regions, GIDA and IPs, and Malnutrition

The “*Situation Analysis of Nutrition in the Philippines*” identifies the groups most affected by malnutrition: the poor, those in geographically isolated and disadvantaged areas (GIDAs), indigenous peoples (IP), families in Regions ARMM, Eastern Visayas, MIMAROPA, and among fisherfolks and farmers. The regions most affected by malnutrition are shown in **Figure 7** below. Among the groups, there is a cross among poverty in all its dimensions, geographical and cultural isolation, and vulnerability to natural and man-made disasters including conflict. The dimensions of those most affected by malnutrition indicate that PPAN has an uphill battle. The high proportions of malnutrition among these groups imply a scale of programs and investments. Moreover, the analysis also shows that the PPAN needs to reach these geographically and culturally isolated and disadvantaged areas in regions that are vulnerable to disasters with new delivery designs sensitive to the conditions and culture of the groups.

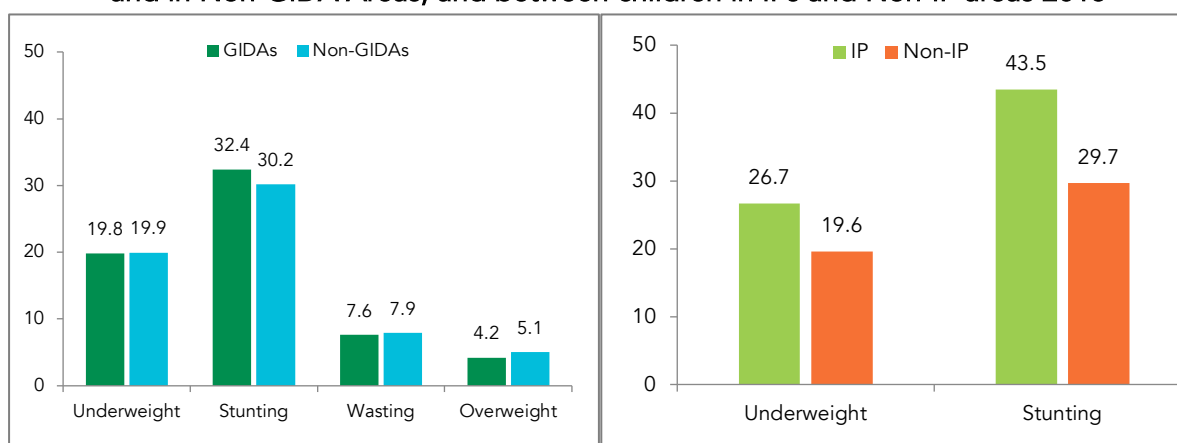
More than now, innovating to reach these groups is paramount for PPAN to achieve its outcomes.

Figure 7. Prevalence of Stunting, Wasting and Overweight in Children Under Five Years Old by Region: 2015



Source: Adapted from Herrin, 2016

Figure 8. Comparison of Nutritional Status of Children Under-Five Years Old Living in GIDA and in Non-GIDA Areas, and between children in IPs and Non-IP areas 2015

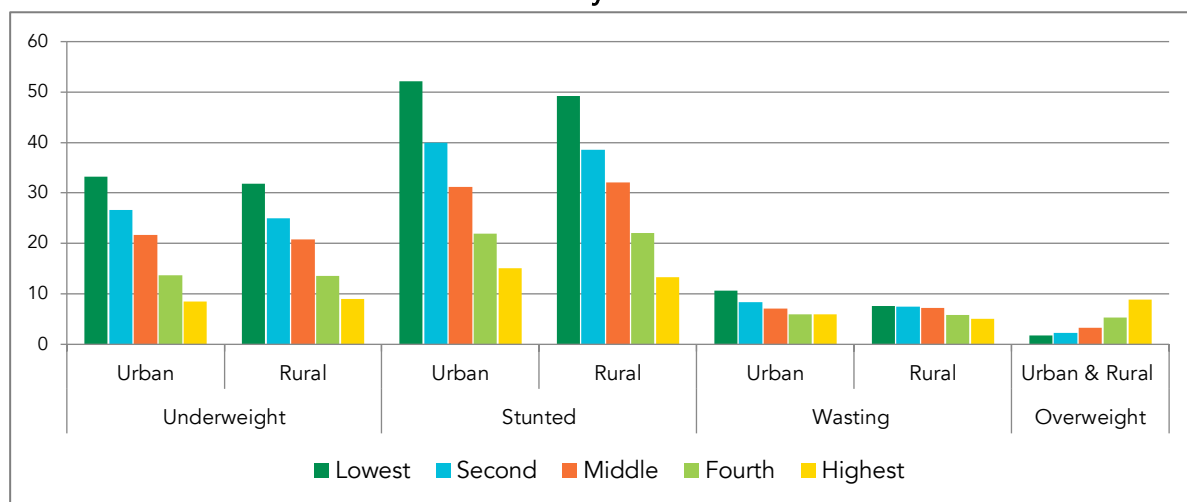


Source: 2015 NNS, DOST-FNRI

1.3.3 Socio-economic status of households is an important dimension in children's nutritional status.

Figure 9 shows underweight, stunting, and overweight by wealth quintiles in 2015. Although it is clear that increasing incomes are associated with consistently lower prevalence of the two indicators (underweight and stunting), it is likewise clear that both underweight and stunting are also important concerns even for children from higher income families, whether they reside in urban or rural areas or whether parents possess high or low education, pointing to the need for nutrition knowledge and facilitative support to busy mothers and caregivers in caring for the child. In contrast, overweight increases with increasing wealth.

Figure 9. Prevalence of Malnutrition in Children Under Five Years Old by Urban/Rural Classification and By Wealth Index: 2015

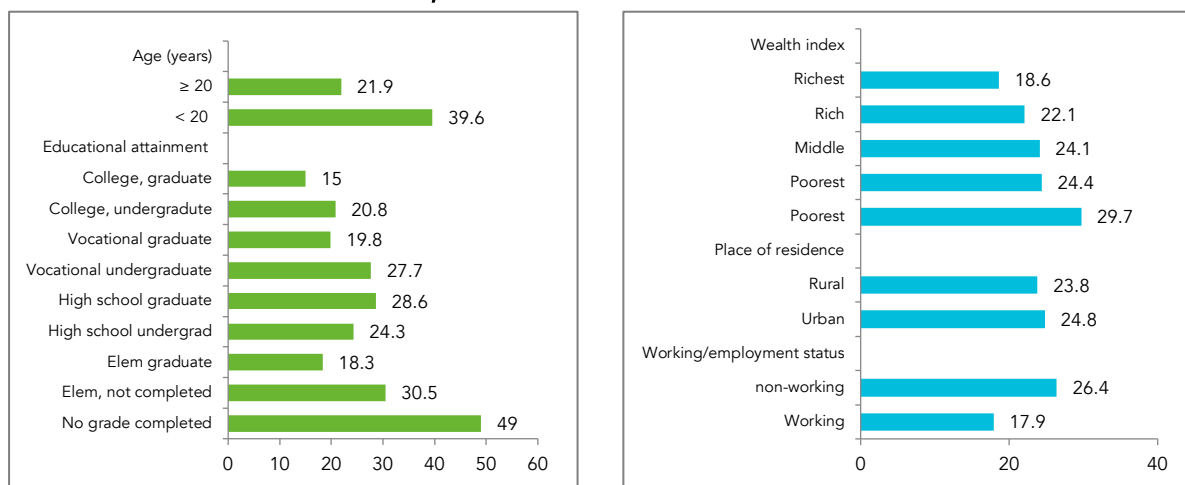


Source: 2015 NNS, DOST-FNRI

1.3.4 Nutritional status of pregnant women by age and socio-economic status.

Age and household socio-economic status are significant factors to the nutritional make-up of mothers to be. The risk to undernutrition is higher if women are below 20 years old, did not go to school or did not finish elementary grade, are from the poorest households compared with women who are 20 years old or older, with higher educational attainment and higher economic status.

Figure 10. Prevalence of Nutritionally At-Risk Pregnant Women by Age, Educational Attainment, Place of Residence and Wealth Index



Source: 2015 NNS, DOST-FNRI

1.3.5 Stunting, wasting and underweight among children of *Pantawid Pamilyang Pilipino Program (4Ps)* participants

NNS compared the socio-economic profile, household participation in selected government programs, and nutritional status of children of 4Ps beneficiaries with non 4Ps beneficiaries. Results show that nutritional problems were much higher among children of 4Ps beneficiaries compared to non-beneficiaries despite better participation in selected health and nutrition programs. To illustrate, the prevalence of underweight and stunting were reportedly higher among 4Ps children than that of non 4Ps. In addition, majority of pregnant women were nutritionally at-risk, and anemia was more prevalent among 4Ps beneficiaries than non-beneficiaries. Participation in government health programs specifically vitamin A supplementation, deworming, Operation *Timbang Plus*, growth monitoring and attendance in Day Care Centers showed a higher participation rate among 4Ps children than non-beneficiaries.

Majority of the participants (nearly three fourths) of the study belonged to the poorest and poor households since these were the target households for the 4Ps.

1.4 Infant and Young Child Feeding

Poor infant and young child feeding in the first two years of life coupled with bouts of infection can explain the high levels of stunting.

Exclusive breastfeeding (EBF) in the first six months of life continues to be a challenge. EBF increased from 48.9% in 2011 to 52.3% in 2013 but went back to 48.8% in 2015. However, a look at EBF rates by single age group within the 0-5 months-old band would show declining EBF with the lowest rate among the 5-month-old (**Table 3**). The low rate of EBF together with the rate of never breastfed represent suboptimal breastfeeding practice. These low rates deprive the infant of needed nutrients for optimum growth at the time when his or her growth is most rapid.

Table 3. Proportion of exclusive breastfeeding among infants 0-5 months old, by single age. Philippines, 2011 – 2015

Age in months	Exclusive breastfeeding, in %		
	2011	2013	2015
All (0-5)	48.9	52.3	48.8
0	69.1	65.5	68.0
1	55.6	64.3	58.3
2	51.9	54.4	53.7
3	55.0	58.8	45.1
4	39.8	44.2	43.5
5	23.8	28.3	24.7

Note: CV of estimates are $\leq 10\%$ for all the age groups, except for the 5-month-old group for which the CV is 10.5 in 2011, 13.2 in 2013 and 12.8 in 2015 and are considered acceptable.

Source: 2011, 2013 and 2015 NNS, DOST-FNRI.

By the sixth month of life, the infant should receive nourishment from solid and semi-solid food, in addition to breastmilk. However, only 18.6% of infants 6-23 months old receive the minimum acceptable diet while the highest wealth quintile has higher proportion of children 6-23 months old with minimum acceptable diet⁴, the level is still low at 22.8%. Thus, the problem for achieving optimum complementary feeding is not simply rooted on income.

A comparison of infant and young child feeding practices in the Philippines with other Asian countries again shows the Philippines to be lagging particularly for continued breastfeeding and for complementary feeding.

Table 4. Comparison of infant and young child feeding practices across the ASEAN Region

Country	Early initiation of breastfeeding	Percentage (%)				
		EBF	Introduction of complementary feeding	BF at 1 year	BF at 2 years	Minimum acceptable diet
Cambodia	65.8	73.5	87.7	83.3	43.4	24
Indonesia	49.3	41.5	91.0	77.2	55.3	36.6
Lao PDR	39.1	40.4	52.3	73.0	40.0	
Myanmar	75.8	23.6	75.8	91.0	65.4	
Philippines	77.1	52.3	92.6	54.5	37.6	15.5
Thailand	46.3	12.3	74.8	32.4	17.8	
Vietnam	39.7	17.0	50.4	73.9	19.4	

Source: UNICEF State of the World's Children, 2014, except Philippines which is based on the 2013 NNS

1.5 Food Security

Information regarding the trend came from three sources: the Family Income and Expenditure (FIES)-based first semester official poverty and subsistence (income-poor and food-poor) incidence among families compiled by the Philippine Statistical Authority (PSA), the Social Weather Stations' (SWS) annual average of estimates of self-rated poor families for which food is "*mahirap*" and families reporting actual hunger experience in the last three months prior to a survey, and food insecurity in the last month as measured by the Food and Nutrition Research Institute's (FNRI) NNS using the Household Food Insecurity Access Scale (HFIAS). Because of differences in methodologies, conceptual definitions of the food-deprived and reference periods of the information, the relative estimates of the food-poor, hungry or food insecure are not directly comparable and in fact diverge substantially from each other. Moreover, the PSA and NNS estimates underwent changes in definitions of key indicators, resulting in breaks in comparability. Indicative trends from earlier years' data are referenced but not used to compare magnitudes. The figures below pertain to the more recent years.

⁴Minimum acceptable diet is based on the minimum frequency of feeds and diet diversity or consumption of foods from four groups of a group of seven groups that include grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, cheese); flesh foods (meat, fish, poultry and liver/organ meats); eggs; vitamin-A rich fruits and vegetables; and other fruits and vegetables.

The general conclusion is that whichever set of food deprivation estimates produced using different methodologies, inadequate access to food is a serious problem for a substantial number of Filipino families.

	2012 ⁵	2015	Change ⁶
Among families (PSA, H1)⁷			
% Below poverty threshold	22.3	21.1	- 1.2
below subsistence threshold	10.0	9.2	- 0.8
Among families (SWS, annual)			
% self-rated poor, food is "mahirap"	41.0	35.0	- 6.0
% With hunger experience, ref last 3 months	19.9	13.4	-
6.5			
Among households (2013, 2015 NNS)			
% All food insecure: mild/mod/sev	65.9	66.1	+ 0.2
% Moderate and severe food insecurity	50.8	53.8	+
3.0			

PSA estimates. Poverty estimates among families in 2006 and 2009 suggest a decline from 21 percent to 19.7 percent while the incidence of families falling below subsistence level reduced from 8.8 percent to 7.9 percent. In the data series for the first semester of 2012 and 2015, the small and insignificant reductions in the percentage of vulnerable families, appeared to be a continuation of the small reductions in the prior years. Nevertheless, full year figures from the 2nd FIES round in January 2016 suggest more substantial reductions.¹⁰

Nevertheless, the implied magnitudes of families whose food intakes are effectively at risk due to low incomes remain substantial. Applying the conservative PSA estimates of 1.2 and 0.8 percentage points reductions to the August 2015 census population (100.98 million) and assuming a family size of 4.5, the changes translate to a reduction in the number of income-poor and food-poor families of 267 thousand and 178 thousand, respectively. The estimated

⁵The incidence of poverty hardly budgeted from levels observed in 2009 and 2006: 28.6 percent and 28.8 percent respectively.

⁶None of the changes is statistically significant at 90% level, according to the PSA.

⁷Newly released data from the two FIES surveys that completed the rounds for the entire year of 2012 and 2015 reveals significant reductions in the percentage of vulnerable families: 19.7 percent and 16.5 percent are income poor and 7.5 percent, and 5.7 percent are food poor. The trend of substantial reductions is also evident in the latest quarter SWS surveys in September 2016. The Philippine commitment to the Mid-Decade Goal is to reduce the percentage of population that are food-poor to 8.8 percent from 17.6 percent in 1991. The corresponding figure from the 2015 complete rounds is 8.1 percent. The country has met MDG indicator 1.9b.

⁸The incidence of poverty hardly budgeted from levels observed in 2009 and 2006: 28.6 percent and 28.8 percent respectively.

⁹None of the changes is statistically significant at 90% level, according to the PSA.

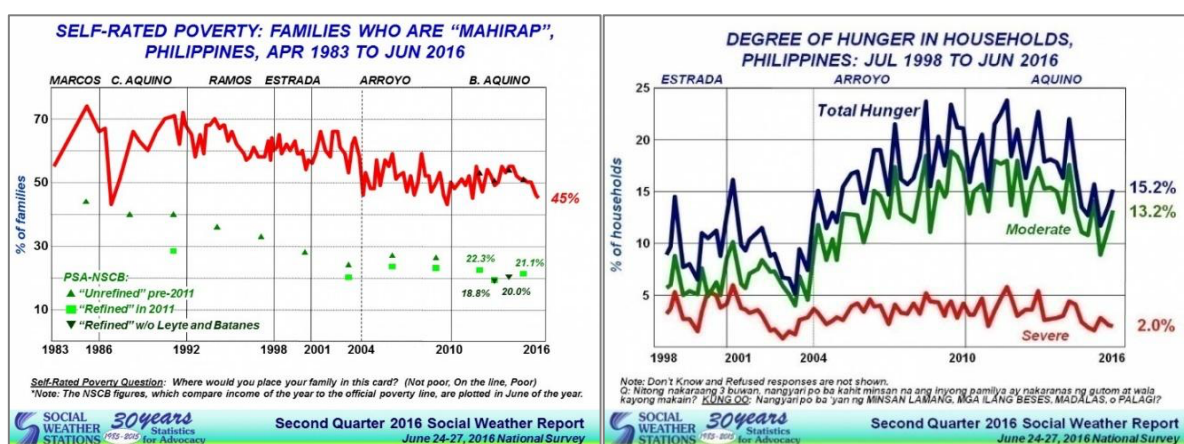
¹⁰Revisions to the definitions of food-poor and food insecure caused breaks in the PSA and FNRI data series before and after 2012-2013. The general trend as well was slow unremarkable reductions.

number of families that remained income-poor is 4.7 million, of which 43.6 percent or a little over 2.0 million are food-poor in 2015.

SWS survey results. In percentage terms, the SWS surveys track the largest reductions, in self-rated poor and hunger experience, 6 and 6.5 percent, respectively. The decline is consistent with that observed by the PSA for both income-poor and food-poor percentages¹¹. Generalizing from the SWS 2015 results, about 3 million families experienced hunger in any 2015 quarter.

FNRI-NNS. The NNS data reveal that in the recent period 2013 and 2015, the incidence of food secure households (households that do not worry about food at all) suffered a slight reduction instead of improving but is nevertheless on a path of slow progress - the incidence of food secure households more than doubled from the very low incidence 15 years ago. However, the situation in 2015 is that only 1 in 3 households are food secure.

Figure 11. Self-Rated Food Poverty among Families (left) and Degree of Hunger in Households (right) in the Philippines, April 1983 to June 2016



¹¹Later quarterly SWS surveys on hunger appear to show a continuation of the decline in the incidence of poverty and subsistence poor. The percentage of food-poor families fell to 30 percent from 35 percent in September 2016, consistent with declines captured by the full year 2015 FIES.



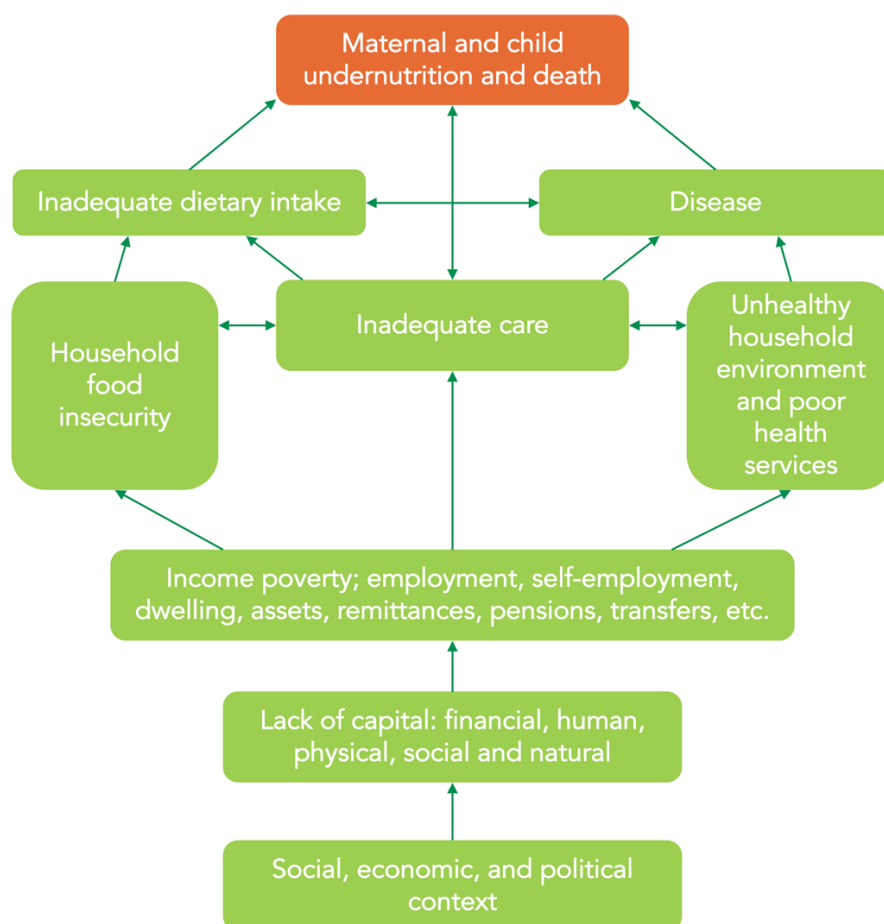
RATIONALE OF THE PPAN DESIGN

Figure 12 shows a framework that captures the causality of maternal and child undernutrition. This framework has been further modified into a unified one for both over- and undernutrition (Figure 13).

From both frameworks, one can note that undernutrition is caused by immediate factors of inadequate dietary intake and disease as immediate causes, with food insecurity, poor caring practices, and unhealthy household environment and poor health services as underlying causes. However, these causes are linked to basic causes that relate to the distribution of resources, among others.

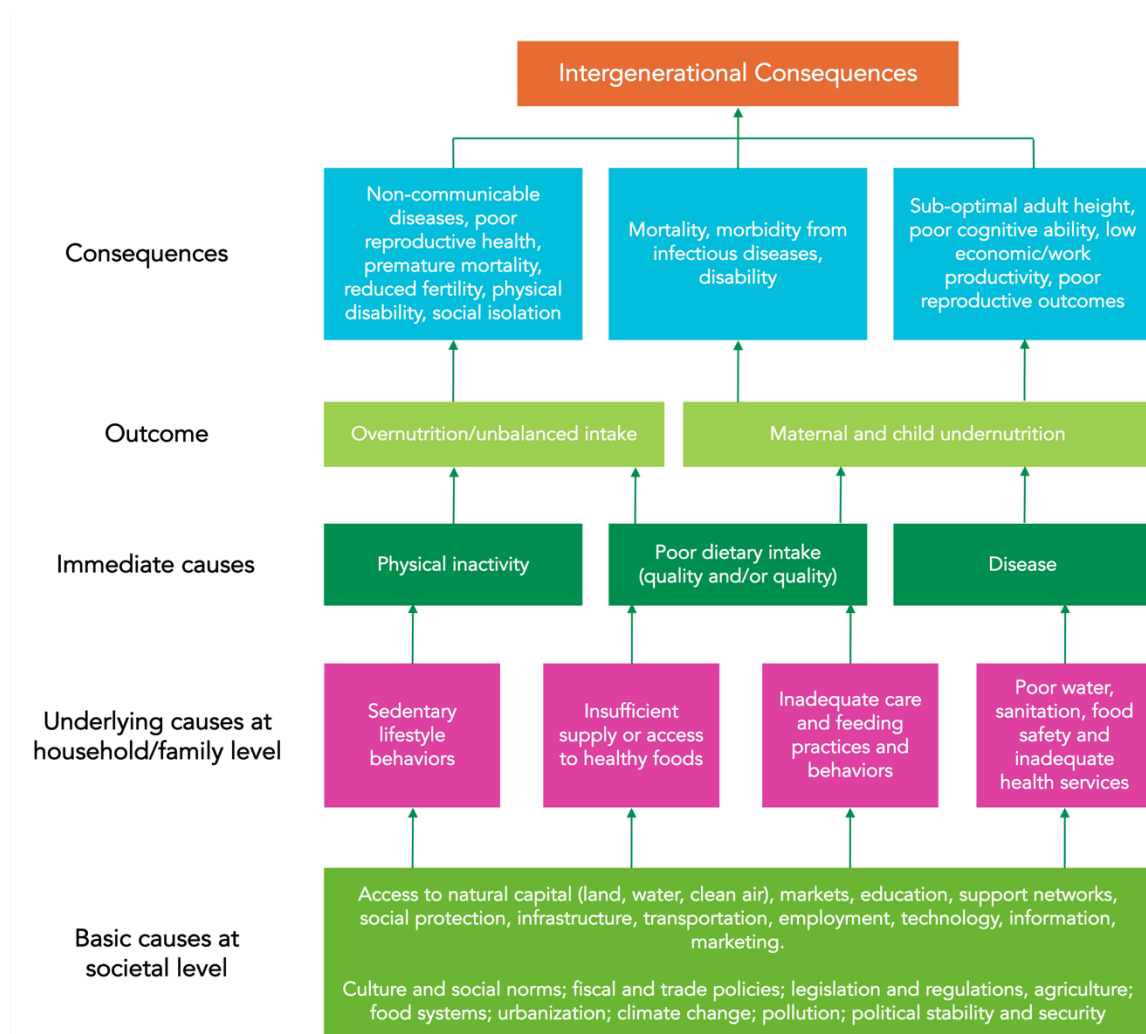
These frameworks suggest the interventions that should be put in place to address the causes of both under- and overnutrition.

Figure 12. Causal framework for maternal and child undernutrition



Source: Black, Robert E. et al. The Lancet Series on Maternal and Child Undernutrition, 2008

Figure 13. Conceptual Framework of Malnutrition



Source: ASEAN/UNICEF/WHO Regional Report on Nutrition Security in ASEAN Volume 2, 2016

Other findings in the landscape analysis on the historical development of the national nutrition program as well as an analysis of the current landscape in 2016 spanning political commitment, nutrition planning, policy development, human resources, information network, resources for nutrition, partnership, and public demand are summarized in Annexes 1-3 alongside with their implications for PPAN and specific reference in the PPAN 2017-2022. Annex 1 lists and describes the programmatic issues and implications; Annex 2 lists and describes the issues on the enabling environment and their implications; and Annex 3 presents general findings and the implications to PPAN.

Key findings are as follows:

1. Major shortfalls in the outcome accomplishment of past PPANs can be traced to the lack of an important indispensable nutrition-specific program that would have delivered planned outcomes in the past two PPANs 2005-2010 and 2011-2016.
2. The power of nutrition-sensitive programs was not harnessed fully in the past PPANs.

3. Some key projects in the past PPANs were disconnected and rendered incapable of delivering the common outcome. Projects in nutrition education were pitched without the benefit of a behavior change perspective, precluding accountability of such projects to deliver outcomes in nutrition education. The supplementary and complementary food plant projects of DOST could yield better outcomes if closely tied not only to local supplementary feeding programs but also national feeding programs.
4. Many enabling issues remain unsolved: resourcing for nutrition including budget tagging; weak response of local governments to nutrition programming and lack of robust LGU mobilization strategy; the challenges of human resource for nutrition from BNS, D/CNPC, local Nutrition Action Officers and local Nutrition Committees, and Regional Nutrition Program Coordinators; issues on the use of time and investment of the NNC Secretariat between implementation and its explicit mandate; policy and advocacy gaps; absence of a national research agenda for nutrition; weaknesses in nutrition information; and the need to improve management of the PPAN including its monitoring and evaluation.

A country assessment of the extent of application of the principles of the Scaling Up Nutrition Movement in the Philippines showed the need to strengthen the following concerns.

1. **Strengthened coordinating mechanisms at national and sub-national level to enable in-country stakeholders to better work for improved nutrition outcomes.** Functioning multi-stakeholder and multi-sectoral platforms enable the delivery of joint results, through facilitated interactions on nutrition related issues, among sector relevant stakeholders. Functioning multi-stakeholder platforms (MSP) enable the mobilization and engagement of relevant stakeholders, assist relevant national bodies in their decision making, enable consensus around joint interests and recommendations and foster dialogue at the local level.
2. **Ensuring a coherent policy and legal framework.** The existence of a coherent policy and legal framework should inform and guide how in-country stakeholders work together for improved nutrition outcomes. Updated policies, strategies and legislations are fundamental to prevent conflicts of interest among the wide range of actors involved in a complex societal topic such as nutrition. This process focuses on the enabling policy and legal environment.
3. **Aligning actions around a common results framework.** The alignment of actions across sectors that significantly contribute to nutrition improvement demonstrates the extent to which multiple sectors and stakeholders are effectively working together and the extent to which the policies and legislations are operationalized to ensure that all people, in particular women and children, benefit from an improved nutrition status. This process delves into the operational side of policy and legal frameworks and how

they translate into actions¹². The term 'Common Results Framework' is used to describe a set of expected results agreed across different sectors of governments and among key stakeholders through a negotiated process. The existence of agreed common results would enable stakeholders to make their actions more nutrition driven through increased coordination or integration. In practice, a CRF may result in a set of documents that are recognized as a reference point for all sectors and stakeholders that work together for scaling up nutrition impact.

4. **Financial tracking and resource mobilization.** Assessing the financial feasibility of national plans to implement actions for improved nutrition is essential to determine funding requirements. The latter is based on the capability to track planned and actual spending on nutrition across relevant government ministries and from external partners. The existence of plans with clearly costed actions helps government authorities and key stakeholders (e.g., UN, Donors, Business, Civil Society) to align and contribute resources to national priorities, estimate the required budget for implementation and identify financial gaps.

¹²Actions refer to interventions, programs, services, campaigns and enacted legislation or specific policy. The 2013 Lancet Series on Maternal and Child Nutrition provides a set of evidence-based high-impact specific nutrition actions including the uptake of practices such as 'exclusive breastfeeding for six months.



THE PPAN IN BRIEF

The Philippine Plan of Action for Nutrition (PPAN) 2017-2022 is a results-based plan designed to stem the stagnating and worsening of wasting, stunting and micronutrient deficiencies and overweight and obesity in the Philippines.

The PPAN 2017-2022 will contribute to the achievement of the Sustainable Development Goals (SDGs) of the United Nations particularly SDG 2 as well as the results of the World Health Assembly for 2025. The GOP is signatory to both international goals. The PPAN for 2017-2022 is an integral part of the 2017-2022 Philippine Development Plan (PDP). The PDP's goals of addressing the inequities in opportunities and outcomes particularly for the poor and improving human development outcomes in health, nutrition and education provides anchor to the PPAN.

It was designed with a strong emphasis on the First 1000 Days circumscribed within the Life Stage Approach and guided by the analytics of the malnutrition tree.

3.1 Goals

To improve the nutrition situation of the country as a contribution to:

1. The achievement of *Ambisyon Natin 2040*¹³ by improving the quality of the human resource base of the country
2. Reducing inequality in human development outcomes
3. Reducing child and maternal mortality

3.2 Objectives

PPAN 2017-2022 has two layers of outcome objectives, the outcome targets and the sub-outcome or intermediate targets. The former refers to final outcomes against which plan success will be measured. The latter refers to outcomes that will contribute to the achievement of the final outcomes.

The global landscape for evidence-informed policy making was used as a guide in selecting interventions and setting targets.

¹³*Ambisyon 2040* is the Philippines' long-term vision, i.e. "By 2040, the Philippines shall be a prosperous, predominantly middle-class society where no one is poor, our people shall live long and healthy lives, be smart and innovative, and shall live in a high-trust society. The Philippine hereby aims to triple real per capita income, and eradicate hunger and poverty by 2040, if not sooner" (Executive Order 05, October 2017).

3.2 Outcome Targets

1. To reduce levels of child stunting and wasting

Indicator ¹	Baseline	2022 Target (Adjusted Target ²)
Prevalence (in percent) of stunted children under five years old	33.4	21.4 (28.8)
Prevalence (in percent) of wasted children		
Under five years old	7.1	<5 (9.0)
6 – 10 years old	8.6	<5 (<10)

¹Baseline based on 2015 Updating National Nutrition Survey conducted by the Food and Nutrition Research Institute.

²Adjusted in 2020 inconsideration of the mid-term assessment done in 2019 and the effects of the COVID-19 pandemic.

2. To reduce micronutrient deficiencies to levels below public health significance

Indicator ¹	Baseline	2022 Target
Vitamin A deficiency		
Prevalence (in percent) of children 6 months to 5 years old with vitamin A deficiency (low to deficient serum retinol)	20.4	<15
Anemia		
Prevalence (in percent) of anemia among women of reproductive age (15-49)	11.7	6.0
Iodine deficiency disorders		
Median urinary iodine concentration, mcg/L		
Children 6-12 years old	168	≥100
Pregnant women	105	≥150
Lactating women	77	≥100
Percent with urinary iodine concentration <50 mcg/L		
Children 6-12 years old	16.4	<20
Lactating women	33.4	<20

¹Baseline based on 2013 National Nutrition Survey conducted by the Food and Nutrition Research Institute

3. No increase in overweight among children

Indicator	Baseline	2022 Target (Adjusted Target ³)
Prevalence (in percent) of overweight		
Under five years old ¹	3.8	<3.8 (<3.9)
6-10 years old ²	8.6	<8.6

¹Baseline based on 2015 National Nutrition Survey conducted by the Food and Nutrition Research Institute
²Baseline based on 2013 National Nutrition Survey conducted by the Food and Nutrition Research Institute
³Adjusted in 2020 inconsideration of the mid-term assessment done in 2019 and the effects of the COVID-19 pandemic.

4. To reduce overweight among adolescents and adults

Indicator	Baseline ¹	2022 Target
Adolescents	8.3 (1.7 M)	<5 (1.1 M)
6-10 years old	31.1	28.0

¹Baseline based on 2013 National Nutrition Survey conducted by the Food and Nutrition Research Institute

3.4 Sub-outcome of intermediate outcome targets

Indicator	Baseline	2022 Target Adjusted Target ⁴
Reduce the proportion of nutritionally-at-risk pregnant women ¹	24.8	20.0
Reduce the prevalence of low birthweight ³	21.4	16.6 (<15.0)
Increase the percentage of infants 5 mos old who are exclusively breastfed ¹	24.7	33.3 (34.7)
Increase the percentage of children 6-23 months old meeting the minimum acceptable diet ¹	18.6	22.5
Increase the percentage of households with diets that meet the energy requirements ²	31.7	37.1 (32.2)

¹Baseline based on 2015 Updating National Nutrition Survey conducted by the Food and Nutrition Research Institute
²Baseline based on 2013 National Nutrition Survey conducted by the Food and Nutrition Research Institute
³Baseline based on 2013 National Demographic and Health Survey
⁴Adjusted in 2020 inconsideration of the mid-term assessment done in 2019 and the effects of the COVID-19 pandemic.

3.5 Guiding Principles

Plan formulation, implementing and updating will be based on the following guiding principles:

1. Attainment of nutritional well-being is a main responsibility of families, but government and other stakeholders have the duty to assist those who are unable to enjoy the right to good nutrition
2. Priority will be given to the nutritionally vulnerable (pregnant women, lactating women, infants and young children 0-23 months old), and nutritionally affected (those who are already malnourished) from poor families and communities that have less access to resources and services
3. Participation of various stakeholders, including members of the community, in policy and plan formulation, implementation, monitoring and evaluation
4. Gender sensitivity
5. Efficiency and effectiveness in resource allocation and implementation of programs and projects
6. Adherence to the principles of engagement of the Scaling Up Nutrition as follows:
 - 6.1 Transparency about intentions and impact
 - 6.2 Inclusiveness
 - 6.3 Being rights based
 - 6.4 Willingness to negotiate
 - 6.5 Predictability and mutual accountability
 - 6.6 Cost-effectiveness
 - 6.7 Continuous communicativeness
 - 6.8 Acting with integrity and in an ethical manner
 - 6.9 Mutual respect
 - 6.10 Doing no harm.

3.6 Strategic Thrusts

To achieve its objectives, PPAN 2017-2022 will be implemented along the the following strategic thrusts:

1. **Focus on the first 1000 days of life.** The first 1000 days of life refer to the period of pregnancy up to the first two years of the child. This is the period during which key health, nutrition, early education, and related services should be delivered to ensure the optimum physical and mental development of the child. This is also the period

during which poor nutrition can have irreversible effects on the physical and mental development of the child, consequences of which are felt way into adulthood.

Thus PPAN 2017-2022 programs and projects as operationalized by various stakeholders should first and foremost focus on this period.

- 2. Complementation of nutrition-specific and nutrition-sensitive programs.** This strategic thrust recognizes that malnutrition has immediate, underlying, and basic causes, which should be addressed to achieve targeted nutritional outcomes.

Thus, there is a need to implement and deliver nutrition-specific interventions. These interventions “address the immediate determinants of fetal and child nutrition and development, i.e. adequate food intake and nutrient intake, caregiving and parenting practices, and low burden of infectious diseases (Executive Summary of the Lancet Maternal and Child Nutrition Series, 2013). They are planned and designed to produce nutritional outcomes.

Achieving nutritional outcomes would also require nutrition-sensitive programs or interventions that address the underlying determinants of malnutrition such as inadequate access to food, inadequate care for women and children, and insufficient health services and unhealthy environment. These include interventions or programs designed and planned with objectives other than nutritional ones but were tweaked in design to produce nutritional outcomes together with the original objectives.

The tweaking can come in various forms depending on the program. A common tweaking is on including nutrition indicators among the criteria for selecting beneficiaries or priority areas to address the problem on inadequate income to acquire food. For instance, the construction of farm-to-market roads can consider for employment of able-bodied persons in households with pregnant women, and children less than 2 years old.

Another form of tweaking is including nutrition education, primarily focusing on the proper care for women and children, in the program or project design. Thus, those participating in programs that aim to improve income levels would be able to purchase their food requirement and at the same time exposed to nutrition information that could help in making nutrition-informed decisions on food choices.

To be effective, these nutrition-sensitive and nutrition-specific programs and interventions should converge in nutritionally needy and at-risk families and communities. At the same time, each specific intervention should support and reinforce the other interventions.

- 3. Intensified mobilization of local government units.** To ensure that PPAN 2017-2022 delivers the planned outcomes, 36 areas with the highest prevalence of stunting based on the 2015 Updating National Nutrition Surveys will be prioritized for

mobilization of LGUs (Table 5). Mobilization will aim to transform low-intensity nutrition programs to those that will deliver targeted outcomes.

Table 5. The 32 PPAN 2017-2022 Focus Areas

Priority 1	Priority 2 – Set A	Priority 2 – Set B	Priority 3
High Poverty Incidence and Magnitude, High Prevalence of Stunting, and High Teenage Pregnancy	High Poverty Incidence and Magnitude and High Prevalence of Stunting	High Poverty Incidence and High Teenage Pregnancy	High Poverty Incidence
Camarines Sur	Catanduanes	Pangasinan	Apayao
Negros Occidental	Masbate	Nueva Ecija	Sorsogon
Negros Oriental	Eastern Samar	Quezon	Siquijor
Bukidnon	Northern Samar	Iloilo	Davao Occidental
North Cotabato	Western Samar	Cebu	Surigao del Sur
South Cotabato	Lanao del Norte	Leyte	
Zamboanga del Norte	Sarangani	Zamboanga del Sur	
	Sultan Kudarat	Davao del Sur	
	Agusan del Sur		
	Lanao del Sur		
	Maguindanao		
	Sulu		

Note: The NNC Governing Board adopted the 32 HDPRC provinces as the updated focus provinces of the PPAN in its 5 July 2019 meeting.

It will involve capacity building and mentoring of LGUs on nutrition program management to transform them to self-propelling LGUs able to plan, implement, coordinate, and monitor and evaluate effective nutrition programs. The strategy is also expected to complement the interventions in the First 1000 Days.

Target LGUs will be prioritized for nutrition-specific and nutrition-sensitive programs and projects that are nationally funded with appropriate counter parting mechanisms.

The Early Child Care and Development in the First 1000 Days Program will be an important anchor of mobilization.

- 4. Reaching geographically isolated and disadvantaged areas (GIDAs), communities of indigenous peoples, and the urban poor especially those in resettlement areas.** Efforts to ensure that PPAN 2017-2022 programs are designed and implemented to reach out to GIDAs, and communities of indigenous peoples will be pursued. The community of NGOs and development partners' resources will be engaged for this purpose.

There will also be efforts to reach the urban poor, especially those in resettlement areas.

- 5. Complementation of actions of national and local governments.** As LGUs are charged with the delivery of services, including those related to nutrition, the national

government is charged with creating an enabling environment through appropriate policies and continuous capacity building of various stakeholders.

The combined impact of the programs from the national and local level is needed to ensure the achievement of the desired outcomes. In this, there will be two reinforcing strategies complementing one another, the implementation of NGA programs and the delivery of nutrition services at the LGU level. This twinning of various reinforcing projects will provide cushion for securing outcomes in case of a shortfall/ gaps in the implementation of one of the programs.

3.7 Overview of the PPAN 2017-2022 Programs

PPAN 2017-2022 consists of three distinct types of programs as follows:

- Nutrition-Specific Programs
- Nutrition-Sensitive Program
- Enabling Management Support Programs

The programs were selected based on already existing and proven programs both locally and internationally. The programs also complement each other.

Nutrition-specific programs are those that were planned and designed to produce nutritional outcomes (**Tables 7 and 8**). The selection of nutrition-specific programs was inspired by global guidance like the WHO Essential Nutrition Actions, the recommendations of the Lancet Maternal and Child Nutrition Series, the International Conference for Nutrition 2 Framework for Action, among others.

Complementing these nutrition-specific interventions are nutrition-sensitive programs. These are development programs and projects that will be tweaked to produce nutritional outcomes. Tweaking can be done by targeting households with undernourished children or nutritionally vulnerable groups, or targeting areas with high levels of malnutrition, or being a channel for delivering nutrition-specific interventions. **Table 6** shows an initial list of development programs and projects that will be tweaked to produce nutritional outcomes in addition to their original objectives. The list will be updated during plan implementation.

Table 6. Nutrition-sensitive programs

Nutrition in Health
<ul style="list-style-type: none">• DILG’s WASH Program• PopCom’s Adolescent Health and Development (AHD)
Nutrition in Agriculture
<ul style="list-style-type: none">• Production support/agricultural services• Research and Development (R&D) support services• Extension support, education, and training services (ESETS)• Agricultural machinery, equipment, facilities• Agricultural insurance• Market development services• Milk feeding program• Food Production in School
Nutrition in Social Protection
<ul style="list-style-type: none">• Conditional Cash Transfer (CCT)• Compliance verification system on CCT conditionalities• Sustainable Livelihood Program (SLP)
Nutrition in Education
<ul style="list-style-type: none">• Integrated School Nutrition Model (ISNM)• Expansion of Gulayan sa Paaralan (GP)• Weekly Iron-Folic Acid Supplementation (WIFA)• Deworming• WASH in Schools (WinS)• Accredited Centers using the Standards and Guidelines for Center-based Early Childhood Programs for 0 to 4 Years Old• Comprehensive Sexuality Education• Infant-Toddler Early Development (ITED) Program• Family Support Program• Parenting Effectiveness Session (PES)
Nutrition in Trade and Industry
<ul style="list-style-type: none">• <i>Diskwento</i> Caravan

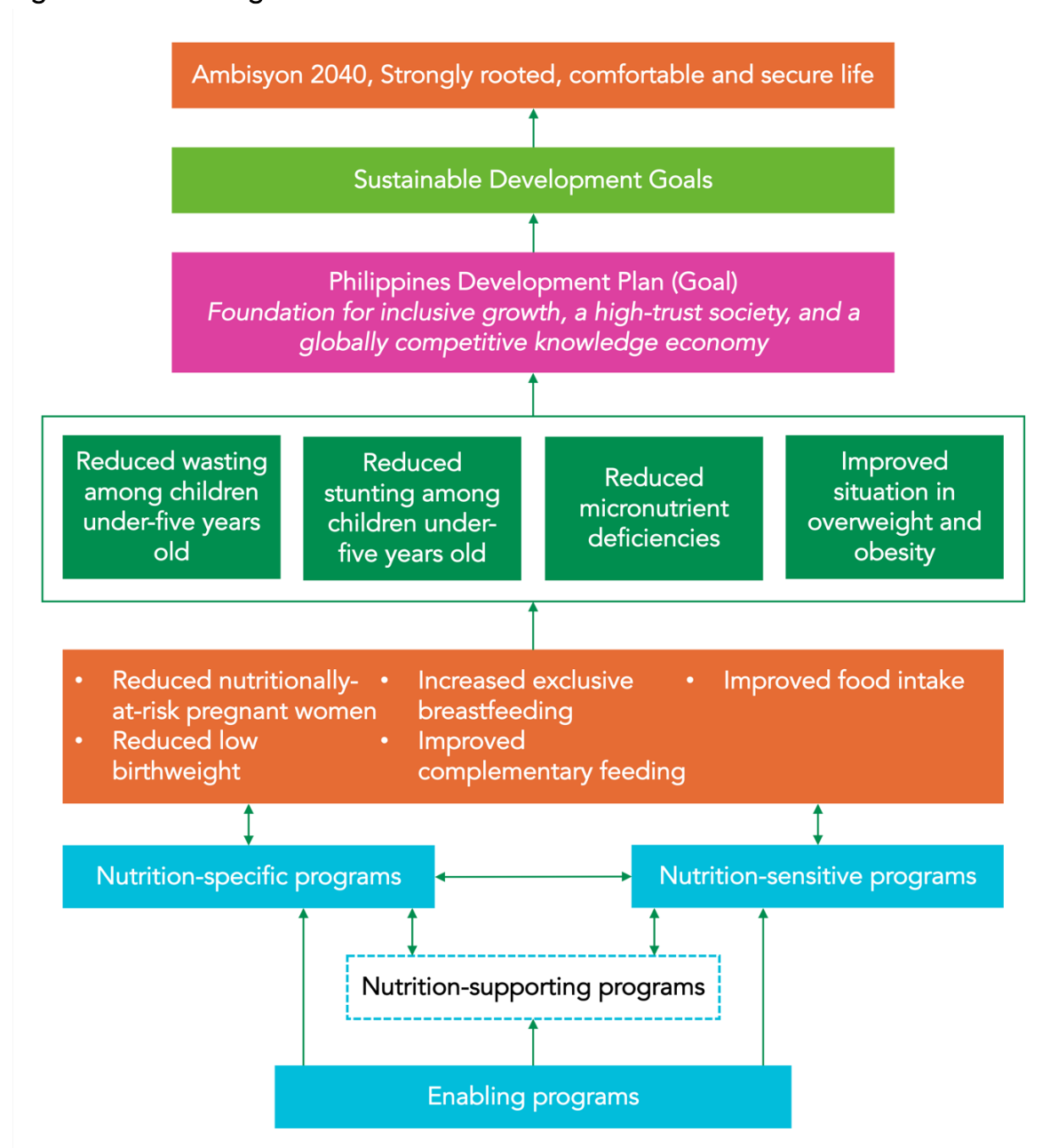
Enabling management support programs are actions developed and designed to assist the nutrition-specific programs to be achieved with greater degree of efficiency and effectiveness.

There is another set of programs and projects that support the achievement of nutritional outcomes. Indeed, some of these programs can be clearly associated with the important immediate causes of malnutrition and mortality of children: disease and food intake. Health programs and projects like the Expanded Program of Immunization (EPI), deworming, food and agricultural systems programs and projects that impact on food supply, social protection programs like the conditional cash transfer, health insurance through PhilHealth and others. While the PPAN recognizes the importance of these programs and projects, the PPAN 2017-2022 does not include these programs and projects in the PPAN’s results framework. These programs and projects were not designed to contribute directly to producing nutritional outcomes like the nutrition-specific and sensitive programs do. It is important to recognize

their association to nutrition. Some of these nutrition supportive programs can also be tweaked to become nutrition-sensitive programs in the future.

The synergy among these types of programs is illustrated in the figure below:

Figure 13. PPAN Target Outcomes



The 12 component programs of the PPAN 2017-2022 and their corresponding projects or strategies are listed in **Table 8**.

Table 8. PPAN 2017-2022 Programs and Their Projects or Strategies

No.	Programs of PPAN	No.	Projects/Strategies
1	Infant and Young Child Feeding (IYCF)	1	Health systems support
		2	Community-based health and nutrition support
		3	Maternity protection and improving capacities of workplaces on breastfeeding
		4	Enforcement of the National Code of Marketing of Breastmilk substitutes (EO 51), the Republic Act 10028 (amending RA 7600) and other related issuances
2	Philippine Integrated Management of Acute Malnutrition (PIMAM)	5	Policy development and implementation
		6	Service delivery for management of acute malnutrition
		7	Capacity building of local implementers
3	National Dietary Supplementation Program (NDSP)	8	Dietary supplementation of pregnant and lactating women
		9	Dietary supplementation of infants and young children 6-23 months old
		10	Dietary supplementation of children in Child Development Centers (CDCs) and Supervised Neighborhood Play (SNP)
		11	Dietary supplementation of wasted school children
		12	Support component
		13	Cross-cutting concerns
4	National Nutrition Promotion Program for Behavior Change	14	Social and Behavior Change Communication (SBCC) Plan National Nutrition Promotion Resource Center
		15	Organization of National TWG for Nutrition
		16	Promotion Program for SBCC
		17	Nutrition Information Resource Center
		18	National Communication Strategy
		19	SBCC materials
		20	Integration of nutrition in the sectoral policies, programs, and materials
		21	Strengthened partnership with quad media SBCC guidelines
5	Micronutrient Supplementation	22	Monitoring and evaluation
		23	Logistic and system
		24	Procurement, distribution, and availability of supplies
		25	Capacity building
		26	Advocacy and communication plan
6	Mandatory Food Fortification	27	Monitoring and evaluation
		28	Overall program coordination, monitoring and evaluation
		29	Strengthened compliance monitoring system
		30	Flour fortification
		31	Rice fortification

No.	Programs of PPAN	No.	Projects/Strategies
7	Nutrition in Emergencies	32	Salt iodization
		33	Policy development, updating, and dissemination
		34	Capability development
		35	Prepositioning and resource mobilization
		36	Promotion and communication
		37	Inter- and intra-cluster coordination
		38	Information management
		39	Organization of the OOMP Task Force
8	Overweight and Obesity Management and Prevention Program	40	National Campaign on Healthy Diet
		41	Landscape Analysis on Childhood Overweight and Obesity
		42	Guidelines on Physical Activity for Filipinos
		<i>Nutrition in Health</i>	
		43	DILG's WASH Program
		44	PopCom's Adolescent Health and Development (AHD)
		<i>Nutrition in Agriculture</i>	
		45	Production support/agricultural services
		46	Research and Development (R&D) support services
		47	Extension support, education, and training services (ESETS)
		48	Agricultural machinery, equipment, facilities
		49	Agricultural insurance
		50	Market development services
		51	Milk feeding program
		52	Food Production in School
		<i>Nutrition in Social Protection</i>	
9	Nutrition-Sensitive Program	53	Conditional Cash Transfer (CCT)
		54	Compliance verification system on CCT conditionalities
		55	Sustainable Livelihood Program (SLP)
		<i>Nutrition in Education</i>	
		56	Integrated School Nutrition Model (ISNM)
		57	Expansion of <i>Gulayan sa Paaralan</i> (GP)
		58	Weekly Iron-Folic Acid Supplementation (WIFA)
		59	Deworming
		60	WASH in Schools (WinS)
		61	Accredited Centers using the Standards and Guidelines for Center-based Early Childhood Programs for 0 to 4 Years Old
62	Comprehensive Sexuality Education		
63	Infant-Toddler Early Development (ITED) Program		
64	Family Support Program		
65	Parenting Effectiveness Session (PES)		
		<i>Nutrition in Trade and Industry</i>	

No.	Programs of PPAN	No.	Projects/Strategies
		66	<i>Diskwento</i> Caravan
		67	Formulation of Local Nutrition Action Plans for 2020-2022 and Integration into local development plans and budgets
10	Mobilization of Local Government Units for Nutritional Outcomes	68	Advocacy interface with Local Chief Executives (LCEs) on Investing in Nutrition
		69	Sustained Technical Assistance to LGUs by NNC Central and Regional Teams
		70	Capacity Building on Nutrition Program Management and Nutrition Leadership and Governance
11	Policy Development for Food and Nutrition	71	Securing Policy Support for Improving Nutrition in the Philippines
		72	Public Advocacy for Improved Support to Nutrition in the Philippines
12	Management Strengthening Support to PPAN Effectiveness	73	Securing Vital Nutrition Infrastructure and Resource Requirements for PPAN
		74	Strengthening Coordination, Monitoring, Evaluation and Management of PPAN across NNC including Member Agencies and NNC Secretariat

The results framework in Chapter 8 describes the outputs and results of these programs.

PPAN 2017-2022 is thus a multi-sectoral program. While the component programs of the PPAN are implemented by the member agencies of the NNC, LGUs and NGOs will be encouraged to adapt these programs.

It is also multi-level. Thus, at the regional level, the Regional Plan of Action for Nutrition (RPAN) will also be formulated. These RPANs will have their respective annual targets along the framework of the PPAN but adapted to the unique situation of the region. The RPAN will be developed and approved by regional nutrition committees but also presented to the RSDC or RDC.

LGUs will also be enjoined to formulate or update their local nutrition action plans following the principles and framework of the PPAN 2017-2022.

Chapter 4



NUTRITION-SPECIFIC PROGRAMS

4.1 Infant and Young Child Feeding Program

The IYCF Program aims to improve the practice of exclusive breastfeeding and complementary feeding with continued breastfeeding by building and sustaining an enabling supportive environment in various settings. Based on global evidence, promoting infant and young child feeding is among the package of child nutrition interventions identified by the Lancet Series on Maternal and Child Nutrition that can bring down undernutrition significantly. It is also included in the WHO Essential Nutrition Action.

Desirable infant and young child feeding practices is one of the elements of the Nutritional Guidelines for Filipinos adopted by the NNC Governing Board for use in the Philippines in 2012.

The program is covered by DOH Administrative Order (AO) 2005-0014. The policy guides health workers and other parties concerned in ensuring the protection, promotion and support of exclusive breastfeeding and adequate and appropriate complementary feeding with continued breastfeeding. Related legislations and regulations also include Executive Order (EO) 51: National Code of Marketing of Breastmilk Substitutes, Republic Act (RA) 7600: Rooming In and Breastfeeding Act, and Republic Act (RA) 10028: The Expanded Breastfeeding Promotion Act.

The program complements and is complemented by the services of the other PPAN 2017-2022 programs, e.g., management of acute malnutrition, dietary supplementation, nutrition promotion, micronutrient supplementation, food fortification, nutrition in emergencies, and programs and projects under the Nutrition-Sensitive Program.

The program is led by the DOH, in partnership with other government agencies, LGUs, NGOs, workers' unions, employees' unions, and development partners.

4.2 Philippine Integrated Management of Acute Malnutrition (PIMAM) Program

The Philippine Integrated Management of Acute Malnutrition (PIMAM) Program aims to locate the acutely malnourished especially those with severe acute malnutrition, and to provide the needed medical and nutritional intervention. The intervention will be delivered through in-patient treatment centers or out-patient treatment centers. The former will be used for severe acute malnutrition cases with medical complications.

Its implementation is guided by DOH AO 2015-055 National Guidelines on the Management of Acute Malnutrition of Children under Five Years. More specific protocols are contained in the “National Guidelines on the Management of Severe Acute Malnutrition for Children under Five Years” and the “National Guidelines on the Management of Moderate Acute Malnutrition for Children under Five years.”

Program implementation will be guided by the SAM Management Scale-Up Plan, developed by the Nutrition in Emergencies Community-Based Management of Acute Malnutrition Working Group, with assistance from UNICEF. The SAM Management Scale-up Plan covers supply procurement; development of training modules and roll-out trainings; coordination and communication support; and reporting, monitoring and evaluation. The training roll-out consists of 7 phases with Phase 1 targeting 17 provinces in 2016, and Phase 2 with 12 provinces in 2017 for eventual coverage of all provinces by 2022.

Plans also include the development of a locally produced ready-to-use supplementary food, e.g., Momsie Plus. The possibility of local production of RUTF will also be explored. The Food and Nutrition Research Institute of the Department of Science and Technology will oversee this effort.

LGUs will be encouraged to invest in the program and along this line, a scheme for procuring the consolidated supply requirements of LGUs will be developed and tested. Coverage of MAM cases is expected to start in late 2017 or in 2018. Efforts will also ensure the interface in the management of SAM and MAM cases.

The program is led by the DOH, in partnership with LGUs, NGOs, and developmental partners, in particular UNICEF and WFP.

PIMAM will not be limited to the treatment and management of the cases but shall be complemented by other nutrition interventions to sustain the normal status of rehabilitated children. Nutrition counseling, especially on IYCF, is among these interventions.

The PIMAM is also an important program that interphases with the Nutrition in Emergencies Program as emergencies and disasters could trigger an increase in acute malnutrition.

The PIMAM Program, with a success rate of about 75%, is one of the PPAN 2017-2022 programs that is expected to deliver outcome results early in the plan period. This could inspire the PPAN stakeholders and provide the fuel for even more vigorous implementation in the second period of the PPAN.

4.3 National Dietary Supplementation Program

The National Dietary Supplementation Program aims to supplement the diets of nutritionally vulnerable groups, particularly pregnant women, and infants 6-23 months old in food-

insecure households, and wasted school children, especially those from very poor households. It also aims to supplement the diets of children enrolled in daycare centers.

Dietary supplementation of pregnant women as well as of children in food-insecure households is included in the Lancet framework of actions to achieve optimum fetal, and child nutrition and development, in the WHO Essential Nutrition Actions, and in the WHO Guidelines for Antenatal Care. This is being addressed by the NNC's *Tutok Kainan Supplementation Program*.

On the other hand, dietary supplementation of preschool children in day care centers or child development centers and of school age children are long-running programs in the Philippines. The program for school-age children is focused on those identified to be severely wasted.

Program implementation will be guided by the guidelines on dietary supplementation that will be released in the first year of plan implementation. Among others, the guidelines define dietary supplementation as the "provision of additional food to a target group for a specified calorie and protein level of supplementation and for a duration of no less than 90 days". It also provides technical and operational guideposts for dietary supplementation for the preventive and curative approach.

The existing supplementary feeding in day care centers and public elementary schools will continue using existing guidelines. Efforts will also include expansion of supplementary feeding to those covered by supervised neighborhood play.

Program implementation will purposively link with local food producers and food plants set up by technology adaptors of the FNRI-DOST. In this way, dietary supplementation can also contribute to poverty alleviation efforts.

In 2016, 55 food plants have been set up across the country. These plants are run by cooperators with support from DOST. For the national needs of dietary supplementation programs, an analysis of the geographical distribution, capacity, product list, prices, clients and acceptability of these various plants would be done.

Matching the location and capacity of local and national requirements for dietary supplementation would be a result of this analysis.

Several areas of improvement in the current dietary supplementation formulations of FNRI will be addressed including FDA approval to ensure the highest quality and consumer acceptability of products from such plants. Efficacy tests will be an integral part of the next steps of FNRI.

Agreements among implementing departments on how food products from the food plant will be harnessed for the different feeding programs will be forged.

Dialogues with an NGO, *Kabisig ng Kalahi*, that manages one of the largest dietary supplementation programs in the country will be held to allow better complementation with government resources.

The NNC is the lead agency for dietary supplementation in the first 1,000 days, while DSWD for supplementary feeding of children in day care centers¹⁴, and the DepEd for school-based supplementary feeding.

The NDSP will be complemented by other PPAN programs, specifically IYCF, Nutrition Promotion for Behavior Change, Micronutrient Supplementation, Mandatory Food Fortification, and the Nutrition-Sensitive Program to maximize and sustain the impact of dietary supplementation.

Existing models like those tested by the DepEd and the International Institute of Rural Reconstruction (IIRR) that linked the school supplementary feeding with vegetable gardening will be advocated for replication and nationwide adoption.

Policy development and resource mobilization will be an important strategy to ensure coverage of the nutritionally-at-risk and undernourished in food-insecure households.

4.4 National Nutrition Promotion Program for Behavior Change

The National Nutrition Promotion Program for Behavior Change aims to facilitate the adoption of positive nutrition and related practices that will improve nutrition outcomes. It also aims to raise consciousness on the importance of improving nutrition and ensure that the various nutrition-specific services are supported with appropriate communication activities either as a separate complementary activity or as an activity integral to the service. It recognizes the need to go beyond increasing knowledge on nutrition by analyzing why people behave the way they do and how behaviors change within wider social and economic systems to provide insight on affecting positive nutrition outcomes.

It highlights the interplay of interpersonal communication, social and community mobilization activities, mass media, and advocacy to support individuals, families, nutrition and health care providers, communities, and institutions to adopt and maintain high-impact nutrition-related practices. Effective nutrition SBCC seeks to increase the factors that encourage these behaviors while reducing the barriers to change.

The program will be supported by the appropriate policy cover to create an environment that will facilitate the adoption of desired practices.

The organization and engagement of a technical working group composed of representatives from different government agencies, non-government organizations, and development

¹⁴DSWD informs that malnourished out-of-school children will also be included in the DSWD supplementary program with proper referral.

partners shall be created to oversee the development, implementation, and monitoring and evaluation of the program. This is vital since the program will build on experiences and networks on nutrition promotion particularly in the communities, schools and workplace to increase coverage and reach of the various nutrition promotion initiatives. Guidance from a social and behavior change communication (SBCC) expert will be sought to help the TWG in crafting the SBCC framework and strategy, program and project design details, and the needed formative research and evaluation of the program, as necessary.

The SBCC strategy will be audience-specific and attuned to the language, cultural sensitivities, location and gaps on nutrition-focused knowledge and practices, as well as the enablers and barriers to behavior adoption. It will also consider the behavior change requirements of the other PPAN 2017-2022 programs and define the appropriate delivery mechanism.

The program will take off from the review of nutrition education done by the UPLB BIDANI Network Program for the NNC.

For the integration of nutrition in the sectoral policies, programs, and materials, it aims to incorporate nutrition in Family Development Session modules of the DSWD, school curriculum for primary, secondary, and tertiary levels, and in the Occupational Health and Safety Guidelines of the DOH. For the nutrition promotion in the school, the expressed needs of teachers of ready-to-use nutrition modules will be addressed.

A critical aspect of the program is the establishment of a National Nutrition Promotion Resource Center at the national and regional levels. The center will develop the overall behavior change communication framework, synchronize messages and communication tools. It will also serve as a permanent repository of nutrition communication materials. It will also facilitate the implementation of a cohesive and dynamic monitoring and evaluation system of the various nutrition promotion initiatives. The TWG will assist in the organization or establishment of the resource center.

The national resource center for nutrition promotion will be a reference for researchers, nutrition educators, and universities, both locally and globally. It will also complement related initiatives like the Nutrition Information Network or NUTRINET of FNRI.

The program will have a nationwide coverage with special attention to the 32 PPAN focus areas.

4.5 Micronutrient Supplementation

Micronutrient Supplementation (MS) Program focuses on the provision of pharmaceutically prepared vitamins and minerals for the treatment and prevention of specific micronutrient deficiencies to complement more sustainable food-based approaches (e.g. food fortification and diet diversification).

The overall policy on MS is contained in DOH AO No. 2010-010 entitled "Revised Policy on Micronutrient Supplementation" to Reduce Under-Five and Maternal Deaths and Address Micronutrient Needs of Other Population Groups. The micronutrients under this AO are vitamin A, iron-folic acid, Iron, Folate, and Iodine. However, with the recent issuances of the WHO on micronutrients, recent evidence suggests paring down the commodities as a way forward. A leaner policy will be simpler to advocate, plan, implement and execute. The DOH has requested support in reviewing AO 2010-010 specifically for this purpose.

Specific groups targeted by type of micronutrient supplement are shown in **Table 9**.

Table 9. Target groups by type of micronutrient supplement

Micronutrient	Targets
Vitamin A	Children, 6-59 months old
Multiple Micronutrient Powder	Children, 6-23 months old
Iron-Folic Acid	Pregnant women Adolescent females in poor areas
Iodized Oil	Pregnant and lactating women in areas endemic to iodine deficiency disorders with poor access to adequately iodized salt

At the national level, the DOH will continue to provide supplies for MS (vitamin A, iron-folic acid, iodized oil capsules, and multiple micronutrient powder).

The program also builds on an improved logistics supply chain management system to ensure that micronutrient supplements are available in all health facilities at all times. DOH also plans to procure a software for the electronic logistics and information system (e-LIS) to better track incoming and outgoing commodities in the DOH warehouses and generate real-time inventory to prevent slow movement of commodities and their expiration while in storage.

The Manual of Operations on Micronutrient Supplementation issued by the DOH in 2010 will also be updated through the engagement of a consultant. The updating will consider the recent studies, research results, and updates in the WHO guidelines (if any).

Moreover, a national communication plan will be developed to increase the coverage and compliance to prescribed dosage levels among different target groups. Appropriate information, education and communication (IEC) "take-away" materials explaining the benefits of taking and disadvantages of not taking micronutrient supplements will be an output of this project. Equally important will be home follow up visits to ensure that the supplements are taken in religiously particularly for iron-folic acid supplements and multiple micronutrient powder.

LGUs and NGOs will also be encouraged to augment supplies from the national government to approximate a 100% coverage. Thus, the LGU Mobilization Program will include this concern in the agenda with the LGUs. The DILG issuance on the PPLAN 2017-2022 will also cover this concern. Practices of LGUs non-compliant to DOH AO 2010-0010 and DM 2011-

0303 would be addressed with the Commission on Audit (COA) Memorandum reminding LGUs of their obligation to follow such AO and Department Memorandum (DM).

The DOH will lead the MS Program in close coordination at all levels of the administration (national-regional-local) and partnership among multi-sectoral groups. LGUs will be responsible for the delivery of the supplements to the different target groups. The program covers all LGUs targeting specific population groups as prescribed in the micronutrient supplementation policy.

The delivery of commodities at the rural health level in the MSP should be clearly understood to be integral to MNCHN activities, and a strategy to strengthen the nutritional aspect of prenatal care. The Adolescent Health Development Program is also an integral component of this prenatal care particularly for those adolescents who have become pregnant at an early age.

The MS Program is an important complement of the programs on IYCF, dietary supplementation, nutrition promotion, mandatory food fortification, and nutrition in emergencies.

4.6 Mandatory Food Fortification

The Mandatory Food Fortification¹⁵ (MFF) Program involves the addition of iron to rice, vitamin A and iron to flour, vitamin A to cooking oil, vitamin A to sugar as mandated by RA 8976 and iodine to human-grade salt as mandated by RA 8172, or as prescribed by the NNC Governing Board¹⁶. The program is a close complement to the Micronutrient Supplementation Program.

The program aims to ensure the availability of rice, flour, cooking oil, sugar and salt fortified according to standards.

The program will address the identified challenges of mandatory food fortification, particularly. Thus, priorities will include the following:

1. Stronger exercise of the regulatory role of the Food and Drug Administration (FDA)
2. Stronger interphase among FDA, the National Food Authority, and the Philippine Coconut Authority
3. Engagement of the NGO community to assist in monitoring food products at the point of sales
4. Review of existing laws to incorporate new realities and global scientific developments on food fortification

¹⁵Food fortification is “the addition of one or more essential nutrients to food, whether or not it is normally contained in the food, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups.

¹⁶The addition of folic acid in flour is currently being studied given its importance in preventing neural tube defects (NTD).

5. Continuing dialogue with the Bureau of Customs on establishing the baseline quality of imported flour and oil and in ensuring compliance by importers
6. Identification and use rapid test kits and systems for monitoring
7. Sustained communication effort on the use of fortified staples
8. Strengthened engagement with LGUs as integral to the agenda for LGU mobilization

A related effort is on the conferment of the diamond seal on products that comply with food fortification standards. The generic diamond seal has been adapted for iodized salt through the “*Saktong Iodine sa Asin*” seal. The seal should help consumers identify food products fortified according to standards.

The results of the 2012 review done by the Nutrition Center of the Philippines will be revisited for applicability of its recommendations.

Technically, the industries covered by mandatory food fortification are the lead implementors of mandatory food fortification. However, the DOH through FDA is the program’s lead agency particularly on ensuring compliance to fortification standards.

The NNC as mandated by law shall conduct another review of RA 8976 to determine the need for continued mandatory food fortification. It will also lead the review of RA 8976 and RA 8172 on needed amendments.

The NNC, in close coordination with the DOH, will facilitate the formulation of the Mandatory Food Fortification Strategic Plan for 2018-2022 to identify specific undertakings along the priorities. The strategic plan shall also define a clear set of the roles of each agency involved in the MFF Program.

As the overall coordinating and policy-making body on nutrition, the National Nutrition Council will continue to convene and manage the Mandatory Food Fortification Technical Working Group. The DOH through its HPCS will take charge of promotion; and FDA, NFA, PCA, and DILG will enforce and regulate implementation.

The MFF Program is closely linked with the National Dietary Supplementation Program as the use of fortified staples is required for dietary supplementation programs.

4.7 Nutrition in Emergencies (NiE)

Nutrition in Emergencies is one of the programs of PPAN 2017-2022 in recognition of the vulnerability of the country to natural and human-induced disasters. It recognizes that shocks resulting from natural calamities and other man-induced disasters tend to move the non-poor

into poverty and the poor into deeper poverty, thereby undermining poverty reduction efforts¹⁷.

In more recent years, the armed-conflict in regions like ARMM and the impact of slow-onset hazards such as drought in different places in the Philippines have demonstrated adverse effects on child nutrition. The adverse effects are compounded when the emergency and disaster is protracted or repetitive.

The adverse effects result from a mix of factors ranging from decreased food supply, decreased capacity to buy the available food supply, lack of access to safe drinking water and sanitary toilet facilities, decreased capacity to fight infections, among others.

Nutrition in emergencies refer to key nutrition services that are components of emergency preparedness, response, and recovery phases aimed at preventing death and worsening of malnutrition in the affected population, particularly in the most nutritionally vulnerable groups: children under five years old, pregnant women and breastfeeding mothers, and older persons.

Thus, the NiE Program aims to build the capacity of LGUs to withstand, anticipate, prevent, adapt, and recover from stresses and shocks that affect nutrition. Working through Local Disaster Risk Reduction and Management Committees (LDRRMCs) and local nutrition clusters (LNCs), nutrition promotion and management activities will be integrated in the overall disaster risk reduction and management.

This capacity of the LDRRMC/NCs will enable the effective protection of children, women, and other vulnerable groups with respect to their nutritional needs, promoting appropriate infant and young child feeding practices, and preventing undernutrition and worsening of nutritional status particularly in prolonged encampments. The effective management of LDRRMC/NCs activities with respect to nutrition would avert an increasing number of undernourished children precluding PPAN outcomes being achieved.

Implementation of the NiE Program will be guided by the NiE Strategic Plan for 2017-2022 that also serves as a preparedness plan.

Six strategies will be used across the four phases of disaster risk reduction and management (prevention and mitigation, preparedness, response, and recovery and rehabilitation), as follows:

¹⁷Reyes et. al. (2011) shows that during the period 2003-2009, some families were able to move out of poverty but the slots they vacated have been filled up by the new poor. Thus, there has been no change in the poverty incidence. Based on a panel dataset, 23.4 percent of the families in 2009 are classified as poor. Of these families, 47 percent are chronically poor or consistently poor all throughout 2003-2009. The rest were previously non-poor. The over-all poverty incidence in 2009 of 23.4 percent is not very different from the poverty incidence in 2003 of 23.1 percent. Yet, Figure 13 shows that there have been considerable movements in and out of poverty. This analysis highlights the importance of appropriate safety nets to help families from falling into poverty in times of shocks. With well-established safety nets that can be rolled out immediately after a shock, the non-poor need not fall into poverty and the poor will not fall deeper into poverty. Fewer transient poor would translate to a much lower poverty incidence, consisting mainly of the chronic poor. (NEDA MDG Report 2014: Executive Summary page 10)

1. Policy development, updating and dissemination
2. Capability development
3. Prepositioning and resource mobilization
4. Promotion and communication
5. Inter- and intra-cluster coordination
6. Information management

During response and recovery and rehabilitation, the protection of the nutritional status of the vulnerable population will be carried out through the implementation of NiE services that include:

1. Advocacy, promotion and protection of breastfeeding through IYCF in Emergencies Program,
2. Micronutrient supplementation,
3. Management of acute malnutrition, and
4. Dietary supplementation.

It will be anchored on other PPAN programs such as IYCF, PIMAM, National Dietary Supplementation Program, National Nutrition Promotion Program for Social and Behavior Change, and Micronutrient Supplementation as preventive measures.

The DOH will preposition the appropriate micronutrients, commodities and other essential lifesaving supplies for emergencies under current guidelines.

The NiE Program is not a stand-alone program. It also needs support from other clusters in ensuring the availability and accessibility to safe, nutritious, and adequate food, preventing and treating malnutrition, providing adequate safe water and promoting good hygiene and sanitation, and protecting vulnerable groups, among others are addressed. A concern to resolve immediately is on the food pack for children 6-23 months old. The possibility of supplementary feeding of pregnant women in emergencies to prevent the worsening of their nutritional status during this critical period will be explored.

The NNC Secretariat and the National Nutrition Cluster will be the lead agency/group that will implement, monitor, and evaluate the NiE Strategic Plan. Priority for preparedness activities will be 50 provinces (36 PPAN focus areas and 14 provinces with multiple risks that are not included in the PPAN priority areas). However, response, recovery, and rehabilitation efforts will be pursued in areas affected by an emergency or disaster.

4.8 Overweight and Obesity Management and Prevention Program (OOMPP)

The Overweight and Obesity Management and Prevention Program (OOMPP) aims to prevent an increase in overweight and obesity among children 0-10 years old and decrease prevalence rates among the rest of the population.

The OOMPP encompasses all life stages, as well as the multifaceted and complex nature of the overweight and obesity problem (i.e., link between undernutrition during pregnancy and overweight/obesity later in adult years).

It is linked with other programs in PPAN 2017-2022 particularly the National Nutrition Promotion Program for Behavior Change.

The DOH will be the lead implementing agency as part of the health system response against the rising prevalence of NCDs. Other government agencies will oversee related efforts in settings related to their operations, i.e. The Department of Social Welfare and Development (DSWD) for day care centers, DepEd for the public school system, DOLE for the formal labor sector, the CSC for workers in the public sector Department of Labor and Employment (DOLE). Employer and employee organizations and LGUs are also important partners.



NUTRITION-SENSITIVE PROGRAMS

The Nutrition-Sensitive Program involves tweaking the design of on-going development programs to contribute in achieving nutritional outcomes. An on-going development program will be tweaked into a nutrition-sensitive program by deliberate inclusion of nutrition indicators in selecting target areas and beneficiaries, purposive inclusion of nutrition education among program or project components, and others that may be identified.

While each of the projects will be implemented by specific agencies, the coordination for the overall Nutrition-Sensitive Program will be done through the NNC Technical Committee. A TWG composed of those involved in the covered programs and projects will be organized.

LGUs may identify programs and projects to be “enrolled” in the Nutrition Sensitive Program. Selecting and increasing nutrition sensitivity of LGU programs and projects will be part of the LGU mobilization agenda.



ENABLING PROGRAMS

6.1 Mobilization of Local Government Units for Nutritional Outcomes

The program for mobilization of LGUs for delivery of nutritional outcomes recognizes the key role of LGUs in achieving targeted nutritional outcomes.

This program aims to deliver 36 provinces and the majority of its LGUs (total of 708 municipalities and cities), converting them from LGUs with low-intensity nutrition programs to ones that deliver nutritional outcomes during the six-year period of the PPAN. It is one of the cornerstones of the PPAN 2017-2022.

It is an essential part of the set of programs ensuring two contributions to the PPAN planned outcomes. One is by ensuring that the 36 focus provinces and their 708 cities and municipalities deliver nutritional outcomes. Two, by inspiring and providing models and practices that other provinces, cities, and municipalities can adapt.

LGU mobilization is expected to facilitate convergence of services, that among others will involve national government agencies working in tandem with the demands of the LGUs being mobilized.

Key activities to pursue are the organization of regional PPAN mobilization teams, capacitating these regional PPAN mobilization teams to be effective mobilizers and negotiators, and the development of region-specific strategies for LGU mobilization.

The formulation or re-formulation of local nutrition action plans is also a key activity for this program. Nutrition program or project packages will be developed as a tool for nutrition plan formulation. The ECCD in the First 1000 Days Program will be among the packages to be marketed to LGUs. These packages will be shared with other LGUs for their use.

The LGU Mobilization Program is not a stand-alone program. It capitalizes on the synergy that it provides to the other PPAN programs and the support it gets from the other programs. The outputs of its four reinforcing projects feed the key delivery mechanism of the program which is the interface between the mobilization team and the local chief executives and their local nutrition committees. Project 2 provides the enabling environment in the legal and political frame, while Project 3 provides the tools allowing Project 1 to deliver its outputs.

The NNC Secretariat will lead the implementation of the program but the member agencies of the NNC and other partners will be important partners in implementing the program.

6.2 Policy Development for Food and Nutrition

The goal in the current period of the PPAN 2017-2022 is to secure important pieces of legislative, policy and budgetary support that will enable the NGAs and the LGUs to implement the PPAN more robustly. Project 2 (Public Advocacy for Improved Support to Nutrition in the Philippines) will expand and deepen the understanding and appreciation of nutrition in the public mind not just for the benefit of the PPAN 2017-2022 but for generations beyond the current plan period.

The program consists of two projects that will reinforce each other to produce the program result envisioned in this program. Project 1 (Securing Policy Support for the Improving Nutrition in the Philippines) is more directly related to the program objective. Project 2 (Public Advocacy for Improved Support to Nutrition in the Philippines) will expand and deepen the understanding and appreciation of nutrition in the public mind within the framework of the National Nutrition Promotion Program for Social and Behavior Change not just for the benefit of the PPAN 2017 -2022 but for generations beyond the current plan period. The project intends to build a more informed society on the importance of nutrition to individual, family, community, and national development aspirations. It hopes to address multiple weak links in the policy formulation and development arena for policy makers and legislators to open their doors to support the policy and pieces of legislation being proposed in Project 1 and to strongly advocate and secure their approval.

The program aims to produce four major results all contributing to a stronger planning and implementation of the PPAN and ultimately achievement of the four outcomes of the PPAN 2017-2022, which are as follows:

1. A stronger and explicit policy pronouncement from the President on the need to address the stagnant and worsening nutritional situation in the country which would in turn result to higher priority being given to nutrition by LGUs and NGAs
2. A DILG issuance on LGU actions for nutrition
3. Continued inclusion of nutrition concerns in the budget priorities to ensure sustained budgetary support to PPAN 2017-2022 and onwards both from existing budgetary NGA allocations but also from new GOP sources
4. Securing pieces of legislation and orders that will reinforce the nutrition human and organizational infrastructure to ensure a more robust local government delivery of nutritional outcomes, create an environment that will enable the adoption of key behaviors

For item 4, the following have been identified as priority concerns for legislation.

1. Regulation of the Marketing of Foods of Poor Nutritional Quality for Children
2. Amendment to PD 1569 Barangay Nutrition Scholar
3. Program Strengthening and Institutionalization of the First 1000 Days Program, including concerns on maternity protection

4. Amendment of RA 8976 or the Food Fortification Act
5. Adoption of the Maternity Protection (Extended Maternity Leave)
6. Mandatory Plantilla Position for NAOs
7. Creating a system of food distribution addressing the nutritional needs of the people
8. Taxation of sugar-sweetened beverages

The policy development program including the public advocacy project's success rests on three pillars: first, on the establishment of capacity and institutional infrastructure with adequate resources to plan, prioritize and pursue policy development and public advocacy constituted in the NNC Secretariat; second, on the procurement of expert resources outside of the NNC Secretariat to augment the internal capacity for policy development including public advocacy; and third, in the NNC Governing Board's full functionality that will among others, include pursuit of the policy development agenda.

While each of the projects will be implemented by specific agencies, the coordination for the overall program will be under the responsibility by the NNC Technical Committee using its management sub-group for this program.



MANAGEMENT STRENGTHENING FOR PPAN EFFECTIVENESS

This will be done by improving the efficiency and effectiveness in the planning, implementation, and overall management of the nutrition specific and nutrition sensitive programs.

The program is composed of two projects—Project 1: Securing resource requirements (human, financial, and organizational, for PPAN); Project 2: Strengthening coordinating, monitoring, evaluation, and management of PPAN across NNC including member agencies and NNC Secretariat. Together, the two projects aim to produce changes in the current system of PPAN delivery involving management and coordination, monitoring and evaluation, budgeting, and other vital processes, as well as staffing requirements for the efficient and effective PPAN 2017-2022 implementation.

The priority agenda for action in management strengthening are listed in the section on the results framework.

Included in this list are the review and strengthening of the Philippine Food and Nutrition Surveillance System (PFNSS) and increase in granularity of the NNS. This includes exploring alternative methods for generating provincial estimates for key nutrition indicators. These projects are the full responsibility of the NNC Secretariat, and the NNC member agencies such as FNRI.

The program for management strengthening does not have geographical areas like the nutrition-specific and nutrition-sensitive programs. But because the coverage of these two latter programs is nationwide, the effect of the support provided by the Program for Management Strengthening can also be considered nationwide.

While each of the projects will be implemented by specific agencies, the coordination for the overall program will be under the responsibility by the NNC Technical Committee using its management sub-group for this program.



PPAN RESULTS FRAMEWORK

The results framework has been constructed iteratively and using various inputs from different implementing agencies.

It identifies key outputs to be produced for results ultimately leading to the targeted PPAN outcomes. The goals, PPAN outcomes, program component results and the outputs of the projects were subjected to coherence analysis and subsequently to sensitivity analysis of feasibility of achieving the initially established outcomes given varying conservative assumptions. These assumptions will continually be validated as PPAN implementation.

Table 10. PPAN 2017-2022 Results Framework

Infant and Young Child Feeding Program. Aims to improve the practice of exclusive breastfeeding and complementary feeding by building and sustaining an enabling environment in various settings. The achievement of its outcomes will also require action from the other programs, particularly the Nutrition Promotion for Behavior Change Program, and the Nutrition in Emergencies Programs.

Results: 33 percent of infants 5 mos old are exclusively breastfed
22.5% of children 6-23 months old meeting minimum acceptable diet

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Health systems support							
1. Hospitals accredited as mother-baby friendly							
a. Government hospitals	22	34	22	1857	1950	2047	DOH, PhilHealth, DILG, LGUs, CSOs
b. Level II and Level III private hospitals that are training institutions for obstetrics and pediatrics	34	13	32				
c. Birthing homes				1699			
2. No. of hospital with trained personnel on the care of small baby.	119	168	171	728	1019	1165	
Community-based health and nutrition support							
3. Maternal, Newborn, Infant and Young Child Nutrition (MNIYCN) of Nutrition in Emergency Plans incorporated in LGU disaster risk reduction management plans	/	/	/	/	/	/	DOH, LGUs, CSOs
4. No. of nutrition counselors trained complementary feeding, relief feeding, etc	320 (20%)	480 (30%)	640 (40%)	800 (50%)	1120 (70%)	1280 (80%)	DOH, LGUs, CSOs
5. No. of human milk banks (HMB) set up and functional	16	18	18	20	20	20	DOH, LGUs, CSOs
6. No. of municipalities in the PPAN focus provinces with established pool of trained mother-support groups and trained peer counsellors for lactation management counselling, kangaroo mother care, growth monitoring and promotion, complementary feeding, early child development and acute malnutrition for every barangay.	225	678	903	542	632	722	DOH, LGUs, CSOs
7. No. of barangays with functional community-based support groups on IYCF.	8,406	12,609	16,812	21,015	29,420	33,623	DOH, LGUs, CSOs

Maternity Protection and Improving Capacities of Workplaces on Breastfeeding							
8. Number of regional tripartite industrial peace councils adopting a resolution advocating or in support of breastfeeding and lactation policy. The Philippine Senate has ratified the International Labor Organization Convention 183	3	5	8	17	17	17	DOLE, DOH, labor groups, trade unions, employers' confederation, other CSOs
9. Government line agencies implementing the CSC –DOLE issuance on RA 10028.	10%	50%	75%	100%	100%	100%	DOH, Civil Service Commission
Enforcement of the Milk Code							
10. PPAN focus provinces, cities, and municipalities shall have established integrated monitoring and reporting mechanisms of EO 51, RA 10028 and other related issuances on YCF in every barangay council for the protection of children	5	75	90	32	32	32	DOH, DILG, CWC, CSOs, FDA, DOJ, DSWD, DTI
11. Regional Interagency Task Force on EO 51, RA 10028 and other related issuances on YCF organized	17	17	16	17	17	17	DOH, FDA, DOJ, DSWD, DTI

Philippine Integrated Management of Acute Malnutrition Program. This nutrition-specific program is recognized by UNICEF and WHO as the only established, evidence-based intervention which successfully addresses the problem of acute malnutrition. It involves capacity building to local implementors and provision of services to acute malnutrition (SAM and MAM) cases both under routine health program and during emergencies. It aims to locate the acutely malnourished especially those with severe acute malnutrition, and to provide the needed medical and nutritional intervention. To locate the acutely malnourished especially those with severe acute malnutrition, and to provide the needed medical and nutritional interventions.

Results:

At least 50% of case load for SAM and MAM identified and are enrolled in ITC or OTC facilities.

At least 75% of identified severe acute malnutrition cases admitted are cured

At least 75% of identified moderate acute malnutrition (MAM) cases are cured.

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Policy development and implementation							
12. PhilHealth package for SAM cases developed and implemented	/	/	/	/	/	/	DOH
Service delivery for management of acute malnutrition							
13. Number of PPAN priority provinces/cities with hospitals and field health facilities able to provide Inpatient Therapeutic Care (ITC)	24 (30%)	24 (30%)		49 (50%)	69 (70%)	98 (100%)	DOH
14. Number of cities and municipalities in PPAN priority provinces with hospitals and field health facilities able to provide Outpatient Therapeutic Care (OTC) for SAM	191	191	191	390	560	779	DOH
15. Number of PPAN priority provinces/cities with *functional health service providers network or two-way referral system	24	24		41	69	98	DOH
16. Number of PPAN priority cities and municipalities with health facilities able to provide Outpatient Therapeutic Care (OTC) for MAM				390 (50%)	560 (72%)	779 (100%)	DOH
17. Number of PPAN priority provinces/cities with hospitals and LGU health facilities availing of the developed PhilHealth package for SAM cases						2	DOH

Capacity Building of Local Implementors							
18. Number of PPAN priority provinces/cities with hospital and field health and nutrition staff trained on the appropriate competencies to identify, treat and manage acute malnutrition and deliver quality services both under routine health program and during emergencies	48 (59%)	48 (59%)	48 (59%)	49% (50%)	69 (70%)	98 (100%)	DOH, LGUs
19. No. of LGUs with service delivery network established				100			DOH, LGUs, CSOs
20. No. of LGUs availing of the developed PhilHealth package for SAM cases		20	40	100			DOH, PhilHealth, LGUs, CSOs
21. Scheme for bulk procurement of RUTF and RUSF developed and implemented		/	/	/	/	/	DOH, development partners

National Dietary Supplementation Program. Aims to supplement the inadequate diets of nutritionally vulnerable groups, particularly pregnant women and children 6-23 months old in food-insecure households and wasted school children. It also aims to supplement the diets of children enrolled in day care centers. Program services will be complemented by those from the other programs, particularly, Nutrition Promotion for Behavior Change, Micronutrient Supplementation, Mandatory Food Fortification, and the Nutrition-Sensitive Program.

Results:

- Pregnant women and lactating mothers enrolled in the program show improved nutritional status
- Infants and young children 6-23 months old enrolled in the program achieve/maintain normal nutritional status
- Children in child development centers demonstrate normal nutritional status
- Children in school demonstrate normal nutritional status

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Dietary supplementation of pregnant and lactating women (FNRI, schools and universities offering courses on food science, DOH, NNC, LGUs, CSOs)							
22. No of food packages/products for dietary supplementation of undernourished pregnant women and lactating mothers developed and tested.	2	2	2	2	2	2	FNRI, SUCs
23. Number of nutritionally-at-risk pregnant women in PPAN focus provinces enrolled/covered in the dietary supplementation program	10%	50%	90%	227,990 (90%)	227,990 (90%)	227,990 (90%)	NNC, LGUs, CSOs
24. Number of health and nutrition workers in PPAN focus provinces capacitated on the management of dietary supplementation of pregnant women	100%	100%	100%	43,594 (100%)	43,594 (100%)	43,594 (100%)	DOH, LGUs, CSOs
25. Models for delivering dietary supplementation developed and tested	1	1	1	1	1	1	FNRI, SUCs, NNC
Dietary supplementation of infants and young children 6-23 months old (NNC, LGUs, CSOs)							
26. No. of infants and young children 6-23 months old in PPAN focus provinces enrolled in the dietary supplementation program regardless of nutritional status	10%	60%	90%	1,376,540 (90%)	1,399,565 (90%)	1,423,035 (90%)	NNC, LGUs, CSOs
27. No. of health and nutrition workers capacitated on the management of dietary supplementation of infant and young children 6-23 months old, including linkages with services of other programs, e.g. promotion of infant and young child feeding, micronutrient supplementation, etc.	20%	40%	100%	100%	100%	100%	NNC, LGUs, CSOs

Dietary supplementation of children in child development centers and supervised neighborhood play (DSWD, LGUs, CSOs)							
28. Children in child development centers (CDCs) and supervised neighborhood play (SNPs) provided with dietary supplementation	80%	80%	80%	80%	80%	80%	DSWD, LGUs, CSOs
29. Day care workers capacitated on the management of food supplementation, including the identification of under or overnutrition, and linkages with services of other programs e.g., nutrition education, in percent	20%	75%	100%	100%	100%	100%	DSWD, LGUs, CSOs
Dietary supplementation of wasted school children (DepEd, LGUs, CSOs)							
30. No. of wasted school children in grades K-6 provided with supplementary feeding	100%	100%	100%	100%	100%	100%	DepEd, LGUs, CSOs
31. No. of teachers implementing supplementary feeding capacitated on the management of the feeding program including linkages with services of other programs	100%	100%	100%	100%	100%	100%	DepEd, LGUs, CSOs
Support component (FNRI, SMSEs, LGUs and SUCs adopting FNRI-developed and other related technologies)							
32. No. of complementary food processing facilities of complementary, supplementary food for children and pregnant women established and operationalized	37	40	46	50	55	60	FNRI, SUCs, CSOs
33. No. of LGUs procuring from the existing food plants enrolled in the program and increased volume of transactions with food plants by national government agencies with food plants (FNRI)	80%	80%	80%	80%	80%	80%	FNRI, SUCs, CSOs
Cross-cutting concerns							
34. Guidelines on dietary supplementation for the First 1000 Days (F1K) formulated, approved, disseminated, and implemented					/		DOH, NNC
35. Guidelines for the acceptance of donations for dietary supplementation programs per RA 11037 formulated, approved, disseminated, and implemented				/			DOH
36. Five-year plan for the implementation of National Feeding Program per RA 11037 formulated and disseminated				/			DSWD, DepEd

37. IRR of RA 11037 formulated and disseminated				/			DSWD, DepEd
38. RA 11148 – <i>Kalusugan at Nutrisyon ng Mag-Nanay Act</i> (2018) approved and disseminated		/					DOH, NNC
39. RA 11148 IRR formulated, approved, disseminated, and implemented			/				DOH, NNC
40. JMC on the implementation of NDSP under PPAN					/		NNC, DSWD, DepEd, DILG
41. Number of ARBOS/SLPAs/NIAs/local cooperatives with marketing agreement with DSWD, DepEd and NNC					/		NNC, DepEd, DSWD

National Nutrition Promotion Program for Behavior Change. Will combine communication approaches such as behavior change communication, social and community mobilization, and advocacy to support individuals, families, communities, and institutions to adopt and maintain high-impact nutrition-related practices. Effective nutrition SBCC seeks to increase the factors that encourage these behaviors while reducing the barriers to change. It will be supported by the appropriate policy cover as well as efforts to ensure adequacy of supply of services and related needs to create an environment that will facilitate the adoption of desired practices.

Results:

- Pregnant women undergoing 4 or more ante-natal visits
- 5 months old infants who are exclusively breastfed
- Infants and young children 6-23 months old meeting minimum adequate diet
- Practice of andwashing
- Households using adequately iodized salt
- Improvement in physical activity

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
42. Social and Behavior Change Communication (SBCC) plan developed	/				/		DOH, NNC
43. Organization of National TWG for Nutrition Promotion Program for Social and Behavior Change				/			DOH, NNC
44. Nutrition information resource center set up and functional at the national and regional levels, which shall serve as a permanent repository of nutrition promotion materials and other resources				6	13	17	NNC
45. Provinces implementing the national communication strategy (e.g. <i>Idol ko si Nanay</i> , NGF, 10 <i>Kumainments</i>)	32	32	32	32	32	32	NNC, LGUs
46. Development of SBCC materials	/	/	/	/	/	/	DOH, NNC
47. Integration of nutrition in the sectoral policies, programs, and materials	/	/	/	/	/	/	NNC GB member agencies
48. Development of SBCC guidelines					19		DOH, NNC
49. Monitoring and evaluation studies				1	1	1	DOH, NNC

Micronutrient Supplementation Program. Focuses on the provision of pharmaceutically prepared vitamins & minerals for treatment and prevention of specific micronutrient deficiency to complement sustainable food-based approaches (e.g. food fortification and diet diversification) to address deficiencies in micronutrients. (DOH, LGUs, CSO, development partners)

Results:

90% of poor pregnant women receive and take-in iron-folic acid supplementation as per guidelines.

90% of pregnant and lactating women in areas endemic with iodine deficiency disorders receive iodized oil capsules.

90% of children 6-11 mos receive high-dose vitamin A once a year.

90% of children 12 – 59 months old receive high-dose vitamin A twice a year.

90% of children 6-11 months old receive adequate supply of micronutrient powder as per guidelines.

90% of children 12-23 months old receive adequate supply of micronutrient powder as per guidelines.

90% of adolescent females receive and take-in iron-folic acid supplements as per guidelines.

Project/Strategy Output	Target					Agency/ies involved	
	2017	2018	2019	2020	2021		2022
Health systems support (DOH, PhilHealth, LGUs, CSOs, private birthing facilities, private health facilities with maternity services)							
Logistics and system							
50. Logistics systems for MN supplements assessed and improved to ensure micronutrient supplements are available in all health facilities at all times.	/	/	/	/	/	/	DOH, LGUs, CSOs
51. Electronic logistics and information system (e-LIS) operational					/	/	DOH
52. Delivery and utilization of nutrition commodities in various health facilities tracked through the Pharmaceutical Management Information System		/		/	/	/	DOH
53. Scheme for paying for micronutrient supplementation through PhilHealth under the Universal Health Care Law developed and implemented				/	/	/	PhilHealth
Procurement, distribution and availability of supplies							
54. Supplies of iron-folic acid for pregnant women procured	1,946,296 (53%)	2,052,026 (55%)	3,410,639 (90%)	2,967,542 (100%)	3,019,554 (100%)	3,072,610 (100%)	DOH, LGUs, CSOs

55. Supplies of iron-folic acid for pregnant women distributed	1,946,296 (53%)	2,052,026 (55%)	3,410,639 (90%)	2,967,542 (100%)	3,019,554 (100%)	3,072,610 (100%)	DOH, LGUs, CSOs
56. Supplies of iodized oil capsules for pregnant and lactating women procured	1,946,296 (53%)	2,052,026 (55%)	3,410,639 (90%)	2,967,542 (100%)	3,019,554 (100%)	3,072,610 (100%)	DOH, LGUs, CSOs
57. Supplies of iodized oil capsules for pregnant and lactating women distributed in areas endemic to iodine deficiency	1,946,296 (53%)	2,052,026 (55%)	3,410,639 (90%)	2,967,542 (100%)	3,019,554 (100%)	3,072,610 (100%)	DOH, LGUs, CSOs
58. Supplies of vitamin A capsules for children 6 mos - 5 years old procured	7,266,346 (57%)	7,123,461 (55%)	11,839,791 (90%)	10,645,781 (100%)	10,832,370 (100%)	11,022,705 (100%)	DOH, LGUs, CSOs
59. Supplies of vitamin A capsules for children 6 mos -5 years old distributed	7,266,346 (57%)	7,123,461 (55%)	11,839,791 (90%)	10,645,781 (100%)	10,832,370 (100%)	11,022,705 (100%)	DOH, LGUs, CSOs
60. Supplies of micronutrient powder for young children 6-23 months old are procured	3,824,393 (90%)	3,885,524 (90%)	3,946,572 (90%)	3,406,079 (100%)	3,465,777 (100%)	3,526,674 (100%)	DOH, LGUs, CSOs
61. Supplies of iron-folic acid tablets for adolescent females in poor areas procured	90%	90%	90%	100%	100%	100%	DOH, LGUs, CSOs
62. Supplies of iron-folic acid tablets for adolescent females in poor areas distributed	90%	90%	90%	100%	100%	100%	DOH, LGUs, CSOs
Capacity building							
63. A regular technical updating established for sustainable system of delivering training for the regional nutrition coordinators and other technical staff at all levels of service delivery as part of the human resource development. A module to track the commodity may be developed.	/	/	/	/	/	/	DOH
Advocacy and communication plan							
64. Advocacy to LGUs to invest on additional micronutrients to ensure intake of these nutrition supplements by at least 90% of the target eligible population	/	/	/	/	/	/	DOH, CSOs

65. Communication plan targeting beneficiaries and parents and caregivers to take the recommended dosage and number of micronutrient supplements	/	/	/	/	/	/	DOH, LGUs, CSOs.
66. No. of national communication	/	/	/	/	/	/	DOH., LGUs, CSOs, development partners
Monitoring and evaluation							
67. Monitoring and Evaluation through the FHSIS and conduct of PIR	/	/	/	/	/	/	DOH, LGUs
68. All regional technical teams monitoring activities are fully funded and hold an annual program implementation review (PIR)	/	/	/	/	/	/	DOH, LGUs

Mandatory Food Fortification Program. Involves the addition of one or more nutrients to rice, flour, cooking oil, and sugar and voluntary fortification of processed foods as mandated by RA 8976 and iodine to salt as mandated by RA 8172, or as prescribed by the NNC Governing Board.

Results:

50% of registered wheat flour millers, importers, distributors, and traders fortifying and/or ensuring wheat flour is fortified with vitamin A and iron according to standards

50% of registered cooking oil refiners, importers, distributors, and traders fortifying and/or ensuring cooking oil is fortified with vitamin A according to standards

25% of rice requirements of government agencies implementing social safety net programs use iron fortified rice for distribution or food preparation

70% of imported salts and all local salt should be iodized based on the acceptable standards

90% of households use adequately iodized

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Overall Program Coordination, Monitoring and Evaluation							
69. Reorganization of the TWG on Food Fortification and Sub-TWGs on flour, oil, sugar, and processed foods and salt				/	/		NNC, TWG-FF
70. RA 8976 reviewed and updated				/	/		NNC
71. Strategic Plan for mandatory food fortification formulated and approved by the NNC					/		NNC
72. Strategic plan on mandatory fortification of cooking oil, rice, sugar, and wheat flour implemented					/	/	FDA, rice, flour, cooking oil, sugar industries, FNRI, DOH, SRA, PCA, NFA, NGAs, NGOs, CSOs, development partners
73. Review of implementation and formulation guidelines on voluntary fortification of processed foods				/			DOH, NNC, NEDA

74. National health promotion and communication plan on mandatory food fortification developed and implemented as part of the Nutrition Promotion Program for Behavior Change	/	/	/	/	/	/	DOH, NNC
Strengthened compliance monitoring system							
75. Management information system operationalized and feedback system the with industry and TWG strengthened	/	/	/	/	/	/	DOH, NNC, FDA, NFA, SRA, PCA
76. Scheme for engagement of CSOs in monitoring developed, tested and implemented							NNC, FDA, DOH
Wheat Flour							
77. Policy on mandatory folic acid fortification of flour reviewed and approved by the NNC Governing Board						/	NNC
78. Studies on retention, stability, and acceptability						/	FNRI
Rice							
79. Policy on the use of iron fortified rice in social safety net approved by the NNC Governing Board				/			NNC
80. Approved policy on the use of iron-fortified rice in social safety net programs implemented and monitored				3	2	1	DOH, DSWD, DepEd
81. FDA guidelines on use of extruded iron rice fortificant approved				1			FDA
Salt							
82. Amended Revised IRR of RA 8172 approved				1			NNC
83. Strategic plan of the NSIP implemented	/	/	/		1	/	DOH, NNC, FDA, ITDI, Salt ManUfacturers

Nutrition in Emergencies Program. This nutrition-specific program involves the provision of nutrition services to populations affected by a disaster or emergency, particularly in the response and recovery phases. It also involves emergency preparedness to ensure that the capacity to respond well is present.

Results:

Nutrition protection in emergencies integrated in overall disaster risk reduction and management efforts in the 50 priority provinces of the NiE Program

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Policy development, updating and dissemination							
84. AO on Nutrition in Emergencies developed and disseminated					1		DOH, NNC, UNICEF
85. 2009 Policy Guide on Nutrition in Emergencies updated and disseminated					1		DOH, NNC
86. DRRM-H-NiE Plan developed/updated and integrated in the DRRM-H Plan/LNAP at the national, regional, provincial, city/municipal levels							DOH, NNC, LGUs
a. National level			1 (100%)		1 (100%)		
b. Regional level			17 (100%)		17 (100%)		
c. Provincial level			81 (100%)	47 (58.0%)	34 (42.0%)		
d. Municipality/city level				157	111	411	
87. NNC Governing Board resolution on information management in emergencies approved and disseminated			1			1	NNC
88. ECCD-F1K Manual of Operations mainstreamed emergency setting		1		1			DOH, NNC, UNICEF
89. Nutrition Cluster Advisories issued for emergencies and disasters	At least one major event						National Nutrition Cluster
Capability development							

90. NiE training modules and materials reviewed, updated, and disseminated		/	/	/	/		DOH, NNC, UNICEF, WFP
91. Regions, provinces, cities and municipalities with staff trained on NiE and Information Management (IM)							DOH, NNC, LGUs, CSOs, development partners
a. Nutrition in Emergencies							
a.1 Regional level			16	1			
a.2 Provincial level				47			
a.3 Municipal/city level				157	111	411	
b. Information Management							
b.1 Regional level			17				
b.2 Provincial level			68	13			
b.3 Municipal/city level				157	111	411	
Prepositioning and resource mobilization							
92. Key supplies prepositioned and mobilized within 24-48 hours, as needed/requested	/	/	/	/	/	/	DOH, LGUs, development partners
Promotion and communication							
93. Communication package for NiE developed and disseminated	/	/	/	/			DOH, NNC, development partners
Inter- and intra-cluster coordination							
94. Nutrition Clusters at the national, regional, provincial, city/municipal levels organized	/	/	/	/	/	/	DOH, LGUs, development partners
a. National level				1	1	1	DOH, NNC, LGUs, NGOs, development partners
b. Regional level				17	17	17	
c. Provincial level				47	34	0	
d. Municipality/city level				157	111	411	

95. National, regional and local nutrition clusters respond to emerging situations and use IM tools for reporting	/	/	/	/	/	/	DOH, NNC, national, regional and local nutrition clusters
96. All other elements of the NiE National Strategic Plan implemented	/	/	/	/	/	/	National Nutrition Cluster
Information management							
97. Operational guidelines on nutrition assessment, monitoring and evaluation developed and disseminated	/	/	/	/			DOH, NNC, development partners
98. Capacity maps for national, regional, provincial, and city/municipality levels generated 1st quarter of every year					1		NNC
a. National level		1		1	1	1	National, regional and local nutrition clusters
b. Regional level				17	17	17	
c. Provincial level					81	81	
d. Municipality/city level					158	419	
99. Monitoring and evaluation framework for Nutrition Cluster Strategic Plan updated					1		National Nutrition Cluster

Overweight and Obesity Management and Prevention Program. Involves the promotion of healthy eating environments and healthy lifestyle; also involves the management of those already overweight and obese

Results:

No further increase in the prevalence of overweight and obesity among preschool and school children, adolescents and adults

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
100. Organization of the OOMP Task Force				/			NNC
101. Conduct of Landscape Analysis on Childhood Overweight and Obesity					/		UNICEF, NCP
102. Updated guidelines on physical activity for Filipinos					/		DOH-DPCB
103. Conduct of policy forum on healthy eating environment						/	DOH-DPCB

Nutrition-Sensitive Program. Involves tweaking the design of ongoing development programs to contribute to achieving nutritional outcomes

Results:

- Decrease in the number of nutritionally at-risk pregnant women
- Decrease in the prevalence of low birth weight
- Improved care practices of caregivers among children
- Improvement in the number of households meeting energy requirement
- Improvement in the availability and access to food of the most vulnerable population

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Nutrition in Health							
Improving access to Water, Sanitation and Hygiene (WASH) services							
104. Eligible LGUs endorsed to DBM for release of project's financial subsidy (SALINTUBIG)	129 (96%)	129 (96%)	129 (96%)	134 (100%)			DILG
105. Capacity Development Assistance to LGUs on WASH Sector Assessment and Planning	78 (46%)	78 (46%)	78 (46%)	78 (46%)	45 (27%)	45 (27%)	DILG
Improving access to health and family planning services							
106. Adolescents provided with Adolescent Health and Development (AHD) information				170,000	170,000	170,000	PopCom
107. Adults (parents, teachers, service providers) provided with AHD information				5,100	5,100	5,100	PopCom
Nutrition in Agriculture							
Improving income through agricultural technology							
Production Support Sub-Program							

108. LGUs assisted with production support services			80	81	82	82	DA (NRP, NCP, HVCDP, NLP, NOAP)
109. Beneficiaries provided with production support services							DA (NRP, NCP, HVCDP, NLP, NOAP, SAAD, BFAR)
a. Individual beneficiaries			243,983	992,094 (40 families mushroom production)	2,626,828 (40 families mushroom production)	2,808,209 (80 families mushroom production)	
b. Group beneficiaries			7,044	8,786	9,970	15,155	
110. Agriculture inputs provided							
a. Seeds distributed, kgs			3,659,151.89	6,381,409	32,433,534	30,882,964.952	
b. Planting materials distributed, kgs			127,100	6,800	910	11,580	
c. Animals distributed, head			34,890	90,595	199,757	249,316	
d. Biological control agents distributed, pc					808,950	828350	
e. Biologics, vaccines and drugs distributed, dose			6,566,748	12,114,461	1,824,740	3,397,273	
f. Farm supplies distributed, number			1,451	172,886	13,940	390,821	DA (NRP, NCP, HVCDP, NLP, NOAP, SAAD, BFAR)
g. Farm inputs distributed, kgs				112,261	79,006	84,506	
h. Botanical pesticides distributed, L					9,490	700	
i. Fertilizers and other soil ameliorants distributed, kg			1,091,775.2	42,016,012	230,376,393	225,131,576	
j. Semen straws distributed, number			261,635	262,786	248,962	273,984	
k. Livelihood projects implemented, number			101	326	427	410	
l. Fishing gear/paraphernalia distributed, number			32,920	25,893	23,919	9,124	
m. Broodstocks distributed, pcs			5.72M	5.37M	5.27M	5.87M	
n. Seaweed propagules, kgs			844,759	748,500	718,170	769,760	
o. Seaweed farm implements, set			1,748	2,872	1,593	372	

p. Seaweed nurseries established, number			15	22	23	20	
q. Cages for livelihood, number			16	13	15	3	
r. Mariculture parks maintained, number			30	31	37	37	
Research and Development (R&D) Support Services							
111. Biofortification and Product Development							
a. Technologies transferred/commercialized			1	1	7	13	DA
b. Technologies developed			8	2	13	44	
c. R&D activities conducted			6	2	2		
Extension Support, Education, and Training Services (ESETS)							
112. Farmers and Fisherfolk Trained			181,976	132,002	172,539	57,869	DA (NRP, NCP, HVCDP, NLP, NOAP, HFIDP, SAAD, BFAR)
113. Trainings conducted (TOT, SOA, FFS, others)			4,641	3,283	3,134	2,959	
114. Techno demo farm established/maintained, number			1,267	1,896	2,330	2,211	
115. Learning sites established/maintained			83	127	186	180	
Agricultural Machinery, Equipment, Facilities Sub-Program							
116. LGUs provided to construct agricultural facilities, number of provinces			80	80	81	83	DA (NRP, NCP, HVCDP, NLP, NOAP)
117. Beneficiaries provided with agricultural machinery, equipment, and facilities			9,043	9,717	8,801	8,778	
Agricultural Insurance							
118. No. of farmers and fisherfolk covered by insurance				1,800,144	1,800,144	2291,897	DA-PCIC
Improving physical access to food,							

119. Kadiwa ni Ani at Kita” events conducted			19	40	341	660	DA-NHVCDP
Milk Feeding Program							
120. LGUs with dairy coops linked with gov’t agencies and procuring fresh milk for feeding programs			18	54	40	51	DA-NDA and PCC
Food Production in School							
121. Schools provided with production inputs under Gulayan sa Paaralan Program			4,764	3,143	3,657	3,132	DA-NHVCDP
Nutrition in Social Protection							
Improving access to CCT Program							
122. Number of Conditional Cash Transfer (CCT) beneficiaries covered	4,250,272 (96.6%)	4,250,272 (96.6%)	4,250,272 (96.6%)	4,400,000 (100%)	4,400,000 (100%)	4,400,000 (100%)	DSWD
123. Compliance on health and nutrition conditionality of CCT beneficiaries	100%	100%	100%	100%	100%	100%	DSWD
124. Compliance on FDS conditionality	100%	100%	100%	100%	100%	100%	DSWD
125. Compliant HH for either health or education conditionality provided with rice subsidy	100%	100%	100%	100%	100%	100%	DSWD
Improving access to Sustainable Livelihood Program							

126. No. of households in PPAN priority areas provided with SLP modalities for Microenterprise Development			18,991	20,338			DSWD
127. No. of households in PPAN priority areas provided with SLP modalities for Employment Facilitation			54				DSWD
Nutrition in Education							
128. Provision of Financial Assistance to Lighthouse Schools to Sustain the Advocacy on ISNM Integrated School Nutrition Model				223 schools (1 per SDO)	223 schools (1 per SDO)	223 schools (1 per SDO)	DepEd
129. Expansion of Gulayan sa Paaralan (GPP) implementation to all public schools nationwide through provision of program support funds to selected schools with minimal implementation or no established GPP.		20,000 schools	21,000 schools	100 schools	200 schools	5,000 schools	DepEd
130. Adolescent Reproductive Health (ARH): Weekly Iron Folic Acid Supplementation for Female Adolescent Learners in Public High School			8,804,976	8,385,692	8,804,976	9,245,224	DepEd
131. Deworming of the enrolled learners	85%	85%	85%	100%	100%	100%	DepEd
132. WASH in Schools (WinS)							
a. Public schools with water for cleaning and daily handwashing available at all times.	21,033	21,033	21,033	26,000	30,000	30,000	DepEd
b. Learners provided with supply of soap for handwashing and toothbrush with toothpaste for brushing of teeth.	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	13,000,000	

133. Accredited Centers using the Standards and Guidelines for Center-based Early Childhood Programs for 0 to 4 Years Old Filipino Children	4,864	4,864	4,864	4,864	4,864	4,864	DSWD
134. Enrolled learners attending adolescent Reproductive Health (ARH): Comprehensive Sexuality Education	100%	100%	100%	100%	100%	100%	DepEd
135. National Child Development Center (NCDCs) with Infant-Toddler Early Development (ITED) Program					50	100	ECDC
136. National Child Development Center (NCDCs) with Family Support Program						100	ECDC
137. Parentings Effectiveness Sessions conducted				1,505,583 (80%)	1,505,583 (80%)	1,505,583 (80%)	DSWD
Nutrition in Trade and Industry							
Increasing access to food							
138. LGUs in the PPAN priority provinces assisted in the establishment of food plants for the production of complementary foods and other food supplements				4	4	4	DTI
139. LGUs assisted in the establishment of food plants for the production of complementary foods and other food supplements				4	4	4	DTI

Mobilization of LGUs for Nutrition Outcomes. Recognizes the key role of LGUs in achieving targeted nutritional outcomes. It aims to ensure sustained advocacy and capacity building of local government units particularly local chief executives and local nutrition teams on integrating nutrition in local development plans and budgets and on effective nutrition program management, nutrition leadership and governance.

Results:

At least 70% of PPAN/HDPRC focus provinces, cities and municipalities deliver positive nutritional outcomes (stunting) which is equivalent to 22 out of the 32 focus provinces, 48 out of 69 cities (HUCs and CC), and 499 out of 714 municipalities

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Formulation of Local Nutrition Action Plans for 2020-2022 and Integration into local development plans and budgets							
140. Provinces, Cities and Municipalities in the PPAN-HDPRC with approved LNAP		569		7	7	7	NNC, LGUs
141. Provinces, cities and municipalities in PPAN HDPRC areas integrated nutrition in PDPFP, CDP, LDIP		569		7	7	7	NNC, LGUs
142. Provinces, cities and municipalities in PPAN HDPRC areas integrated nutrition in Annual Investment Programs (AIP)		569		7	7	7	NNC, LGUs
143. Nutrition Program costing tools for LNAP formulation developed and disseminated		1		1			NNC, LGUs
Advocacy interface with Local Chief Executives (LCEs) on Investing in Nutrition							
144. Nutrition Champions Program established and implemented					1		NNC
145. Enlisted LCEs as nutrition champions mobilized for advocacy activities				10	10		NNC
146. Advocacy tools (Compendium of Actions on Nutrition, Compendium of Local Ordinances on Nutrition, P/C/M/B NPM Brochure) developed and disseminated			1	1	1		NNC
147. Strong linkages between regional mobilization groups, RICs and local BNC, BNS, and MNC/CNC established.			/	/	/	/	NNC, CSOs

Policy Development for Food and Nutrition. The ultimate goal in the current period of the PPAN 2017-2022 is to secure important policies in the form of legislation and administrative issuances, and budgetary support that will enable the NGAs and the LGUs to implement the PPAN more robustly.

Results:

90% of the planned policy agenda achieved

Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Securing Policy Support for Improving Nutrition in the Philippines							
148. Legislative proposals passed							
a. Amendment of PD 1569 on the Barangay Nutrition Scholar Program					1		NNC
b. Program Strengthening and Institutionalization of the First 1000 Days Program, including concerns on maternity protection		1					DOH, NNC
a. Maternity protection, i.e. extended maternity leave			1				DOH, DOLE
b. Mandatory <i>plantilla</i> positions for nutrition action officers (NNC)						1	NNC
c. Taxation on Sugar-Sweetened Beverages	1						DOH, NNC
149. Administrative issuances adopted							
a. ASEAN Leaders' Declaration on Ending All Forms of Malnutrition		1					NNC, ASEAN Secretariat
b. Executive Order on PPAN implementation					1		NNC, OP
c. DILG issuance on PPAN implementation		1					NNC, DILG
d. Inclusion of nutrition programs in national and local budget issuances		1	1	1			NNC, DBM, NEDA
e. Nutrition program for government workers			1				NNC
f. Guidelines on Non-Wood Height-Measuring Tools		1					NNC
g. Guidelines on the Integration of Gender Concerns in Nutrition Policies Plans and Programs					1		NNC
h. On funding sources for LGU nutrition programs			1				NNC, DILG, DBM
i. RNC policies	16	16	16	16	16	16	NNC

j. Regulation of the Marketing of Foods of Poor Nutritional Quality for Children					1		NNC, DOH
150. Policies reviewed							
a. RNC policies (NNC)	16	16	16	16	16	16	NNC
Public Advocacy for Improved Support to Nutrition in the Philippines							
151. Policy forum						1	NNC

Strengthened Management Support to PPAN. This program aims to improve the efficiency and effectiveness of improving the efficiency and effectiveness in the planning, implementation, and overall management of the nutrition specific and nutrition sensitive programs.

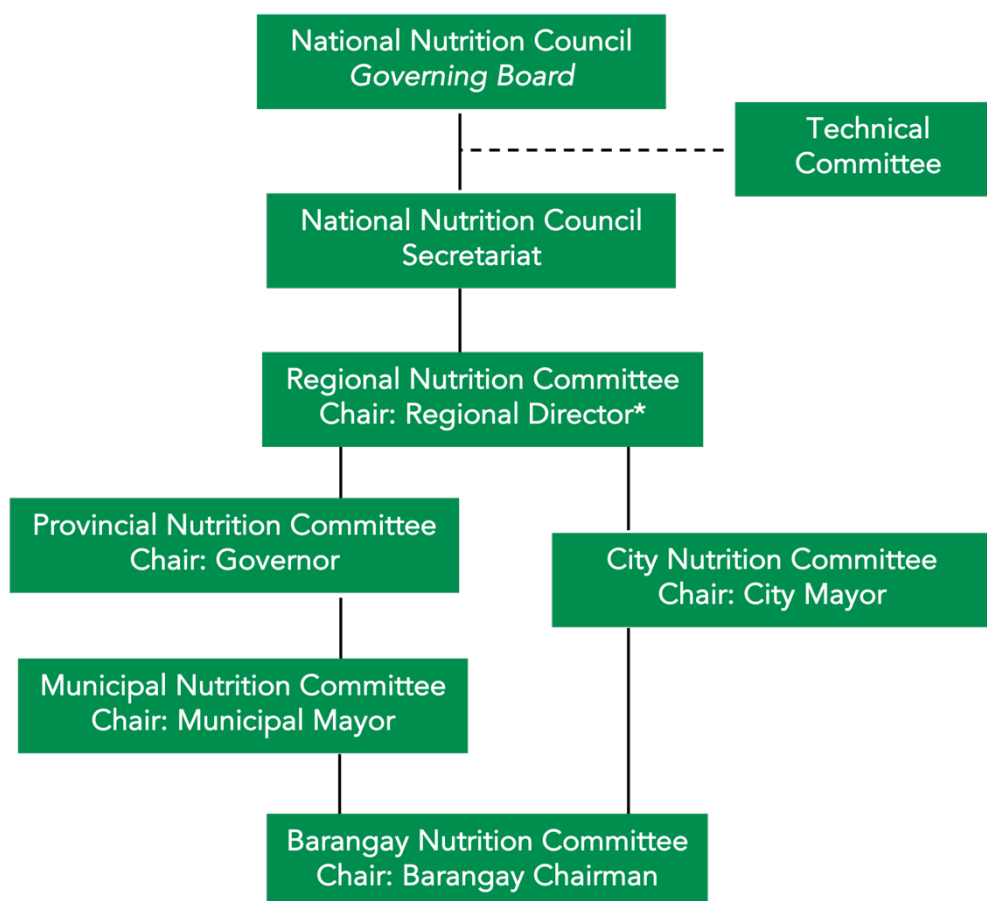
Project/Strategy Output	Target						Agency/ies involved
	2017	2018	2019	2020	2021	2022	
Formulation of Local Nutrition Action Plans for 2020-2022 and Integration into local development plans and budgets							
152. Resource (human, financial, and organizational) generation and mobilization strategy formulated and implemented				1			NNC
153. Structures for coordination (NNC Governing Board, NNC Technical Committee, Program Technical Working Groups, Regional Nutrition Committees, Regional Technical Working Group, Scaling Up Nutrition Movement Networks and others (as may be organized) are functional.	/	/	/	/	/	/	NNC
154. PPAN 2017-2022 and related plans formulated and updated							NNC, NGAs, LGUs
a. PPAN Results Framework					16		
b. Regional Plan of Action for Nutrition (RPAN)	17						
c. Provincial, City, Municipal Nutrition Action Plans		89%					
155. Guidelines for PPAN monitoring and evaluation adopted and implemented	/	/	/	/	/	/	NNC
156. Philippine Food and Nutrition Surveillance System updated and functional	/	/	/	/	/	/	NNC
157. Annual reports on physical and financial accomplishments prepared	/	/	/	/	/	/	NNC
158. Program implementation review undertaken at national and regional levels	17	17	17	18	18	18	NNC
159. PPAN research agenda formulated and implemented	/	/	/	/	/	/	NNC



ORGANIZATION RESPONSIBILITY FOR THE PPAN

The structure for coordinating nutrition action at the national and local levels (Figure 14) will continue to provide the mechanism for integrating and harmonizing actions for nutrition improvement. A continuing effort will be along ensuring the functionality and sustainability of these structures.

Figure 14. National Nutrition Council Structure for Coordination



* Elected from among the regional directors of regional government agencies

9.1 The NNC Governing Board

The National Nutrition Council Governing Board will continue to provide overall leadership in plan formulation, implementation, monitoring, evaluation, and coordination.

The NNC Governing Board is composed of the following:

- Secretary of Health, Chairperson
- Secretary of Agriculture, Vice-Chairperson
- Secretary of the Interior and Local Government, Vice-Chairperson
- Secretary of Budget and Management
- Secretary of Education
- Secretary of Labor and Employment
- Secretary of Science and Technology
- Secretary of Social Welfare and Development
- Secretary of Trade and Industry
- Secretary of Socio-Economic Planning and Director-General, National Economic and Development Authority
- Three private sector representatives appointed by the President of the Philippines for a two-year term

The NNC Governing Board draws its mandate from various policy instruments as listed below.

EO 234, which has the effect of a law:

1. Formulate national food and nutrition policies and strategies for nutritional improvement;
2. Coordinate the planning and monitor and evaluate the implementation of the integrated national food and nutrition program;
3. Coordinate the release of funds for nutrition programs and projects as well as the requests for grants and loans by government and non-government agencies involved in the food and nutrition program; and
4. Call on any department, bureau, office, agency, and other instrumentalities of government for assistance in the form of personnel, facilities, and resources as the need arises.

NNC has additional functions as follows:

1. **EO 616, April 2007.** Oversee implementation of the Accelerated Hunger-Mitigation Program (AHMP) to ensure that hunger-mitigation measures are in place.
2. **RA 8976, 2000.** Determine need for continued mandatory fortification, which nutrients, which staples or food vehicles

3. **RA 8172, 1995.** Formulate policies and coordinate the national salt iodization program

9.2 The NNC Secretariat

The NNC Secretariat will continue to serve as the executive arm of the NNC Governing Board. It is headed by an executive director, assisted by two (2) deputy executive directors. It has three technical divisions (nutrition policy and planning; nutrition surveillance; and nutrition information and education) and two support divisions (administrative and finance). Its seventeen (17) regional offices are headed by nutrition program coordinators.

The functions of the NNC Secretariat are:

1. Advise the Board on nutrition policy and program matters;
2. Coordinate with government agencies and non-government organizations for nutrition program management and resource programming;
3. Recommend a comprehensive food and nutrition policy;
4. Develop measures to improve the implementation of PPAN;
5. Monitor and analyze nutrition and related socio-economic data for a periodic statement on the country's nutrition situation;
6. Monitor and evaluate the PPAN;
7. Develop and implement a comprehensive advocacy, information, and education strategy for the PPAN; and
8. Provide technical, financial, and logistics support to local government units and agencies for the development and implementation of nutrition programs and projects.

For PPAN 2017-2022, the NNC Secretariat will play a key role in facilitating many processes to ensure that the PPAN 2017-2022 is mainstreamed in the agency and LGU consciousness. It will, among others, assign its staff to "watch over" and work closely with specific agencies.

9.3 NNC Technical Committee

The NNC Technical Committee is composed of heads of major department bureaus and agencies involved in nutrition and appropriate non-governmental organizations. It provides technical assistance to the Board and NNC Secretariat and facilitates inter-agency and intra-

agency coordination, supervision and monitoring, and implementation of nutrition policies and programs.

When needed, the NNC Governing Board and Council Secretariat may also create Technical Working Groups (TWGs), task forces, ad hoc bodies, and other interagency bodies as may be needed to address issues and strengthen interagency collaboration. However, existing TWGs, i.e., IYCF TWG, PIMAM TWG, NSIP TWG, MFF TWG, Nutrition Cluster will be tapped for in-depth discussions on program progress and actions, as well as for monitoring. When needed, the focal points of these TWGs will be convened to identify points of interphase.

Regular meetings of the NNC Technical Committee will include updates on PPAN concerns, with two of the meetings taking a close look at PPAN implementation at mid- and end-year. Needed policy and program adjustments will also be discussed in the NNC Technical Committee as may be needed.

9.4 Regional Nutrition Committee

At the regional level, the Regional Nutrition Committee will continue to coordinate nutrition action at the local level.

It will be composed of the same agencies as the NNC Governing Board with additional member agencies as may be needed and appropriate for the region.

Its functions are to formulate, coordinate, monitor, and evaluate the regional nutrition action plan. It also extends technical assistance to local nutrition committees along nutrition program management.

It may create technical working groups and other similar inter-agency groups to attend to address issues and strengthen interagency coordination.

The NNC Regional Office will provide technical and secretariat support to the Regional Nutrition Committee.

As noted earlier, the RNC will formulate the Regional Plan of Action for Nutrition.

9.5 Local Nutrition Committees

Local nutrition committees that replicate the inter-agency composition of the NNC Governing Board will also continue to be the coordinating structure for nutrition action at the local level. Local nutrition committees will be advocated to be either a committee or a subcommittee of the local development council.

The functions of the local nutrition committee are shown in **Table 11**.

Table 11. Functions of local nutrition committees

Provincial Nutrition Committee	City/Municipal Nutrition Committee	Barangay Nutrition Committee
1. Assesses the provincial nutrition situation	1. Assesses the city/municipal nutrition situation	1. Assesses the barangay nutrition situation
2. Formulates the provincial nutrition action plan complementary to and integrated with other plans of the LGU and higher-level plans	2. Formulates the city/municipal nutrition action plan complementary to and integrated with other plans of the LGU and higher level plans	2. Formulates the barangay nutrition action plan complementary to and integrated with other plans of the LGU and higher-level plans
3. Coordinates, monitors, and evaluates plan implementation and recommends and adopts appropriate actions	3. Coordinates, monitors, and evaluates plan implementation and recommends and adopts appropriate actions	3. Coordinates, monitors and evaluates plan implementation and recommends and adopts appropriate actions
4. Mobilizes resources to ensure the plan is implemented	4. Mobilizes resources to ensure the plan is implemented	4. Organizes groups to implement nutrition intervention activities
5. Holds at least quarterly meetings to monitor program performance	5. Holds at least quarterly meetings to monitor program performance	5. Mobilizes resources to ensure the plan is implemented
6. Extend technical assistance to municipal nutrition committees on nutrition program management and related concerns, including the conduct of periodic visits and meetings with the C/MNC	6. Extend technical assistance to barangay nutrition committees on nutrition program management and related concerns, including the conduct of periodic visits and meetings with the BNC	6. Holds at least quarterly meetings to monitor program performance
7. Monitors the performance of Municipal/ Barangay Nutrition Action Plan	7. Monitors the performance of Barangay Nutrition Action Plan	

The local chief executive chairs local nutrition committees, providing leadership in nutrition planning, implementation, monitoring and evaluation. More specific functions include 1) the organization, reorganization, and strengthening of the local nutrition committee (horizontally

and vertically), 2) securing and providing funds for implementing the local nutrition action plan, and 3) presiding over meetings of the local nutrition committee. The local chief executive also appoints the nutrition action officer either as a full-time worker or a designee from among the heads of offices of the local government. The city/municipal mayor also appoints barangay nutrition scholars

The nutrition action officer attends to the day-to-day coordination of local nutrition action. He/she initiates the activities to actualize the functions of the local nutrition committee, e.g., plan formulation, monitoring, evaluation, advocacy for the concerns of the nutrition action plan, provision of technical assistance to the "lower" nutrition committee and conduct of regular meetings. An effort during the plan period will be to encourage local chief executives to hire full-time nutrition action officers with the appropriate staff and office support.

Chapter 10



OVERALL IMPLEMENTATION PLAN

To ensure that PPAN 2017-2022 is translated into action, annual implementation plans will be formulated. The timing of the preparation of these annual implementation plans should consider the budget cycle of the national and local governments.

The implementation plan will focus on building elements for good implementation in 2017 and partially in 2018 without precluding immediate implementation in 2017 of projects and programs that both require these building elements. This implies that the bulk of implementation of some programs will be seen more in 2018 onwards rather than all programs full blast in 2017.



MONITORING AND EVALUATION

Monitoring and evaluation of the PPAN 2017-2022 will be done following the framework shown in Table 10. It will involve the generation of reports from national government agencies, NGOs, and LGUs to produce the annual progress reports. Information generated from these reports will likewise be used in determining needed policy or program adjustments. Annual program implementation reviews will also be conducted at both national and local levels. The monitoring and evaluation system will use advances in information and communication technology.

In 2019, a formative midterm evaluation for each program will be undertaken. Results of the formative evaluation will contribute to the midterm review which will be conducted for the entire PPAN in 2019. Major adjustments for the remaining three years will be identified to increase the chances of reaching their outcomes.

In 2021, an overall evaluation will be undertaken as an input to the full review of the PPAN and the formulation of its successor for 2023 to 2028. Independent evaluation will be encouraged for this purpose.

REFERENCES

- Adair, LS and TJ Cole. (2003). "Rapid Child Growth Raises Blood Pressure in Adolescent Boys Who Were Thin at Birth". *Hypertension* 41:451-456. Retrieved from: <http://hyper.ahajournals.org/content/41/3/451.full.pdf>
- Adair, LS et al (2009). 2009. "Size at birth, weight gain in infancy and childhood, and adult blood pressure in 5 low- and middle-income-country cohorts: when does weight gain matter?" On behalf of the Consortium of Health-Orientated Research in Transitioning Societies (COHORTS) group. *Am J Clin Nutr* 89:1383–1392.
- Adair, LS et al. (2013). "Associations of linear growth and relative weight gain during early life with adult health and human capital in countries of low and middle income: findings from five birth cohort studies" On behalf of the Consortium of Health-Orientated Research in Transitioning Societies (COHORTS) group. *Lancet*. [http://dx.doi.org/10.1016/S0140-6736\(13\)60103-8](http://dx.doi.org/10.1016/S0140-6736(13)60103-8).
- Addo, OY et al (2013). "Maternal Height and Child Growth Patterns". On behalf of the Consortium of Health-Orientated Research in Transitioning Societies (COHORTS) group. *J Pediatr* 163:549-554.
- Addo, OY et al (2015). "Parental Childhood Growth and Offspring Birthweight: Pooled Analyses from Four Birth Cohorts in Low and Middle Income Countries". On behalf of the Consortium of Health-Orientated Research in Transitioning Societies (COHORTS) group. *Am. J. Hum. Biol.* 27:99–105.
- Africa, LS. 2016. "Knowledge, Attitude, and Skills on Infant and Young Child Feeding Counseling of Trained Barangay Nutrition Scholars in Calabarzon's Two Provinces". Institute of Human Nutrition and Food, College of Human Ecology, University of the Philippines Los Baños.
- Alcanz Consulting Group, Inc. (2016). "Food Resiliency in Emergencies and Climate Change Adaptation Systems Tracking". Study prepared for World Food Program Philippines. (Unpublished)
- Asian Development Bank. (2013). "Philippines Water supply and sanitation sector assessment, strategy and roadmap". Manila, Philippines.
- Bhutta, ZA et al (2013). "Maternal and Child Nutrition 2 Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?" The Nutrition Interventions Review Group and the Maternal and Child Nutrition Study Group. *Lancet* 382, pp. 452–477.
- Black, Robert et al (2008). "Maternal and Child Undernutrition: Global and regional exposures and health consequences". *Lancet* 371 (9608), pp. 243–260.

- Blössner, Monika and Mercedes de Onis (2005). "Malnutrition: quantifying the health impact at national and local levels". WHO Environmental Burden of Disease Series, No. 12. World Health Organization, Geneva.
- Borja JB (2013). "The Impact of Early Nutrition on Health: Key Findings from the Cebu Longitudinal Health and Nutrition Survey (CLHNS)". *Mal J Nutr* 19 (1), pp. 1 – 8.
- Briones, Roehlano (2015). "Rice price policy and food security". Slide presentation in Towards Zero Poverty: Pursuing Inclusive Development and Shared Prosperity Symposium of the Towards Zero Poverty Project. AIM/NEDA/UNDP. September 23, 2015.
- Cariño, J.K. (2012). "Country Technical Note on Indigenous Peoples' Issues". International Fund for Agricultural Development (IFAD) - Republic of the Philippines.
- Copenhagen Consensus (2012). "Expert Panel Findings". Retrieved from http://www.copenhagenconsensus.com/sites/default/files/outcome_document_updated_1105.pdf on October 4, 2016.
- Copenhagen Consensus (2012). "Nobel Laureates: More Should Be Spent On Hunger, Health". Retrieved from http://www.copenhagenconsensus.com/sites/default/files/CC12%2BResults%2BPress%2BRelease%2BFinal_0.pdf on October 4, 2016.
- Daniels, MC and LS Adair (2004). "Growth in Young Filipino Children Predicts Schooling Trajectories through High School". *J. Nutr.* 134: 1439–1446.
- De Dios, Emmanuel and Katrina Dinglasan (2015). "Just how good is unemployment as a measure of welfare? A note" in *Philippine Review of Economics*. Vol.52(2)
- Department of Health (2016). "What is GIDA?" Retrieved from <http://www.doh.gov.ph/node/1154> on October 19, 2016.
- Department of Health. (2015). "The Philippines Health Scenario: 2016-2030". Presented in Pan Pacific Hotel.
- Florencio, CA (1994). "Perspectives and challenges in nutrition in the Philippines". Dr. Juan Salcedo Memorial Lecture. Nutrition Foundation of the Philippines (NFP) Monograph Series No. 9. Quezon City.
- Florencio, CA (2004). Nutrition in the Philippines: The Past for its Template, Red for its Color. Quezon City.
- Food and Nutrition Bulletin (2000). "Global nutrition challenges: a life-cycle approach". *Food and Nutrition Bulletin* 21(3) Supplement: 18-34. Sept. 2000

- Food and Nutrition Research Institute (2013). Philippine Nutrition Facts and Figures 2011. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). Philippine Nutrition Facts and Figures 2013. 8th National Nutrition Survey: Food Security Survey. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). "MDGs by 2015: Did Juan hit the targets?" Presentation in the 2016 National Nutrition Summit. 16 February 2016. Crown Plaza Galleria, Manila, Philippines
- Food and Nutrition Research Institute (2015). An assessment of the Nutrition Situation of the Philippines (Terminal report). FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). Philippine Nutrition Facts and Figures 2013. 8th National Nutrition Survey: Anthropometric Survey. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). Philippine Nutrition Facts and Figures 2013. 8th National Nutrition Survey: Biochemical Survey. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). Philippine Nutrition Facts and Figures 2013. 8th National Nutrition Survey: Clinical and Health Survey. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). Philippine Nutrition Facts and Figures 2013. 8th National Nutrition Survey: Maternal Health and Nutrition, and Infant and Young Child Feeding Survey. FNRI-DOST. Metro Manila, Philippines.
- Food and Nutrition Research Institute (2015). "The Philippine food and nutrition situation: 2015 Updating of the nutritional status of Filipinos Regional dissemination. Presentation in the Tagaytay Consultation Workshop on 12-16 September 2016
- Gillespie, S et al (2013). "The politics of reducing malnutrition: building commitment and accelerating progress". *Lancet* 382: 552–569.
- Habito, Cielito (2015) "Inclusive growth, poverty and poverty reduction: challenge and approaches". Slide presentation in Towards Zero Poverty: Pursuing Inclusive Development and Shared Prosperity Symposium of the Towards Zero Poverty Project. AIM/NEDA/UNDP. September 23, 2015.
- Habito, Cielito (2015). "True food security for all". *Philippine Daily Inquirer*. July 07, 2015. <http://opinion.inquirer.net/86487/true-food-security-for-all>
- Herrin, A (2016). "Putting Prevention of Childhood Stunting into the Forefront of the Nutrition Agenda: A Nutrition Sector Review". Philippine Institute for Development Studies. Discussion Paper Series NO. 2016-21. Makati, Philippines.

- Hoddinott, John (2013). "The Economic Cost of Malnutrition". In The Road to Good Nutrition: A Global Perspective. KARGER Chapter Five. Retrieved from http://www.vitaminsinmotion.com/fileadmin/data/pdf/The_Road_to_Good_Nutrition.pdf.
- Horton, Susan and John Hoddinott. (2014). "Benefits and Costs of the Food and Nutrition Targets for the Post-2015 Development Agenda: Post-2015 Consensus". Copenhagen Consensus Center, Working Paper as of 18 November, 2014. Retrieved from http://www.copenhagenconsensus.com/sites/default/files/food_security_and_nutrition_-_perspective_-_horton_hoddinott_0.pdf
- International Food Policy Research Institute (2016). "The 2016 Global Nutrition Report. From Promise to Impact: Ending Malnutrition by 2030". Retrieved from <http://globalnutritionreport.org/2016/06/14/now-available-the-2016-global-nutrition-report>
- Kreft, S., Eckstein, D., Dorsch, L. and Fischer, L. (2015). Global Climate Risk Index 2016. "Who Suffers Most From Extreme Weather Events?" Weather-related Loss Events in 2014 and 1995 to 2014. Germanwatch, V., Bonn, Germany.
- Kuzawa, CW, and DTA Eisenberg (2012). "Intergenerational Predictors of Birth Weight in the Philippines: Correlations with Mother's and Father's Birth Weight and Test of Maternal Constraint". PLoS ONE 7(7): 1-9.
- MASON JB, et al (2006). "Community Health and Nutrition Programs". In Jamison DT, Breman JG, Measham AR, et al., editors. Disease Control Priorities in Developing Countries. 2nd edition. Washington (DC): World Bank; 2006. Chapter 56. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK11726/>
- National Nutrition Council (2006). Guidelines on the Monitoring and Evaluation of Implementation of the Philippine Plan of Action for Nutrition at Provincial City and Municipal Levels. Taguig City, Metro Manila
- National Nutrition Council (2009). Winning in Nutrition – A Manual on Nutrition Program Management for Local Government Units. Taguig City, Metro Manila
- National Nutrition Council (2011). Philippine Plan of Action for Nutrition 2011-2016. Retrieved from <http://www.nnc.gov.ph/plans-and-programs/philippine-plan-of-action-for-nutrition-ppan>
- National Nutrition Council (2012). Philippine Plan of Action for Nutrition 2011-2016. Taguig City, Metro Manila
- National Nutrition Council (2013). 2013 OPT Results Among 0-71 Months Old Children. www.nnc.gov.ph

- National Nutrition Council (2013). Manual on Nutrition Program Management for Local Government Units. National Nutrition Council and UP Los Baños. Taguig City, Metro Manila
- National Nutrition Council (2013). Manual on Nutrition Program Management for Local Government Units. UPLB College of Human Ecology, Institute of Human Nutrition and Food. Taguig City, Metro Manila.
- National Nutrition Council (2014). 2013 OPT Results Among 0-71 Months Old Children. www.nnc.gov.ph
- National Nutrition Council (2014). "Review of the Barangay Nutrition Scholars Project (BNSP)". National Nutrition Council (NNC) and the BIDANI Network Program, Institute of Human Nutrition and Food, College of Human Ecology, University of the Philippines Los Baños
- National Nutrition Council (2014). Nurturing the Filipino Towards a Stronger Nation. Taguig City, Metro Manila
- National Nutrition Council (2014). Repositioning Nutrition in the Philippine Development: The Mid-term Update for the Philippine Plan of Action for Nutrition 2011-2016. Taguig City, Metro Manila
- National Nutrition Council (2014). Review of the Barangay Nutrition Scholars Program (BNSP) and PD 1569. With BIDANI and Institute of Human Nutrition and Food. Los Baños, Laguna
- National Nutrition Council (2015). "Minutes of the NNC Technical Committee". Taguig City, Metro Manila
- National Nutrition Council and UP Manila (2014). Barangay Nutrition Scholars (BNS) Handbook. Taguig City, Metro Manila
- National Nutrition Council. (1981). The Philippine Nutrition Program: Implementing Guidelines. Taguig City, Metro Manila
- National Nutrition Council. (2012). Operation Timbang Plus Guidelines. Taguig City, Metro Manila
- NNC and UPLB (2011). Trainer's Manual on Basic Course for Barangay Nutrition Scholars. Manila Philippines.
- NNC-TWG (2012). Implementing Guidelines on Operation Timbang Plus. Prepared by the Interagency Technical Working Group on Child Growth Standards and approved by the

NNC Governing Board for nationwide implementation pursuant to NNC Governing Board Resolution No. 2, Series 2012

Perlas et al. (2016). "Vitamin A Deficiency (VAD) among Filipino Preschool Children, Pregnant and Lactating Women: 1993 – 2013". Presentation in the 42nd FNRI Seminar Series First 1000 Days. FNRI-DOST, Metro Manila, Philippines

Philippine Coalition on Health Research and Development - DOST. (2015). "The formulation of the 2016-2013 Health Sector Forecast for the Department of Health: A Strategic Policy Paper". Manila.

Philippine Statistical Authority (2016). Relevant tables in database and releases. <http://psa.gov.ph/>

Philippine Statistics Authority. (2016). Millennium Development Goals in 2015.

Quimbo, Stella et al (2013). "How much protection does PhilHealth provide Filipinos". UP-PCED Policy Notes. March 2013

Ruel MT, Alderman H (2013). "Maternal and Child Nutrition 3 Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?" With the Maternal and Child Nutrition Study Group. Lancet 382, pp. 536–551.

Samson, M. S. (2016). "Improving OPT Plus Program through the use of modern anthropometric equipment and capacity building". UPLB College, Laguna. Unpublished

Save the Children Philippines (2016). Cost of Hunger: Philippines. The Economic Impact of Child Undernutrition on Education and Productivity in the Philippines. Save the Children Philippines. Makati, Philippines.

Sicat, Gerardo (2016). "Shortcomings and gaps: Philippine economy and Aquino presidency, 2010-2016" in Crossroads by Gerardo P. Sicat <http://www.philstar.com/business/2016/01/13/1541891/shortcomings-and-gaps-philippine-economy-and-aquino-presidency-2010-2016>

Social Weather Stations (2016). Various media releases of the poverty and hunger surveys. <http://www.sws.org.ph/swsmain/home/>

Stein, AD et al (2013). "Birth Status, Child Growth, and Adult Outcomes in Low- and Middle-Income Countries". With the Consortium of Health-Orientated Research in Transitioning Societies (COHORTS). J Pediatr 163 (6) pp. 1740-1746.

Talavera, MTM and CVC, Barba (2016). "A Review of Operation Timbang". UPLB Institute of Human Nutrition and Food, College of Human Ecology. Laguna, Philippines

- Talavera, MTM and CVC, Barba (2016). "A Review of the Monitoring and Evaluation of Local Level Plan Implementation". UPLB Institute of Human Nutrition and Food, College of Human Ecology. Laguna, Philippines.
- United Nations Children Fund. (2013). UNICEF Philippines: "Health and [Nutrition](http://www.unicef.org/philippines/health_nutrition.html)". www.unicef.org/philippines/health_nutrition.html
- United Nations Children Fund (2013). Improving Child Nutrition. The achievable imperative for global progress. New York, USA.
- Webb, P. (2015). "Nutrition and the Sustainable Development Goals: An opportunity for real progress". SCN News No. 41. p. 11-18
- WHO, 2001. Iron Deficiency Anemia Assessment, Prevention, and Control: A guide for programme managers (WHO/NHD/01.3). Geneva, Switzerland. www.who.int/nutrition/publications/en/ida_assessment_prevention_control.pdf?ua=1. Accessed: 25 November 2016
- WHO, 1996. Indicators for assessing Vitamin A deficiency and their application in monitoring and evaluating intervention programmes. www.sightandlife.org/fileadmin/.../indicators_for_assessing_vitamin_a_deficiency.pdf. Accessed: 25 November 2016
- World Health Organization (2016). "Global Targets 2025". Retrieved from <http://www.who.int/nutrition/global-target-2025/en/> on October 5, 2016.
- WHO, UNICEF and ICCIDD. 2001. Assessment of Iodine Deficiency Disorders and Monitoring their Elimination: A guide for programme managers. Second edition (WHO/NHD/01.1). Geneva, Switzerland. whqlibdoc.who.int/hq/2001/WHO_NHD_01.1.pdf. Accessed: 25 November 2016.g1