Final Evaluation Report

Formative Evaluation of the Philippine Plan of Action for Nutrition 2017-2022

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List of Acronyms and Abbreviations

AIP	Annual Investment Plan
AO	Administrative Order
BF	Breastfeeding
BHW	Barangay Health Worker
BNAP	Barangay Nutrition Action Plan
BNS	Barangay Nutrition Scholar
CCT	Conditional Cash Transfer
CSO	Civil Society Organization
DepED	Department of Education
DILG	Department of Interior and Local Government
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DSWD	Department of Social Welfare and Development
ECCD	Early Childhood Care and Development
eOPT	Electronic Operation Timbang Plus
F1KD	First 1000 Days of Life
FHSIS	Field Health Service Information System
FGD	Focus Group Discussion
FNRI	Food and Nutrition Research Institute
GAD	Gender and Development
GIDA	Geographically Isolated and Disadvantaged Areas
HAZ	Height-for-Age
HCW	Health Care Worker
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood Illness
IP	Indigenous Peoples
IYCF	Infant and Young Child Feeding
KII	Key Informant Interview
LCE	Local Chief Executive
LGU	Local Government Unit
LNAP	Local Nutrition Action Plan
LNC	Local Nutrition Council
M&E	Monitoring and Evaluation
MAO	Municipal Agricultural Office

MAM	Moderate Acute Malnutrition
MBO	Municipal Budget Office
MDG	Millennium Development Goal
MELLPI	Monitoring and Evaluation of Local Level Plan Implementation
MHO	Municipal Health Office
MLGU	Municipal Local Government Unit
MNAO	Municipal Nutrition Action Officer
MNP	Micronutrient Powder
MS	Micronutrient Supplementation
NAO	Nutrition Action Officer
NAP	Nutrition Action Plan
NCIP	National Council on Indigenous Peoples
NEDA	National Economic and Development Authority
NGO	Non-Government Organization
NNC	National Nutrition Council
NPC	Nutrition Program Coordinator
OPT	Operation Timbang Plus
PAO	Provincial Agricultural Office
PDP	Philippine Development Plan
PHO	Provincial Health Office
PIA	Philippine Information Agency
PIMAM	Philippine Integrated Management for Acute Malnutrition
PNAO	Provincial Nutrition Action Officer
POPCOM	Commission on Population
PSWDO	Provincial Social Work and Development Office
PPAN	Philippine Plan of Action for Nutrition
RA	Republic Act
RHU	Rural Health Unit
RNAP	Regional Nutrition Action Plan
RNC	Regional Nutrition Committee
RNPC	Regional Nutrition Program Coordinator
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goal
SFP	Supplementary Feeding Program
TOC	Theory of Change
UNDP	United Nations Development Programme
UNICEF	United National Children's Fund

WAZ	Weight-for-Age
WHO	World Health Organization

Executive Summary

Child malnutrition is a persistent and pressing global health problem that has severe health and economic consequences at the child, household, and national levels. In the Philippines, 30 percent of children under the age of five are stunted—a chronic form of undernutrition—with limited progress seen in recent years. Responding to these nutritional concerns, the Philippine Plan of Action for Nutrition (PPAN) 2017-2022 is the country's results-based policy framework that aims to reduce the country's high malnutrition rate.

The persistence and severity of child malnutrition in the Philippines necessitates an evaluation of strategies identified in the PPAN 2017-2022. Timely evidence on these strategies will help steer the country's efforts to address child malnutrition in the right direction. A key first step in determining the impact of the PPAN is to conduct a formative evaluation to better understand the current delivery of nutrition programs in the Philippines and know where efforts to determine impact should be focused. This formative evaluation seeks to describe nutrition program planning, coordination, and delivery as guided by the PPAN 2017-2022 and identify the challenges or constraints faced. It focuses on stunting among 0-5 year-olds as a key outcome of interest.

We employed both qualitative and quantitative methods. The majority of the analysis is based on 205 semi-structured interviews with key nutrition policy-makers and implementers at the central, regional, provincial, municipal/city, and barangay levels and beneficiaries at the barangay level. Interviews were conducted across three regions, six provinces, six municipalities, and 18 barangays, evenly distributed across Luzon, the Visayas, and Mindanao. We also constructed and analyzed a panel dataset of Operation Timbang Plus (OPT), the annual weighing and measuring of children 0-5 year-old, to assess the integrity of this important monitoring and evaluation system used for targeting, monitoring, and resource allocation.

Our main findings are the following:

The relevance of the PPAN 2017-2022 is strong at higher levels of government and diminishes as it is cascaded down. Regional, provincial, and largely municipal levels readily identified stunting as a nutrition concern in their localities, understood its consequences for child health and development, and aligned their nutrition action plans with the PPAN's strategic thrusts to combat stunting. At the barangay level, a main site of nutrition program implementation, local policy-makers, and implementers did not readily identify stunting concerns or understand it as a key preventable and reversible nutrition issue. As such, nutrition action plans demonstrated less alignment with the PPAN's strategic thrusts.

The Micronutrient Supplementation (MS) and Infant and Young Child Feeding (IYCF) Programs, key interventions featured in the PPAN to address stunting, were implemented in all sample sites but with varying degrees of fidelity to their program design. The MS Program has clear guidelines that were followed for vitamin A supplementation but less so in administering iron supplements and micronutrient powder, which were complicated by issues of supply and uptake among target beneficiaries. IYCF interventions were present in all sites and varied by the mode of delivery, but misconceptions about breastfeeding and complementary feeding persisted.

Sustainability of nutrition planning processes at higher levels appears strong. Sustained performance in nutrition planning and implementation at lower levels of government are susceptible to issues related to governance, funding, management, and human resources. Operationalization of nutrition action plans largely relies on the interests of Local Chief Executives (LCEs) who often do not actively participate in nutrition planning. Where political and financial support exists, accountability mechanisms and incentives may not be strong enough to ensure good performance over time.

Operation Timbang Plus, the primary monitoring and evaluation tool used to track malnourished children at the barangay level, exhibits data quality issues. Perceptions of measurement, recording, and encoding errors were widespread and explained by a lack of training, precision of instruments, and accountability. Analysis of a three-year panel dataset indicates the OPT may also be susceptible to data manipulation where stunting rates are underreported.

The bottlenecks in implementation of PPAN identified in this study strongly suggest the need for the following **action points**:

1) Strengthen OPT plus data collection and reporting;
2) Build capacity of front-line workers to deliver nutrition programs; and
3) Sharpen messages on stunting by following the rule of the Three S's: simple, salient, and solvable

Introduction

Child malnutrition is a persistent and pressing global health problem that has severe health and economic consequences at the child, household, and national levels. Globally, one-third of children in low- and middle-income countries experiences growth faltering.[1] In the Philippines, 30 percent of children under five years old are stunted, with limited progress seen in recent years.[2] Linear growth deficits are an indicator of undernutrition, caused largely by poor nutritional intake and repeated infections that inhibit micronutrient absorption. These same exposures inhibit child neurodevelopment, contributing to cognitive deficits that often persist well into adulthood, affecting individual livelihoods and depleting the human capital needed for economic development.[3–5] Productivity deficits resulting from child undernutrition lead to around US$3.1 billion in economic losses per year in the Philippines.[6]

Targets for reducing rates of stunting, wasting, and hunger were set as part of the Philippine Plan of Action for Nutrition (PPAN) 2005-2010 and PPAN 2011-2016, which are national policy platforms to express the Philippines' commitment to the Millennium Development Goals (MDGs).[7,8] However, these targets were not achieved. The current PPAN 2017-2022 was designed to complement and consolidate existing efforts by various government agencies to combat child malnutrition and assist in reaching targets included in the Sustainable Development Goals (SDGs).[9] The PPAN 2017-2022 puts emphasis on the first 1,000 days under a life cycle approach. The goals of PPAN 2017-2022 include improving the nutrition situation of the country to contribute to:

1. The achievement of Ambisyon 2040 by improving the quality of the human resource base;[a]
2. Reducing inequality in human development outcomes;
3. Reducing child and maternal mortality.

The persistence and severity of child malnutrition in the Philippines, particularly of stunting, necessitate an evaluation of strategies identified in the PPAN 2017-2022. Timely evidence on these strategies will help steer the country's efforts to address child malnutrition in the right direction. A key first step in determining the impact of the PPAN is to conduct a formative evaluation to better understand current delivery of nutrition programs in the Philippines and where efforts to determine impact should be focused.

[a] Ambisyon 2040 is the Philippines' long-term vision to triple real per capita income and eradicate hunger and poverty by 2040. (Executive Order 05, October 2017).

Program Intent and Rationale

The PPAN 2017-2022, a part of the Philippine Development Plan (PDP) 2017-2022, is the Philippines' results-based policy framework that aims to reduce the country's high malnutrition rate. Each new PPAN begins with a landscape analysis to ensure it is responding to the current needs of the country. It is then formulated through a multi-sectoral and multi-level participatory process led by the National Nutrition Council (NNC) and involving its member agencies, other national government agencies, Local Government Units (LGUs), academic institutions, Non-Government Organizations (NGOs), and development partners.[b] The NNC is the country's highest policy-making and coordinating body on nutrition and is chaired by the Department of Health (DOH) with the Department of Agriculture (DA) and Department of Interior and Local Government (DILG) as vice-chairs.

The PPAN 2017-2022 recommends three types of evidence-informed programs: 1) nutrition-specific, addressing immediate determinants of nutrition; 2) nutrition-sensitive, addressing underlying causes of malnutrition; and 3) enabling, creating environments conducive to efficient and effective delivery of nutrition outcomes.[c] Overall, it includes eight nutrition-specific programs, ten nutrition-sensitive programs, and three enabling programs. In addition, the PPAN 2017-2022 outlines the following strategic thrusts:

1. Focus on the first 1,000 days of life
2. Complementation of nutrition-specific and nutrition-sensitive programs
3. Intensified mobilization of LGUs.
4. Reaching geographically isolated and disadvantaged areas (GIDAs), communities of indigenous peoples, and the urban poor, especially those in resettlement areas
5. Complementation of actions of national and local government

The target population of these programs and strategies is all people with any form of malnutrition (i.e. stunted, wasted, and obese). The PPAN also identifies nutritionally vulnerable populations to be prioritized as indicated by the strategic thrusts: pregnant women, lactating women, and infants and young children 0-23 months old (the first 1,000 days) and poor families and communities that lack access to resources and services (GIDAs). Moreover, it prioritizes 36 provinces with the highest

[b] NNC member agencies are the Department of Health, Department of Agriculture, Department of Social Welfare and Development, Department of Education, Department of Budget Management, Department of Labor and Employment, Department of Trade and Industry, National Economic and Development Authority, Department of Interior and Local Government, and the Department of Science and Technology. The Governing Board consists of each department's respective Cabinet Secretary.
[c] The programs listed in the PPAN include a set of high impact nutrition programs identified by the 2013 Lancet Series on Maternal and Child Nutrition.

rates of stunting to build capacities for effective program management (intensified mobilization of LGUs). As part of this mobilization strategy, these target LGUs are prioritized for nationally-funded programs such as Early Child Care and Development (ECCD) and the First 1,000 Days.

A key part of the PPAN's implementation involves the formulation of local nutrition action plans (LNAPs), which are cascaded down from the regional to the barangay level. Given the Philippines' decentralized system of governance, the intention of the PPAN is to serve as a blueprint for nutrition planning and policymaking to be adapted to each local context. LNAPs, covering the three-year term of the Local Chief Executive (LCE), are to be formulated, implemented, and monitored by intersectoral local nutrition councils headed by the LCE at the provincial, municipal, city, and barangay levels. The formulation of these LNAPs through local nutrition councils are conceptualized to in part mimic the development process of the PPAN itself, following a multi-sectoral and participatory approach. Through this approach, local nutrition councils create context-specific NAPs aligned with the PPAN's strategic thrusts to position LGUs to effectively combat malnutrition. The implementation of the associated nutrition programs are conceptualized to influence nutrition outcomes through the pathways depicting in the PPAN's outcomes framework in Figure 1.

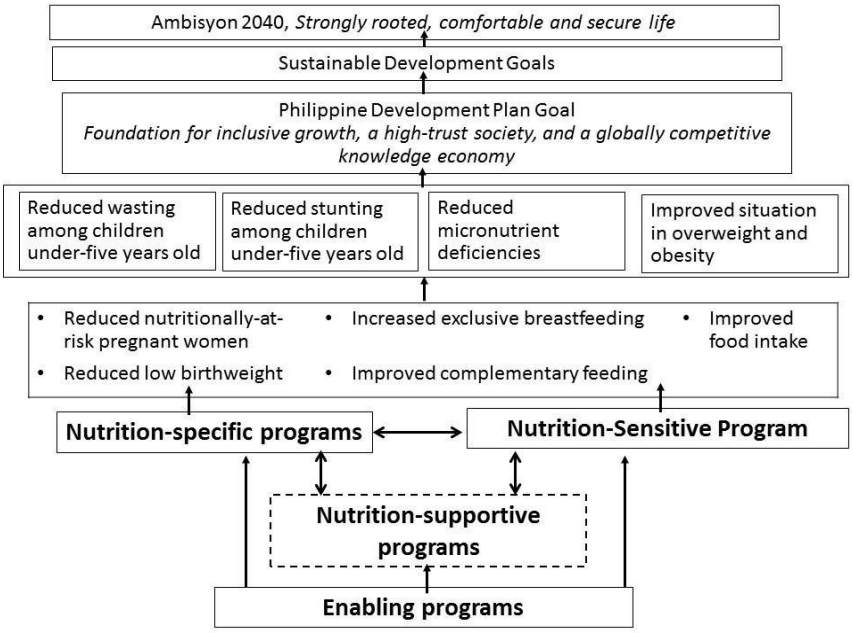

***Figure 1**: PPAN Target Outcome Framework*[8]

Purpose of the Evaluation

Despite the implementation of various nutrition programs, the stunting rate in the Philippines has persisted at around 30 percent for the past fifteen years, and the funding of nutrition programs and effectiveness of service delivery systems remain uneven[2]. The PPAN 2017-2022 has been formulated on the basis of existing national plans and programs while applying strategic thrusts. We conducted a formative evaluation designed to inform the midterm review of PPAN 2017-2022 by investigating the progress towards reducing the prevalence of stunting among children aged 0-5 years old. The study seeks to understand to what degree LGUs have applied the PPAN 2017-2022 strategic thrusts in nutrition programming. It further describes challenges or constraints inhibiting effective nutrition planning, coordination, and delivery.

Research Questions

This formative evaluation seeks to understand to what degree the PPAN 2017-2022 has made progress toward its strategic thrusts. It focuses on stunting among 0-5-year-olds as a key outcome of interest.

This formative evaluation has four main areas of interest, namely relevance, implementation fidelity, sustainability and monitoring and evaluation. The key evaluation questions under each criterion are:

Relevance

Relevance concerns whether the objectives of a program or policy address a real need. To understand the relevance of the PPAN, we ask: to what degree do LGUs identify the problems of malnutrition as stated in the PPAN, and how are these problems understood? To what extent have they aligned their own nutrition planning and programming with the PPAN's strategic thrusts?

Effectiveness / Implementation Fidelity

To the extent that effectiveness involves investigating a change in outcomes, such questions are beyond the scope of this evaluation; understanding effectiveness requires a counterfactual to identify any changes in the outcome of interest, and there were no priority LGUs where the PPAN or the key focus interventions were not implemented. Instead, we look at implementation fidelity: to what degree are programs identified in the PPAN being implemented as intended? How well are the service delivery mechanisms in

place operating? For implementation fidelity, we focus on two key PPAN nutrition-specific programs that focus on the first 1,000 days of life: Micronutrient Supplementation (MS); and Infant and Young Child Feeding (IYCF) with stunting as the main outcome.[d]

Sustainability

Sustainability involves the degree to which programs and their impacts can persist over time. In this section, we ask what are the success factors and challenges in ensuring the sustainability of nutrition programs in relation to governance, funding, management, and human resources?

Monitoring and Evaluation

Monitoring and evaluation (M&E) is key to understanding how programs are being implemented and progress against target outcomes. Moreover, good M&E allows policymakers and implementers to use data-driven approaches to learn and improve program design and implementation. In this section, we ask how adequate are existing systems for collecting data and reporting on key output and outcome measures for priority programs? We pay particular attention to Operation Timbang Plus (OPT), which is the most widely-used and resource intensive M&E system used by LGUs for targeting, surveillance, and resource allocation.

Methodology

Study Areas

In each of the islands of Luzon, Visayas, and Mindanao, we selected one province where interviews were conducted at the provincial, municipal, and barangay levels and another province where interviews were conducted only at the provincial level. Regarding the former, we included two municipalities per province and three barangays per municipality. Thus, the study's sample sites included six provinces, six municipalities, and 18 barangays as shown in Table 1.[e] The case studies featured in Appendix E focus on six municipalities across three provinces in Luzon, the Visayas, and Mindanao.

[d] Micronutrient Supplementation and Infant and Young Child Feeding programs were identified by the Evaluation Reference Group as focus programs for this research question.
[e] In order to maintain confidentiality of respondent interviews as required by the Institutional Review Board and Data Privacy Act, we cannot disclose the location of the sample sites.

Table 1: Distribution of Data Collection Sites			
Island	**Provinces**	**Municipalities**	**Barangays**
Luzon	2	2	6
Visayas	2	2	6
Mindanao	2	2	6
Total	**6**	**6**	**18**

Provincial sites were selected by the NNC Central Office using the following criteria: 1) persistently high rates of stunting, including PPAN focus areas; and 2) implementation of the NNC's ECCD pilot focusing on first 1,000 days interventions. Municipalities and barangays were selected by Nutrition Action Officers (NAOs) at the provincial and municipal levels, respectively based on the same criteria and recommendation from the region.[f]

Data Collection Methods

Qualitative methods included key informant interviews (KIIs) and focus group discussions (FGDs) with respondents representing key groups at various levels of decision-making, including: 1) central, regional, and local government; 2) local implementing organizations; and 3) beneficiaries (mothers of infants and young children). Interviews were conducted between April to June of 2019. A total of 205 interviews were recorded, transcribed and translated as part of this process. Whenever possible, unstructured observations were also done to document the general conditions in the health center and community.

In addition, documents such as NAPs, OPT records, ordinances, and Annual Investment Plans (AIP) were gathered from local administrative systems within selected LGUs to better understand the implementation process. Implementation guidelines and Administrative Orders (AO) were gathered from central and regional offices when available.[g] The data collection methods used to answer the research questions are shown in Table 2.

[f] Initial criteria also included good and poor performing LGUs, though the necessary data was lacking to identify such sites based on objective indicators (one NNC Regional Coordinator admitted the Monitoring and Evaluation of Local Level Plan Implementation (MELLPI) scorecards only had her seeing good performers). Instead, we relied mainly on the perceptions of local Nutrition Coordinators and Nutrition Action Officers to select LGUs with varying performance.

[g] We initially intended to conduct public expenditure tracking, but budget data was largely unavailable. When available, nutrition budgets were often embedded within other line item categories such as Gender and Development or agriculture.

Table 2 Research Questions and Corresponding Data Collection Methods		
Evaluation Criteria	Research Question	Data Collection Methods
Relevance	To what degree do LGUs identify the problems of malnutrition as stated in the PPAN, and how are these problems understood?	- KII and FGD of local implementers
	To what extent have they aligned their own nutrition planning and programming with the PPAN's strategic thrusts?	- Review of LNAPs - Review of local policies and ordinances - KII and FGD of local implementers -
Implementation Fidelity	To what degree are programs identified in the PPAN being implemented as intended and how well are the service delivery mechanisms in place operating?	- Review of implementation guidelines - KII and FGD of local implementers at all levels - KII and FGD of mothers of young children/ beneficiaries - Unstructured observations of general conditions of the environment and facilities
Sustainability	What are the success factors and challenges in ensuring the sustainability of nutrition programs in relation to governance, funding, management, and human resources?	- KII and FGD of local implementers at all levels - KII with active CSOs - Review of LNAPs, AIPs
Monitoring and Evaluation	How adequate are existing systems for collecting data and reporting on key output and outcome measures for priority programs? We pay particular attention to Operation Timbang Plus (OPT), which is the most widely-used and resource intensive M&E system used by LGUs for targeting, surveillance, and resource allocation.	- Review of OPT using child level data from barangay and aggregates at higher levels - KIIs and consultations with central offices, local implementers and CSOs

Development of Data Collection Tools

Data collection tools were drafted following a desk review of related policies and studies and consultations with the Evaluation Resource Group (ERG) and focal persons in NNC member agencies, development agencies working on nutrition and the academe. We formulated semi-structured interview guides for central offices, regional implementers, LCEs, barangay councilors, nutrition action officers (NAO), healthcare workers (i.e. doctors, nurses, midwives, nutritionist-dieticians), barangay nutrition scholars (BNS), barangay health workers (BHWs) and beneficiaries or mothers of young children. The interview guides can be found in Appendix D.

Translation of the interview guides to local languages (Tagalog and Bisaya) followed three steps. The first draft of the translation was done by the Senior Monitoring and Evaluation Associate or a member of the Field Management Team who are native local speakers and have substantial qualitative research experience. The draft was checked by another member of the research management team. Lastly, further refinement of the tools was done by having the qualitative interviewers review the guides and getting their feedback as a group.

The selection of the pilot sites followed a similar process as the selection of the study's field sites. The usage of interview guides and collection administrative data were pilot tested in a region selected by NNC based on high prevalence of stunting in the region, known presence of various nutrition programs, and proximity to Metro Manila to allow for easy coordination. The NNC central and regional offices selected the pilot province who then selected the municipality. The municipality identified the three barangays for pilot.

Rapid analysis through daily debriefing with the team was done with the primary purpose of further refining the interview guides based on experiences of the qualitative interviewers. Probes and follow-up questions and strategies were also built-up during the pilot debriefing.

Data Collection Team

The field team was composed of the Field Manager in charge of overall field operations supported by two Field Coordinators – one in-charge of overseeing administrative data collection and the other overseeing interviews. Initially, eight qualitative interviewers were hired and trained. An additional three qualitative interviewers were hired following the first two case study sites as we had identified more key nutrition program players in every barangay and municipality. A team of transcribers and translators, including an office-based coordinator was also hired to complete the documentation process. The Qualitative Data Collection Protocol is attached in Appendix J.

Data Collection Strategy

To answer to the qualitative and formative nature of the study, data collection followed a dynamic and exploratory approach that permits capturing a variety of aspects of nutrition

programming and at the same time focuses on important themes that may differ in each case study site. The data collection team travelled to one municipality at a time to allow building on each case study, whereby the findings and experiences from one case study site would inform the strategies for next one. The team stayed in one municipality for about a week and was split into four groups - one group assigned in each of the three barangays, and another group performing higher level interviews. Daily debriefings were conducted with the group as a whole. The process ensured immediate exchanges between team members to detect levels of consistencies in reports by various respondents, potential conflicts, and the need to probe further or interview other key players. The strategy also meant to build the skills and understanding of the data collection team who are integral in giving analysis inputs during debriefing.

Analysis

We used two methods of analysis 1) thematic qualitative analysis; and 2) exploratory data analysis.

THEMATIC QUALITATIVE ANALYSIS

We primarily used qualitative data to describe local implementation of the PPAN 2017-2022 in LGUs and answer the evaluation's research questions. Thematic content analysis was conducted where themes and analytical categories were derived based on data collected. Rapid data analysis was conducted whereby each day of data collection ended with a group debriefing. Interview summaries containing key observations, findings, setting, context, and learnings were written by interviewers within 24 hours after each interview. This iterative analysis process allowed researchers to discuss and build upon findings on an ongoing basis and provide timely feedback to inform the design and report on preliminary case study findings.

Audio recordings of interviews were transcribed into the local language, translated into English and checked for accuracy. This was followed by in-depth qualitative analysis using line-by-line coding of transcripts. An analysis plan containing initial codes was prepared based on the rapid analysis. The analysis plan included a list of code names and their definitions. A code was assigned for every guide question and for each emergent theme. Some codes were pre-determined based on the analysis plan while others emerged during the actual coding of transcripts using Atlas.ti software.

The aforementioned local administrative data were analyzed to assist in interpreting and contextualizing qualitative results. Finally, findings from across the six case studies were synthesized to identify common factors contributing to program relevance, implementation fidelity, monitoring and evaluation, and sustainability.

EXPLORATORY DATA ANALYSIS

Exploratory data analysis centered on OPT, a data source that includes annual weight and height measurements of all children 0-5 years old. Analysis of the OPT was used to assess the integrity of this M&E system by checking for any trends that deviate from a normal distribution of height-for-age z-scores (HAZ) and weight-for-age z-scores (WAZ). In order to do this, we extracted, encoded, and analyzed OPT data on height and weight from 4,402 children under five years of age residing in 13 barangays across the study area. OPT data were extracted from each barangay for the years 2017, 2018, and 2019. A panel dataset was then constructed by matching children across years based on name and birthdate, using first a matching algorithm and then manual matching to address differences in spelling across the years that the algorithm missed. For analysis, we calculated HAZ and WAZ for each observation using World Health Organization Child Growth Standards.[10]

Limitations

Apart from the assessment of the OPT, our analysis primarily relied on qualitative data that involved the experiences and perceptions of policy-makers and implementers at all levels. While such data was cross-checked by speaking with multiple stakeholders involved, the use of objective indicators in this analysis was limited.

Moreover, any assessment of the current PPAN in its initial years of implementation was unlikely to detect changes at the local levels. As discussed in *Relevance (page 5)* , regional NAPs (RNAPs) had only been finalized during the fourth quarter of 2018, and the NNC was just orienting provincial offices on the PPAN 2017-2022 during the time of data collection. Given the time requirement to cascade implementation of the PPAN, an NNC Regional Program Coordinator emphasized that evaluations of current PPANs are best conducted during its final years of implementation. Thus, municipal and barangay-level implementation were more likely to be guided by the previous PPAN rather than the current one.

The timing of data collection around the election period limited our ability to interview LCEs as they were busy campaigning; almost all the provincial governors and municipal and city mayors except for one were not available to be interviewed. Weeks after the election, when most LCEs were re-elected, they were unable to respond to our requests for an interview due to scheduling conflicts. Thus, barangay captains were the primary LCEs interviewed while behaviors of higher-level LCEs came from second parties working closely with them.

Findings

Relevance

Relevance concerns whether the objectives of a program or policy address a real need. In this section, we first assess recognition of the problem of child malnutrition and aim to answer the question: do the case study sites, identified by the PPAN as priority areas experiencing high rates of stunting, identify stunting as a problem in their LGUs?[h] We then examine how LGUs may understand the relevance of PPAN-recommended nutrition interventions by looking at their perceived causes of malnutrition. Lastly, we examine whether LGUs see the PPAN itself as relevant and to what extent they have proactively aligned their own nutrition planning and programming with the PPAN's strategic thrusts.

PROBLEM RECOGNITION

Perceived LGU nutritional status

Respondents at the regional, provincial, and municipal levels readily recognized the severity of the burden of child malnutrition in their area and the need to address that burden. Moreover, they understood the magnitude of malnutrition indicators in their LGU and how they compare to other LGUs. In fact, they recognized their status as among the LGUs with highest rates of underweight, wasting and stunting, as identified by the PPAN. They could also identify variation among the municipalities or barangays within their LGU.

However, at the barangay level, there was a tendency to report that the nutritional status of children was satisfactory and had recently improved, which was not reflective of the true nutritional status of the LGU. Barangay LCEs for the most part did not have a good grasp of nutrition concerns and the appropriate interventions in their area. Consequently, most did not prioritize child nutrition in their policy agenda. Our interview may have provided them an opportunity to reflect on nutrition-related concerns; as the interview progressed, many began speaking more of nutrition problems and programs. Barangay-level implementers, perhaps feeling more responsible for the nutrition status of their constituents, tended to minimize the extent of the problem when interviewed by the research team. However, upon probing, most

[h] One of the provinces selected as sample sites are not PPAN priority areas but nevertheless experience high stunting rates.

mentioned that they have malnourished children in their communities, and they need an increased budget allocation and supplies to support these children.

In addition to more readily recalling the nutritional status of children in their LGUs, representatives at higher administrative levels spoke about the nutrition problems differently than those at the barangay level. Those at higher levels highlighted malnutrition rates, demonstrating a broader public health management perspective. On the other hand, barangay-level implementers always spoke about the absolute number of malnourished children, indicating a case-oriented and clinical perspective. The latter perspective suggests that local implementers focus on treating cases of malnourished children while perhaps neglecting preventative approaches, which higher levels incorporate in the program design.

When asked about specific nutritional conditions, almost all respondents readily verbalized concerns of having "malnourished" children in their area. Respondents would often use the term "malnourished" to vaguely refer to a child with nutritional concerns. Upon probing, malnutrition was often only seen as a weight problem and equated to underweight (low weight-for-age) or sometimes wasted (low weight-for-height) children whose disease was more visible and detectable. In a few cases, barangay level respondents also mentioned pallor and bloated bellies as a sign of malnutrition.

Perceptions of stunting

Stunting as a nutrition concern was articulated by representatives from higher administrative levels (regional and provincial) more than lower levels (municipal and barangay). The lack of recognition of stunting as a problem, particularly by LCEs, may be due to misconceptions of its causes and consequences. It may also be due to the lack of insight of the magnitude of the burden of child stunting in their LGU. Ultimately, the lack of recognition results in an absence of appropriate interventions deliberately targeting stunted children.

Lack of awareness

Lower level implementers often demonstrated a lack of knowledge of stunting as a major nutrition concern or minimized its importance. Several implementers, including professional healthcare workers, could not immediately define the different kinds of malnutrition. This included physicians with higher level graduate degrees, unaware of stunting as one of the most prevalent health concerns in the country. However, some implementers had recently learned through trainings that stunting is a nutritional problem, indicating that views on stunting were starting to change

Di gud kaayo siya daghan pero makaingon jod kag naa jod diay tungod anang OPT plus sa una wa man mi ana naghuna-huna. Malnutrition pod diay ning mga magbuon uy.

They are not that many, but you know there are [stunting] cases because of the OPT plus. But we don't really think about that. We didn't know back then that having a small height is also a type of malnutrition. - Nurse

There were a few BNSes and BHWs who could attribute stunting to undernutrition. When asked to discuss the extent of malnutrition problems, they more readily offered data on underweight and wasted cases over cases of stunted children; stunting was often left out of the conversation if not probed, indicating that it was a less salient problem to local implementers. In fact, BNSes and BHWs often explicitly said that they prioritize addressing acute malnutrition over chronic malnutrition because these cases require urgent medical attention. Stunted children appear active and healthy, making it a less salient concern, especially among those who believed it was primarily hereditary.

Perceptions of causes

There was a widespread view that stunting is genetic. Short height was believed to be "normal" and expected if parents were of short stature, which was a view common to LCEs and even some health care workers. Some respondents at barangay levels also mentioned lack of sleep and manual labor of children and mothers as a cause for stunting. There were respondents at all levels that attributed stunting to poor parenting and poor breastfeeding practices of the mother. Regardless of the perceived cause, stunting was recognized as common, and it was not seen as a problem that needed intervention.

Maybe during pregnancy, they are not aware sa food na during pregnant [/pregnancy/] kumbaga nag-a-advice tayo sa mga pregnant na ganito ang kainin mo tapos magpe-pre-nat kada buwan para ma-detect kung ano talaga ang baby mo – lumalaki ba. Minsan siguro yung iba hindi nagpapa-check-up kaya ganoon… tapos mayroon naman silang hereditary na ganyan, ganyan talaga kababa ang anak nila.

Maybe during pregnancy, the women were not aware of proper food for the pregnant. We would advise them of what to eat, conduct pre-natal consultations every month to detect the status of the baby – find out if the baby growing well. Although perhaps some do not undergo check-ups with the doctor that is why the child is stunted. There are hereditary cases that is why children are short. - Midwife

Some BNSes correctly identified stunting as a form of malnutrition and expressed how training on nutrition topics helped in changing their views.

> Opo, nakikita ko [ang problema ng stunting sa amin]. Ang akala ko po ay LAHI. Dahil sa lahi kaya ang daming stunted. Kaya [noong] magseminar kami, nabanggit 'tong stunted na ito. 'Hindi ho ba 'yan dahil sa lahi po ng mga mabababa?'. Yun po pala, doon ko lang naunawaan na kaya pala stunted 'yung bata dahil doon sa kakulangan sa…masustansyang pagkain…. Dito po sa probinsya, nakaugalian naming…sa bahay, halimbawa naggata kami ng langka, hanggang gabi na po 'yun. Wala man lamang na isda. Noong matutunan ko po 'yan, doon kami nag-umpisa na nagplano na din rin ng …pagkain. Dapat may sabaw, may beans [atbp.].
>
> **Yes, I can see stunting in our area, but I thought it was because of the hereditary factors. Children are stunted because it's in their blood. But when I attended a seminar where they discussed about stunting, I asked "Is stunting hereditary?". I found out that the stunting was due to lack of nutritious food. In our community, when we prepare a dish like jackfruit in coconut milk, we will eat the same dish the entire day. We don't include fish. That was the time that I learned about the proper diet and I started to plan food courses and include soup, beans etc. - BNS**

Some respondents, particularly at higher administrative levels, had broader views on nutrition. They attributed stunting to a variety of factors which included proper nutrition and social drivers. They identified stunting as a familial disease not because of genetics but because of family members sharing the same socio-economic background. Therefore, several members of a disadvantaged family, if not all, would suffer from various forms of malnutrition.

Perceptions of consequences

Respondents, particularly at the barangay level, reported that the consequences of stunting largely involved aesthetics, physical limitations, and any possible resulting social impacts rather than effects on cognitive development. All respondents indicated that stunted children are disadvantaged in many aspects including sports, securing employment, and aesthetics. Stunted children were also seen to be prone to being bullied and having low self-esteem. The effects on cognition were not commonly reported, although a few respondents added that stunting is associated with low IQ. Viewing these consequences as a problem, they all agreed that being tall is important and favorable.

Interventions to address stunting

Despite a widespread belief that health and nutrition play a big role in child growth, genetics was still perceived by some as a stronger contributor to stunting, especially at the barangay level. Stunting could not be prevented if parents are stunted.

Interviewer:	Unsay mga pagkaon ang makatabang para sa mga bata mutaas?
	What are the foods that can help children to improve their height?
DNPC:	Fruits and vegetables.
	Fruits and vegetables.
Interviewer:	Naa bay specific?
	Are there any specific fruits and vegetables?
DNPC:	Wala man kay kanang pagtaas man sa bata sa genes man na.
	None because the growth of a child depends on genetics

Almost all respondents, including beneficiaries, identified eating nutritious food and getting enough vitamins as a contributing factor to child growth. Respondents down to the barangay level referred to concepts of "Go, Grow and Glow", "Pinggang Pinoy" and "Ten Kumainments" and explained the need for dietary diversity.[i] Many, although not all, believed commercially prepared vitamin supplements as necessary to make sure a child grows tall (e.g. Tiki-tiki, Cherifer, Star margarine, etc.). Other less reported factors included nutrition- sensitive and nutrition-specific interventions such as keeping a clean environment, good hygiene habits, access to clean water, good parenting, vaccinations, and complying with regular health check-ups.

However, since stunting was largely seen as genetic and irreversible, stunted children were not included as a target population for these interventions and practices. Interventions to help reverse stunting reach the target population incidentally; they tend to be universal programs targeting all children or involve overlapping nutritional concerns. There were hardly any interventions that were reported to deliberately target stunted children. Rather, these children would only receive universal interventions such as vitamin A supplementation, vaccinations, and irregular feeding activities in day care centers, which are intended for all children. Some implementers mentioned that stunted children in their areas were also often underweight or wasted, which makes them a recipient of interventions for acutely malnourished children. Interventions for severe and moderate acute malnutrition are discussed in Appendix B.

Causes of malnutrition

Common reported causes of malnutrition included poverty, food insecurity, lack of dietary diversity, parenting practices, and lack of information.

[i] "Go, Grow, Glow" is a food classification scheme to promote balanced diet. Carbohydrate-rich foods such as rice, bread, and pasta are Go foods. Protein sources such as meat, fish and milk are Grow foods. Vegetables and fruits that are rich in vitamins and minerals are Glow foods.

Food insecurity, caused by a combination of economic and natural factors, were commonly cited as a cause of malnutrition in all case study sites. These sites were often located in poor and remote areas where people struggled to find livelihood opportunities, including agricultural areas experiencing drought and frequent crop destruction by extreme weather. A few beneficiaries admitted that their families do not get to eat three meals every day.

> **Public enemy number one dito ang malnutrition. Maybe because of poverty, and hunger, food insufficiency, lack of work for the family. If they don't have work, they cannot [support] their family with nutritious food. That's why it contributes [to] stunting…Stunting happens within the first two years of our lives. Ang number one cause is poverty. -PNAO**

Poor dietary diversity, attributed to poverty and behavioral practices, was also a commonly cited cause of malnutrition. Due to lack of income, poor families tend to purchase cheaper foods such as rice and root crops over vegetables, fruits, and meat. Although these households may have physical access to a variety of nutritious foods, they opt for cheaper options which are seen as more filling. For example, some respondents from fishing communities preferred to sell rather than consume their catch to buy rice or instant noodles. Apart from lack of income, these dietary practices were also seen to be a result of behavioral choices, in part influenced by the ubiquitous marketing of junk food (e.g. instant noodles, hotdogs, chips, soda). Rather than plant or buy vegetables and cook their own food, people tend to prefer unhealthy processed foods, which are heavily marketed toward them. Parents often admitted to allowing the substitution of healthy options for processed foods yet did not appear to find this problematic.

Implementers also believed that that there was a lack of information and modelling on healthy dietary practices. They believed that children would eat nutritious food if their parents cook, serve, and eat these kinds of food. However, children were allowed by parents or guardians to eat junk food, refuse vegetables, and skip meals. Parent respondents themselves often recognized these unhealthy practices but did not always acknowledge them as problematic.

Having large, impoverished families, and having limited time spent by parents in taking care of their children were also viewed as big contributors to malnutrition. Parents taking care of many children would naturally have less time to care for each child. In addition, families where both parents were working devote less time and attention to their children. Children were often left in the care of relatives or helpers or to care for themselves. Parental neglect also came up in a few areas where adults resort to vices such as alcohol and gambling.

These reported causes of malnutrition lend to a combination of both nutrition-sensitive and nutrition-specific interventions. Regarding the former, addressing the problems of poverty and

food insecurity can involve livelihood interventions and social protection programs. Regarding the latter, problems concerning information and behavioral practices can involve interventions such as mothers' classes and behavioral change campaigns. Such activities conceptualized to address these perceived causes of malnutrition are included in the PPAN. Thus, it follows that LGUs in the case study sites would find PPAN-recommended programs as relevant to their context.

ALIGNMENT WITH PPAN 2017-2022 STRATEGIC THRUSTS

The PPAN is intended in part to serve as a planning tool to help LGUs formulate their local nutrition action plans, and in this sense, it was largely reported as useful. The PPAN was commonly described as a menu where LGUs can choose the programs that are most applicable to their local context and a tool to help prioritize nutrition in the LGU's policy agenda. It was mostly recognized by those who had participated in orientations or were involved in program implementation, including NAOs, BNSes, and to a certain extent staff from the health, agriculture, and social work offices. However, LCEs, the chairs of local nutrition committees, were often not aware of the PPAN. In fact, one LCE admitted that he first heard of the PPAN from the coordination letter sent by the research team.

Interviewer:	Alam niyo po ba ang PPAN - Philippine Plan of Action 2017-2022? **Do you know PPAN – Philippine Plan of Action 2017-2022?**
LCE:	Hindi ako masyadong familiar pero actually, nung naipadala yung letter (about the study), dun lang ako na-inform na may PPAN. **I actually don't know much about it. I was only informed about it when I received the coordination letter for the study.**

The PPAN has five strategic thrusts: 1) the first 1,000 days of life; 2) complementation of nutrition-specific and nutrition-sensitive programs; 3) intensified mobilization of LGUs; 4) reaching geographically isolated and disadvantaged areas (GIDAs); and 5) complementation of actions of national and local governments. This section examines to what degree NAPs are aligned with each strategic thrust and whether they appear to influence how nutrition programs are implemented. Alignment of Nutrition Action Plans (NAPs) with the PPAN's strategic thrusts are strongest at the higher administrative levels and tend to be weak at the local levels, which are the primary sites of nutrition program implementation. As with problem recognition, there appears to be a disconnect between the higher and lower levels.

The delay in cascading PPAN 2017-2022 to the barangay level and for some, at municipal level may be due to the timing of formulation of plans. The latest PPAN was published in 2017 and in

response, regions conducted a series of consultative planning workshops in 2018 whereby they accomplished RPANs by the end of the said year while some regions were still unable to finalize by early 2019. The RPANs covers the period 2019-2022 which follows that the orientation and planning for municipalities and barangays have not yet taken place by the time of data collection.

Focus on first 1,000 days of life

The first 1,000 days of life (F1KD) refers to the period from pregnancy through the first two years, a critical period in a child's life when nutrition has long-term physical and mental developmental effects. Given the importance of this period for child growth, the PPAN recommends stakeholders to focus their nutrition programming on pregnant women and children in this age range. Among respondents, there was a common recognition of the concept of F1KD, though this familiarity appears driven less by the PPAN and more by two important national laws that recently made the headlines: RA 11148 or "Kalusugan ng Mag-Nanay Act", also known as "An Act Scaling up the National and Local Health and Nutrition Programs through a Strengthened Integrated Strategy for Maternal, Neonatal, Child Health and Nutrition in the First One Thousand Days of Life", and RA 11210 or "105-Day Expanded Maternity Leave Law".

NAPs at the regional, provincial, and some municipal levels explicitly mentioned F1KD as a component of their nutrition strategy for their LGU.[j] Respondents at regional and provincial levels were quick to discuss the holistic nature of nutrition programs and focus on F1KD and stunting prevention and reduction. IYCF and MS Programs, key interventions that largely focus on F1KD (i.e. pregnant and lactating mothers and children up to two years of age), were also common features of their NAPs.

However, mention of F1KD was largely absent from barangay NAPs, and it was often not mentioned when respondents were asked about the PPAN.[k] Instead, feeding programs were most prominent and most readily discussed when asked about nutrition programs. These programs tend to focus on children old enough to participate in day care and school-based feeding programs, missing the F1KD target population. Even where F1KD interventions such as IYCF and MS were mentioned in the NAPs, it was often only the BNSes that were aware of them, indicating the planning process at the barangay level was not very consultative. Regardless, there was strong and consistent implementation of the activities related to IYCF such as antenatal care, counselling, monitoring of pregnant women and young children, and distribution of supplements. However, it

[j] This could in part be due to all sites being part of the ECCD F1KD pilot.

[k] Many barangays used a template to complete their NAPs, which is more in line with the previous PPAN.

does not appear that barangay-level policymakers have deliberately made F1KD a centerpiece of their nutrition agenda as recommended by the PPAN.

Complementation of nutrition-specific and nutrition-sensitive program

The PPAN stresses the complementation of nutrition-specific and nutrition-sensitive programs to simultaneously address the many underlying causes of child malnutrition. Many nutrition-sensitive programs aim to address distal causes of child undernutrition such as food security and prevention of infectious diseases while nutrition-specific programs try to address more proximal causes such as adequate food and nutrient intake.

Complementation of nutrition-specific and nutrition-sensitive programs featured prominently in the NAPs of all LGUs, demonstrating strong alignment with this strategic thrust. Common programs included various livelihood interventions (e.g. backyard gardening), infrastructure development (e.g. irrigation), and water, sanitation, and hygiene alongside feeding interventions. Given that most of the reported causes of malnutrition involved distal causes, it follows that nutrition-sensitive programs would feature as part of the policy planning process.

Local interest in and commitment to nutrition-sensitive programs was not purely technical and had an important political component. LCEs were reported to have more commitment and buy-in for tangible, visible interventions such as infrastructure projects. Thus, although there may be complementation of nutrition-specific and nutrition-sensitive programs, there was a reported bias toward the more visible programs among these categories, which would help LCEs win political capital. As such, livelihood programs that distribute assets (e.g. livestock) to beneficiaries, infrastructure projects, and feeding interventions appeared more frequently than behavioral change campaigns or comprehensive mothers' classes teaching breastfeeding practices. Moreover, while we see alignment with this strategic thrust in our case study sites, this complementation appears to be quite incidental to the PPAN; such complementary nutrition-sensitive programs are implemented whether the LCE is aware of the PPAN or not, and they do not have an explicit goal of reducing stunting or other nutrition concerns.

Intensified mobilization of LGUs

Mobilization involves capacity building and mentoring of LGUs on nutrition program management to help them strengthen program implementation. Orientation to the PPAN or component programs and nutrition program management were rolled-out by targeting Nutrition Program Coordinators (NPCs), Nutrition Action Officers (NAOs), and Barangay Nutrition Scholars (BNSes). LCEs, health officers, and councilors for health participated in only a few cases. Planning

and mentoring sessions were strong at the higher levels (regional to provincial to municipal), but there was an apparent break in cascading efforts at barangay levels.

The PPAN identifies 36 priority provinces based on high levels of stunting. Of the six provinces covered in this evaluation, five were identified as priority and four of the six municipalities belonged to a priority province. There was no apparent difference in support given to priority areas compared to non-priority areas. All case study sites were participating in the ECCD F1KD Program, which the PPAN sees as an anchor for mobilization.

Reaching GIDAs, IPs and urban poor in resettlement areas

The PPAN emphasizes that implementers must ensure programs reach marginalized populations where rates of malnutrition tend to be highest. In all case study sites, there were isolated areas often inhabited by Indigenous Persons (IPs), migrants, and Muslim communities, all reported to have the highest prevalence of health and socioeconomic problems, including child malnutrition. Since delivery of nutrition interventions is primarily conducted in centrally located Rural Health Units (RHUs) or barangay health stations, these populations can be easily neglected without any concerted efforts to reach them.

The LCEs and implementers recognized that they must ensure they reach GIDAs and IP populations. Among the strategies being conducted to widen program reach included construction of several health or weighing outposts in every *purok* (a territorial enclave of a barangay), house-to-house visits, and incentivizing families for completing medical check-ups and vaccinations. These strategies were confirmed by beneficiaries who found them to increase access to health and nutrition services. In one case, the research team was even asked by the local council to include 4P beneficiaries and IPs in the roster of respondents to make sure they are represented, demonstrating an awareness and commitment to this strategic thrust.

Some respondents reported successful efforts to increase access to health services among these populations. However, delivery of interventions to these populations was often hindered by opposing traditional beliefs and logistical challenges. Poor cultural and geographic integration seemed to also make implementers think that they are not under their administrative remit. One LGU said that the IPs were not included in their OPT because there are plans of creating a separate barangay for them, though not yet in place. By not including IPs, they were certain that the OPT results would have lower rates of underweight, wasting, and stunting.

Complementation of national and local governments

The national government's primary role in nutrition programming is to provide enabling policies, build the capacity of stakeholders, and procure materials and supplies. As part of the Philippines' decentralized nutrition governance system, the LGUs are in charge of direct program delivery of these services and making budget allocations and providing supplies as needed. The research team found a disconnect between the different levels of implementation, especially in identifying the scope of responsibilities.

The School-Based Feeding Program (SBFP) of the Department of Education (DepEd) and the Supplementary Feeding Program (SFP) of the Department of Social Welfare and Development (DSWD), both national programs, were observed to be consistently present in all areas. However, there were reports of irregular conduct and inadequate targeting of feeding activities due to constraints in resources. In these cases, LGUs contribute funding, supplies, or manpower services to conduct feeding activities. Supplies for the MS Program, which come from the DOH through municipalities, were at times supplemented by LGUs when there was a reported insufficient supply (see *Implementation Fidelity*).

Lower level respondents consistently complained that national government provision was insufficient and requested for more financial support from national and higher levels. In some cases, they preferred money over supplies so they could have more flexibility in budget allocation. On the other hand, higher level implementers would like to see more involvement and budget allocations from lower levels. Thus, while complementation of national and local governments was present in the case study sites, there was a sense from both higher and lower levels that more could be done to strengthen this strategic thrust.

Implementation Fidelity

PPAN aims to prioritize and guide nutrition policy-making at all levels of governance, and its ultimate goal is to reduce the rate of malnutrition in the Philippines, particularly stunting. While *Relevance* considers to what degree local nutrition agendas are aligned with the PPAN's strategic thrusts, this section focuses on the programs and interventions themselves. Since investigating the effectiveness or impacts of these interventions is beyond the scope of this evaluation, we instead focus on implementation fidelity, examining to what degree are programs implemented as intended.[l]

[l] The latest Manual of Operations for Micronutrient Supplementation is being finalized as of writing, according to consultations with DOH.

This section describes the implementation of this evaluation's two focus nutrition-specific programs: MS and IYCF and its salient program components. Each program component is described following the Theory of Change (TOC) framework related to implementation fidelity, namely inputs (e.g. supplies, materials, budget, and manpower) and outputs (e.g. recipient targeting and service delivery).

Other prominent programs discussed during interviews can be found in Appendix B.

MICRONUTRIENT SUPPLEMENTATION PROGRAM

Micronutrient deficiencies in children aged 0 to 59 months and women of reproductive age are among the biggest nutrition concerns identified in the last decade [2,11,12] . Several randomized control trials conducted in the past few decades have demonstrated the positive impacts of micronutrient supplementation (MS). MS delivered during pregnancy reduces the risk of low birth weight [13]. MS delivered to children under five years of age significantly improves linear growth [14]. While the efficacy of MS is well proven, questions remain around the best platforms for delivering MS powder sachets to rural households in LMICs and methods for encouraging parents to mix MS powders into their children's foods. In response, the MS Program was intensified in recent years with the Department of Health's (DOH) Administrative Order Number 2010-0010 "Revised Policy on Micronutrient Supplementation to Support Achievement of 2015 MDG Targets to Reduce Under-five and Maternal Deaths and Address Micronutrient Needs of Other Population Groups" while more specific guidelines on its key components remain in Administrative Order Number 19, series 2003[2,11,12]. The MS Program's target population includes children aged 0-59 months, pregnant and lactating women, and non-pregnant and non-lactating women of reproductive age (15-49 years old). It is designed to provide pharmaceutically prepared supplements to these specific target groups through existing Maternal, Newborn and Child Health and Nutrition service delivery channels and any other channels where the target population can best be reached.

There are two types of MS interventions regarding their intended beneficiaries, namely universal and targeted interventions. Universal programs are intended to benefit the general population without specific eligibility requirements and are often administered to everyone at a specified time. Meanwhile, targeted interventions are intended for nutrient-deficient populations and high-risk groups. Targeted interventions are delivered on an as-needed basis. The MS Program primarily addresses three types of micronutrient deficiencies: vitamin A, iron, and iodine. While vitamin A featured prominently in discussions with implementers, iodine did not. Instead, distribution of Micronutrient Powder (MNP) was common in all case study sites.

Vitamin A Supplementation

Vitamin A supplementation (VAS) is a universal intervention targeting children aged 6-59 months and administered twice annually either through Garantisadong Pambata (GP), a nationwide health campaign to deliver basic healthcare services such as immunizations, micronutrient supplementation, and nutrition and hygiene education to children. The supplements are also intended for post-partum women to prevent risk of maternal anemia and pre-term delivery.

Inputs

The supply of vitamin A supplements appeared to be consistent and sufficient in all case study sites. The DOH Central Office procures vitamin A supplies and distributes them to LGUs, which are then administered by healthcare workers in health facilities and barangay health stations. Although there were supply problems in the past, there were no reported problems in recent years. However, one barangay did not distribute vitamin A supplements because there were no trained healthcare workers to administer them; all BHWs had retired, and nurses were not rehired (see *Sustainability*).

Outputs

Following universal implementation, provision of a routine dose of vitamin A supplementation to all children aged 6-59 months. Regarding delivery of vitamin A supplements to targeted children, distribution is reportedly conducted twice a year in April and October, in line with the official guidelines. They are usually given (often as an incentive to the mothers) during Operation Timbang Plus (OPT) where height and weight measurements of children aged 0 to 59 months are taken at least once a year (see *Monitoring and Evaluation*). They were also administered during the bi-annual Garantisadong Pambata[m] and when provided immunizations. For pregnant women, a lower dose was given once during prenatal consultations. Distribution of vitamin A through house-to-house visits was also reported in all areas.

Although not part of routine interventions, instances of vitamin A being given to pregnant women have been reported by some BHWs. A midwife elaborated that VAS is given to pregnant women with severe malnutrition.

[m] The study noted that most LGUs still practice bi-annual celebration of Garantisadong Pambata in April and October.

First, i-assess ko kung kaya kong i-manage o hindi. Kung kaya kong i-manage, syempre magsu supplement ako ng mga kailangan nya. Ferous. Calcium carbonate kung kailangan. And then Vitamin A kung severe na talaga yong case. Kung kaya syang i-orient, proper intake ng mga food. Advise ng mga intake nya. Proper diet. Pag di makaya, next level na. Refer sa next level.

First, I assess if I can manage the case or not. If I see I could manage, I would give supplements [to the malnourished pregnant woman] - Ferrous [sulfate], Calcium carbonate if needed. I give Vitamin A if the case is severe. If the case is manageable, I orient her on proper intake of food and proper diet. If I can't manage, I would. Refer to the next level [facility]. - Midwife

There were no reported problems in compliance with this one-off activity as health care workers felt certain that the patients in the community get the supplement as scheduled. Beneficiaries did not emphasize vitamin A supplementation as a nutrition intervention they receive, potentially due to the less intensive mode of delivery.

Iron Supplementation

Iron and folic acid supplementation is a universal intervention that targets pregnant and lactating mothers given their high physiological requirements which are difficult to meet with most diets. It is a key F1KD activity mentioned in the PPAN as it addresses maternal anemia, which has effects on the growth of the child. Iron supplementation also targets infants aged 6-11 months, especially those with low birth weight, since they need a relatively high iron intake for growth.

Inputs

Procurement of iron supplements is conducted centrally by the DOH and supplemented by municipal and barangay LGUs. There was a mixed response regarding the adequacy of supplies. In some barangays, there was reportedly an improvement in supply in the recent years.

However, there were more reported incidents of inadequate supply of iron supplements, so they prioritized pregnant women, especially those with anemia. The provision of iron drops was rarely mentioned and only given to infants identified as malnourished[n].

[n] Malnourished typically defined by respondents as underweight or wasted.

Outputs

Iron supplementation under the MS Program are intended to be universal, where all pregnant and lactating women are to be prioritized. Beneficiaries were given a three-month supply of iron supplements (one box of 100 tablets) during prenatal visits, which is less than the minimum six months during pregnancy required by AO 119, though additional doses were sometimes provided. However, reported supply problems mean this was not always done; instead of supplying iron supplements for all infants 6-11 months of age, it was targeted more toward children described as pale or diagnosed with anemia. Some LGUs also gave ascorbic acid supplementation at health centers. Upon dispensing the supplements, the Municipal Health Officer (MHO) or midwife is responsible for giving instructions on proper intake when they dispense supplements to patients. For example, implementers should emphasize proper timing in taking iron supplements such as advising women to take them with meals. Many beneficiaries complained about side effects such as dizziness, upset stomach and constipation, and so they consequently discontinued use. While it is unclear whether this is due to lack of instructions on how to minimize side effects from MHOs and midwives, barangay LGUs acknowledged these complaints. Instead of emphasizing the importance of taking the supplements or advising them on how to minimize side effects, they responded to patients by suggesting they get iron from natural foods such as green, leafy vegetables and meat.

Micronutrient Powder (MNP)

MNP supplementation is a targeted intervention that aims to help correct and prevent micronutrient deficiencies in infants aged 6-23 months by improving the nutrient quality of complementary foods.

Inputs

There appeared to be confusion regarding the primary supplier of MNP sachets; some stated that the primary source of supplies should come from the DOH with LGUs providing a secondary source. Other respondents indicated that LGUs directly procure MNP supplies, which are augmented by the DOH. This lack of clarity on the respective roles of the supply chain may explain the often-reported lack of supply of MNP.

Outputs

The delivery of MNP appears plagued by supply and demand issues. The operations guidelines state that 60 sachets should be consumed in six months for children 6-11 months old and 120

sachets for 12 months for children 12-23 months old. However, mothers were mostly given one box of 30 sachets for the year according to both implementers and beneficiaries, and this was often a one-time interaction conducted at health care centers or home visits without follow-up. In addition, only identified malnourished children have been given MNP.

MNP was distributed by either BNSes or directly by MNAO whenever the supply comes from the municipal LGU. One province reported that they were unable to distribute MNP until near expiration due to political conflicts and lack of coordination. In this case, the province reached out to NGOs conducting mass feeding programs and relied on them to incorporate MNP in feeding. The MNP sachets are distributed either at the health center or brought directly to the recipients' homes by the BNS. Implementers reported successfully reaching the target population, though they faced issues with uptake. Mothers and children often complain about the taste of MNP, so mothers have difficulty convincing their children to consume it. Implementers respond by reminding the parents to thoroughly mix MNP with semi-solid foods, which is in line with DOH guidelines. There were also reports whereby mothers simply did not comply and even gave away their supply.

Implementers used anthropometric measures to target children for MNP, primarily focusing on underweight children. Access to blood testing facilities for micronutrient deficiencies were rarely available to most community members. In some cases, BNSes and BHWs incorrectly described MNP as an intervention for underweight children rather than for children with micronutrient deficiencies and expected MNP to directly improve a child's weight.

INFANT AND YOUNG CHILD FEEDING (IYCF) PROGRAM

The term Infant and Young Child Feeding (IYCF) was coined in 2002 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) with the issuance of a global strategy to reduce infant and under-five mortality[15]. The strategy promotes improving poor infant and young child feeding practices to reduce infant mortality and morbidity, and the PPAN emphasizes its efficacy in reducing undernutrition. Recognizing suboptimal breastfeeding and complementary feeding practices in the country, the DOH and other stakeholders developed the National Policy on IYCF in 2005 (AO No. 2005-0014) after approving the National Plan of Action 2005 - 2010. The latest policy instrument is the IYCF Strategic Plan of Action for 2011 - 2016.[o] The National Policy on IYCF created the IYCF Program and policy guidelines for breastfeeding, complementary feeding, micronutrient supplementation, universal salt iodization, food

[o] The latest IYCF Strategic Plan of Action was reportedly being finalized at the time of writing.

fortification, exercising other feeding options, feeding in difficult circumstances, and support systems.[p]

The IYCF Program was well known among higher level implementers such as NPCs, Provincial Nutrition Action Officers (PNAOs), Municipal Nutrition Action Officers (MNAOs), and some MHOs. However, awareness of the program was lacking at the barangay level; LCEs and barangay captains did not know what IYCF was, and BHWs and some healthcare workers could not define it or state their role within it. Instead, they referred to it as a program implemented by BNSes and midwives, who at times themselves did not appear adequately trained on IYCF concepts or claimed that the program had ceased, though one BNS explained they still had a running IYCF program. The fact that IYCF largely did not resonate with these personnel may be explained by the reported discontinuation of IYCF Program trainings by NNC after 2017 and the expected LGU staff turnover since; moreover, the IYCF Program, a series of interventions, lacks unified, specific guidelines like the MS Program and may not translate well to local level implementation as a program in itself.

When considering IYCF not as a program but as a category of interventions, local implementers could more readily speak about their participation in administering such interventions. In this section, we assess implementation fidelity not against any specific IYCF Program guidelines but rather to what extent exclusive breastfeeding promotion and complementary feeding practices are being taught to pregnant and lactating mothers in LGUs.

Inputs

Training Materials

There were standardized materials developed to orient the higher-level implementers and those with a professional health background. DOH guidelines on IYCF activities[16] were seen to be written at a highly technical level. We did not see evidence of localized materials to train frontline workers and BHWs. Some expressed disappointment that cascading trainings given to NAOs, midwives and selected BNSes was difficult because the materials were written in English or Tagalog and not in their local languages. Pabasa sa Nutrisyon Program came up as a training activity for BNSes, BHWs, and mothers where participants are taught about proper breastfeeding and complementary feeding.

[p] Legal instruments that help drive efforts in intensifying IYC include Republic Act (RA) No. 10028: The Expanded Breastfeeding Promotion Act, Executive Order (EO) 51: National Code of Marketing of Breastmilk Substitutes, and RA 7600: Rooming in and Breastfeeding Act.

While a Training of Trainers (TOT) model equipped the NAOs in cascading information down to the barangay level, it seems that there were limited resources (e.g. financial, supply and design of information, education, and communication, etc.) allocated to support them in conducting prescribed trainings and information campaigns.

Information, Education, and Communication (IEC) Materials

Simple information campaign materials prepared by the DOH and NNC included posters and leaflets covering various information campaigns such as Breastfeeding TSEK: Tama, Sapat at Ekslusibo[q] Ten Kumainments, Pinggang Pinoy, and the Health Food Pyramid. These were easily translated into local languages except for languages of IP communities.

Funding

Nutrition Month activities, which involve IYCF interventions, were seen as well funded and often consisted of a sizable portion of the LGU's annual budget for nutrition. LGUs also allocated funding to provide conditional cash transfers for pregnant women completed at least four antenatal visits at the health clinic. Other activities (e.g. mothers' classes) were largely reported not to receive any additional funding with a few exceptions.

Outputs

Trainings

As discussed earlier, barangay-level implementers often reported not receiving any recent IYCF training; if they had, they had difficulty recalling its content. Some high-level respondents observed the cessation of this activity to be a response to criticism of an excessive number of trainings, reportedly limiting the availability of implementers to administer interventions. Despite any difficulties in cascading bigger programs like IYCF, related information campaigns were easily absorbed by BNSes and BHWs. For example, BNSes were able to correctly report that complementary feeding of infants should begin at about six months and widely viewed breastfeeding as an important source of nourishment for the child. In addition to serving as

[q] "Breastfeeding TSEK" is an information campaign by DOH to promote proper, adequate and exclusive breastfeeding. The campaign also includes general instructions on complementary feeding. "Pinggang Pinoy" (Filipino Plate) is a visual food guide to convey food diversity and proper portioning. "Ten Kumainments" is the simplified messaging of the Nutritional Guidelines for Filipinos developed by NNC. It lists the "ten commandments" for proper nutrition.

training materials for BNSes and BHWs, simple information campaign materials prepared by NNC also served as health teaching materials to mothers and other community members.

Targeting

The target population for IYCF includes pregnant and lactating mothers, infants (0-11 months), and young children (12 to 23 months old). BNSes and BHWs were active in finding cases of pregnant women, who were then referred to the midwife to conduct a health check, develop a birth plan and conduct prenatal counseling. A reported increasing challenge in identifying the target population involved teenage pregnancy where the associated stigma was strong; these teenagers were usually ashamed to admit their pregnancy to healthcare workers and even their families. Thus, BNSes and BHWs found it difficult to identify such cases until the third trimester when the pregnancy is more visible. Even then, these frontline healthcare workers faced criticism from the community and were seen as "nosy" for involving themselves in the personal affairs of the household.

Promotion of Exclusive Breastfeeding (BF), Complementary Feeding, and Maternal Nutrition

The main site of exclusive BF, complementary feeding, and maternal nutrition promotion was the health clinic during prenatal and post-partum check-ups. In some areas, to encourage women to avail of prenatal care at health facilities, Philhealth and LGUs provided conditional cash transfers to pregnant women who completed at least four prenatal visits, with the first visit taking place during the first trimester. Women who complied received PHP 1,500 cash assistance and grocery supplies.

Interventions to improve exclusive breastfeeding and complementary feeding varied by platform, frequency, duration, and content across LGUs. Prenatal counseling, often conducted by the midwife, Rural Health Unit (RHU) physician, or birthing clinic physician, at times involved lectures on exclusive breastfeeding and complementary feeding for the infant, advising on proper food preparation techniques.[r] Other case study sites reported conducting such advocacy in the form of mothers classes held in health centers while patients were in the waiting room for their prenatal or immunization visits. These were also sometimes held in health stations in puroks or informally by BHWs and BNSes during home visits, often referred to as counseling sessions. There was no prescribed number of sessions to help induce behavioral change among these women; in many instances they appeared to be one-off information sessions or infrequent. Mothers classes were

conducted one to four times a year or not at all and the duration ranged from 30 minutes to three days. The content also reportedly varied, sometimes based on the audience and their specific needs. One BNS mentioned that although they held several mothers' classes, the audience tended to be a different group of mothers each time.

In order to help ensure proper nutrition of the child and prevent low birth weight, antenatal and post-partum check-ups involved administering MS (see *Micronutrient Supplementation*) and advising on proper dietary practices to prevent malnutrition, gestational diabetes, high blood pressure, and eclampsia, all which may have health effects on the child. Women were advised to eat green leafy vegetables and add milk to their diet. In addition to check-ups, the midwife, BHW and BNS often assisted the midwife in height, weight and blood pressure monitoring by conducting regular follow-up home visits and counseling.

During these consultations, HCWs also discouraged home births in favor of deliveries in health facilities to prevent complications in delivery and ensure early initiation of breastfeeding.[s] However, home births were reportedly still practiced, especially in IP communities and other populations that live far from the clinic. While traditional birth attendants still existed, they were reportedly rare. In fact, one municipality passed an ordinance prohibiting the practice of traditional birthing assistants and home births in general in order to eliminate home births in the area.

Post-partum, mothers and their newborns are reportedly visited immediately by the midwife or BHW, who conduct another physical health check. During these visits, mothers are informed about proper breastfeeding practices and the immunization schedule for their children, among other things. Newborns with low birth weight are recorded and monitored to ensure adequate weight gain. Promoting good nutrition and iron supplementation for mothers after delivery were not prominently discussed.

Apart from education of pregnant women and mothers in clinics and home visits, community-based approaches to IYCF are a well-known strategy to effectively advocate for proper breastfeeding and complementary feeding. Such approaches were reportedly first initiated at the DOH central level with the support of development partners. However, approaches such as breastfeeding support groups among lactating mothers was rarely seen in case study sites; only two municipalities identified having a breastfeeding support group in their area. One barangay admitted they attempted to form one, but it has not been functional. Another barangay had better

[s] High-risk pregnancies and complications such as high blood pressure, gestational diabetes and teenage pregnancies are referred to higher level health facilities for delivery.

indications of a functional breastfeeding group. It was spearheaded by the MNAO and supported by the barangay nutrition council, which was active in conducting home visits to discuss breastfeeding and IYCF.

Another related community-based strategy identified was peer counseling, ideally conducted by mother leaders in the community. It did not seem to be strongly implemented as only members of the barangay nutrition council were identified as peer counselors; no other members of the community were identified as peer counselors.

While these approaches were more targeted toward pregnant and lactating women, Nutrition Month involved a mass information campaign conducted annually. This was widely seen as an important strategy, and barangay-level implementers believed the awareness raising campaigns and IEC materials have far-reaching effects in improving the nutrition status of their locality. In addition to information campaigns, Nutrition Month usually includes a day where people are gathered to join small contests related to cooking and gardening and a one-off feeding of event participants.

IYCF activities were implemented with fidelity to the extent that they are seen to be implemented in all case study sites, though the form, content, and frequency of these activities (e.g. counseling sessions, mothers' classes) was not always clear. Such considerations are important when trying to induce behavioral change in order to make the information salient. Thus, we look at short-term perceived outcomes to the extent that they may suggest whether such information on exclusive breastfeeding, complementary feeding, and maternal nutrition were communicated, keeping in mind that there are other factors that may influence these outcomes.

Breastfeeding was viewed as the best form of nourishment for infants by beneficiaries. Respondents often openly breastfed their infants during interviews or researcher visits, suggesting that communities are very supportive of breastfeeding. Apart from providing good nutrition, they also viewed breastfeeding as convenient, economical and good way to bond with their children. Yet despite the conducive breastfeeding environment in the communities, the following were identified problems against achieving exclusive breastfeeding up to six months:

- Misconception of not having enough milk, leading to topping-up or replacing with formula milk
- Topping-up breast milk with sugar water
- Early cessation of breastfeeding of working mothers

Most of the beneficiaries were able to correctly identify that complementary feeding should be started at around six months, though some reportedly introduced semi-solid food to as early as four months. Moreover, dietary diversity was often lacking. Mothers described that they usually fed their infants with *lugaw* (rice porridge), mashed potatoes, or mashed squash. Protein sources such as meat, eggs, beans were rarely identified, and vegetables and fruits tended to be fed to older children. Almost all mothers also claimed feeding their infants commercially prepared baby food (e.g. Cerelac). One municipality even sponsored and distributed commercial baby food, which could have added to the belief that these baby meals are necessary and healthy. These beliefs and practices could keep young children from meeting required food diversity.

Sustainability

While programs may be implemented with fidelity, a key question is whether the program and/or its intended benefits can persist over time. In this section, we look at the factors that may influence the sustainability of nutrition planning and implementation along four broad themes: 1) governance, 2) management, 3) funding, and 4) human resources.[t]

GOVERNANCE

The multisectoral and participatory nature of the nutrition planning process is intended to be replicated at every level of government, culminating in NAPs that respond to local nutrition contexts and aligned with the PPAN's strategic thrusts. These NAPs then inform local policy agendas and their respective budget allocations. As discussed in *Relevance*, the alignment of NAPs with the PPAN strategic thrusts diminishes as the PPAN is cascaded down to the barangay levels.[u] The variance in such alignment can in part be explained by a difference in the planning process: while planning processes around LNAPs appear to be systematic and inclusive at the regional and provincial levels, processes at the municipal and barangays levels are more fragmented (See excerpts from LNAPs in Appendix K).

After the current PPAN was approved in 2017, a series of orientations and consultation workshops were held at the regional and provincial levels. In 2018, the NNC Central Office mentored its regional offices in leading planning sessions and review meetings held with respective Regional Nutrition Committees (RNCs), a multi-sectoral and multi-level body composed of representatives

[t] The role of politics in the sustainability of nutrition programming and planning is well known and thus not discussed here.

[u] As mentioned in *Limitations*, this may also due to the PPAN 2017-2022 not yet having cascaded down to local levels at the time of data collection.

from NNC, DOH, DepEd, the National Economic and Development Authority (NEDA), DILG, DSWD, the National Commission on Indigenous Peoples (NCIP), the Commission on Population (POPCOM), the Philippine Information Agency (PIA), and development organizations. The planning process was presided over by the NNC Central Office and Alcanz International, a consulting firm that supported the development of PPAN 2017-2022.[v] Provincial and municipal levels showed evidence of a similar consultative processes but not as consistently. Although various offices (e.g. health, agriculture, social work) did not have copies of their LNAPs, they often mentioned that there were nutrition committee meetings and consultations done to finalize these plans.

Unlike the multi-sectoral nature of planning processes at higher levels, creating the barangay NAP (BNAP) appeared often to fall under the responsibility of only one or a few people. The strategies also differed by barangay. Some BNAPs were entirely developed by the BNS or under the supervision of a midwife and submitted to the barangay council for approval. In other areas, each sector (e.g. health, agriculture, social welfare) created their own nutrition program proposal, and the BNS was tasked to compile these proposals. A distinction between the higher level and barangay processes also entailed the involvement of higher levels; while the NNC Central Office and regional offices helped supervise the regional and provincial planning processes, respectively, MNAOs were not always involved in planning; if not, they would simply give the final approval of the BNAPs.[w] Budget allocations were decided by the LCE.

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[v] The resulting RNAPs show that the PPAN was used as a template using exact program definitions and phrasing with modified target outcomes and project outputs. The regional-level program was reflected in the budgetary projections. For example, Region V, which has overweight and obesity prevalence much lower than the national average has the program on overweight and obesity management and prevention included in the plan with zero budget allocation. Meanwhile, Region XII has a prevalence of overweight higher than the national average and allocated PHP 3 million for this program.

[w] Some BNAPs seemed to be a simplified version of the MNAP. They almost always included a generic problem tree showing food insecurity, inadequate care and insufficient health services and unhealthy environment as cause of underweight and stunting. They also used a template form that included three main sections: Form A - latest OPT results; Form B - Barangay Socio-Economic Profile, and Form C- main Barangay Nutrition Action Plan reflected in a matrix that includes a menu of project activities from where they could select, targets, resources, mode and frequency of implementation and timeline. While templates facilitated the development of BNAPs, there were indications that inter-relationship of the contents of Forms A, B and C was not well understood. The usage of templates could have also hindered in customizing the plan according to the barangay situation or it could have boxed the thinking of implementers to replicating what has been done in other areas or what they have done in the past. Some MNAOs allegedly provided more guidance in BNAP formulation while others only received and collated completed BNAPs.

While NAPs may be aligned with the PPAN's strategic thrusts, their incorporation into local policy agendas and budgets was not clear. As mandated by Letter of Instruction 441 by the Department of Local Government and Community Development (now the DILG), LCEs are supposed to be chairpersons of their local nutrition committees, and their involvement in this planning process may increase the likelihood that NAPs are translated into funded programs and initiatives. Yet LCEs role as chairperson appeared mostly symbolic, and it was commonly reported that they do not actively participate. In fact, they are often unaware or uninvolved in the formulation of their LNAP, and it was usually held only by the NAO or the BNS. When invited for interviews, LCEs and local councils often claimed they were unfamiliar with the PPAN and referred the research team to others more familiar with nutrition programs (e.g. NAOs).

This lack of LCE involvement in local nutrition committees may reflect a lack of interest in or prioritization of nutrition, which can be validated by analyzing related LGU budget allocations and expenditures. However, such budget data was difficult to access for three reasons. First, LGU officials were very reluctant to share this data, and our success rate for getting this information was low.[x] Second, where budget data was available, it was unclear to what extent budgets were allocated to nutrition programs. Budgets for nutrition-specific programs were often reportedly embedded in other line-item categories such as agriculture, health, gender and development (GAD), or child protection, so specific funding allocations could not be identified. Although BNSes may have included suggested budget allocations in their BNAPs, they often did not know to what degree these plans were funded. The PPAN 2017-2022 acknowledges this lack of nutrition budget tagging as an enabling issue. Third, funding sources that feed nutrition budgets are complex due to the multisectoral nature of most nutrition programs.

In instances where there was clear budget information for nutrition programs, funds were earmarked for the following activities at barangay levels: 1) limited feeding sessions; 2) Nutrition Month celebration that also includes feeding (see *IYCF*); and 3) cooking demonstrations that include feeding. Programs related to feeding appear to be most common nutrition-specific intervention attracting LGU resources (see Appendix A for more details on feeding interventions).

MANAGEMENT

While proper planning and sufficient resources are necessary to implement effective programs to combat malnutrition, effective management is also key in sustaining good performance over time. In this section, we look at management through the lens of accountabilities, both downward and upward, and incentives given to frontline workers. While nutrition programming is a multisectoral

[x] Conducting data election during an election season may have made this process particularly difficult.

arena involving a variety of stakeholders, we focus these questions of sustainable management primarily on nutrition focal persons, namely RNCs, PNAOs, MNAOs, and BNSes (a description of implementers and their roles can be found in Appendix C).

Accountability

Downward accountability involves the accountability of senior managers to lower levels of management. As highlighted in the previous section, the role of these managers is primarily to provide guidance and technical assistance in nutrition planning and management. A main point of interaction between each level involves training through a cascading TOT model, usually entailing orientations on nutrition planning (in relation to the PPAN) and nutrition program management. Trainings and guidance on planning begin with the NNC Central Office and cascade to the regional, provincial, municipal/city, and barangay levels.[y] Nutrition staff understood such capacity building as a key part of their role, and we did not find gaps in implementation; NAOs consistently reported providing trainings and NAOs and BNSes consistently reported receiving them.

While the cascading information mechanism appeared to be in place, the reporting and supervising structures differed across LGUs and levels. The degree to which MNAOs provided guidance on planning, implementation, and M&E appeared to largely be up to them. As mentioned in *Governance*, some MNAOs took an active role in reviewing and providing guidance in formulating LNAPs while others simply received them from BNSes. Some MNAOs helped plan for and validated the results of the OPT conducted by the BNSes and BHWs but not all. Some MNAOs reported spending considerable time in their barangays monitoring and assisting BNSes while others were largely absent. The interaction between PNAOs and MNAOs were not clearly discussed in the interviews and gave the impression that interaction is often limited apart from report submission.

This variation can in part be explained by NAOs' position as either plantilla or designated. Plantilla positions are fully funded and allow NAOs to fully dedicate their time as NAOs. Designated NAOs are those that already hold a full-time position (e.g. MHO) in the LGU and are assigned the NAO role in addition to their other responsibilities. Given competing priorities (e.g. patient management versus public health management), those that are designated often find their role as NAOs as secondary. For instance, it was difficult to get a hold of one MHO because there were several patients lined up outside his office for consultations, and he was not finished until night

[y] Depending on availability of funds, some NNC regional offices will directly train BNSes.

time for the interview. At its most extreme, one designated PNAO admitted, "I only think about the PPAN when the NNC calls."

Moreover, given the LCEs' lack of involvement and irregular meetings of local nutrition councils, the accountability mechanisms for NAOs to ensure nutrition programs are implemented well appear unclear. Although accountability for drafting plans cascades down from the top, accountability for actual program implementation and the effectiveness of programs sits at the local level, where the accountability mechanisms can be weak and distorted by local politics.

Upward accountability entails accountability from lower to senior levels. Formal, standardized upward accountability mechanisms with clear performance criteria, particularly for BNSes and BHWs, were not clearly identified when asked. However, we find varying degrees of reporting of BNSes to MNAOs on program implementation, even more so where MNAOs held plantilla positions. On the other hand, there were instances where BNSes were not held accountable at all to the work they were assigned to do; in one barangay, an LCE reported that instead of firing a longstanding BNS that was not performing, he just hired an additional one.

Incentives

Where accountability mechanisms, or lack thereof, may not help sustain good performance, incentives may play a role in doing so. Respondents largely cited altruism, or the desire to be of service to others, as a primary incentive to conduct their work. Discussions of their personal motivations for working felt passionate and sincere. One rural health midwife of eight years said that she was inspired by her town's midwife, who was regarded as the town hero. At times, respondents became emotional when the subject was broached, citing acute cases such as severely wasted children. The ability to visibly improve a child's nutrition status was a major reported source of satisfaction. This intrinsic motivation to help, if most satisfied by visible changes in nutrition status, may incentivize health care workers to prioritize acute malnutrition (e.g. wasting) where changes in outcomes can be readily seen than chronic malnutrition (e.g. stunting).

BNSes and BHWs also reported professional development opportunities and personal growth as incentives to perform well. All BHWs and BNSes interviewed were housewives with either a high school or college education; they reported capacity building trainings they received as a major perk and expressed their desire for more. Maintaining what they viewed as a significant role within their community helped give them a greater sense of pride. One RPC added that civil service eligibility acts as an additional incentive for BHWs and BNSes. Accreditation is given to those who have completed at least two years of college education and five years of service, which included some BHWs respondents.

Financial incentives for BNSes and BHWs, non-professional volunteers, were lacking. Receiving an honorarium as low as PHP 100 per month, BNSes, BHWs, and volunteer nurses all expressed dissatisfaction over the lack of proper compensation, benefits and job security. Unlike the majority of plantilla position holders who maintain their jobs for decades, a lot of these appointed expressed concern that they would not be able to stay in their role beyond the LCE's three-year term. In fact, many of the volunteers interviewed were relatively new, indicating staff turnover. Plantilla workers did not complain about salary and benefits, and some explicitly said that their salaries were enough to meet their needs.

FUNDING

When implementers expressed low satisfaction with nutrition program performance in their area, the reason was largely due to a lack of budget and supplies. Where funding was limited and the needs of a target population could not be fully met, they often prioritized those with more urgent nutrition needs as identified by the OPT. This was a common strategy reported in all areas. As mentioned in *Implementation Fidelity*, when the supplies of iron supplements were insufficient, LGUs prioritized pregnant women and those with anemia as much as possible. For nutrition interventions that may require consistency in their approach (e.g. providing a prescribed number of supplements on a regular basis), limited funding inhibits the ability to meet the needs of a target population over time and achieve desired outcomes.

As seen by the MS Program, sustainability of funding and supplies also appeared to be determined by the method of procurement. For universal programs such as vitamin A supplementation where supplies were procured centrally by the DOH, there were no reported supply problems. However, where procurement required more coordination between different levels (central, provincial, municipal, and barangay), supply problems persisted. The government level that should provide the base supply was not clearly indicated in interviews with lower-level implementers which makes parallel procurement possible.

HUMAN RESOURCES

Staff turnover is major challenge maintaining the continuity of programs. NAOs, BNSes, and BHWs are all appointed positions whose jobs are vulnerable to the term limits of LCEs. After these workers undergo training and gain experience in nutrition planning, coordination, and implementation, they may likely soon be replaced with a new LCE in power; one municipality estimated that around 50 percent of BNSes had been replaced after the last barangay election in 2018. Many respondents reported that outgoing BNSes did not help orient them to their new

positions, making the transition for these non-professional workers difficult. Turnover was commonly reported as a major challenge to the sustainability of program implementation.[z]

Relatedly, funding delays highlighted the implications of running programs using short-term staff. A recent delay in the approval and release of the national budget had severe implications on project-based nutritionist dietician employees under the DOH rural deployment programs. The NNC and provincial offices identified challenges in giving adequate technical assistance to lower levels when the nutritionists-dieticians' contracts were not renewed due to these delays. While some agreed to volunteer, others found jobs elsewhere. This job insecurity highlights the negative implications for maintaining continuity of programs when they are largely run by short-term staff.

Lastly, lack of capacity to address heavy workloads were also cited as a challenge to maintaining good performance. BNSes often mentioned the large administrative workloads occupying them from tasks they viewed as more relevant and impactful to their role as NAO. Moreover, health care workers often experienced heavy caseloads; the BHW to household ratio ranged from 1:40 to 1:200. Many expressed the desire for additional staff in order to meet the needs of all beneficiaries on a timely basis.

Monitoring and Evaluation

M&E is key to understanding how programs are being implemented and progress against target outcomes. Moreover, good M&E allows policymakers and implementers to use data-driven approaches to learn and improve program design and implementation. In this section, we ask how adequate are existing systems for collecting data and reporting on key output and outcome measures for priority programs? We pay particular attention to Operation Timbang Plus (OPT), which is the most widely-used and resource intensive M&E system used by LGUs for targeting, surveillance, and resource allocation.

OVERVIEW OF M&E SYSTEMS

Two national M&E systems are used to track the performance of nutrition programs in the Philippines: the OPT and the Monitoring and Evaluation of Local Level Plan Implementation (MELLPI).[aa] This section focuses on the OPT, the most powerful M&E tool used by local levels for

[aa] In addition, most municipalities have a system to evaluate the performance of local BNSes. BNSes also take part in maintaining the barangay census, which includes all household in a barangay and involves collection of some information relevant to child nutrition, including household demographics.

understanding the magnitude of child malnutrition and the performance of nutrition programs in the Philippines. KIIs revealed that primarily good performing LGUs fully participate in the MELLPI, and thus this system is more limited in scope. Most of the municipalities included in this study did not participate in the MELLPI in recent years.

OPT

Personnel and Training. BNSes are primarily responsible for overseeing OPT data collection and consolidation. During interviews, most BNSes claimed that they were taught proper anthropometric measurement, including height and weight, during BNS orientations. BNSes who have held their position for only a few months had not received any formal training. OPT training is also attended by some midwives, councilors for health, and some BHWs. In most cases, it is the job of the BNS, MNAO and midwife to teach BHWs on proper conduct of OPT. BHWs are responsible for taking measurements of children in their puroks under their remit. They usually do household visits in pairs and take turns in covering each other's purok. A BNS or councilor for health also usually accompanies each BHW when conducting OPT.

Locations. Children are ideally measured at the barangay health stations where OPT equipment is located. Most of the time, mothers do not bring their children to the health center, so they are visited in their households. Some barangays constructed small barangay outposts in every purok to bring services closer to residents.

Materials. Various weighing scales have been observed in study sites including: physician scales, hanging scales, analog bathroom scales, and infant and toddler scales. Almost all barangay health stations had a physician scale which is regarded as the most stable and reliable equipment. Infant scales were usually only present in RHUs. Height measurement tools were observed, including height boards, measurement tapes, stadiometers attached to physician scales, wall-mounted tape measures, printed growth charts, and meter sticks.

BNSes and BHWs reported that it was hard for them to carry the measurement equipment during house-to-house visits, especially when they do not get any transportation support or funds. There are also hard-to-reach places which can only be accessed by foot. They admitted to using portable options such as bathroom scales, hanging scales, and measuring tape. Some BHWs complained that community members tease them that they look like they are carrying wooden crosses for penance when they travel with height boards. Some children do not like getting weighed in hanging scales because they associate it with meat for sale at the markets. A few interviewees mentioned that portable scales were unreliable but often the only feasible option when conducting OPT. We personally observed the insufficient supply of measurement materials in all barangays. We only saw one or two weighing scales and height measurement tools in each

barangay, which are inconveniently shared by many BHWs and BNSes doing household visits. Some areas would like to request to have one set of equipment for every BHW and BNS so they could conduct their survey more efficiently.

Timing. OPT measurement of all children under age five is usually conducted during the first quarter of the year for all children. In addition, children 0-6 months, those who are underweight, and those who are acutely malnourished are measured monthly. Some areas conduct a second round of OPT during the latter half of the year, to cover children who were not measured in the first round. Most barangays struggled to share their OPT data with our team because they were still not finished with measurements and consolidation. Since outbreaks of dengue and measles occurred during our time of data collection, healthcare workers were reportedly mandated to focus on combating these diseases, which delayed the OPT.

Challenges. Interviewees noted several challenges in conducting the OPT:

1. Measurement activities take up most of the time of BNSes and BHWs.
2. BNSes and BHWs face logistical concerns, including inadequate equipment, distance and inaccessibility of houses, extreme weather conditions, and presence of stray dogs.
3. Some parents are uncooperative. Many parents allegedly struggle to take their children to the health center for measurements and vaccinations. This usually happens to mothers caring for many children and those living far from the health station. To catch these populations, BNSes and BHWs conduct household visits. They commonly encounter parents who complain that the OPT is a disruption and refuse to have their children measured. Upon arriving at the house, they are asked to come back another time because the child sleeping. Parents also see the OPT as a disruption to their regular activities and complain that it does not directly benefit their children.
4. Common recording procedures are prone to encoding errors. BHWs and BNSes record measurements using various OPT forms by hand. They were also observed to use blank sheets to record. The BNSes collate the measurements taken by BHWs. In some instances, BNSes transfer measurement information to a fresh OPT form. Some midwives take a more active role in OPT by consolidating the data themselves or checking the reports of BNSes. The barangays included in the study did not have the capacity to encode OPT data because they did not have computers. Some staff use their personal computers or submit the handwritten forms to the MNAO who then encodes the data in eOPT.
5. Most BHWs claimed that they did not know how to interpret measurements. They usually provide the measurements to BNSes who are in charge of interpretation using a manual growth chart. Some areas indicated that interpretation is done by the MNAO who encodes the data in eOPT form. They find the eOPT form useful because it can automatically compute the nutritional status of the child. Cases of underweight and wasting are verified

by the nurse or midwife. The mother is usually asked to bring the child to the health center for another measurement.

6. Measurement errors appear to be common. One nurse said that validation identified that only 50 percent of the reported underweight were accurate. The MHO in the same area believed that high cases of underweight and stunting were actually due to errors of measurement because of uncalibrated and unreliable equipment. A Civil Society Organization (CSO) that conducts regular feeding interventions in one area also reported that they found less cases of undernutrition upon re-weighing of beneficiaries.

Data quality. Several sources of data quality issues were identified during qualitative interviews and exploratory data analysis.

Measurement errors

- Inadequate training of OPT surveyors, especially newly appointed BNSes and BHWs
- Measurement errors due to unreliable equipment
- Use of different kinds of measuring devices and techniques could also hinder in detecting true growth of children who need to be closely monitored

Recording errors

- Use of non-standardized handwritten forms
- Illegible handwriting
- Mismatches in child names and birthdates
- Manual transfer and rewriting of data

Encoding errors

- Misplaced decimal points
- Possible errors in encoding birthdates
- Differences in name spelling between encoded and unencoded forms

In addition, aggregate OPT results are subject to errors due to:

- Non-coverage of IPs and GIDAs who are most nutritionally-at-risk could lead to underestimation of disease prevalence
- Human errors that occur when rushing completion reports

Use of OPT data for planning. LCEs were not generally aware of the OPT results in their barangays. As a result, barangay administrators were not able to articulate how they respond to the results of their OPT. They usually spoke about feeding interventions for identified underweight children. These feeding interventions are not done regularly and consistent with feeding protocols

(feeding programs are further discussed in Appendix B). In one municipality, barangays were required to do a regular program implementation review where BNSes and midwives were gathered to present their reports to everyone. This seem to reflect good supervision and engagement of the MNAO and encourages BNSes to document their program well. However, this may also be a source of pressure for staff to report good performance.

Coverage. There were mixed reports on OPT coverage in municipalities and LGUs. There were barangays reaching only 60% coverage while some report consistently 100% coverage. In areas with poor OPT coverage, respondents complained that the target population is much higher than the actual population. Further, most BNSes and BHWs ascertain that they could cover all children in their area because they personally know them. On the other hand, one region also did not use target population as reference but rather used only their actual count and insisted that their census had more full accounted for the population. However, several interviews implied that that IPs, GIDAs and migrants may be routinely being missed in OPT Plus surveys because of difficulties in reaching them, conflicting beliefs, lack of integration in the community.

EXPLORATORY OPT ANALYSIS

We extracted, encoded, and analyzed OPT data on height and weight from 4,402 children under five years of age residing in 13 barangays across the study area (see Table 3). OPT data were extracted from each barangay for the years 2017, 2018, and 2019. A panel dataset was constructed by matching children across years based on name and birthdate, using first a matching algorithm and then manual matching to address differences in spelling across the years that the algorithm missed. For analysis, we calculated height-for-age (HAZ) and weight-for-age (WAZ) for each observation using World Health Organization Child Growth Standards[10].

Table 3: OPT data observations by barangay

Island group	Municipality	Barangay	Children
Luzon	A	1	349
		2	163
		3	232
	B	1	690
		2	835
Visayas	C	1	64
	D	1	340
		2	173
		3	171
Mindanao	E	1	506

		2	404
	F	1	343
		2	132

We conducted three main analyses to assess the quality of OPT data. First, we investigated potential missing data by estimating the proportion of children who had data in multiple years. We expect most children who were younger than 48 months in 2017 to have data in the 2018 OPT when they would not yet have been five years old. Similarly, we expect children who were older than 12 months in 2018 to have data in the 2017 OPT. Second, we graphed the relationship between HAZ and child age. We expect that mean HAZ will decrease from birth to around two years of age, and then remain constant between two and five years of age[17]. Third, we graphed the distribution of HAZ and WAZ for each year across the entire sample of children. We expect each variable to have a relatively normal distribution, consistent with similar data from other settings.

Findings from OPT Exploratory Analysis

Prevalence of Underweight, Stunting and Wasting

Based on the gathered OPT data, stunting is not much of a problem in the selected areas in contrast to data presented by NNS where Philippines very high in stunting with prevalence of above 30 percent. Province A had stunting prevalence of 16.2% indicating medium stunting prevalence, while Provinces B and C were found to have low stunting prevalence at 8.3% and 7.4% respectively. Province A had the highest prevalence of underweight, stunting and wasting compared to the other two regions. Region A 2017 OPT figures also had the lowest discrepancy from the NNS 2013. Province B is not among the PPAN priority provinces while Province C is a priority province that consistently performs well based on recent MELLPI.

Province	**OPT (2017)**		
	Underweight	Stunting	Wasting
A	23.9	16.2	10.7
B	11.3	8.3	6.4
C	10.0	7.4	3.8

Missing Data in OPT Plus

Around 30 percent of children who were younger than 48 months in 2017 were missing from the 2018 OPT (Figure 2). Similarly, around 30 percent of children older than 12 months in 2018 were missing from the 2017 OPT (Figure 3). While the matching procedure may have failed to find some of the missing observations, it is clear that many children were not measured despite

being eligible. This reflects an OPT follow-up rate of 70 percent which may be inadequately explained by deaths and migration. The low follow-up rate does not account for children who were never captured by the OPT system and thus reflects more issues in OPT coverage as possibly more than one third of children 0-5 years of age are missed out by the OPT system. When broken down by province, we found that Province A had the highest missing rate at about 40% missing compared to the two other provinces (Figure 4).

Figure 2: Age in 2017 OPT and missing data in 2018 OPT

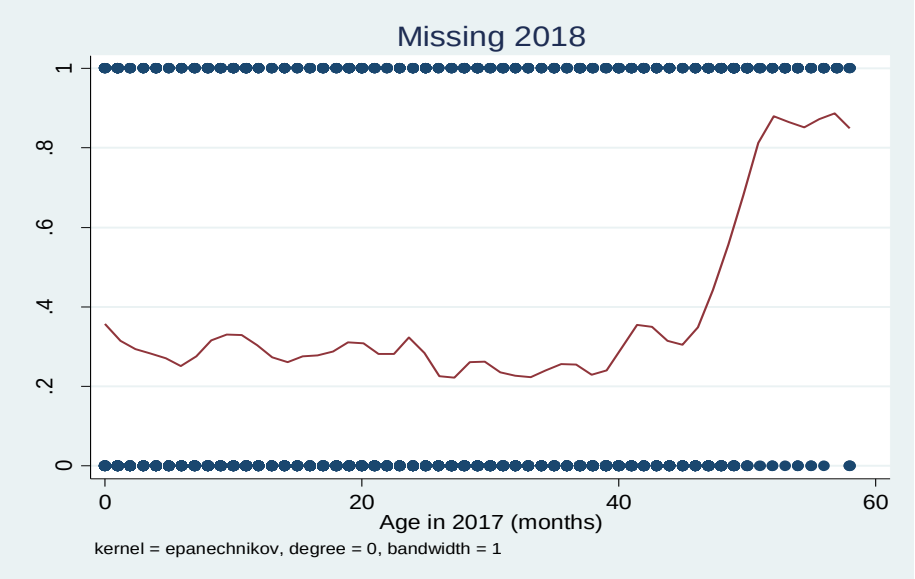
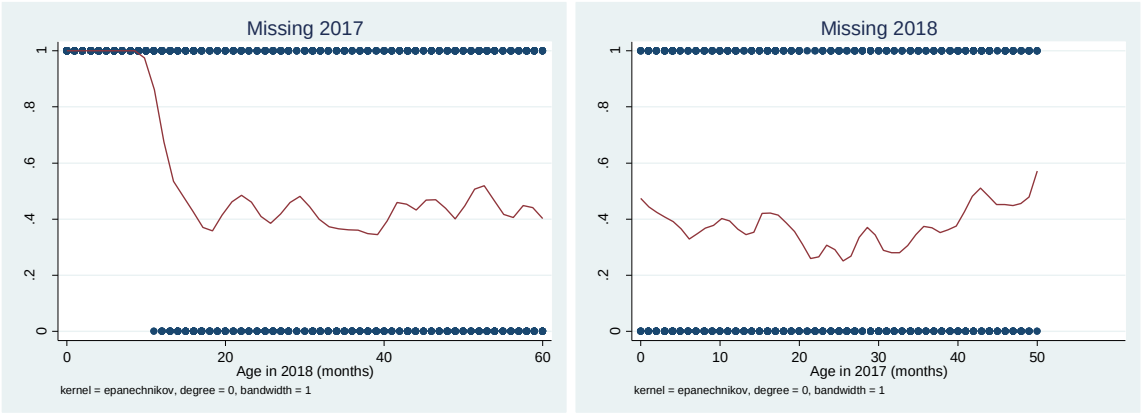


Figure 3: Age in 2018 OPT and missing data in 2017 OPT

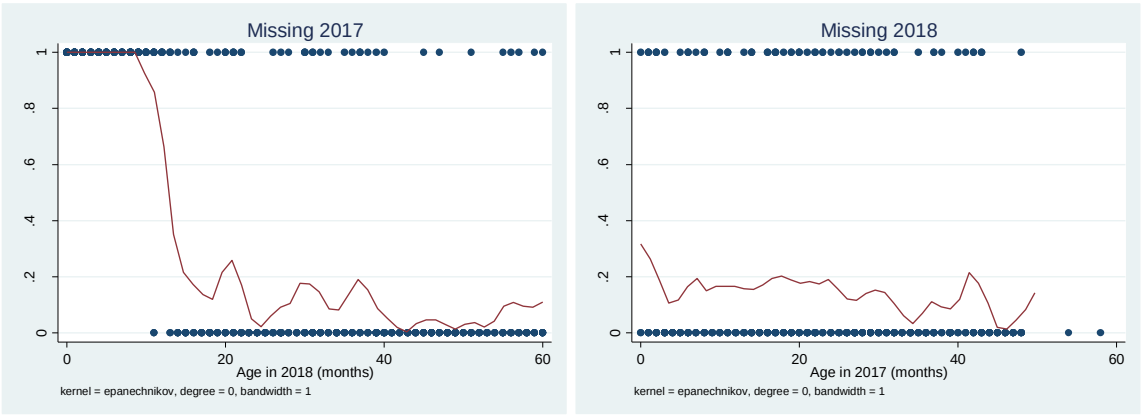
Figure 4. Missing Data in OPT Plus by Province

Province A



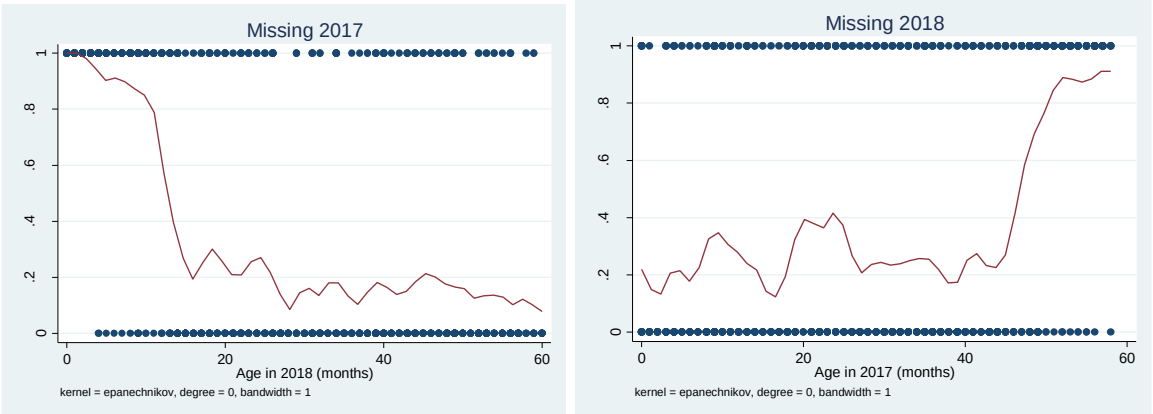
*Note: Ages in 2017 OPT only go up to 50 months.

Province B



*only 2 children in 2017 OPT were older than 48 months.

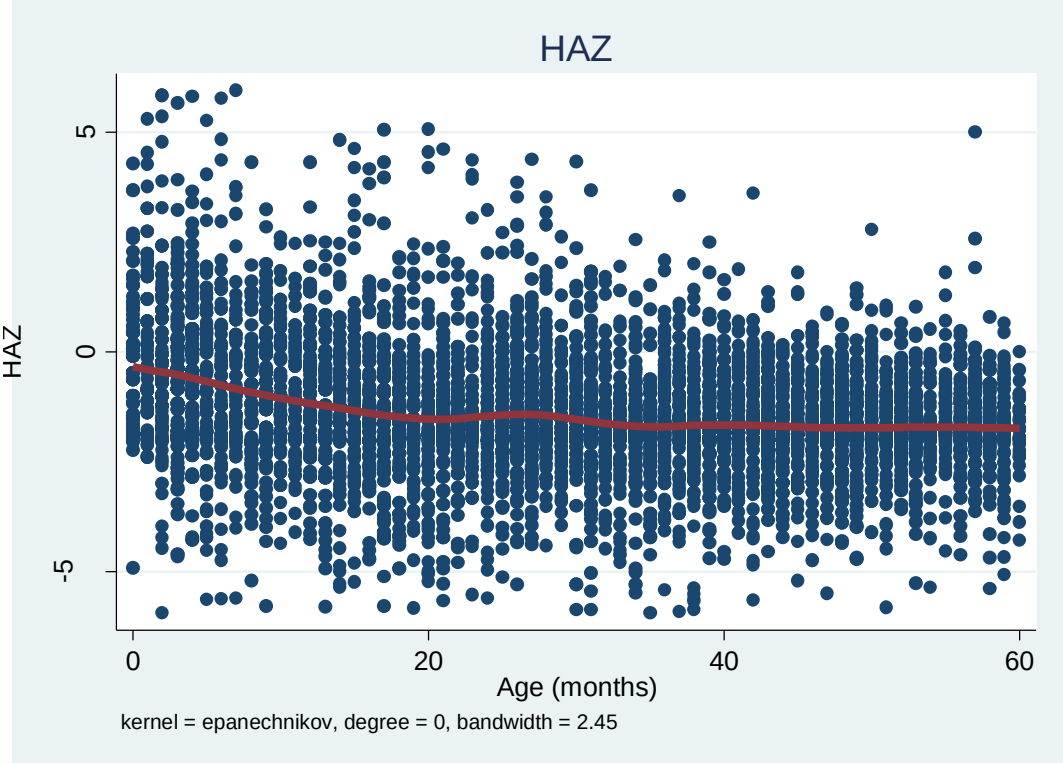
Province C



Relationship of HAZ and Age

The relationship between child age and height-for-age z-scores is shown in Figure 5 where we see that HAZ declines between birth and two years of age and remains relatively constant thereafter which is consistent to what is expected.

Figure 5. Relationship of age and height-for-age z-scores



Distribution of WAZ and HAZ

We found that distribution of WAZ of children under five using the NNS 2013 depicts the normal curve (Figure 6). A similar distribution can be observed from the HAZ distribution using NNS 2013 (Figure 7).

Figure 6. Distribution of weight-for-age z-scores of children under-five, NNS 2013

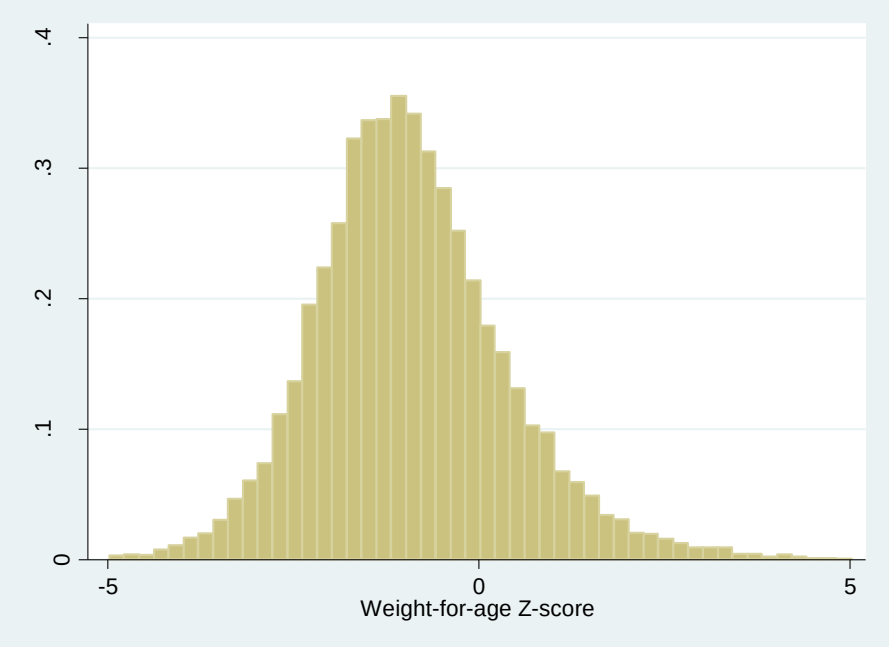
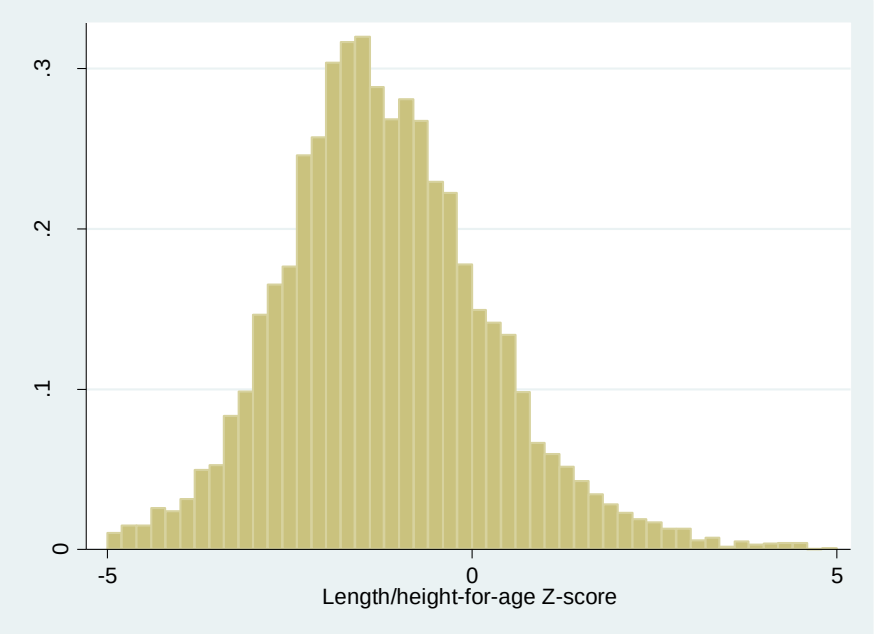
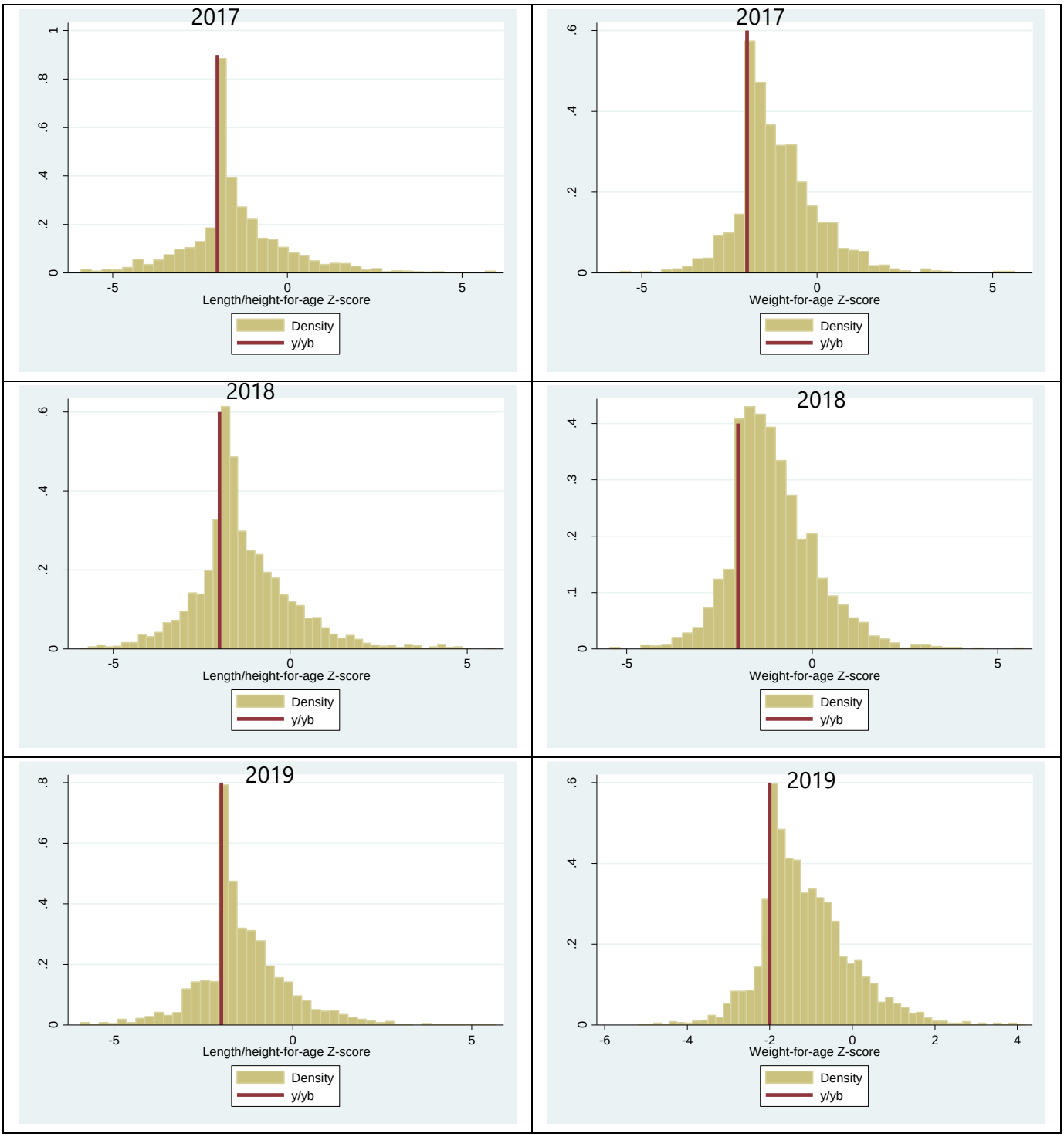


Figure 7. Distribution of weight-for-age z-scores of children under-five, NNS 2013



However, using the OPT data from the sample areas, we found that distributions of HAZ and WAZ in all three years of data did not resemble the normal bell curve. We saw a sudden peak in distribution at -2 z-scores (Figure 8).

Figure 8. Distribution of HAZ and WAZ in each year



We further explored the unusual distribution where most children seem to just barely meet the minimum criteria of normal by disaggregating by province. We found that Province A had HAZ distributions that more closely resemble the normal curve with the most recent 2019 measurements having the biggest discontinuity (Figure 9). Province B and Province C have very pronounced discontinuity at the -2 z-score mark. The same can be observed in WAZ distributions by province (Figure 10)

Figure 9. Distribution of height-for-age z-scores by year and by province

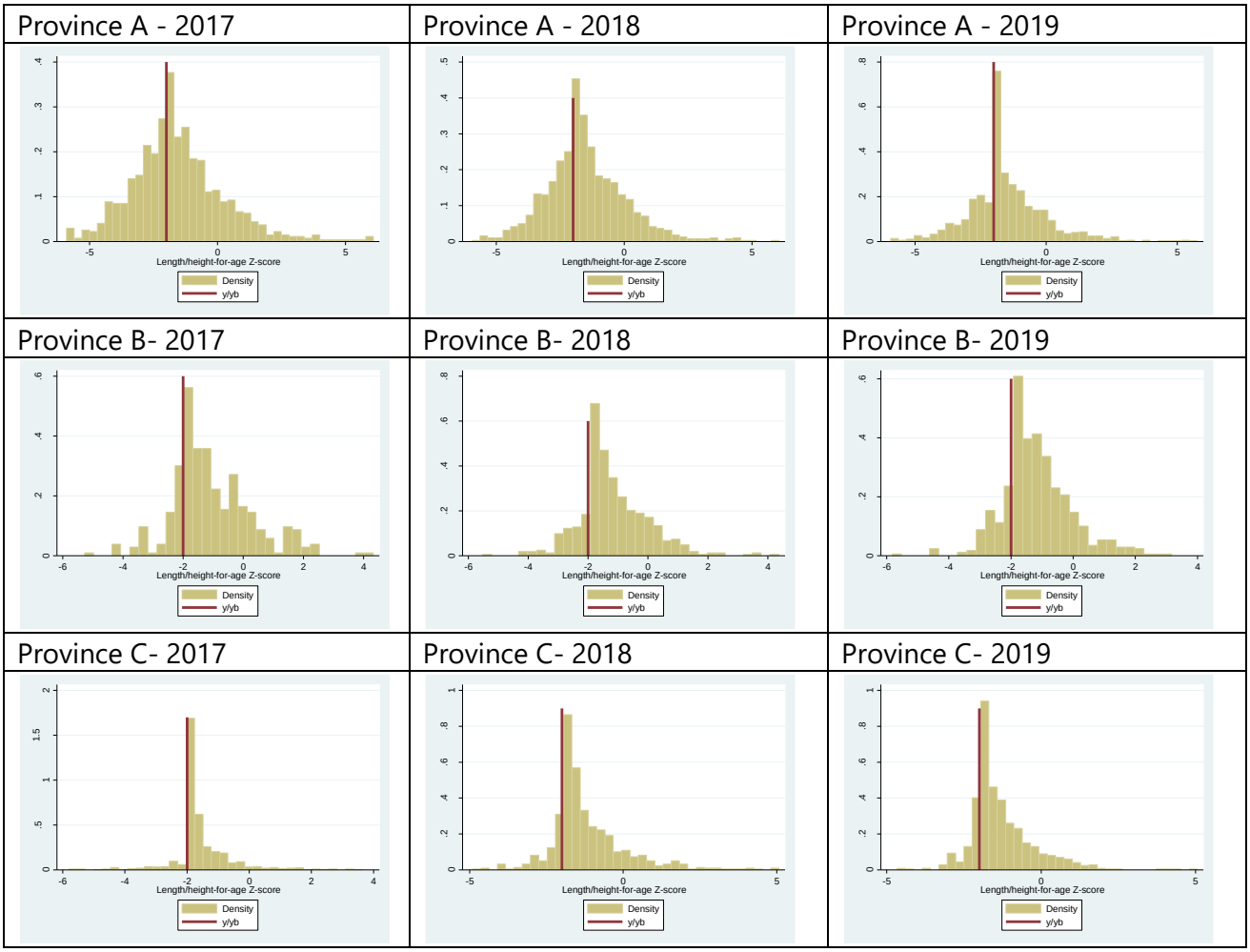
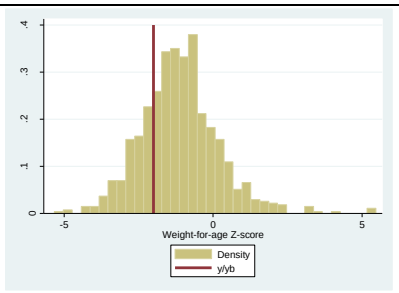
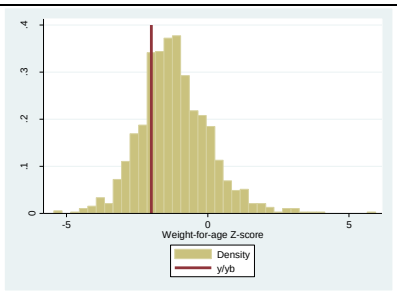
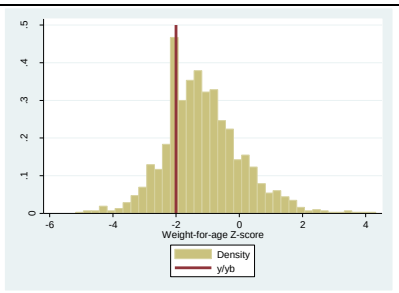
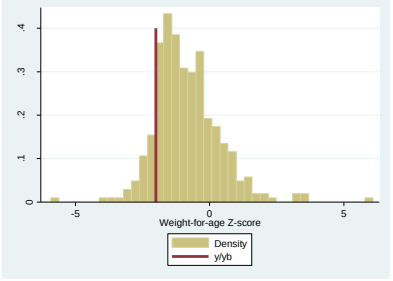
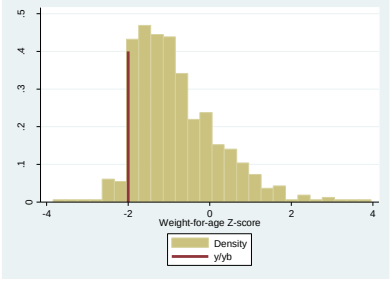
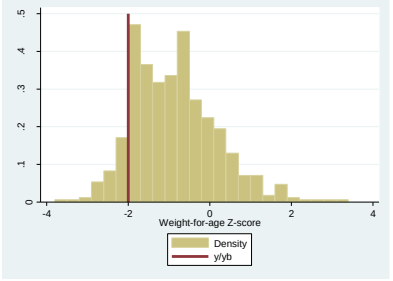
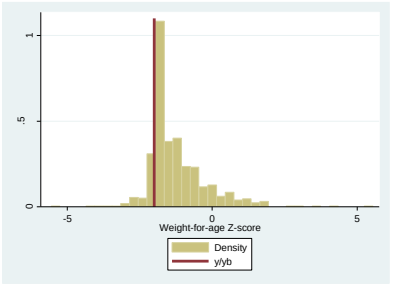
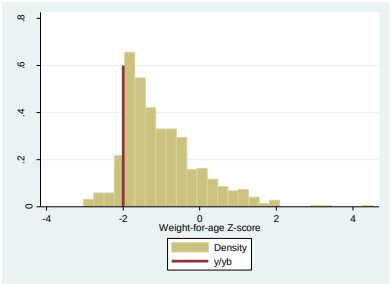
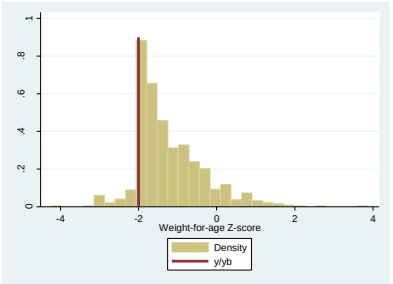


Figure 10. Distribution of weight-for-age z-scores by province and by year

Province A - 2017	Province A - 2018	Province A - 2019
		
Province B- 2017	**Province B- 2018**	**Province B- 2019**
		
Province C- 2017	**Province C- 2018**	**Province C- 2019**
		

We are unable to provide definitive reasons for the discontinuities right around the stunting and underweight thresholds. Given the surrounding circumstances, the finding may be indicative of data manipulation intended to underreport stunting and underweight. This is especially so because the discontinuity is more pronounced in areas with lower stunting and underweight prevalence. This may have been done by increasing actual height and weight measurements by a small margin to meet criteria of normal weight and height. The small changes then did not affect the relationship HAZ and age. Other possible explanations were that 1) undernourished children were monitored more often and the best measurements are the ones reflected in the OPT report even if it was outside the OPT period; 2) LGUs implemented high intensity targeted interventions such as feeding and MS supplementation to address malnutrition. Measurements were taken right after the implementation period. This scenario may explain the discontinuity in WAZ but not HAZ which will take longer time to change.; 3) LGUs systematically missed out in covering marginalized population such as IPs and GIDA residents who are more likely to be underweight and stunted. Although this explanation is not consistent with our finding that the region with highest rates of non-follow-up had the most normal distribution (Region A).

Explanation of Findings and Interpretations

Our analysis has identified four main themes related to the implementation of the PPAN 2017-2022: 1) Higher administrative levels (region and province) appear to have successfully incorporated the PPAN into their planning processes, but multiple disconnects exist between these levels and the lower administrative levels (municipalities and barangays) tasked with implementing nutrition programs; ; 2) the scale of the problem of child malnutrition in the Philippines requires a tremendous mobilization of human resources, frontline health workers in particular, to deliver the programs necessary to improve the situation; 3) the systems needed to monitoring and evaluate nutrition programs in the Philippines are currently lacking; and 4) there appears to be a widespread lack of recognition that stunting is a problem in the country.

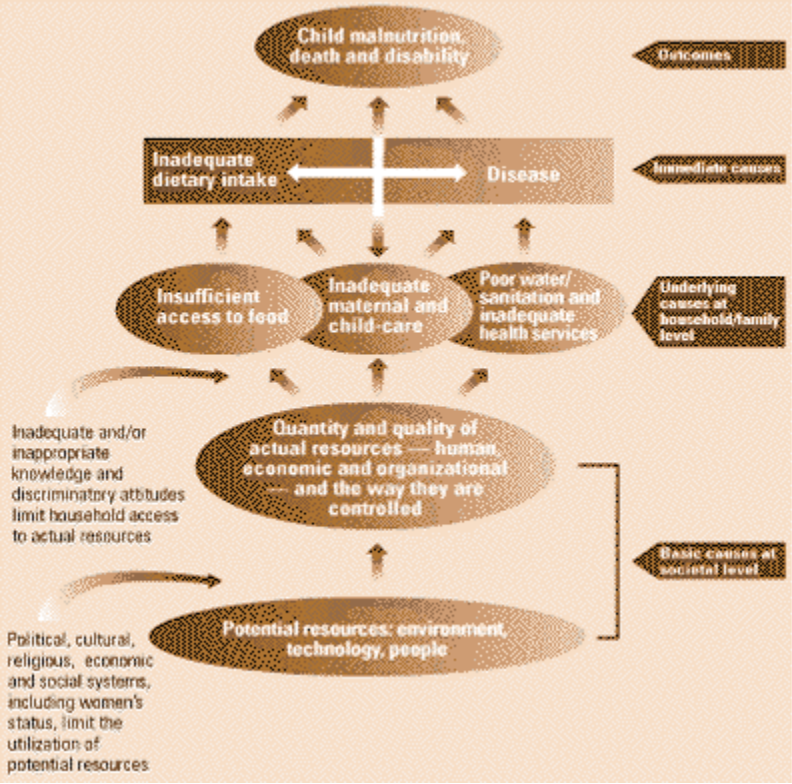
Disconnect between higher level nutrition actors and barangay front-line implementers

The PPAN strongly influenced the extensive nutrition program planning process at the higher levels as reflected by the RNAPs' alignment with its strategic thrusts. Multi-sector stakeholders participating in this process had a strong grasp of the policy framework and shared its vision for prioritizing the first 1,000 days. PNAOs and MNAOs who had directly participated in orientations led by the NNC office shared a similar understanding of the PPAN, . In order for the PPAN to achieve its ultimate outcome of reducing the rate of malnutrition in the Philippines, in particular stunting, these processes would ideally be reflected in the planning processes at the municipal and barangay levels, the primary sites of nutrition program implementation. However, we identify three constraints in the achievement of these outcomes: gaps in PPAN-informed nutrition planning between higher and lower levels, gaps in the translation of LNAPs into fully funded nutrition programs, and breaks between program design and implementation.

The participatory planning process witnessed at the higher levels did not appear to be mimicked widely at the lower levels where local nutritional councils were often not fully functional. and/or the LCE was largely absent. Here, we see gaps in operationalizing the strategic directions provided by the PPAN at the municipal level and a much wider gap at barangay level. Although several adaptations of UNICEF's framework of malnutrition causes were featured in LNAPs (Figure 7), the resulting needs assessment and identification of relevant programs often did not coincide with the PPAN's strategic thrusts and focus on stunting. This disconnect can in part be understood by deviations in how the problem is understood: while higher levels understood stunting as a nutrition problem that could be addressed through various preventative and curative means, barangay-level implementers often believed stunting was an irreversible hereditary condition.

Without fully comprehending the problem, a strategic focus on stunting in nutrition planning would not materialize. Thus, the PPAN's strategic thrusts (e.g. first 1,000 days) were largely often lacking from BNAPs, though this may also in part be explained by the ongoing cascading process of the PPAN not yet reaching lower levels.

Figure 11. Causes of malnutrition, UNICEF 2017



Where BNAPs are aligned with the strategic thrusts, these plans do not necessarily translate to fully funded programs. The widespread absence of LCEs in local nutrition committees, their lack of familiarity with the PPAN, and their inability to easily recall nutrition programs in their LGU suggest that LNAPs may be limited in their ability to influence local nutrition agendas. Moreover, budget allocations for nutrition programs, indications of LGU priorities, tend not to be tagged as such in local budgets. Instead, they tend to be embedded in other lines items such as agriculture or child protection, which may also indicate a lack of prioritization.

In addition to this break in nutrition planning at the higher and lower levels, a focus on implementation is key to understanding any constraints in achieving the PPAN's desired outcomes. Thus, where nutrition programs exist, the question becomes whether they are

implemented with fidelity to their design or guidelines. Whether it be MS or behavioural change communication, consistency in implementation is important to reduce the stunting rate.

Regarding MS, we see a disconnect between planning identify bottlenecks with supply where LGUs are expected to contribute from their budget (e.g. iron supplementation and distribution of MNP), resulting in below-recommended levels of supplements distributed to beneficiaries and/or the prioritization of certain populations to the exclusion of others. While supplements are still distributed, reported problems with take-up (e.g. mothers refusing iron supplements because of the side effects) may suggest the program may benefit from improvements in how frontline workers communicate the usage and benefits of supplements.

Regarding IYCF, a lack of training and specific guidelines result in wide variation in how the program is implemented with regard duration, frequency, and content (e.g. of mothers classes). Consequently, one might expect variation in the impact of these programs (e.g. one 30-minute mothers class versus a weeklong course). While we do not identify program impacts in this study, variation in exclusive breastfeeding and complementary feeding practice may be due to heterogenous implementation; exclusive breastfeeding and complementary feeding are often practiced as recommended, though misconceptions such as starting early feeding and problems of not having enough milk still persist. It may also be easy to neglect that these misconceptions are not rooted on lack of knowledge but rather on long-term practices and norms in the community that need consistent follow-up and at times personalized care for mothers.

Table 4: Gaps in implementation of PPAN programs at the local levels			
Immediate Cause	**PPAN Programs and Projects**	**Projects at the Local Level**	**Gaps in implementation**
Inadequate dietary intake	Infant and Young Child Feeding	Breastfeeding promotion during antenatal visits, organized mothers' classes and nutrition month Cooking classes, trainings on complementary feeding	Irregular frequency, low targeting and compliance
	Micronutrient Supplementation Program	• Biannual Vitamin A supplementation for children 6-59 months • Distribution of iron supplements for pregnant • Distribution of MNP to underweight children	• Possible problems in covering GIDAs and IPs • Insufficient doses only covering 1 month instead of entire pregnancy • Distributing only 30 sachets per year
	National Dietary Supplementation Program	• One time feeding activities during Nutrition Month and other celebrations • Short-term feeding interventions	• Inadequate duration, • not meeting macro and micronutrient requirements
Infectious Diseases	WASH Programs Expanded Program on Immunization	• Annual recording of water and sanitation indicators • Clean and Green campaign • Promotion of immunization • Anti-dengue campaigns	• Irregular monitoring and one-off campaigns may not lead to sustained improvement • Activities for prevention of diseases are driven by outbreaks (measles and dengue) and not done regularly

Insufficient access to food	Early Child Care and Development	• Distribution of seedlings and farming materials • Dispersal of ducks and cows • 1-day orientation on care of farm animals • Vegetable gardening contest	• One day training of big crowds is reportedly not enough to build skills • Rewards driven approach may not be inclusive
Inadequate maternal and child care	Early Child Care and Development	• Counselling mothers of undernourished children on proper nutrition	• Underlying causes such as big family size, vices, busy schedule are not addressed
Poor water, sanitation, health services	WASH Programs	• Annual recording of water and sanitation indicators • Clean and Green campaign • Teaching parents about health service utilization such as prenatal checks and facility-based deliveries	• Does not address underlying cause of lack of facilities • Health teaching may not be enough to change negative beliefs on health system

PUBLIC HEALTH PROGRAM PERSPECTIVES

The public health perspective of nutrition programming is evident in higher level plans and interviews where the prevalence of different forms of malnutrition are considered (e.g. rates of stunting and wasting). The PPAN strategy as whole also puts emphasis on preventive approaches given its focus on the first 1000 days. However, implementation on the ground appeared to be approached clinically, focusing on treatment-based interventions rather than preventative ones. When asked about their LGU's nutritional status, BNSes and BHWs never mentioned trends but rather the absolute number of underweight and wasted children in their area. This not only indicates the attention they give to underweight children to the exclusion of stunted children but also further demonstrates the bias toward treatment-based approaches. Consequently,

underweight children were the primary target of nutrition interventions, including MS, feeding, and mothers' classes.

While it is understandable to prioritize a population affected by disease, it seems this medical approach is also applied to public health programs in general; diseases are expected to be treated by medications, so all forms of malnutrition are approached similarly. In this sense, MNP, which intends to address micronutrient deficiencies in children, was mistakenly reported as ineffective because it did not improve the child's weight. Irregular feeding activities are conducted because they are thought to treat underweight and wasted children when provided only a few times. Only a few recognized the limitations of these interventions and voiced their frustrations with how the nutritionally-improved child immediately returns to their undernourished state. Implementers have yet to realize the multifaceted nature of nutrition, especially how it is affected by lifestyle and socioeconomic determinants that go beyond the usual medical approaches and reallocate resources to interventions that work.[18,1918,19] Where they do recognize its causes, they appear to still follow this approach.

Human Resources for Nutrition

The burden of child malnutrition in the Philippines is high, with nearly one-third of those under five years of age stunted. Addressing this issue requires a tremendous mobilization of human resources to deliver the myriad of nutrition programs outlined in the PPAN. Our analysis suggests that increased investment in management staff and frontline health workers is needed. This includes better training for existing workers as well as hiring of additional workers.

At subnational levels, the persons most knowledgeable of nutrition do not have decision-making power. Conversely, LCEs who have this authority are not knowledgeable (or interested) in the nutrition context of their LGU and consequently do not prioritize nutrition programs in their LGU's agenda. LCEs seemed to be burdened by many concerns and do not have the capacity to champion nutrition. An exploration of the councillor for health to assume this leadership role that barangays seem to be lacking may be worthwhile. In a few barangays visited, the councillor for health played a more active role in partnership with the BNS. This tandem could provide the needed technical knowledge and administrative skills in local nutrition program management.

Furthermore, LCEs tend to prioritize visible interventions such as infrastructure that win them political capital to the exclusion of less visible but impactful nutrition interventions. This preference presents opportunities to further involve and train LCEs with a special focus on nutrition-sensitive interventions that are more in line with their usual political advocacies such as agriculture, livelihood, and WASH infrastructure that have been proven to impact stunting.[1919]

Technical capacities for nutrition programming exist with NAOs at the provincial and municipal levels. They usually come from a health, agriculture, or social work background and are knowledgeable of the multisectoral nature of nutrition. However, they often do not have the political clout to fully drive a nutrition agenda. Inadequacy in technical expertise and leadership were more pronounced at barangay levels, a primary site of nutrition program implementation.

Inadequate training of nutrition personnel also emerged as a prominent issue. There were a lot of new BNSes who had assumed their role in less than a year and have not undergone any orientation. Only a few professional healthcare workers and BNSes received training on nutrition program implementation and M&E to cascade to BHWs and other nutrition implementers in their areas. Most BHWs have not undergone any training on nutrition and rely on their colleagues for information. Providing adequate trainings for frontline workers is necessary to ensure competence in their role [2020].

MHOs and midwives with supervisory and unit management functions were rarely trained on program management. There were also misconceptions about stunting being a genetic condition among implementers, particularly at the lower levels. Reports of noncompliance with MNP and iron supplementation due to taste and side-effects may also indicate a need to train HCWs on proper messaging and counselling when dispensing supplements.

Areas with more active MNAOs also tend to have more dynamic nutrition programs. Mentoring of BNSes and MNAOs also varied across study sites. Apart from formal training sessions, mentoring and peer guidance were important factors of job satisfaction, which in another study also found to have positive impact on implementation quality[21].svaried of
Another prominent concern expressed was the lack of appropriate incentives for front-line workers who are expected to do most of the nutrition program legwork in the community. While the nature of engagement of BNSes and BHWs is voluntary, the workload entailed to deliver nutrition services and other general health services are considerable and necessary to maintain health systems operations. Incentives are important to motivate BNSes to carry out their plans and intended roles. [22].

Nutrition actors occupying permanent plantilla positions were found to have long tenure and high satisfaction. However, BNSes, BHWs, and NDPs without long-term contracts expressed disappointment on the lack of proper incentives, benefits, and security in their positions. These positions are subject to high turnover due to their susceptibility to political term limits as they are appointed by LCEs. They are most often replaced by untrained workers, which inhibits the continuity of good program implementation.

These findings—the need for dedicated nutrition personnel in permanents positions and proper incentives and capacity building of existing nutrition personnel on both technical topics and nutrition program management—are supported by findings from several other studies.[21–23]These findings—the —are supported by findings from several other studies.

Monitoring and Evaluation Systems

Our analysis of the M&E systems currently in place to track nutrition programming in the Philippines yielded three main findings. First, while the OPT system has the potential to serve as an extremely powerful and unique data source for tracking the performance of nutrition programming in terms of ultimate health outcomes (i.e., stunting and underweight), several challenges call into question the quality and completeness of OPT data, undermining the system's utility. Improving this system can improve targeting, monitoring, and better inform resource allocations. Second, M&E systems designed to track program-specific inputs and outputs throughout the country do not currently exist and should be built to monitor implementation fidelity and maintain accountability. Third, while budget tracking is a key aspect of M&E, at present there is no coherent system for tracking complex nutrition budgets and expenditures in the country; such a system should also be built.

If the OPT system can be strengthened to ensure high quality data for all children in the country, that data could be used to establish an outcome-based financial incentive scheme similar to the MELLPI that rewards municipalities and barangays for their performance in addressing child malnutrition. We describe one potential financial incentive scheme in the impact evaluation proposal in Appendix A.

Perceptions of Stunting

This formative evaluation focuses on the interventions and strategies under MS and IYCF Programs that address the high prevalence of stunting among 0 to 5-year-old children. Global estimates on prevalence of stunting showed a significant reduction from 39.3% in 1990 to 22.2% in 2017[24]. However, this steep downward trend could not be seen in the Philippines where 30.3% of young children remain stunted and the prevalence has not declined in the last fifteen years [2,25].

Nutrition was not emphasized in the last Millennium Development Goals (MDGs) 2000-2015, which only incorporated underweight prevalence as a sub-indicator of poverty and hunger (MDG 1). By the end of 2015, stunting was recognized as a more holistic indicator that accounts for the effects of diseases and poor nutritional practices during the first 1,000 days[7]. To push nutrition

higher in the agenda, the Sustainable Development Goals included reduction in child stunting as an indicator in achieving zero hunger (SDG 2). The different factors that determine stunting and underweight conditions often necessitate different program strategies. Stunting is determined by the percentage of dietary energy from non-staples, access to sanitation and women's education, and to a lesser extent access to water, gender equality, and national food availabilities. Unlike underweight, stunting reflects the quality of governance, determined by indicators such as bureaucratic effectiveness, political stability, restraint of corruption, and democratic accountability[26]. With over 3.6 million Filipino children stunted and ranking 9th in global burden of stunting worldwide, the Philippine government is facing a big challenge[27].

Although the reorientation toward stunting has occurred at higher levels of government, we do not see this shift in our study sites. The recognition of stunting as a chronic form of malnutrition only sits at higher-levels of government that formulate strategic action plans. Those in charge of implementing nutrition programs at local levels lack proper insight into the gravity of stunting as a medical concern. While stunting has an intergenerational nature in that maternal and paternal stunting status are risk factors to child stunting, most of the direct implementers, including those with professional health backgrounds, believed the genetic nature of stunting as unavoidable rather than as a risk-factor that needs attention.

Consequently, any mention of interventions more explicitly designed to reduce stunting such as breastfeeding and complementary feeding promotion are largely absent from LNAPs. Instead, feeding programs feature more prominently, targeting the underweight and wasted, characteristics frontline workers equate with the malnourished. Without actionable policies explicitly designed to address stunting, these children are overlooked during case finding exercises where malnourished children are referred to healthcare workers. While stunted children may be tracked by monitoring child growth milestones during the OPT, misperceptions of stunting may inhibit the success of such activities; mothers often complain about the OPT not directly benefitting them and become uncooperative, and an inability to explain the importance of growth monitoring may be a reason why BNSes and BHWs struggle to win their cooperation. Thus, nutrition planning and implementation is not purely a technical exercise but requires the education and behavioural change of policy-makers and frontline workers to ensure successful implementation and achievement of outcomes.

Based on interviews with barangay officials, residents from IP communities and far-flung Muslim communities are not routinely captured in the OPT system or if at all, they are recorded separately, which could be the reason for under-reporting stunting in study areas. They tend to be the ones with poorer health and nutritional status but are also the ones who refuse any heath service. Aside

from stunting misconceptions, underestimation of stunting prevalence in LGUs, this non-inclusion on IPs in the main OPT system may add to the LCE's impression that stunting is not a concern.

Conclusion

Two years after the launch of PPAN 2017-2022, this study found a disconnect between PPAN strategic thrusts and planning, prioritization and implementation of nutrition programs in LGUs. There was a weak nutrition program leadership whereby LCEs lacked knowledge and insight on the nutrition problems. LCEs preferred tangible programs such as livelihood, infrastructure and agriculture projects leaving little resources on nutrition. Basic nutrition services were hinged on volunteers (BNSes and BHWs), designated staff (MNAOs and PNAOs) and project-based staff (nurses) without proper compensation and job security making service delivery unstable. Issues on OPT data quality and misconceptions on causes and implications of stunting may have been strong reasons why stunting reduction was not prioritized. The issues on leadership, human resources, M&E data quality and cascading of strategies should be the highlighted in the review actions for nutrition.

Recommendations

PPAN 2017-2022 includes a wide-array of programs that have been existing for several years and have been proven to work in theory. However, the problem on stunting persists. The bottlenecks in implementation of the PPAN identified in this study strongly suggest the need for the following action points: 1) Strengthen OPT plus data collection and reporting; 2) focusing technical support at the barangay level, particularly on strengthening capacities and structures of human resources for nutrition to deliver nutrition programs 3) sharpening messages on the problem of stunting by making sure correct, salient information on its causes and consequences is delivered to and by front-line implementers and decision-makers. Taken together, these recommendations may help ensure implementation fidelity and sustainability of PPAN 2017-2022 programs.

Strengthen OPT System

Our primary recommendation is to improve the quality of OPT data as a first step in addressing stunting to better inform resource allocation, targeting, and surveillance. In our review of the OPT, we found evidence of poor data quality. As a result, decision-makers lack information needed to appropriately respond to the nutritional needs of their local population. Strengthening the OPT to inform policy decisions and ensure accountability is a key first step in addressing stunting in the Philippines. This initiative also entails strategies to improve data quality, including providing timely (re)-training of staff involved, ensuring all barangays have working equipment that can be easily transported to remote areas, and conducting random and/or targeted data audits. Moreover, the new electronic OPT system should follow data recording and encoding protocols that would enable barangays to easily track children over time and improve coverage.

If these approaches can sustainably improve the quality of OPT data, the data can be used to tie stunting outcomes (or rather, changes in HAZ) to financial and non-financial incentives for LGUs as detailed in the impact evaluation proposal in Appendix A. While not a panacea, such an approach can help overcome some of the constraints discussed in this report, including reorienting the priorities of LCEs and frontline healthcare workers, focusing more efforts on fighting chronic malnutrition and reaching those most in need, particularly GIDAs. While the impact of such an approach is uncertain and would require significant resources, an impact evaluation of a pilot program to determine its cost-effectiveness can inform a possible scale-up.

To help address identified gaps in implementation, M&E systems can be further developed and refined to help ensure programs are being implemented as intended. With limited resources and capacities to do so, select interventions can be prioritized. Considerations for prioritization would include those that are understood to have high impact (e.g. First 1,000 Days interventions), those

where significant resources have been dedicated, and interventions where implementation fidelity is known to be lacking or uncertain. Sufficient data on the respective inputs and outputs can be used to help ensure frontline workers are held accountable for implementing programs in accordance with set protocols and guidelines, assuming these guidelines have been clearly communicated to all personnel.

Focusing efforts at the barangay level

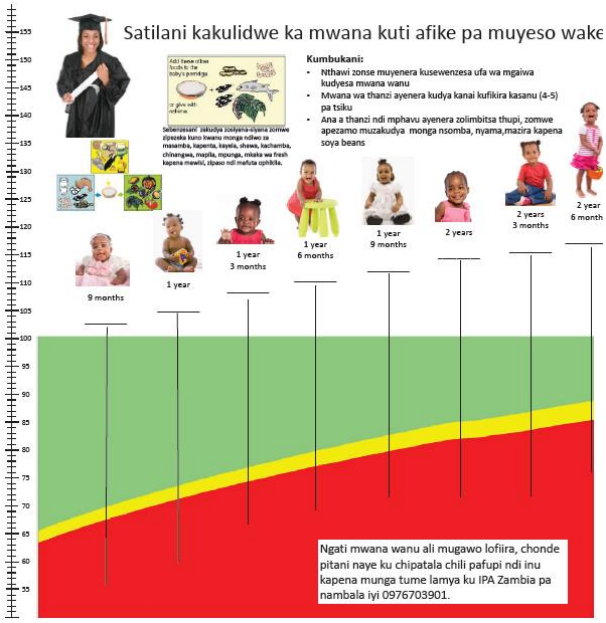
The barangay is the primary site of nutrition program implementation and is the level where implementation is at its weakest. Barangay LGUs can benefit from more direct and sustained support from higher levels. The current cascading model followed to implement the PPAN is limited to the extent that it relies on designated personnel who often lack capacity and/or accountability. The cascading process is also slower than anticipated, with implementation of the PPAN a year behind schedule (the PPAN states its programs should begin implementation in 2018, but it had not yet been cascaded down in mid-2019). Given these challenges, barangays may benefit from more direct support from regional and central levels. For example, one region began using funds to directly train BNSes to help ensure all were fully and uniformly oriented and capacitated. Moreover, barangay nutrition councils can benefit from more guidance on how to conduct needs assessments and choosing the most appropriate interventions for their context. We see it necessary to revisit the human resource structures for nutrition programs and ensure that critical roles in nutrition program delivery fall under well-capacitated and adequately incentivized frontline health workers.

Sharpen and deliver salient messages on stunting

Finally, we recommend that efforts be taken to increase the focus on stunting as a core priority among decision-makers and front-line workers. Stunting will remain unsolved if it is not recognized as a problem that can be addressed. Orientations, trainings, and information campaigns targeting policymakers, implementers, and beneficiaries should consider new approaches to delivering information on stunting. Reorientation efforts should target BNSes, BHWs, LCEs, members of local nutrition councils, and healthcare workers to ensure that their misconceptions on stunting and traditional approaches to address malnutrition are corrected. As a general rule, such messages can follow the rule of the Three S's: simple, salient, and solvable. In other words, information on stunting's causes and consequences should be easily understood, remembered as an issue of importance, and seen as something that can be addressed by the actions of the target audience.

For example, a study by Fink, Levenson, Tembo, and Rockers[28] conducted in Zambia found that the distribution of inexpensive and easy-to-use growth chart posters (Figure 7) installed in homes effectively reduced the stunting rate by 22 percent among malnourished children. Different versions of the posters were pilot-tested to determine the most appropriate messaging that enables parents to compare their children's growth to expected height range among children of same age and sex. The message was found to be simple enough and easily understandable in the community. Having the visual charts in the homes also made the topic of child growth a more salient concern in the community as it served a daily reminder for parents to be concerned about stunting prevention. Moreover, messaging involving the aspirations of parents for their children also proved salient (i.e. children with proper nutrition are more likely to be successful in life). Finally, through the intervention, the community learned that stunting is a solvable problem which is another important message that needs to be inculcated to community members and implementers alike.

Figure 12. Sample of Home-based Growth Chart, Fink 2018



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Appendix A: Impact Evaluation Proposal

Resource or Audit: Improving the Quality of Local Government Data on Child Nutritional Status in the Philippines

Introduction

Operation Timbang Plus (OPT) is a national program in the Philippines designed to monitor the nutritional status of all children under 5 years of age. Once per year, all children under 5 are measured for height/length and weight. Municipalities and barangays share responsibility for collecting these data. The OPT system has the potential to serve as an extremely powerful and unique data source for tracking the performance of nutrition programming in terms of ultimate health outcomes (i.e., stunting and underweight). However, in our review of the OPT we found evidence of poor data quality. As a result, decision-makers lack information needed to appropriately respond to the nutritional needs of their local population. The primary recommendation in this report is to improve the quality of OPT data as a first step in addressing child undernutrition to better inform resource allocation.

Two general approaches could improve the quality of OPT data: resourcing and auditing. Resourcing would entail strengthening the capacity of barangays to carry out OPT data collection procedures and could include: providing financing to ensure appropriate data collection staffing and equipment; and supporting standardized training of data collectors annually. Auditing would entail verifying the quality of OPT data after they are collected and could include: data collection by an independent team of assessors among a random subsample of children; comparative analysis of OPT measurement values and audit values; and a regime of rewards and/or sanctions for barangays based on the quality of OPT data determined through the audit. The details of each intervention's design will need to be worked out in consultation with relevant national and local government authorities in the Philippines.

We propose to conduct a cluster-randomized controlled trial to test the impacts of separate resource and audit interventions on the quality of OPT child height/length and weight data. If the quality of OPT data can be verified, those data could form the basis of a performance-based financial incentive scheme. We summarize a general approach to such a scheme at the end of this proposal.

Setting

The trial will be conducted in 3 provinces, one in each of Luzon, Visayas, and Mindanao. Provinces with high rates of stunting will be prioritized. We will randomly select 6 municipalities in each province with probability proportional to population size for inclusion in the study. Within each municipality, we will select 10 barangays with probability proportional to population size for inclusion in the study. In total, 180 barangays (i.e., clusters) will be included.

Randomization

Using a stratified randomization procedure, barangays will be assigned to one of four groups: 1) resource intervention (45 barangays); 2) audit intervention (45 barangays); 3) resource and audit interventions (45 barangays); and 4) pure control (45 barangays). Stratification will serve to improve balance on observable characteristics and increase the precision of impact estimates. Stratification variables will include province as well as barangay-level measures of child malnutrition and household wealth.

Measurement

Data from two sources will be used: 1) height/length and weight measurements extracted from OPT records; and 2) height/length and weight measurements taken directly by study staff at households.

Primary and secondary outcomes will be calculated within each study child for height/length and for weigh data. The primary outcome is correct stunting and underweight status based on the measurement in the OPT record. We present evidence in this report that suggests that measures near the stunting and underweight thresholds are particularly prone to quality issues. The child's status based on the direct measurement will be used as the definition of 'correct'. Missingness from the OPT dataset is a key secondary outcome; child eligibility for study enrollment will be determined based on a household listing exercise that is independent of OPT procedures, and enrolled children who are not found in the OPT will be categorized as missing. OPT records include child names, which will be used for matching. The difference between the OPT value and the direct measurement value is another secondary outcome.

The validity of the primary and secondary outcomes depends largely on minimizing the time between the OPT measurement and the direct measurement. Linear growth in the time between the measures is unlikely to be correlated with the intervention and should not bias the results; nonetheless, efforts will be made to minimize the time between the measurements in an effort to best understand the quality of the OPT data.

Sampling

Repeated cross-sections of 20 children per municipality (3,600 children overall) will be enrolled and directly measured at baseline (during the OPT period just prior to the implementation of the intervention) and endline (during the OPT period one year later, at which time the interventions will be in place). The study has 80 percent power to detect a 11-percentage point increase in the probability of correct OPT stunting (and underweight) status due to the intervention(s), assuming a probability of 0.8 correct in the control group, α=0.05, and an intra-class correlation coefficient (ICC) of 0.20 (design effect = 4.8).

Analysis

We will compare municipality and participant characteristics across study arms at baseline to assess balance. We will estimate the independent and joint impacts of the resource and audit interventions on the primary outcome using an intention-to-treat approach. Regression models will be fit to estimate unadjusted and adjusted impacts. An analysis of covariance (ANCOVA) approach will be used for estimating impact by controlling for municipality-level averages of the baseline value of the

primary outcome. Adjusted models will also include the following control variables to increase precision: stratification variables, child age (in months), child gender, and household wealth. Any covariates found to be imbalanced at baseline will also be included as controls. Standard errors will be adjusted to account for clustering.

Performance-Based Financial Incentive Scheme

If the quality of OPT data can be verified, those data could form the basis of a performance-based financial incentive scheme. The aim of such a scheme would be to reward municipalities that improve child nutrition each year. The return on investments in child nutrition are high; according to one estimate, each case of stunting averted is worth around $2,500 in increased earnings over a lifetime. Depending the value of financial incentives needed to motivate municipalities to address child stunting, the aggregate long-term private and public returns on investments in an incentive scheme could be substantial. Below, we describe a general approach to a performance-based financial incentive scheme pegged to OPT data on child height/length.

Child Linear Growth Performance Metric

To effectively motivate municipalities to address child growth, financial incentives must be pegged to a clear performance metric. We propose a new performance metric called child linear growth (CLG) points. Upon completion of OPT data collection, CLG points would be calculated for each municipality based on changes in height-for-age z-scores (HAZ) from the previous year among children under 5 years of age. As part of the performance-based financial incentive scheme, the number of CLG points would be multiplied by a fixed point value, e.g., Php 100, to determine the overall payment provided to each municipality for the year. The level of the fixed point value could be calibrated to optimize municipality performance given overall budget constraints.

Considerations for the Design of CLG points:

- To avoid a perverse incentive to prioritize children just under the stunting threshold to the neglect of other children in need, CLG points are not based on stunting but rather on HAZ.
- To incentivize prioritization of children with greater growth deficits, more CLG points are given for equivalent HAZ changes at lower levels of base-year (i.e., previous year) HAZ.
- To avoid a perverse incentive to neglect children at risk for negative growth, negative CLG points are awarded for children who exhibit a negative change in HAZ. However, municipalities with a negative annual aggregate of points are not required to pay a penalty.
- To avoid a perverse incentive to encourage growth deficits in younger children to create greater opportunities for positive change in older children, CLG points for children younger than 1 year of age are based on population-level changes compared to the previous year's cohort of children the same age. Municipalities that demonstrate negative changes from the previous year in children younger than 1 year of age accrue negative CLG points.
- To filter out some noise in OPT measurement, changes in HAZ are estimated to the nearest 0.1. Differences in HAZ from the base year to the current year are calculated to the nearest 0.01 and then rounded to the nearest 0.1.
- One byproduct of this design of CLG points is the fact that municipalities with greater underlying growth deficits have opportunities to receive greater financial rewards for positive changes; this is equity improving rather than unfair.

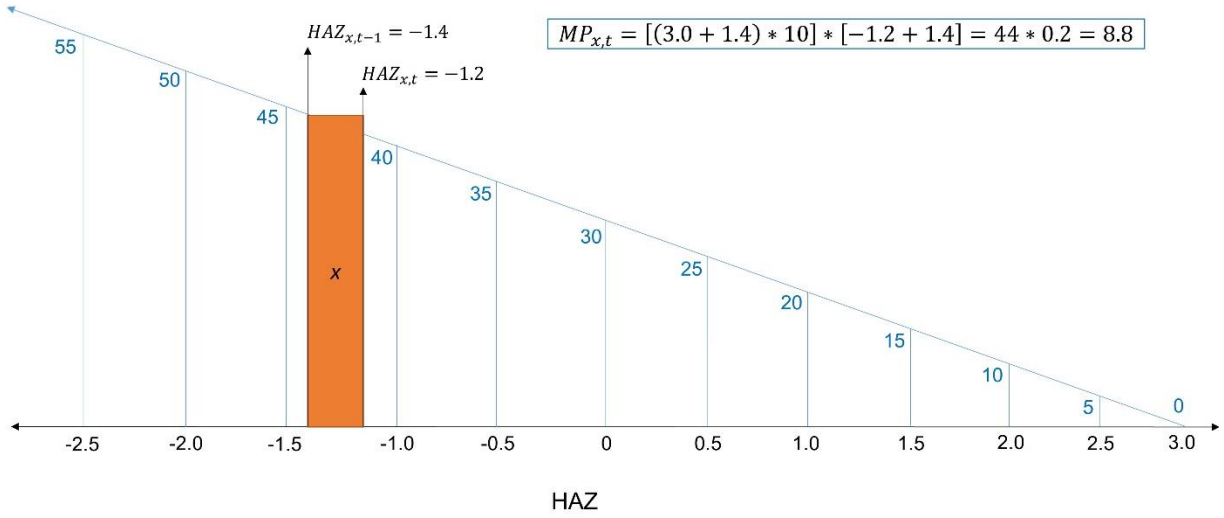
Calculating CLG Points

Following from these considerations, CLG points for child *i* in year *t* are calculated according to the following equation:

$$CLG_{i,t} = \left[\left(3.0 - HAZ_{i,t-1}\right) * 10\right] * \left[HAZ_{i,t} - HAZ_{i,t-1}\right]$$

Figure 1 provides a graphical representation of the CLG point calculation for example child *x* with HAZ in the base year (t-1) of -1.4 and improved to HAZ of -1.2 in the index year (t). The blue numbers if the figure correspond to the first bracketed expression in the equation above, and capture the increasing value placed on improving growth in children with the greatest deficits in the base year. Children with HAZ $\geq$ 3 in the base year are assumed to have optimal growth and do not generate CLG points.

Figure 1. Example calculation of MPs for child *x* in year *t*



Incentives to Improve OPT Data Quality

Implementing this type of performance-based financial incentive scheme could incentivize efforts by municipalities to improve OPT data quality. Most notably, by pegging financial incentives to HAZ, the scheme removes incentives to manipulate measurements near the stunting threshold. In addition, the scheme creates incentives to minimize missing children in the OPT, as each child has the potential to generate increased payments in future years. To further minimize missingness, it may be appropriate to award additional CLG points based on the number of children measured; additional weight could be given to measurements of children in geographically isolated and disadvantaged areas (GIDAs) and indigenous peoples (IPs), to ensure good coverage in these groups. The scheme will also clearly create incentives to manipulate OPT data in ways that maximize payments, and regular auditing would be a necessary part of the scheme.

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Appendix B: Other Prominent Nutrition Programs

Early Childhood Care and Development

Early Childhood Care and Development (ECCD) First 1,000 Days is a holistic program that has IYCF at its core. It is the primary implementation mechanism of the First 1,000 Days law and PPAN 2017-2022 strategic thrusts. Under ECCD, healthcare workers, BNSes and NAOs underwent three-phased training. Phase 1 is called DOST Package for the Improvement of Nutrition of Young Children (DOST -PINOY) where underweight 6 to 24 month children are given FNRI-developed rice-sesame-mongo (RiSeMo) blend and rice-mongo curls. Phase 2 training was about "Idol ko si Nanay", conducting a series of training activities centered on capacity-building of parents from child conception, breastfeeding, and feeding young infants with nutritious food. Phase 3 was about Child Development Milestones Monitoring. Each ECCD training program runs for a total of five days though some implementers are not able to complete all three phases for reasons due to unavailability of funds and conflicts in schedule. BHWs have heard of ECCD but did not complete the training or were not included at all.

According to respondents, ECCD covered topics on breastfeeding and complementary feeding, vegetable gardening, rights of the child and cooking demonstrations. In some case study sites, ECCD was described as a more simplistic program that provided funds to the LGU to support agricultural programs. Through ECCF program, LGUs distributed seedlings, farming tools, poultry for egg production and cow for milk production to target beneficiaries. Among the priority recipients were households with underweight or wasted children and families living below the poverty line. Representatives from each family or main caregiver were taught about proper gardening and proper care of farm animals in one big lecture session.

Dietary Supplementation Programs

Another gap in PPAN implementation is demonstrated between the design and implementation National Dietary Supplementation Program that intends to address an immediate cause of malnutrition: inadequate food intake. While national level guidelines are provided by DOST-FNRI and further operationalized by DepEd and DSWD in their respective program designs, the actual implementation of feeding programs rarely appeared to follow these guidelines and were often highly politicized. Higher-level implementers voiced out concerns about uncoordinated efforts that lead to wasted resources. Some believe that feeding interventions should only target underweight and wasted and should never be universally implemented. Others see that non-government entities should better coordinate with LGUs to make sure they are implementing effective programs that address the most pressing concerns.

Even where such programs were not implemented with fidelity, barangays understood the conduct of any feeding activity as a success indicator even if they are only conducted once, far below the recommended frequency of 120 days. These are usually one-off activities done as part of the Nutrition Month celebration. Some conduct feeding sessions in shorter durations (i.e. weeks

to a month) partnered with weighing of children immediately before and after the feeding series. Though irregular and ineffective, feeding interventions are usually the nutrition programs with a clearly defined budget and most expensive. These activities may boost community satisfaction and improve visibility of LCEs and councils, but they fail to improve the nutritional status of children on their own. Regardless, these were the most popular interventions seen and at times the only ones identified as part of local nutrition agendas. One BNS mentioned that her barangay only had a PHP 15,000 budget on nutrition last year which was spent entirely on feeding. Thus, while feeding interventions are well understood and planned out at central level, these guidelines are often not followed, particularly used as an instrument to achieve short-term political agendas.

Supplementary Feeding Program (SFP) by Department of Social Work and Development (DSWD)

Pre-school children aged 3 to 5 years old who are enrolled in DSWD daycare centers are supposed to be given daily hot meals for 120 days. Feeding programs in daycare centers were often mentioned as a primary nutrition program in LGUs despite not being LGU-initiated. This may be because daycares are often attached to Barangay Hall and Barangay Health Centers and is manned by a daycare teacher who is under supervision of the Municipal Social Welfare Development (MSWD) Office. Many barangay-municipal (MLGUs) also augment by providing supplies. While the SFP could not be ascertained, there were reports from some barangays that it the BNS or Midwife as additional beneficiaries.

School-Based Feeding Program (SBFP) by Department of Education (DepEd)

To a lesser extent, School Based Feeding Programs were mentioned by respondents. Unlike daycare centers though, elementary schools were less integrated with LGU administration and report directly to DepEd. There were brief accounts about schools conducting regular school-based feeding programs. DSWD also reportedly submits a list of daycare underweight and wasted to their partner elementary school to ensure that the child receives feeding in school. However some respondents doubt if the elementary school actually implements regular feeding.

Philippine Integrated Management of Severe Acute Malnutrition (PIMAM)

Recently rolled-out training on detection and treatment of severe acute malnutrition and moderate acute malnutrition was mentioned by some BNS, doctors, nurses, midwives. Respondents also described the protocol they do whenever they identified severely wasted cases. Case finding is done by BNS and BHWs who conduct OPT. Children identified to have low weight are referred to the midwife or nurse who will conduct validation measurement at the health center. If confirmed to be a case of acute malnutrition, the child will be reported to the MHO who will enlist the child to receive Micronutrient Powder (MNP), Ready-to-use Therapeutic Food (RUTF) and feeding. The child will also be monitored closely by the BNS. The interview responses did not differentiate actions between SAM and MAM nor between underweight and wasting.

The use of RUTF been mentioned a few times in the interviews. Majority of the people were aware of it or could at least describe it (peanut butter in sachets given to malnourished kids) but its use did not seem prevalent because implementers claimed that they hardly had any moderately or severely acute malnourished. One mother also complained that her child did not like the taste and even vomits it out. Cases of allergies though rare have also been mentioned.

Appendix C: Personnel Structure

We have identified several key players in nutrition program planning and implementation at each LGU level. The personnel structure and the actual roles they perform slightly differed in every area. The following section describes the common implementers that we have identified in our case study sites.

Region

At the regional level, the active nutrition-related personnel were the NNC Regional Program Coordinators and their teams of Regional Nutrition Officers, DOH Family Health Cluster Head and Department of Agriculture nutrition focal persons. Some provinces also had District Nutrition Program Coordinators with nutritionist-dietician background

NNC Regional Offices were sometimes based within Regional DOH Office or had a stand-alone office. This office is headed by the RNPC and additionally manned by a few Nutrition Officers who divide the role of providing technical assistance and trainings to provincial and municipal staff. RNPCs and Nutrition Officers had a good overview and understanding of the nutritional status in their region. They were also in-charge of training and orientation of new BNSes as well as maintaining a roster of all BNSes in their region. They were able to adequately discuss PPAN 2017-2022, the strategies in rolling this out in provinces and the difficulties in implementation. They were often the most reflective when speaking about nutrition drivers and had strong stand and suggestions on PPAN. They voiced out concerns on poverty and lack of livelihood, problems in parenting, poor compliance and overall lack of budget and priority for nutrition. They had similar sentiments about the persistence of nutritional concerns especially stunting and acute malnutrition. But despite the continued high prevalence, they also see improvements in the situation. The RNPC keeps a copy of their Regional Nutrition Action Plan (RNAP).

The DOH focal persons were most informative in discussing health aspects of nutrition programs delivered by the healthcare workers. While the DA, focal person was most helpful in describing agriculture-related nutrition-sensitive programs which were quite prevalent in the study sites. They could not readily discuss the figures and trends on nutritional status in their region. However, they also shared similar views on main nutrition drivers and needed actions in their region.

Province

A Local Nutrition Council existed at provincial, municipal/city, and barangay levels. At the provincial level, the Governor or LCE acts as the chairperson of the local nutrition council and is assisted by representatives from different government sectors, CSOs and private entities. The

extent of functionality of local nutrition councils varied a lot. Only a few LNCs had active LCEs as chairpersons.

Provincial LCEs were not available for interview at the time of data collection. We additionally reached out to Provincial Budget Officers or Planning Officers to get to know about the administrative processes and budget on nutrition programs. Most were hesitant to join or were unavailable. Often, the team was referred to the Provincial Nutrition Action Officer (PNAO). The NAO is a designation given by the LCE to a provincial LGU employee that is put in charge of overall nutrition program coordination and monitoring within the province on top of their regular role. The current PNAOs in the province were heads of the Provincial Health Office (PHO), Provincial Agricultural Office (PAO) or Provincial Social Work and Development Office (PSWDO).

The Provincial Health Officers also played significant roles in planning and coordination of health programs including nutrition. PHOs occupy a plantilla or permanent government position with above-average salary and benefits. These are licensed physicians who also had prior experience before assuming their role. A number of them had graduate degrees or training in public health, public management or health program management. Most of the doctors interviewed had been in the position for at least a decade with the most senior being 30 years in service. They mainly function as the chief administrator of the Provincial Hospital that caters to complex cases that could not be managed by Municipal or District Hospitals. PHOs were also included in planning sessions of Regional DOH indicating that they have a broader public health scope outside the hospital. Additionally, they have the responsibility of cascading trainings to municipalities and oversight of monitoring and evaluation of programs.

Municipality and City

Municipality and City structures mirror the Provincial structure. The Municipal/ City Nutrition Council is also headed by the Mayor. We were able to interview one municipal mayor, but the rest were unavailable or referred us to the Municipal Nutrition Action Officer (MNAO) instead. Similar to PNAOs, MNAO is a designated position appointed by the Mayor. This role is given to department heads such as Municipal Health Officers (MHO), Municipal Agriculture Officers (MAO), or Municipal Social Work and Development Officer (MSWDO). NAO role had also been given to other municipal staff of lower job ranking such as nurses, planning officers, and population committee staff. On one rare case, a municipality had a dedicated MNAO with a permanent position. NAOs would typically assume the functions of the chairperson of the Local Nutrition Council in cases where the LCE did not prioritize nutrition.

We also reached out to Municipal Budget Officer (MBO) when possible to know about processes of allocating resources and budgeting for nutrition. Budget Officers were hesitant to provide details on budget and expenditures. They often said that budgeting for nutrition was not one of

their main responsibilities. Instead, they were more concerned about being able to allocate funds for all proposed programs in their LGUs.

Municipalities divide the area into several Rural Health Units, each catering to a cluster of barangays. The MHOs interviewed had similar functions as the PHO including management of a Rural Health Unit (RHU), direct patient management within RHU, supervision of health care workers in RHU and barangay health stations, as well as monitoring of programs. Severe cases of acute malnutrition and pregnancy complications are being referred to the MHO for immediate treatment.

Municipalities and cities also employ several rural health midwives, each of whom handles a cluster of barangays. Almost all midwives interviewed were long-term in the position, with average duration of 17 years and ranging from 1 year to 36 years. They attended trainings mostly on technical content and direct patient management such as ECCD, IYCF, Integrated Management of Childhood Illness (IMCI), Basic Emergency Obstetric and Newborn Care (BEmONC) and PIMAM. In addition to direct patient care to mothers and children, they were also in charge of supervising BNS and BHWs. Midwives consolidate BNS and BHW reports and submit these to MNAO or MHO.

Nurses were also seen instrumental in delivering nutrition programs. Unlike doctors and midwives with plantilla government positions, nurses had different kinds of employment contracts. Some nurses had permanent government positions and had been in service for 18 to 37 years. There were also nurses who were products of government job placement projects such as Department of Labor and Employment's (DOLE) Nurses Assigned in Rural Service (NARS) project, DOH's Registered Nurses for Health Enhancement and Local Service (RN HEALS) and Nurse Deployment Program (NDP) which provide term-based employment. A couple of the respondents had their contracts renewed or moved to a different project and had service duration ranging from two to nine years. When a change of contract or renewal happens, they were sometimes place to a different area. There were also a few nurses whose term-based contracts were not renewed because of delays in national budget approval. These nurses opted to continue their work on a volunteer basis since January 2019 with the hope of getting a new contract.

Nurses were typically assigned in a Rural Health Unit catering to a cluster of barangays. They were in-charge of facility-based patient-care. They also conduct home visits to deliver services to residents who cannot go to the health center. In some barangays, nurses were most active in conducting health education classes and public information drives. When a child is identified as a case of malnutrition, the nurse is in charge of validating measurement before reporting the case to the MNAO and MHO.

Barangay

The barangay council, headed by the barangay captain, is the basic governing body in the barangay ideally takes a big part in nutrition programming the barangay. Members of the barangay council occupy a term-based position whose salary is based on the barangay classification and income. Barangay Captain and Councilors are all elected by voting members in their village.

Barangay Captains did not have an active role in nutrition programs. They seemed to be symbolic chairpersons of the Barangay Nutrition Council. However, LCEs take a big role in budgeting and general leadership. LCEs in barangays we visited had a good political clout in their area. All of them had been in a political position for several years and/ or had family members in politics. Some Captains have served for multiple terms with rests in between to allow for reelection. There were also LCEs on their first ever term, but they all had been a former councilor or were related to the former LCE. This long-term hold of the position could signify the trust the community has on these LCEs and the strong potential for them to drive change.

Most of the Barangay Councilors held the position for a long time or were relatives with another politician. Most of them were political allies of the LCE who asked to run for the position. Councilors for Health had varying levels of involvement in nutrition programming ranging from those who admitted not being involved nor idea in nutrition programs to those who co-chair the Barangay Nutrition Council and supervise BNSes and BHWs in conducting OPT. They were also identified as entry points for BNSes to get in touch with the Barangay Council in BNAP formulation and request for support for projects. We noted that some BNSes were recommended by the Councilor for Health. Many Councilors for Health and Councilors for Agriculture were active in implementing nutrition-sensitive programs such as encouraging families to adopt backyard vegetable gardening, breeding of livestock, poultry for egg production and care of cows for milk production. These indicate that many Barangay Councilors are driven by their own advocacies and are in a position of influence in their communities.

Barangay Secretaries and Barangay Treasurers were appointees of the LCE. The LCE would refer to them for information about budget and plans. They were also said to be part of the Barangay Nutrition Council or key players in budget approvals, but they did not play a role in implementation.

Each barangay is required to have a Barangay Nutrition Scholar, a volunteer resident who has responsibilities of collecting data for nutrition surveillance of the barangay, nutrition education and implementing barangay-initiated nutrition programs. Barangays with big population and area had more than one BNS. Barangays were geographically divided into several “purok”. A cluster of purok was usually assigned to one BNS. The nature of BNS position varied a lot across municipalities and even barangays. BNS is an appointment-based position without a salary. BNSes in the study received varying honorarium – provincial LGU provides Php 100 to Php 500, municipalities give a range of Php 100 to Php 2800, barangays give Php 100 to Php 800 per month.

Some BNS received honorarium only from one LGU level while in some areas, BNS received all available honoraria form all levels

Each purok is handled by one Barangay Health Worker (BHW). A BHW is a volunteer worker who gives primary health services to member of the community. The BHW to household ratio was around 1:40 to 1:200. They are usually appointed by the LCE. Despite the volunteer nature of the position, they are regarded as health care workers and could therefore enjoy allowances and benefits once accredited. Accreditation is given to BHWs who have at least completed 2 years of college education and 5 years of service as BHW. BHW allowance ranged from Php 300 to Php 3200 per month disbursed quarterly. The incentives are taken from both municipal and barangay budgets. BHW respondents claimed that they team-up with BNSes to conduct Operation Timbang Plus. They conduct home visits of pregnant and newly delivered mothers. They also conduct health teaching on proper nutrition and breastfeeding. They mentioned promotion of Pinggang Pinoy, Ten Kumainments, and Go, Grow, Glow foods in their communities. In addition to nutrition-specific activities, they also promote family planning, immunizations including announcements on immunization schedules, facilitate sputum testing, conduct blood pressure monitoring and facilitate referrals of complicated cases. They also monitor and promote general cleanliness and sanitation in households.

Appendix D: Interview Guides

We have included interview guides used in conducting unstructured interviews and focus group discussions with the following respondents. The guides are available in English, Tagalog and Visayan languages. We only attached the most commonly used ones and the rest are available upon request.

1. Nutrition Program Coordinator
2. Local Chief Executive
3. Nutrition Action Officer
4. Professional Health Care Workers
5. Barangay Nutrition Scholar
6. Barangay Health Workers
7. Mothers

I. KII Guide for NNC Nutrition Program Coordinator

1. NNC Coordinator Position
    a. How did you become the NNC Coordinator? For how long have you been an NNC Coordinator?
    b. Were there any trainings you underwent before you became an NNC NPC? Can you describe the nature of those trainings?
    c. Do you have any training in public administration or program management?
    d. What trainings did you undergo while in the role of Regional Nutrition Program Coordinator?
2. Nutrition Status and Perceptions
    a. How would you describe the nutritional status in your Region?
    b. What are the biggest nutritional concerns in your Region?
3. Roles
    a. Planning, Coordination, and Implementation
        i. Can you describe how you work with the national, provincial, municipal, and barangay governments? How do you coordinate in the planning and implementation of nutrition programs?
        ii. How does the central government support your organizations efforts to implement nutrition programs?
        iii. What is the process for developing the Provincial/Municipal/ Barangay Nutrition Action Plan? What role does PPAN 2017-2022 play in this process?
        iv. What are the priority nutrition programs being implemented in your region? Can you briefly describe each?
        v. What are your roles in implementing these nutrition programs?
        vi. How do you prioritize which programs will be implemented?
    b. Budget
        i. What are the primary sources of funding that you rely on for nutrition programs in your region?

ii. How does the LGU budget for nutrition programs?
iii. Describe the liquidation process. Are there any difficulties in liquidation that affects budget flow?
iv. How do you weigh the costs and likely impacts of various program options when deciding which to prioritize? (possible follow-up)
    1. Which programs require the most resources?
    2. Which programs require the least resources?
    3. In your opinion, which program/s need more resource allocation?

c. Mobilizing resources
    i. What strategies do you use to ensure that the budget is enough? Are there other resources tapped?
    ii. How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?
    iii. Who are the people or groups you work with on nutrition program implementation? What are their responsibilities?

d. Monitoring
    i. What data on nutrition do you collect? What do you do with this data?
    ii. How do the LGUs respond to the OPT results?
    iii. Were there any actions from the province in response to the OPT results?
    iv. What are the steps taken when a child is seen to be underweight? Wasted? Stunted?
    v. How do you prioritize programs to address child chronic malnutrition (i.e., stunting) versus acute malnutrition? Which do you think is the more important issue to address?

4. PPAN and Program Assessment
    a. What is the role of PPAN 2017-2022 in your work?
    b. (>3 years in role or within NNC) What do you see as the main difference between the current PPAN and the previous ones?
    c. How did the current PPAN 2017-2022 influence implementation of nutrition programs?
    d. What are the strengths of the current PPAN? What feedback have you received and from whom?
    e. How well do you think are these nutrition programs in your region working? Are they reaching the target population?
    f. What are the challenges in implementing nutrition programs?
    g. What are the things your region needs to improve its nutritional status? What other possible areas of improvement do you see?

II. KII Guide for Provincial Governor / Municipal Mayor

1. LCE Position
    a. How long have you been part of the Nutrition Committee?
    b. Were there any trainings you underwent as the chairperson of the Nutrition Committee? Can you describe the nature of those trainings?
    c. Do you have any training in health program management?
    d. What percentage of your time would you say you allocate for your role as nutrition committee chair?
    e. Describe the nutrition committee. Who are the members? What are the activities?
2. Nutrition Status and Perceptions
    a. How would you describe the nutritional status in your LGU?
    b. What are the biggest nutritional concerns in your LGU?
3. Roles
    a. Planning and Implementation
        i. Can you describe how you work with the national, provincial, municipal, and barangay governments? How do you coordinate in the planning and implementation of nutrition programs?
        ii. How does the central government support your organizations efforts to implement nutrition programs?
        iii. What is the process for developing the Municipal/Provincial Nutrition Action Plan? What role does PPAN 2017-2022 play in this process?
        iv. What are the nutrition programs being implemented in your municipality/province? Can you briefly describe each?
        v. What are your roles in implementing these nutrition programs?
        vi. How do you prioritize which programs will be implemented?
    b. Budget
        i. What are the primary sources of funding that you rely on for nutrition programs in your region? How does the LGU budget for nutrition programs?
        ii. Describe the liquidation process. Are there any difficulties in liquidation that affects budget flow? How do you weigh the costs and likely impacts of various program options when deciding which to prioritize? (possible follow-up)
            1. Which programs require the most resources?
            2. Which programs require the least resources?
            3. In your opinion, which programs need more resource allocation?
        iii. Describe the liquidation process. Are there any difficulties on liquidation that affects budget flow?
    c. Mobilizing resources
        i. What strategies do you use to ensure that the budget is enough? Are there other resources tapped?
        ii. How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?
        iii. Who are the people or groups you work with on nutrition program implementation? What are their responsibilities?
    d. Monitoring

i. What data on nutrition do you collect? What do you do with this data?
ii. How did the LGU respond to the results of your OPT?
iii. (For barangay) Were there any actions from the municipality in response to the OPT results?
iv. (For municipality) Were there any actions from the province in response to the OPT results?
v. What are the steps taken when a child was seen to be underweight? Wasted? Stunted?
vi. How do you prioritize programs to address child chronic malnutrition (i.e., stunting) versus acute malnutrition? Which do you think is the more important issue to address?

4. Program Assessment
    h. What is the role of PPAN 2017-2022 in your work?
    a. What do you see as the main difference between the current PPAN and the previous ones?
    b. How did the current PPAN 2017-2022 influence implementation of nutrition programs?
    c. What are the strengths of the current PPAN? What feedback have you received and from whom?
    d. What are the strengths of the current PPAN? What feedback have you received and from whom?
    e. How well do you think are these nutrition programs in your region working? Are they reaching the target population?
    f. What are the challenges in implementing nutrition programs?
    g. What are the things your LGU need to improve nutritional status? What other possible areas of improvement do you see?

III. KII Guide for Nutrition Action Officers

1. Nutrition Action Officer Position
    a. How long have you been a NAO? How did you become the NAO?
    b. Were there any trainings you underwent before you became a NAO? While in NAO position?
    c. Do you have any training in public administration or program management?
    d. What is your permanent designation? What other roles do have?
    e. What percentage of your time would you say you allocate for NAO Role?
2. Nutrition Status and Perceptions
    a. How would you describe the nutritional status in your LGU?
    b. What are the biggest nutritional concerns in your LGU?
3. Roles
    a. What is your role in implementing these programs?
    b. Who are the people or groups you work with on nutrition program implementation? What are their responsibilities?

    c. Planning and Implementation
        i. Can you describe how you work with the national, provincial, municipal, and barangay governments? How do you coordinate in the planning and implementation of nutrition programs?
            1. How does the central government support your organizations efforts to implement nutrition programs
        ii. What is the process for developing the Municipal/Provincial Nutrition Action Plan?
        iii. What are the nutrition programs being implemented in your municipality/province? Can you briefly describe each?
            1. Supplemental feeding programs
            2. Micronutrient supplementation
            3. RUSF
            4. IYCF
        iv. What are your roles in implementing these nutrition programs?
        v. How do you prioritize which programs will be implemented?
    d. Budget
        i. What are the primary sources of funding that you rely on for nutrition programs in your region?
        ii. How does the LGU budget for nutrition programs?
        iii. Describe the liquidation process. Are there any difficulties in liquidation that affects budget flow?
        iv. How do you weigh the costs and likely impacts of various program options when deciding which to prioritize? (possible follow-up)
            1. Which programs require the most resources?
            2. Which programs require the least resources?
            3. In your opinion, which program/s need more resource allocation?
    e. Mobilizing resources

i. What strategies do you use to ensure that the budget is enough? Are there other resources tapped?
ii. How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?
iii. Who are the people or groups you work with on nutrition program implementation? What are their responsibilities

f. Monitoring
i. What data on nutrition do you collect? What do you do with this data?
ii. How did the LGU respond to the results of your OPT?
iii. (For municipality) Were there any actions from the province in response to the OPT results?
iv. What are the steps taken when a child was seen to be underweight? Wasted? Stunted?
v. How do you prioritize programs to address child chronic malnutrition (i.e., stunting) versus acute malnutrition? Which do you think is the more important issue to address?

4. PPAN and Program Assessment
a. What is the role of PPAN 2017-2022 in your work?
b. (>3 years in role) What do you see as the main difference between the current PPAN and the previous ones?
c. How did the current PPAN 2017-2022 influence implementation of nutrition programs?
d. How do you feel about the performance of the program?
e. What are the strengths of the current PPAN? What feedback have you received and from whom?
f. How well do you think are these nutrition programs in your region working? Are they reaching the target population?
g. What are the challenges in implementing nutrition programs?
h. What are the things your LGU needs to improve its nutritional status? What other possible areas of improvement do you see?

IV. Interview Guide for Health Care Workers

I. Roles
Mga Papel
   a. Community Organizing
      i. What are the nutrition programs being implemented in your barangay/municipality? Can you briefly describe each?
      Unsa ang mga programang pangnutrisyon ang ginapatuman sa inyong barangay/munisipalidad? Pwede ba nimong isaysay ang matag usa?

         1. Supplemental feeding programs
         2. Micronutrient supplementation
         3. RUSF
         4. IYCF

      ii. What are your roles in implementing these nutrition programs?
      Unsa ang imong mga papel sa pagpatuman niining mga programang pangnutrisyon?

      iii. How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?
      Unsa ka-aktibo ang komunidad ug mga civic society groups sa mga programang pangnutrisyon? Gi-unsa ninyo sila pag-aghat nga muapil?

   b. Health Education
      i. How do you teach the barangay residents about proper nutrition? What materials and methods do you use?
      Gi-unsa ninyo pagtudlo ang mga lumulupyo sa barangay bahin sa sakto nga nutrisyon? Unsa ang mga materyales ug mga pamaagi nga inyong gigamit?

      ii. Do you conduct Mothers Classes? What are the usual topics? How often are these conducted?
      Nagapahigayon ba mo ug mga Mothers Classes? Unsa ang mga kasagaran nga hisgutanan? Kapila kini gipahigayon?

      iii. Do you conduct home visits? For whom? What are the activities in these home visits?
      Nagabisita ba mo sa mga panimalay? Kang kinsa? Unsa ang mga buluhaton niining mga pagbisita?

iv. Are there any breastfeeding support groups? What is your role in these? How active are these support groups?
Aduna bay mga breastfeeding support groups? Unsa ang imong papel niini? Unsa ka-aktibo kini nga mga support groups?

c. Health service provider
Naghatag ug mga serbisyong panglawas
   i. What is your involvement in finding cases of malnourished pregnant women? Children under 5 years?
   Unsa ang imong papel sa pagpangita ug mga kaso sa mga malnourished nga buntis? Mga bata nga ubos sa lima ka tuig ang panu-igon?
   ii. What steps do you take when you find an underweight or at-risk pregnant woman?
   Unsa ang mga lakang nga inyong gihimo kung makakita mo ug ubos nga timbang o anaa sa risgo nga pagbuntis?
   iii. What are the steps taken when a child was seen to be underweight? Wasted? Stunted?
   Unsa ang mga lakang nga ginahimo kung ang usa ka bata kulang sa timbang? Kulang ang timbang sa iyang gitas-on? Kulang sa gitas-on sa iyang edad?

d. Monitoring
Pagmonitor
   i. What data on nutrition do you collect?
   Unsa nga mga data mahitungod sa nutrisyon ang inyong ginakolekta?

   ii. How do you conduct OPT? Who are involved?
   Giunsa ninyo pagpahigayon ang OPT? Kinsa ang mga apil niini?

   iii. What instruments do you use? How do you ensure accuracy?
   Unsa nga mga instrumento ang inyong gigamit? Gi-unsa ninyo pagsiguro nga sakto kini?

   iv. What training/s were received by the OPT surveyors?
   Unsa nga mga pagbansay-bansay ang nadawat sa mga nag-survey sa OPT?

   v. What percentage of children age under 5 are covered by the OPT Plus in your barangay? Kindly share your results for the last 3 years.

Unsa nga porsyento sa mga bata nga ubos sa lima ka tuig and pangidaron ang apil sa OPT Plus sa inyong barangay? Palihog isaysay ang mga resulta sa nilabay nga 3 ka tuig.

vi. How did the Barangay respond to the results of your OPT?
Gi-unsa pagtubag sa barangay sa mga resulta sa OPT?

vii. Were there any actions from the municipality in response to the OPT results?
Aduna bay mga aksyon gikan sa munisipyo isip tubag sa mga resulta sa OPT?

viii. How important is OPT?
Unsa ka-importante ang OPT?

ix. What are the challenges in conducting OPT?
Unsa ang mga hagit sa pagpahigayon sa OPT?

x. How would you improve OPT?
Unsaon ninyo pagpalambo sa OPT?

II. Satisfaction
Ka-kuntento

a. What are the challenges you face in implementing nutrition programs?
Unsa ang mga hagit nga inyong giatubang sa pagpatuman sa mga programang pangnutrisyon?

b. How could nutrition programs in your barangay/municipality be improved? What support would you need to implement these?
Unsaon pagpalambo sa mga programang pangnutrisyon sa inyong barangay/munisipyo? Unsa nga suporta ang inyong kinahanglan para kini mapatuman?

c. How satisfied are you with your job? How satisfied are you about your role in nutrition program delivery?
Unsa ka ka-kontento sa imong trabaho? Unsa ka ka-kontento sa imong papel sa pagpaabot sa mga programang pangnutrisyon?

d. What are the reasons and motivations for you to perform well in nutrition programs?

Unsa ang mga hinungdan ug makapa-aghat kanimo aron magtrabaho ug maayo sa mga programang pang-nutrisyon?

e. What support would you need to perform better in nutrition programs? How about BNSs? BHWs?
Unsa nga suporta ang imong gikinahanglan para magtrabaho ug mas maayo pa sa mga programang pangnutrisyon? Unsa man sa BNSs? BHWs?

f. How would you compare your barangay from other barangays in terms of nutritional status and programs? Would you say your experiences are typical of those in your barangay?
Unsaon nimo pagkumpara ang imong barangay sa ubang mga barangay mahitungod sa kahimtang sa nutrisyon ug mga programa? Makaingon ba ka nga ang imong naagian pareho lang sa uban sa inyong barangay?

V. Interview Guide for BNS

- BNS Position

  BNS Posisyon

  - How long have you been a BNS?

    Unsa na ka kadugay nga BNS?
  - How did you become the BNS?

    Gi-unsa nimo pagkahimo ug BNS?
  - Were there any trainings you underwent before you became a BNS?

    Niagi ba kag mga training sa wala paka nahimong BNS?
- General Nutrition Status Perceptions

  Kinatibuk-ang panglantaw sa kahimtang sa nutrisyon.

  - How would you describe the nutritional status in your barangay?

    Unsa ang imong pagtan-aw sa kahimtang sa nutrisyon sa inyuhang barangay?
  - What are the biggest nutritional concerns in your barangay?

    Unsa ang mga dagkong problema sa inyung barangay bahin sa nutrisyon?
  - Have there been any changes in the nutritional status in your barangay since you started?

    Aduna bay mga kabag-uhan sa kahimtang sa nutrisyon sa inyuhang barangay sukad nga nagsugod ka?
- Knowledge about child growth

  Kahibalo mahitungod sa pagtubo sa bata

  - In recent surveys, your province is among those with the most stunted children. Is this something you can observe in your barangay? Is your child taller, shorter, or the same height as other children in your community their same age?

    a. Sa mga ni-aging survey, usa ang imuhang probinsya nga adunay pinakadaghang mga bata nga adunay problema sa pagtubo. Mao ba ni ang na-obserbahan pod nimo sa imuhang barangay? Ang imong bata ba mas taas, mas mubo, o pareho lang kataas sa ubang mga bata nga ka-edad niya sa inyong kumonidad?

  - What determines a child's height?
    Unsa ang nagtino/nagdeterminar sa gitas-on sa usa ka bata?
  - How important is it important for a child to be tall?
    Unsa ka-importante ang katas-on sa usa ka bata?

  - What do you do to help a child grow taller?
    Unsa ang imo gibuhat aron mas mutaas pa ang bata?

- Do certain foods help a child grow? If so, which ones? Does your child receive the foods they need to grow as tall as they can?

  Aduna bay mga pagkaon nga makatabang sa pagtubo sa usa ka bata? Kung aduna, unsa kini nga mga pagkaon? Ang imuhang anak ba nakadawat sa gikinahanglang pagkaon aron sila mahimong taas?

- What do children in your community usually eat? Are these the foods they need to grow tall?

  Unsa ang kasagaran nga ginakaon sa mga bata sa inyung komunidad? Mao ba ni ang mga pagkaon nga gikinahnglan aron sila mutaas?

- Roles

  Papel

  - Planning and Implementation

    Pagplano ug pagpatuman

    - What is the process for developing the Barangay Nutrition Action Plan?

      Unsa ang proseso sa pag develop/paghimo sa Barangay Nutrition Action Plan?

    - What are the nutrition programs being implemented in your barangay? Can you briefly describe each?

      Unsa ang mga programa sa nutrisyon na gipatuman sa inyohang barangay? Mahimo ba nimo mahulagway sa makadali ang matag-usa?

      - Supplemental feeding programs
      - Micronutrient supplementation
      - RUSF
      - IYCF

    - What are your roles in implementing these nutrition programs?

      Unsa ang imong mga papel sa pagpatuman kining programa sa nutrition?

    - How do you prioritize which programs will be implemented?

      Giunsa nimo ang pagprayoridad ug unsa na programa ang ipatuman?

    - How does the barangay budget for nutrition programs?

      Giunsa ang pagbudget sa barangay para sa programa sa nutrisyon?

  - Mobilizing resources

    - How do you ensure that the budget is enough?

      Giunsa nimo pagsiguro nga sakto ang badyet?

- How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?

  Unsa ka aktibo ang komunidad ug ang ubang civic society groups sa programa parte sa nutrisyon? Giunsa nimo pag-aghat sa ilang partisipasyon?

- Advocacy

  Adbokasiya

  - How do you teach the barangay residents about proper nutrition? What materials and methods do you use?

    Giunsa nimong pagtudlo sa mga residente sa barangay parte sa hustong nutrisyon? Unsa nga mga materyales ug mga pamaagi ang imong gigamit?
  - Do you conduct Mothers Classes? What are the usual topics? How often are these conducted?

    Nagpahigayon ba ka og Mothers Classes? Unsa ang mga kasagaran na hisgutanan? Kapila kini gihimo?
  - Do you conduct home visits? For whom? What are the activities in these home visits?

    Nagpahigayon ba ka og pagbisita sa balay? Para kay kinsa? Unsa ang mga bulohaton sa kini nga pagbisita?
  - Are there any breastfeeding support groups? What is your role in these? How active are these support groups?

    Naa bay mga breastfeeding support groups? Unsa ang imong papel niini? Unsa ka aktibo ang kining grupoha?

- Linkage-building

  Pagpalig-on

  - How do you ensure that the community avails of the nutrition program services?

    Giunsa nimo ang pagsiguro nga ang komunidad makakuha og mga serbisyo sa programa sa nutrisyon?
  - Who do you work with in implementing nutrition programs?

    Kinsa ang katrabaho nimo sa pag-implementar aning mga programa sa nutrisyon?

- Monitoring

  Pagmonitor

  - What data on nutrition do you collect?

    Unsa ang inyong gikolekta nga mga datos kabahin sa nutrisyon?
  - How do you conduct OPT? Who are involved?

    Giunsa ninyo pagpahigayon ang OPT? Kinsa ang mga partisipante?

- What instruments do you use? How do you ensure accuracy?

  Unsa nga instrumento ang inyong gigamit? Giunsa nimo pagsiguro nga kini sila sakto?
- What training/s were received by the OPT surveyors?

  Unsa ang mga training nga nadawat sa mga nagpahigayon sa OPT?
- What is the OPT Pus coverage and results in your barangay? Kindly share your results for the last 3 years

  Unsa man ang sakop ug resulta sa OPT Plus sa inyong barangay? Pareho ipaambit ang resulta sa nilabay nga 3 ka tuig.
- How did the Barangay respond to the results of your OPT?

  Unsa man ang tubag sa Barangay sa resulta sa inyong OPT?
- Were there any actions from the municipality in response to the OPT results?

  Aduna bay mga lakang nga gikan sa munisipyo isip tubag sa resulta sa OPT?
- What are the steps taken when a child was seen to be underweight? Wasted? Stunted?

  Unsa ang mga lakang a gihimo kung ang usa ka bata nakita na kulang sa timbang?
- How important is OPT?

  Unsa ka importante and OPT?
- What are the challenges in conducting OPT?

  Unsa ang mga hagit sa pagpahigayon sa OPT?
- How would you improve OPT?

  Unsaon man ninyo pagpalambo ang OPT?

- Satisfaction
  - What have been the challenges in implementing nutrition programs?

    Unsa man ang mga hagit sa pagpatuman sa mga programa bahin sa nutrisyon?
  - How could nutrition programs in your barangay be improved? What support would you need to implement these?

    Unsaon pa man pagpalambo ang mga programa kabahin sa nutrisyon sa inyong barangay? Unsa man ang gikinahanglan ninyo nga suporta aron mapatuman kini?
  - How satisfied are you with your job as BNS?

    Unsa ka kakuntento sa imong trabaho isip usa ka BNS?
  - What are the reasons and motivations for a BNS to perform well?

Unsa man ang mga hinungdan nga maaghat pa ang mga BNS nga mas motrabho ug maayo?

- What support would BNSs like you need to perform better?

Unsa man ang mga suporta nga gikinahanglan sa mga BNSs sama nimo aron mas ganahan pa sila motrabaho ug maayo?

- How would you compare your barangay from other barangays in terms of nutritional status and programs? Would you say your experiences are typical of those in your barangay?

Unsaon nimo pagkompara ang imohang barangay sa laing barangay mahitungod sa kahimtang ug mga program bahin sa nutrisyon. Masulti ba nimo nga ang imohang kaagi pareho pud sa kaagi sa uban sa inyong barangay?

VI. FGD Guide for BHWs

FGD Guide para sa mga BHWs
Target Participants – All BHWs in one barangay including salaried, and non-salaried
Target nga mga Partisipante – Tanang BHW sa usa ka barangay apil ang sweldado ug dili sweldado.

1. Community Organizing
   Pag-organisar sa Komunidad
2. Health Education
   Edukasyon sa Panglawas
3. Health Service Provider
   Naghatag sa Serbisyong Panglawas

III. BHW Position
   Posisyon sa mga BHW
   a. How long have you been a BHW?
      Unsa na ka kadugay nga BHW?
   b. How did you become the BHW?
      Gi-unsa nimo pagkahimo ug BHW?
   c. Were there any trainings you underwent before you became a BHW?
      Niagi ba kag mga training sa wala paka nahimong BHW?
   d. Were there any nutrition-specific trainings you underwent?
      Naa bay mga training bahin sa nutrisyon nga imo gi-agian?
   e. What incentives do you get as a BHW?
      Unsa nga mga incentives ang imong nadawat isip BHW?

IV. General Nutrition Status Perceptions
   Kinatibuk-ang Panglantaw sa Kahimtang sa Nutrisyon
   a. How would you describe the nutritional status in your barangay?
      Unsa ang imong pagtan-aw sa kahimtang sa nutrisyon sa inyuhang barangay?
   b. What are the biggest nutritional concerns in your barangay?
      Unsa ang mga dagkong problema sa inyung barangay bahin sa nutrisyon?
   c. Have there been any changes in the nutritional status in your barangay since you started?

d. c. Aduna bay mga kabag-uhan sa kahimtang sa nutrisyon sa inyuhang barangay sukad nga nagsugod ka?

V. Knowledge about child growth
Kahibalo Mahitungod sa Pagpadako sa Bata

a. In recent surveys, your province has one with the most stunted children. Is this something you can observe in your barangay? Is your child taller, shorter, or the same height as other children in your community their same age?
a. Sa mga ni-aging survey, usa ang imuhang probinsya nga adunay pinakadaghang mga bata nga adunay problema sa pagtubo. Mao ba ni ang na-obserbahan pod nimo sa imuhang barangay? Ang imong bata ba mas taas, mas mubo, o pareho lang kataas sa ubang mga bata nga ka-edad niya sa inyong kumonidad?
b. What determines a child's height?
Unsa ang nagtino/nagdeterminar sa gitas-on sa usa ka bata?
c. How important is it for a child to be tall?
Unsa ka-importante ang katas-on sa usa ka bata?
d. What do you do to help a child grow taller?
Unsa ang imo gibuhat aron mas mutaas pa ang bata?
e. Do certain foods help a child grow? If so, which ones? Does your child receive the foods they need to grow as tall as they can?
Aduna bay mga pagkaon nga makatabang sa pagtubo sa usa ka bata? Kung aduna, unsa kini nga mga pagkaon? Ang imuhang anak ba nakadawat sa gikinahanglang pagkaon aron sila mahimong taas?
f. What do children in your community usually eat? Are these the foods they need to grow tall?
Unsa ang kasagaran nga ginakaon sa mga bata sa inyung komunidad? Mao ba ni ang mga pagkaon nga gikinahnglan aron sila mutaas?

VI. Roles

Ang Imung mga Papel

a. Community Organizing
Pag-organisar sa Komunidad
i. What are the nutrition programs being implemented in your barangay? Can you briefly describe each?
Unsa ang mga programa bahin sa nutrisyon nga gipatuman sa inyung barangay? Pwede ba nimo isaysay kung unsa na sila?
1. Supplemental feeding program
2. Micronutrient supplementation
3. RUSF
4. IYCF
ii. What are your roles in implementing these nutrition programs?
Unsa man ang imuhang mga papel sa pagpatuman niining mga programa bahin sa nutrisyon?
iii. How involved are the community and other civic society groups in nutrition programs? How do you encourage their participation?

Unsa ka-aktibo ang komunidad ug ang uban pang grupo sa mga programa bahin sa nutrisyon? Unsaon nimo sila pag-aghat aron mu-apil?

b. Health Education
   Edukasyon sa Panglawas
   i. How do you teach the barangay residents about proper nutrition? What materials and methods do you use?
      Gi-unsa nimo pagtudlo ang mga residente sa barangay mahitungod sa saktong nutrisyon? Unsa ang imung gigamit nga mga materyales ug mga pamaagi?
   ii. Do you conduct Mothers' Classes? What are the usual topics? How often are these conducted?
      Nagpahigayon ba kamo ug mga Mothers' Classes? Unsa ang mga kasagarang ginahisgutan? Kanus-a kasagaran sila gapahigayon?
   iii. Do you conduct home visits? For whom? What are the activities in these home visits?
      Nagabisita ba mo sa mga panimalay? Para kang kinsa? Unsa man ang mga ginabuhat sa pagbisita ninyo sa mga panimalay?
   iv. Are there any breastfeeding support groups? What is your role in these? How active are these support groups?
      Aduna bay mga breastfeeding support groups? Unsa ang imung papel niini? Unsa ka-aktibo kining mga grupo?
c. Health service provider
d. Mga Naghatag ug Serbisyong Panglawas
   i. What is your involvement in finding cases of malnourished pregnant women? Children under 5 years?
      Unsa ang imung partisipasyon sa pagpangita sa mga kaso sa malnourish nga mga buntis nga inahan? Ug sa mga bata nga nag-edad ug lima katuig paubos?
   ii. What steps do you take when you find an underweight or at-risk pregnant woman?
      Unsa man ang inyung gibuhat sa mga inahan nga kulang sa timbang ug adunay risgo sa pagbuntis?
   iii. What are the steps taken when a child was seen to be underweight? Wasted? Stunted?
      Unsa man ang mga lakang nga gibuhat sa mga bata nga kulang ug timbang? Sobra na kaniwang? Hinay nga pagtubo?
e. Monitoring
   Pagmonitor
   i. What data on nutrition do you collect?
      Unsa ang inyung gikoleka nga mga datus kabahin sa nutrisyon?
   ii. How do you conduct OPT? Who are involved?
      Gi-unsa ninyo pagpahigayon ang OPT? Kinsa ang mga partisipante?
   iii. What instruments do you use? How do you ensure accuracy?
      Unsa nga mga insturmento ang inyong gigamit? Gi-unsa nimo pagsiguro nga kini sila sakto?
   iv. What training/s were received by the OPT surveyors?
      Unsa ang mga training nga nadawat sa mga nagpahigayon sa OPT?

v. What is the OPT Plus coverage and results in your barangay? Kindly share your results for the last 3 years.
Unsa man ang sakop ug resulta sa OPT Plus sa inyung barangay? Palihug ipaambit ang resulta sa nilabay nga 3 ka tuig.

vi. How did the Barangay respond to the results of your OPT?
Unsa man ang tubag sa barangay sa resulta sa inyung OPT?

vii. Were there any actions from the municipality in response to the OPT results?
Aduna bay mga lakang nga gikan sa munisipyo isip tubag sa resulta sa OPT?

viii. How important is OPT?
Unsa ka importante ang OPT?

ix. What are the challenges in conducting OPT?
Unsa ang mga hagit sa pagpahigayon sa OPT?

x. How would you improve OPT?
Unsaon man ninyo pagpalambo ang OPT?

VII. Satisfaction
Kakontento

a. What are the challenges in implementing nutrition programs?
Unsa man ang mga hagit sa pagpatuman sa mga programa bahin sa nutrisyon?

b. How could nutrition programs in your barangay be improved? What support would you need to implement these?
Unsaon pa pagpalambo ang mga programa kabahin sa nutrisyon sa inyong barangay? Unsa man ang gikinahanglan ninyo nga suporta aron mapatuman kini?

c. How satisfied are you with your job as BHW? How satisfied are you about your role in nutrition program delivery?
Unsa ka kakontento sa imuhang trabaho isip BHW? Unsa ka kakontento sa imung papel sa pagpatuman sa mga programa bahin sa nutrisyon?

d. What are the reasons and motivations for a BHW to perform well?
Unsa man ang mga hinungdan nga maaghat pa ang mga BHW nga mas mutrabaho pa ug maayo?

e. What support would BHW like you need to perform better in nutrition programs?
e. Unsa man ang mga suporta nga gikinhanglan sa mga BHW sama nimo aron mas ganahan pa sila mutrabaho ug maayo sa mga programa bahin sa nutrisyon?

f. How would you compare your barangay from other barangays in terms of nutritional status and programs? Would you say your experiences are typical of those in your barangay?

Unsaon nimo pagkumpara ang imuhang barangay sa laing barangay mahitungod sa kahimtang ug mga programa bahin sa nutrisyon? Masulti ba nimo nga ang imuhang kaagi pareho pud sa kaagi sa uban sa inyung barangay?

VII. FGD Guide for Mothers

Target Participants:

- Mothers of 0-24-month-old children and;
  - Availed of ante-natal care services in the health center (municipality or best barangay) in the last 2 years and;
  - Children are regularly seen at the center for well-baby and/or sick-baby visits
- Mother leader, not a BHW/BNS

Script: Thank you for taking time with us today. We want to introduce ourselves. I am (moderator). and I am (documenter) Qualitative Interviewers from Innovations for Poverty Action (IPA) Philippines working in collaboration with researchers from Boston University School of Public Health. IPA is a research and policy non-profit organization dedicated to finding innovative solutions to development issues around the world.

We are conducting a study about the Philippine Plan of Action for Nutrition. As part of this, we are here to learn about your nutrition concerns, perceptions and practices. We also want to know about nutrition programs in your community and what you think about them.

We are inviting you to a focus group discussion (FGD), where we will all talk as a group to discuss about nutrition. You are invited because we have been informed by the health center that you are mothers of 2-year-old and younger children who are regularly seen at this health center. Participation is voluntary, and you may choose to decline now or anytime. There is no harm in participating and no harm if you choose not to participate. The discussion will take about one hour.

To accurately document your responses, we will be using an audio recorder. We will maintain the confidentiality of your answers. We will keep your data safe and no one outside of the study will access it. Although we cannot control the actions of participants, we kindly ask you to also observe confidentiality and avoid talking about it to others outside this group.

If you agree to participate, please tick the box in the consent form and sign your name.

- *"We would like to get to know each other a little bit. We'd like everyone to say their name and their favorite color. I'll go first – my name is and my favorite color is pink."*
- *"We'd like to know a little bit more. We want to know your 2 favorite numbers. Your age and number of children. My partner will go first – my favorite numbers are__ and__."*

- Ask out loud *"Do you have questions before we start? (pause)* If none, may we start the recording? (wait for agreement)"

Part 1. Perceptions and Practices

So now that we know each other a little more. We'll jump to the topic of nutrition and talk about perceptions and practices.

Karon nga nagkailhanay na ta, adto na ta sa topic sa nutrisyon ug maghisgot ta sa mga panglantaw ug mga buluhaton.

1. Family Nutrition
    a. What can you say about your family's / children's nutrition? What about the nutrition status of your neighbors?
    Unsa imong maistorya mahitungod sa nutrisyon sa imong pamilya ug mga bata?
    Unsa pud imong maistorya sa kahimtang sa nutrisyon sa imong mga silingan?
    b. How do you ensure good and adequate nutrition for yourself/family/child?
    Unsaon nimo pagsiguro ang maayo ug sakto nga nutrisyon diha sa imong kaugalingon/pamilya/ug sa bata?
    c. What do you think are the main reasons why some families/children in your community may have poor nutrition?
    Unsa kaha ang mga pinakarason ngano ang ubang mga pamilya ug mga bata diha sa inyong komunidad adunay kakulangon sa nutrisyon?
    d. Describe your nutritional status during pregnancy
    Palihog ihulagway ang kahimtang sa imong nutrisyon adtong buros ka pa.

2. Knowledge about child growth
    a. In recent surveys, your province is among those with the most stunted children. Is this something you can observe in your barangay?

    Sa mga bag-ong surveys, nigawas nga ang inyong probinsiya usa sa mga adunay pinakadaghan nga mga bata nga hinay ang pagtubo. Kini ba maobserbahan diha sa inyong barangay?

        i. Is your child taller, shorter, or the same height as other children in your community their same age?

    Ang imo bang bata mas taas, mas mubo, or pareho ang gitas-on sa ubang mga bata diha sa inyong komunidad nga adunay kapareho ug edad nila?

    b. What determines a child's height?
    Unsa ba ang makadeterminar sa gitas-on sa usa ka bata?

    c. How important is it for a child to be tall?

Unsa kaimportante sa usa ka bata nga taas siya?

d. What do you do to help a child grow taller?
Unsa imong ginabuhat para makatabang diha sa pagtubo sa usa ka bata?

e. Do certain foods help a child grow? If so, which ones?
Aduna bay mga pagkaon nga makapatabang diha sa pagpatubo sa usa ka bata? Kung aduna, unsa ni sila?

f. Does your child receive the foods they need to grow as tall as they can?
Ang imo bang bata nakadawat ug mga pagkaon nga kinahanglan nila para motubo pag-ayo?

g. What do children in your community usually eat? Are these the foods they need to grow tall?
Unsa kasagaran ginakaon sa mga bata diha sa inyong komunidad? Kini ba nga mga pagkaon ang ilang gikinahanglanan para motubo?

3. Breastfeeding
   a. Do you breastfeed your child? How long have you breastfed?

   Ikaw ba nagapatutoy sa imong bata? Unsa na ka kadugay nagapatutoy?
   b. What is your reason for breastfeeding or not breastfeeding your child?

   Unsa imong rason sa pagpatutoy or dili pagpatutoy sa imong bata?
   c. How would you describe your breastfeeding experience?

   Pwede ba nimo mahulagway ang imong kasinatian sa pagpatutoy?
   d. How did you learn about breastfeeding?

   Giunsa nimo pagkahibalo mahitungod sa pagpatutoy?
   e. What are the challenges of breastfeeding?

   Unsa ang mga hagit sa pagpatutoy?

4. Complementary Feeding
   a. What do your children usually eat?

   Unsa kasagaran ang ginakaon sa imong mga bata?
   b. When did your child start to have food and/or beverages?

   Kanus-a nagsugod imong bata og kaon ug inom?
   c. How often and how much do you feed your child?

Unsa ka kasagaran gapakaon ug unsa ang kadaghanon ang inyong ginapakaon sa inyong bata?

d. What are the challenges you face in feeding your child?

Unsa ang mga hagit nga imong giatubang diha sa pagpakaon sa imong bata?

Part 2. Nutrition Programs in Barangay/ Municipality

"Earlier you talked about your nutrition concerns and practices. We'd like to know what the barangay and municipality does to address these nutrition concerns."

Ganina naghisgot ta kabahin sa mga kalabutan ug mga naandan mahitungod sa nutrisyon. Karon gusto namo mahibaw-an giunsa sa inyong barangay o munisipyo pag-atubang sa mga butang nga adunay kalabutan sa nutrisyon.

1. What are the nutrition programs in your barangay/municipality? What do you know about these?

Unsa nga mga programa sa nutrisyon nga naa sa inyong barangay/munisipyo? Unsa imong nahibaw-an ani?

2. Are there any breastfeeding support groups in your barangay/municipality? What is your participation in these groups?

Aduna bay mga breastfeeding support groups sa inyong barangay/munisipyo? Unsa imong partisipasyon niining mga grupo?

3. Are there any Mother's Classes organized by the health center/ barangay nutrition scholar? Can you tell me more about these? (when, where, who attends)?

Aduna bay mga Mother's Classes nga gi-organisa sa health center/barangay nutrition scholar? Pwede ba nimo isaysay ang mga kabahin niini? (kanus-a, asa, ug kinsa ang gatambong?)

4. What other services do you avail of at the health center?

Unsa pa nga mga serbisyo ang imong gina-avail/ginadawat diha sa health center?

Part 3. Satisfaction

1. On a scale of 1 to 10, 10 being the highest, how satisfied are you with the services provided?

Sa sukod nga 1-10, 10 ang pinakataas, unsa ka kakontento sa mga serbisyo nga nahatag?

a. Have you noticed problems in nutrition programs in your barangay? What were these problems?

Aduna ka bay namatikdan nga mga problema parte sa mga programa sa nutrisyon sa inyong barangay? Unsa kini nga mga problema?

2. What benefits have you gotten from these programs? Do you know of other people who have benefited from nutrition programs? In what way have they benefited?

Unsa nga mga benepisyo imong nakuha sa niining mga programa? Aduna ka bay nahibaw-an nga ubang tao nga nakabenepisyo sa mga programa sa nutrisyon? Sa unsa nga pamaagi sila nakabenepisyo?

3. Were there any services you needed but could not be provided to you or you had to avail in other health facility?

Aduna bay mga serbisyo nga imong gikinahanglan pero wala nahatag sa imoha o gi-avail na lang nimo sa ubang health facility?

4. What service improvements, if any, would you and other mothers like you need?

Unsa nga mga kalambuan sa serbisyo kung aduna man gani, ang gikinahanglan nimo ug sa ubang mga inahan?

5. Would you say your experiences are typical of those in your barangay?

Makaingon ka ba nga ang imong mga kasinatian tipikal sa inyong barangay?

6. How would you compare your barangay from other barangays in terms of nutritional status and programs?

Unsaon nimo pagkompara ang imong barangay sa ubang barangay kabahin sa kahimtang sa nutrisyon ug mga programa?

Appendix E. Summary Findings in Case Studies

PPAN Evaluation Case Study
Municipality L

Geography	359.8 square kilometres Mix of coastal, low-land and upland Struck by alternating drought and storms
Economy	1st class municipality Livelihood is mainly agricultural Study sites were mainly impoverished areas
Population	108,716 total population 23,629 households
Barangays	75 barangays Population in study barangays: A: 1,603 ; B: 3,782; C: 5,067

Evaluation Criteria	**Key Findings**
Perceptions on Stunting	• Stunting was not recognized as a nutrition concern by most implementers and beneficiaries • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • One BNS admitted that she used to believe that stunting is genetic until she became a BNS and learned that it is due to nutrition. She added that stunting is irreversible. • No intervention targeted to improve stunting or to change perceptions on stunting.
Plan	✗ PNAP ✓ MNAP **1/3** BNAP • We were unable to obtain PNAP and 2 BNAPs because LGUs were not ready to share at the time of data collection. • MNAP featured focus on problem of underweight 0-6-year-old children

	• Annual Budget included proposed creation of Municipal Nutrition Officer position (SG 14) • Planned projects are breastfeeding promotion, family planning program awareness, post-harvest facility establishment along highway and GIDA, ECCD orientation and provision of water supply and toilets
 **Awards**	• Municipality had no recent awards on nutrition. • No recent MELLPI conducted • Within the same province, two cities have been recognized with Nutrition Honor Award (NHA) and Consistent Regional Outstanding Winner in Nutrition (CROWN) Award
 **Policies**	✕ No nutrition-related policies were collected
 **IYCF**	• Mother's classes are done semi-annually consisting of 10 sessions. Mothers of underweight children and 4Ps beneficiaries are prioritized. This is not well taken-up. In one barangay, 60 mothers were targeted but only 20 showed up. • Health teaching about breastfeeding and complementary feeding are also done during immunization days while mothers are waiting with their children. • There are no breastfeeding support groups • Home visits are done especially of mothers of children with picky eaters by BNS. BHWs visit pregnant women to monitor and conduct health teaching.
 **MS Program**	• Pregnant women are given iron, folic acid and calcium supplements at RHU • Vitamin A supplementation done twice a year • Micronutrient powder supply of 30 sachets given to underweight children • Reported supply issues
	We observed the use following IEC materials: • Growth chart • Gabay sa Wastong Nutrisyon • Milk Code • Breastfeeding promotion

Information and Education Campaigns

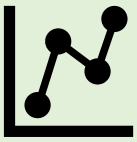
Events such as Nutrition Month and Buntis Congress are among planned activities
Beneficiaries confirmed receiving IEC materials in mothers' classes

Beneficiary feedback

- Most mothers reported that they are generally satisfied with the services especially because they see that the food and supplements given can help their children. It was hard to elicit an honest response though. In one barangay, mothers did not answer the question directly.

Human Resources

- LCEs lack involvement in nutrition programs
- Current MNAO from health office, previous MNAO came from agriculture office
- Nutrition Program Coordinator (NPC) designation is assigned to a nurse in each of RHUs.
- BNSes conduct OPT with BHWs
- One barangay did not have any BHWs and instead has 7 BNSes
- Midwife oversees OPT, conducts prenatal care
- Some councillors for health are involved in OPT, some do not have any involvement in nutrition programs
- A respondent estimated 50% of BNSes in municipality are new and untrained



M&E

- OPT significantly under-reports cases of stunting, wasting and underweight when compared to NNS.

Indicator	Region		Province	
	NNS*	**OPT****	**NNS***	**OPT****
Stunting/ Severe Stunting	28.4%	18.7%	40.4%	21.8%
Wasting/ Severe Wasting	8.2%	4.9%	6.7%	5%
Underweight/ Severe Underweight	28.5%	8.9%	26.1%	10.2%

**NNS 2015; **OPT 2018*

- Among case study sites, the province from which the municipality belongs has the highest prevalence of stunting based on OPT and NNS.

OPT Data

Operation Timbang Plus Report 2019

OPT Indicator	Municipal	Brgy A	Brgy B	Brgy C
No. 0-59mos	4,520	NA	NA	NA
Coverage	NA	NA	NA	NA
Stunting/ Severe Stunting	19.7%	11.4	44.2	25.8%*
Wasting/ Severe Wasting	5.5%	3.8%	8.8%	10.6%*
Underweight/ Severe Underweight	11.1%	7.6%	25.3	17.1%*

**Based on 2018 OPT because 2019 OPT was unavailable*

- Data was not readily available and were hard to collect from LGUs
- Only eOPT encoded data were shared although we were able to observe the use of both standard and non-standard forms to initially record OPT data in barangays
- Exploratory data analysis of 2017-2019 OPT data showed that the province had the least amount of deviation from normal distribution of HAZ and WAZ indicating least amount of errors

Strengths

- ✓ LCEs and most front-line implementers recognize the problem in nutrition in their LGU, unlike in other case study sites where the problem is minimized
- ✓ Lobbying for permanent nutrition personnel

Bottlenecks

- Lack of leadership continuity as LCE had been suspended twice during his term and was not re-elected in the recent elections.
- Conflicts from rival political parties impact on continuity of programs and release of funds when various people in the position oppose programs
- Political rivalry also leads to frequent replacement of appointed positions like MNAO, BNSes and BHWs

PPAN Evaluation Case Study
Municipality B

Geography	101.12 square kilometres Coastal, in between sea and lake Struck by alternating drought and storms
Economy	3rd class municipality Livelihood is mainly fishery and agriculture in nature Study sites were mainly impoverished areas
Population	52,132 total population 9,869 households
Barangays	75 barangays Population in study barangays: A: 862; B: 1,917; C: 2,864

Evaluation Criteria	Key Findings
Perceptions on Stunting	• Stunting is not recognized as a nutrition concern by most implementers and beneficiaries. Even MHO believe stunting is genetic. • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • No intervention targeted to improve stunting or to change perceptions on stunting.
Plan	2019: ✗ PNAP ✗ MNAP **1/3** BNAP 2018: ✗ PNAP ✓ MNAP **2/3** BNAP • We were unable to obtain PNAP and 2 BNAPs because LGUs were not ready to share at the time of data collection. Instead, we reviewed 2018 MNAP and BNAPs • MNAP goal is to reduce prevalence of stunting, underweight and severe underweight

	• BNAPs did not include stunting reduction in goal. Stunting is mentioned in causal model which appears to come from a template. No interventions to address stunting were planned. • Objectives are to refer malnourished cases to MHO, MSWD and NGOs, feeding program, mothers' classes, breastfeeding promotion, potable water supply, and strengthening food production • Feeding programs and WASH interventions were prominent in BNAPs. Other activities include distribution of seedlings and garden tools, construction of water wells, establishment of nutrition/ weighing post, purchase of weighing scale and height board, food fortification and salt testing, distribution of micronutrient supplements, deworming, RUTF, food assistance
 **Awards**	• Municipality had no recent awards on nutrition. • No recent MELLPI conducted • Within the same province, two cities have been recognized with Nutrition Honor Award (NHA) and Consistent Regional Outstanding Winner in Nutrition (CROWN) Award
 **Policies**	• Municipal Executive Order to create EECD FK1D Technical Assistance, Monitoring and Evaluation Team (TAME) headed by the MNAO who are in charge of planning, implementation, M&E of ECCD F1KD • Municipal Executive Order to create Food and Nutrition Security Early Warning System (FNS-EWS) technical working group composed of MHO, MPDC, RSI and MAO headed by the Mayor. • Barangay Resolution enacting a memorandum of agreement between the barangay, NNC, and DOH in implementing ECCD.
 **IYCF**	• Mother's classes are done under ECCD program. This is a ten-day course attended by 30 mothers. • Health teaching about breastfeeding and complementary feeding • Home visits are done 3 to 4 times a month to remind about feeding, conduct OPT • There are no breastfeeding support groups
	• Vitamin A supplementation not yet done this year because no one could administer (all BHWs retired, no nurses) • Pregnant women are given iron, folic acid supplements which they have an abundant supply of

MS Program	• Micronutrient powder supply of 30 sachets given to underweight children • Plumpy nuts are given to wasted children
 **Information and Education Campaigns**	We observed the use following IEC materials: • 10 Kumainments • Family Planning • Child Friendly School Events such as Nutrition Month and Cooking Contests were found in MNAP
 **Beneficiary feedback**	• We got mixed respondents on satisfaction. We spoke to a few who were very satisfied but there were more mothers who were not satisfied of the services. • They mentioned that Vitamin A supplementation are not done, and there are no healthcare workers available. They also wanted more time from the midwives who could only go to each barangay they handle once a week. Some beneficiaries could not properly recall nutrition services offered in their barangay
 **Human Resources**	• LCEs claim that nutritional status in their areas are generally okay and do not see problems in nutrition beyond lack of food • MNAO is a Population Program Worker. • Active Community Development Worker in charge of National Child Development Center and oversight of Supplementary Feeding Program • There is only one MHO in the entire municipality who is also in charge of patient care in RHU • No nurse in municipality because NDP contracts were not renewed due to delay in national budget approval • BNSes conduct OPT with BHWs, BNSes are in charge of preparing reports • BNSes reportedly not all capable of preparing reports perhaps because they are new and untrained • One barangay did not have any BHWs and instead has 7 BNSes because all BHWs retired at the same time

M&E

- OPT significantly under-reports cases of stunting, wasting and underweight when compared to NNS.

Indicator	Region		Province	
	NNS*	**OPT****	**NNS***	**OPT****
Stunting/ Severe Stunting	28.4%	18.7%	40.4%	21.8%
Wasting/ Severe Wasting	8.2%	4.9%	6.7%	5%
Underweight/ Severe Underweight	28.5%	8.9%	26.1%	10.2%

**NNS 2015; **OPT 2018*

- Exploratory data analysis of 2017-2019 OPT data showed that the province had the least amount of deviation from normal distribution of HAZ and WAZ indicating least amount of errors

OPT Data

Operation Timbang Plus Report 2018

OPT Indicator	Municipal	Brgy A	Brgy B	Brgy C
No. 0-59mos	NA	NA	NA	NA
Coverage	NA	NA	NA	NA
Stunting/ Severe Stunting	35.4%	29.8%	50.6%	18.5%
Wasting/ Severe Wasting	7.5%	4.8%	6.1%	34.8%
Underweight/ Severe Underweight	17.9%	18.5%	34.8%	15.6%

** 2019 OPT was unavailable*

- Data was not readily available and were hard to collect from LGUs
- Respondents claim that they have issues with target children set by DOH because the target is much higher than their actual population
- Migrants and transients not included in their OPT

Strengths

- ✓ Good understanding of nutrition program framework at the municipal level.
- ✓ Some involvement in nutrition programs from LCEs attributed to having a nutrition champion in the area who is the wife of the former Mayor

Bottlenecks

- Inadequacy in front-line health workers impede delivery of nutrition programs
- Strong presence of insurgent groups in some parts of the municipality. Brgy. B with highest rates of malnutrition in the area is a known den of National People's Army. Team noted that health center in this barangay seemed non-functional and no health worker regularly visits because of distance and safety issues.

PPAN Evaluation Case Study
Municipality H

Geography	192.9 square kilometres Coastal Plains
Economy	2nd class municipality Major port in the Visayas Agriculture, trade, banking, finance
Population	63, 431 total population 14,394 households
Barangays	51 barangays Population in study barangays: A: 2.745 ; B: 1,603; C: 1,479

Evaluation Criteria	Key Findings
Perceptions on Stunting	• Stunting is not widely recognized as a nutrition concern • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • No intervention targeted to improve stunting or to change perceptions on stunting at barangay level
Plan	2019: ✓ PNAP ✓ MNAP **2/3** BNAP • We gathered PNAP, MNAP and BNAPs except for one BNAP which was not ready to be shared. • MNAP referred to Millennium Development Goals as basis for the planning. Although well intended, the goals are outdated and misses out on the "forgotten goal" on nutrition and the shift to stunting as a global indicator for nutritional status and overall development.

	• On the other hand, MNAP was still in line with PPAN in putting forward IYCF and Micronutrient Supplementation Programs in priority. • Local Youth Development Plan incorporates implementation of feeding, promotion of WASH in the community
 **Awards**	• Municipality had no recent awards on nutrition. • MEELPI was done in 2018 but they didn't have a copy of the results
 **Policies**	City Ordinances and Resolutions ✓ Encouraging the Promotion of Breastfeeding in the Workplace and Providing Penalties for Violation Thereof
 **Budget**	• Much attention is given to underweight shown by big allocation (Php 5 million or nearly 50% of total nutrition budget) for supplemental feeding. The amount is not enough for feed estimated 1900 daycare students for three school years.
 **IYCF**	• Health teaching about breastfeeding and complementary feeding are done at health centers while patients are in the waiting room • No breastfeeding support group • Conduct weekly home visits to provide counselling, promote backyard gardening and distribution of seedlings
 **MS Program**	• Pregnant women are given iron, folic acid and calcium supplements Vitamin A supplementation done twice a year • Micronutrient powder supply given to underweight children • RUTF are also being distributed • Reported problems in supplies

Beneficiary feedback

- **Beneficiaries had mixed feelings about nutrition programs.**
- **Some were fairly satisfied and thinks their situation was better than other barangays.**
- **Some complained about lack of supplies and selective access to supplies**

PPAN Evaluation Case Study
Municipality Y

Geography	459.3 square kilometres Mix of coastal, low-land and upland Coastal, Mountainous
Economy	1st class city Major port in the Visayas Agricultural, commercial services, tourism
Population	109, 432 total population 26,180 households
Barangays	92 barangays (23 urban, 68 rural, 1 rurban) Population in study barangays: A: 1,662 ; B: 525; C: 2,896

Evaluation Criteria	Key Findings
Perceptions on Stunting	• Stunting is not widely recognized as a nutrition concern. There is indication that members of the City Nutrition Council are aware of it but this has not fully trickled down to barangays. • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • Stunting mentioned as a problem in MNAP but more priority is still given to underweight • No intervention targeted to improve stunting or to change perceptions on stunting at barangay level
Plan	2019: ✓ PNAP ✓ CNAP **1/3** BNAP 2017-2018: **2/3** BNAP • We were unable to obtain 2019 BNAP in 2 barangays because they were not ready yet. • CNAP captures a two-year planning period 2017-2019 unlike other 1-year LNAPs • CNAP outlines specific target reduction of stunting, wasting, and underweight.

- Recognizes problem of inaccurate measurement taking, poor IYCF attitudes and practices, large family size, high incidence of teenage pregnancy, unsanitary establishments in addition to usual problems in template NAPs
- Following the more comprehensive and specific problems identified, the CNAP incorporates appropriate activities such as provision of measurement tools, family planning counselling, distribution of family planning supplies, adolescent health counselling, training of food handlers
- However, barangays still only targeted underweight children in interventions. One reason may be due to the use of old checklists in BNAPs

Awards

- Municipality had no recent awards on nutrition.
- No recent MELLPI conducted in the province

Policies

City Ordinances and Resolutions

- ✓ Requiring the Planting of Malunggay Tree in Every home, Barangays and Schools
- ✓ Promoting Consumption and Production of Organically Produced Fruits and Vegetables for Good Health
- ✓ Protecting Children from Junk Foods and Unhealthy Drinks and Instill in them the Values of Good Health
- ✓ Amendment of aforementioned ordinances, Providing Penalty and Appropriation Sections
- ✓ Memorandum of Agreement with National Dairy Authority to implement The Community/School Milk Feeding Program"

- Annual Budget for Nutrition

Total GAD Budget	Php 39,194,195
Total LGU Budget	Php 783,883,885

Budget

Item	Amount in Php	% of GAD	% of LGU
Approved Nutrition Budget	Php 2,157,250	5.50%	0.28%
Actual Expenditure on Nutrition	Php 1,988,948	5.07%	0.25%

- Nearly Php 1 billion went into 90-day feeding program targeting 159 moderately malnourished 6-59 months that showed 59% improvement to normal

	• Other funded projects were micronutrient supplementation, procurement of measurement equipment, health education campaigns, procurement of Risemo, Nutrition Month celebration, Buntis Congress, distribution of breastpumps, as well as training, meetings and conferences attended by BNSes, BHWs, and other members of City Nutrition Council
 **IYCF**	• Mother's classes are regarded as most important component of IYCF by implementers • Health teaching about breastfeeding and complementary feeding are done at health centers while patients are in the waiting room • Started breastfeeding support group but did not continue • Home visits are done to provide counselling, promote backyard gardening and distribute Choco Milk and other supplements to underweight • Underweight young children are given Rice-Sesame-Mongo (RiSeMo) blend and curls to eat • Underweight children are also recipients of 90-day feeding conducted by the municipaltty
 **MS Program**	• Pregnant women are given iron, folic acid and calcium supplements Vitamin A supplementation done twice a year • Micronutrient powder supply of 30 sachets given to underweight children • RUTF are also being distributed
 **Beneficiary feedback**	• Beneficiaries are highly satisfied of services. • They find the BHWs very helpful and informative of nutrition programs • Despite high satisfaction, they still want to have more feeding interventions and access to free laboratory services
	There were a lot of IEC materials observed in study areas, these include: 10 Kumainments poster ECCD brochures Posters on breastfeeding and nutritious foods Events such as Nutrition Month and Buntis Congress are among planned activities Beneficiaries confirmed receiving IEC materials in mothers' classes

Information and Education Campaigns

Human Resources

- Barangay LCEs don't see big problem in nutrition except for food inadequacy. They are not involved in formulating LNAP. One LCE said that LNAP depends on CNAO and it is well implemented.
- A Public Health Nurse assumes the role of Acting- CNAO who just left the position
- Healthcare workers, BHWs and BNSes seemed to have extensive and updated trainings on nutrition and ECCD
- Only few nurses are in position because their contracts under NDP were not renewed after the delay in national budget approval. Some nurses we interviewed continued to work as volunteers.
- BNSes oversee BHWs in conducting OPT and prepares report
- OPT is checked by the midwife
- Mixture of old and new BNSes and BHWs
- Seemed to have active CNAO. There are a lot of activities on nutrition.

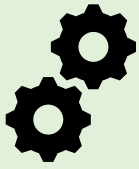
OPT Data

Operation Timbang Plus Report 2018

OPT Indicator	Municipal	Brgy A	Brgy B	Brgy C
No. 0-59mos	11,839	NA	NA	NA
Coverage	NA	NA	NA	NA
Stunting/ Severe Stunting	26.4%	15.3%	24.5%	15.7%
Wasting/ Severe Wasting	14.0%	5.3%	5.7%	11.0%
Underweight/ Severe Underweight	7.9%	10.0%	9.4%	12.4%

**Based on 2018 OPT because 2019 OPT was unavailable*

- LGUs more readily shared their data with the team although region seemed to be least prepared



Strengths

- ✓ Municipal leadership on nutrition program seem to be strong. There are definite budgets allocated for nutrition and there are a lot of initiatives from the municipality
- ✓ Supplies seem to be abundant. There are additional dietary supplements given such as Milk, RiSeMo blend and curls
- ✓ Efforts to improve M&E by investing on measurement equipment

Bottlenecks

- Disconnect between problem identification and prioritization of interventions

PPAN Evaluation Case Study
Municipality P

Geography	340 square kilometres Coastal, mountainous
Economy	1st class municipality Agriculture and livestock
Population	160, 213 total population
Barangays	23 barangays Population in study barangays: A: 4,236 ; B: 2,085; C: 7,061

Evaluation Criteria	Key Findings
Perceptions on Stunting	• Stunting is not widely recognized as a nutrition concern • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • No intervention targeted to improve stunting or to change perceptions on stunting at barangay level
Plan	2019: ✕ PNAP ✕ MNAP **3/3** BNAP • There were no available PNAP and MNAP. Instead, we were given Social Development Sector Plan where only health programs could be seen, there were no direct nutrition programs within the plan. • Instead of MNAP, we were presented with a one-page overview of Nutrition Program Design. A copy of the approved MNAP was not available. • The budget prioritization did not seem to align with PPAN strategic thrusts • One barangay stated its main goal as reduction of stunting

- Based on BNAPS, information campaigns and interventions on IYCF as well as MS implementation are intended to be regularly done

Awards

- Municipality had no recent awards on nutrition and no recent MELLPI
- Province received MELLPI recognition in 2014, 2015, and 2016

Policies

City Ordinances and Resolutions

- ✓ Reorganizing the Municipal Nutrition Council
- ✓ Adapting the Municipal Nutrition Action Plan CY 2018-2022

Budget

Project/ Activity	Budget
Honoraium for 32 BNSes	1,075,200
Dietary Supplementation to 2,200 school children	2,634,800
Kitchen Equipment and Supplies	600,000
Micronutrient Supplementation for malnourished 0-59 months	150,000
PABASA sa Nutrisyon	150,000
Salt Iodization	20,000
IYCF	120,000
Nutrition Month Celebration	80,000
Midyear Assessment	50,000
MNO's trainings and seminars	40,000
MNC conferences, orientation and evaluation	50,000
Office Supplies	30,000
Total	5,000,000

- Barangay Captain claimed that they allocate part of their IRA to nutrition but they admit that it is not enough.

IYCF

- PABASA sa Nutrisyon done quarterly targeting 50 mothers
- Health teaching about breastfeeding and complementary feeding are done at health centers while patients are in the waiting room
- Started breastfeeding support group in barangays
- Conduct weekly home visits to provide counselling, promote backyard gardening and distribution of seedlings

MS Program

- Pregnant women are given iron, folic acid and calcium supplements Vitamin A supplementation done twice a year
- Micronutrient powder given
- RUTF are also being distributed
- No problems in supplies

Human Resources

- The Municipal Nutrition Council is chaired by LCE and has the MNAO as supervisor
- MNAO has a dedicated salaried position for nutrition
- MNAO is strict about documentation: "no records, no work" policy
- LCEs did not prioritize addressing nutrition concerns. They are aware of BNAP but said the the MNAO is the one in charge.
- Long-term BHWs and BNSes
- Long-term dedicated midwives
- No nurses assigned in study sites

Beneficiary feedback

- Beneficiaries reported high satisfaction on nutrition programs and perceive their area as better than other LGUs

M&E

- OPT significantly under-reports cases of stunting, wasting and underweight when compared to NNS.

Indicator	Region		Province	
	NNS*	**OPT****	**NNS***	**OPT****
Stunting/ Severe Stunting	40.0%	9.7%	37.4%	9.3%
Wasting/ Severe Wasting	6.9%	3.2%	7.6%	1.9%
Underweight/ Severe Underweight	25.8%	4.5%	25.%	3.5%

**NNS 2015; **OPT 2018*

OPT results indicate very low prevalence of stunting, wasting and severe wasting. However, this is the area with most skewed distribution suggesting significant errors in OPT.

OPT Data

Operation Timbang Plus Report 2018

OPT Indicator	Municipal	Brgy A	Brgy B	Brgy C
No. 0-59mos	16,935	NA	NA	NA
Coverage	NA	80.0%	83.3%	87.8%
Stunting/ Severe Stunting	3.8%	5.7%	5.1%	60.0%
Wasting/ Severe Wasting	0.5%	40.0%	50.0%	40.0%
Underweight/ Severe Underweight	2.3%	90.0%	3.5%	2.6%

- The LGU had good documentation. The files were readily available but OPT reports at municipal level are only stated in number of cases and not in prevalence. This may be because of the very low malnutrition rates according to OPT.
- OPT 2019 was not yet consolidated at the time of data collection
- Exploratory data analysis of 2017-2019 OPT data showed that the province had most deviation from normal distribution of HAZ and WAZ. Thus, even if this area seemed to be performing well in terms of OPT, they had the most evident errors in the data.

Strengths

- ✓ Active MNAO in a dedicated regular nutrition position
- ✓ Supportive LCE and municipal nutrition council
- ✓ Clear budget earmarked for nutrition
- ✓ Abundance of supplies

Bottlenecks

- Problems in covering GIDAs and IPs in OPT and nutrition services
- Poor areas with no water and electricity
- Some safety issues hindering implementers to deliver nutrition services

PPAN Evaluation Case Study
Municipality T

Geography	113 square kilometres Landlocked, mountainous
Economy	3rd class municipality Agriculture and livestock
Population	152, 589 total population
Barangays	13 barangays Population in study barangays: A:2,548 ; B: 2,995; C: 4,743

Evaluation Criteria	Key Findings
Perceptions on Stunting	• Stunting is not widely recognized as a nutrition concern • People recognize the social advantage of being tall and attribute it to genes, proper nutrition and commercial vitamins • No intervention targeted to improve stunting or to change perceptions on stunting at barangay level
Plan	✗ PNAP ✓ MNAP **3/** BNAP • There were no available PNAP and MNAP. Instead, we were given Social Development Sector Plan where only health programs could be seen, there were no direct nutrition programs within the plan

Awards

- Municipality received MELLPI recognition in 2016, 2017, 2018
- Province received MELLPI recognition in 2014, 2015, and 2016

IYCF

- PABASA sa Nutrisyon done quarterly targeting 50 mothers
- Health teaching about breastfeeding and complementary feeding are done at health centers while patients are in the waiting room
- Started breastfeeding support group in barangays
- Conduct weekly home visits to provide counselling, promote backyard gardening and distribution of seedlings

MS Program

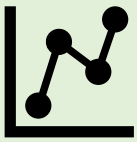
- Pregnant women are given iron, folic acid and calcium supplements Vitamin A supplementation done twice a year
- No supply of Micronutrient powder
- RUTF are also being distributed
- Reported problems in supplies

Beneficiary feedback

- Beneficiaries had mixed feelings about nutrition programs.
- Some were fairly satisfied and thinks that all their needs are being met
- More people complained about lack of water and electricity in health centers and not reaching GIDAs and 4Ps families

Human Resources

- Most nutrition personnel have been in the position for a long time
- Has a very active MNAO who is perceived to be strict. People are encouraged to be involved in nutrition programs because of her.
- BNSes and BHWs are the ones who actively collect OPT. They are given technical support by MNAO and supervised by midwife.



M&E

- OPT significantly under-reports cases of stunting, wasting and underweight when compared to NNS.

Indicator	Region		Province	
	NNS*	**OPT****	**NNS***	**OPT****
Stunting/ Severe Stunting	40.0%	9.7%	37.4%	9.3%
Wasting/ Severe Wasting	6.9%	3.2%	7.6%	1.9%

Underweight/ Severe Underweight	25.8%	4.5%	25.%	3.5%

**NNS 2015; **OPT 2018*

- OPT results indicate very low prevalence of stunting, wasting and severe wasting. However, this is the area with most skewed distribution or HAZ and WAZ according to our exploratory data analysis. Findings suggest significant errors in OPT.
- They reportedly practice regular Program Implementation (PIR) of the OPT where BNSes are required to present OPT results

OPT Data

Operation Timbang Plus Report 2019

OPT Indicator	Municipal	Brgy A	Brgy B	Brgy C
No. 0-59mos	4,155	NA	NA	NA
Coverage	NA	95.2%	95.7%	87.8%
Stunting/ Severe Stunting	6.1%	5.7%	1.8%	9.4%
Wasting/ Severe Wasting	1.5%	0.5%	2.9%	0.2%
Underweight/ Severe Underweight	3.4%	7.0%	2.7%	1.7%

- The LGU had good documentation. The files were readily available but OPT reports at municipal level are only stated in number of cases and not in prevalences. This may be because of the very low malnutrition rates according to OPT.
- Exploratory data analysis of 2017-2019 OPT data showed that the province had most deviation from normal distribution of HAZ and WAZ. Thus, even if this area seemed to be performing well in terms of OPT, they had the most evident errors in the data.
- OPT report of IPs are separate from the general population

Strengths

- Strong support of municipality in agriculture and livelihood programs
- Active involvement of MNAO and Municipal Nutrition Councils

Bottlenecks

- **Problems in covering GIDAs and IPs in OPT and nutrition services**
- **Some safety issues hindering implementers to deliver nutrition services**
- **Most evident OPT data quality issues that grossly underestimates the prevalence of malnutrition**

Appendix F: Terms of Reference

Evaluation Plan
Date Prepared: 6 August 2018
Prepared By: MTVC, AP, VBJ
Milestone Version: *Revised version for ERG review*

I. Program Information	
1. **Name of Program**	National Nutrition Program
2. **Program Location(s)**	Nationwide with focus on lagging areas
3. **Program Duration**	Philippine Plan of Action on Nutrition 2017-2022 Philippine Plan of Action on Nutrition 2011-2016
4. **Lead Government Agency**	NNC, DOH, LGUs
5. **Other Government Agencies**	DA, DILG, FNRI-DOST, DepED, DSWD, DOLE, DTI, NEDA,
6. **Other Implementing Partners**	UNICEF, WFP, USAID, …
7. **Program Intent and Rationale** *(discuss the problem that the program is trying to solve in 2-3 paragraphs, including policy pronouncements)* The Philippines has made limited progress in MDG targets related to reducing malnutrition among children under-five years of age, and is lagging in progress towards achieving similar SDG targets [1]. Specific to undernutrition, the Philippines ranks among the top five countries in the East Asia and the Pacific Region in terms of wasting.	

The country is also among ten countries in the world where [2] two-thirds of the world's stunted children reside . Beyond health implications for children, stunting has an irreversible effect on children's cognitive development, therefore affecting their socio-economic attainment later in life.

The National Nutrition Council (NNC) is the country's highest policy-making and coordinating body on nutrition. It is chaired by the Department of Health (DOH), with the Departments of Agriculture (DA) and Interior and Local Government (DILG) as vice-chairs, and seven (7) national government agencies[3] as members. The NNC spearheads the formulation of the Philippine Plan of Action for Nutrition (PPAN) , the blueprint for the systematic and coordinated efforts of various stakeholders to address the country's malnutrition problem. The current PPAN 2017-2022 builds on past national plans and programs on nutrition that have been implemented with varying degrees of success. The goal of the current PPAN is to improve the nutrition situation of the country as a contribution to a) the achievement of Ambisyon 2040 by improving the quality of the human resource base of the country, b) reducing inequality in human development outcomes, and c) reducing child and maternal mortality.

The functions and multi-sectoral composition of the NNC are replicated at subnational levels. Regional, provincial, city, municipality, and barangay nutrition committees are organized to manage and coordinate the planning, implementation, monitoring, and evaluation of local nutrition action plan. However, the state of nutrition security, the funding of nutrition programs, and the effectiveness of service delivery systems at the local level remain uneven.

In both the national and local action plans, focus is given on the first 1,000 days of life. 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.

8. **Results Framework**

<u>PDP Outcome Indicators:</u>

- Proportion of households meeting the 100% recommended energy intake
- Prevalence of stunting among children under 5
- Prevalence of wasting among children under 5
- Prevalence of overweight among children under 5

Per PPAN 2017-2022, the Outcome Targets and Indicators are as follows:

- Outcome Target 1. To reduce levels of child stunting and wasting
  - Indicators: prevalence of stunted children; prevalence of wasted children
- Outcome Target 2. To reduce micronutrient deficiencies to levels below public health significance
  - Indicators: prevalence of children with vit A deficiency, prevalence of anemia among women of reproductive age; indicators relevant to iodine deficiency disorders
- Outcome Target 3. No increase in overweight among children
  - Indicators: prevalence of overweight
- Outcome Target 4. To reduce overweight among children and adults

See Figure 1. PPAN 2017-2022 Program Framework
See Figure 2. PPAN 2017-2022 Outcome Targets and indicators

To achieve its objectives, PPAN is to be implemented along the following Strategic Thrusts:

- Focus on the first 1000 days of life
- Complementation of nutrition-specific and nutrition sensitive programs
- Intensified mobilization of LGUs
- Reaching GIDAs, communities of IPs, and the urban poor in resettlement areas

	●Complementation of actions of national and local governments

9. **Alignment with the Sustainable Development Goals**

SDG 2: Zero Hunger

Related:

SDG 1: No Poverty

SDG 3: Good Health and Well-Being

SDG 6: Clean Water and Sanitation

SDG 17: Partnerships for the Goals

10. **Program Financing** *(describe the program financing strategy, sources, and aggregate amounts for the whole duration of the program, with description of trends over time. Attach filled-out template to the evaluation plan*)

The PPAN 2017-2022 comes with a budget estimate for the entire period of six years. Budgets contributing to nutrition outcomes are also embedded in the budgets of

agencies and local government units with programs that are classified as nutrition-specific, nutrition-sensitive, and nutrition-supportive.

Government and partner-funded funded activities for nutrition will be identified and reviewed and a sub-group of investments in selected LGUs will be chosen for further analysis.

II. Information on the Evaluation

11. **Key Evaluation Stakeholders** *(apart from those already identified in #4, 5, and 6, list down the other stakeholders involved in or affected by the program and/or who are crucial to the success of the evaluation.)*

Government entities: NNC, DOH, DA, DILG, FNRI-DOST, DepED, DSWD, DOLE, DTI, NEDA, LGus . Other stakeholders: academe, civil society organizations, business groups (especially private sector representatives to the NNC), international development organizations.

12. **Purpose of the Evaluation** *(2 paragraphs or set of bullet points that identify i) the research objectives for the study, and ii) the policy goals of the evaluation, e.g., to influence programming and resource allocation.)*

The Evaluation aims to undertake a formative evaluation that can contribute to the scheduled midterm and overall evaluation of the PPAN 2017-2022 by reviewing (1) progress towards outcomes along all or selected strategic thrusts that have been identified in the PPAN 2017-2022 (focus on the first 1000 days of life, complementation of nutrition-specific and nutrition sensitive programs, intensified mobilization of LGUs, reaching GIDAs, communities of IPs, and the urban poor in resettlement areas, complementation of actions of national and local governments), and (2) how to refine existing mechanisms for measuring and evaluating such progress.

While this evaluation should be able to provide some input as to the kind of immediate adjustments that should be made (relevant for midterm evaluation), ultimately, it seeks to contribute to improving how progress made on outcomes along selected strategic thrusts are captured, evaluated, and eventually acted on.

13. **Key Evaluation Questions**

- *Relevance:* ○
    - Based on current and previous experience, what are the key interventions needed to improve nutrition outcomes (reduced wasting, reduced stunting, reduced micronutrient deficiencies, improved situation in overweight and obesity)? What are the biological and institutional drivers of stunting and wasting?
        - To what extent has PPAN 2017-2022 considered these drivers, and built on these interventions?
    - To what extent has this PPAN adapted to changes in contexts over time?

- *Efficiency:* ○ How are nutrition services delivered at the front line? What is the overall picture of service delivery?
    How sufficient are the service delivery mechanisms and implementation arrangements at the national and local level?
    - How is progress towards achieving national nutrition goals measured and assessed at the national and local levels? How sufficient are M&E frameworks at the national and local level? How can M&E frameworks and mechanisms be refined?
    - How interconnected are public and private interventions on nutrition?

- *Effectiveness:* ○ To what extent have nutrition-specific programs and nutrition sensitive programs contributed to intended outcomes?
    - To what extent have the country's inter-agency and inter-government coordination (vertical and horizontal) mechanisms on nutrition facilitated achieving nutrition outcomes?
    - To what extent have local-level nutrition interventions facilitated achieving nutrition outcomes?
- ○ How have nutrition interventions influenced the behaviors of communities and families in GIDAs, IP communities, and the urban poor about appropriate nutrition practices?

- *Sustainability* ○ To what extent are the local-level outcomes replicable?
- How should a future impact evaluation be designed?
- What is the level of ownership of nutrition results at the local level?

. 14. **Methodology and Baseline Data** *(2 paragraphs/set of bullets that describe the data collection methods to be used to measure results and list down the baseline data needed and initial comments on availability)*

Indicatively, the study will make use of mixed methodologies to (1) identify the progress of nutrition programs towards outcomes along all or selected strategic thrusts per the PPAN 2017-2022, and to (2) assess the sufficiency of the monitoring and evaluation frameworks in place, and the comparability of available data for measuring impact in the future.

a) Exploratory Data Analysis – The evaluation can make use of statistical analysis of existing data from government (e.g. PSA-national nutrition survey, program data of implementing agencies) and other sources (e.g., CBMS) to draw trends and patterns in the implementation of the PPAN in the past. Apart from providing indicative results for outcomes, this will also help assess the extent to which existing (impact) evaluation frameworks can be maximized given the available data, and identify key limitations of the same.

b) Case Studies – The evaluation can also develop case studies of six (6) LGUs--two each for Luzon, Visayas, and Mindanao; one of which a good performer and the other a poor performer (criteria to be agreed on). This will illustrate how PPAN initiatives are implemented on the ground, surface best practices or gaps, and identify issues pertaining to achieving outcomes along all or selected strategic thrusts in the PPAN..

Public Expenditure Tracking – Tracing the resource flow for implementation of programs and projects at the community level can lend insight into allocations for achieving outcomes along all or selected strategic thrusts, and should also surface general inefficiencies in spending for nutrition (e.g., delays, funding duplication or insufficiency, etc.).

c) As is true with the conduct of case studies, the quality/results of public expenditure tracking can influence how monitoring and evaluation frameworks can be refined.

To cap the study, it should make recommendations on how the implementation of PPAN should be monitored and implemented in the future. In particular, the study should recommend I) a proposed framework and methodology for the impact evaluation of all or a selection of the components of PPAN 2017-2022, and ii) a framework/model for conducting case studies. These outputs will benefit from a review of the earlier (2011-16) PPANs, evaluation/s of the same, and policies or actions that have been made as a response to the evaluation/s, whether in the form of the present PPAN or otherwise. By

tracing how current strategic thrusts/issues may have been addressed or considered in earlier documents, the proposed framework can be made more relevant in understanding how and what should be measured for impact.

15. **Risk Identification and Analysis** *(1-2 paragraphs or set of bullets identifying the key risks facing the evaluation, and initial measures to mitigate or manage these. Attach detailed risk log if already available.)*

-
- Lack of comparable data at the local level
- Non-cooperation of agencies or LGUs identified to be subject of case studies.

16. **Evaluation Timeline** *(Indicate overall timeframe and up to five key milestones. Attach detailed timetable or Gannt chart for the evaluation project, if already available.)*

Five months for the evaluation proper, with an additional month for management response.

17. **Proposed Evaluator** *(Indicate type of provider and rationale for the choice. E.g., in-house or contracted out? Firm or individuals? Academic institution or think tank? Do not indicate preferred consultant or entity unless the procurement modality allows for direct contracting.)*

A team of four (4) individual consultants will be hired, consisting of a lead evaluator and three associate evaluators (one for the quantitative analysis and two for qualitative case studies).

18. **Relevant Literature** *(Initial list of related literature, beginning with existing evaluation studies and followed by other studies and relevant references. If more than 10, attach as a separate document.)*

National Nutrition Council. Philippine Plan of Action for Nutrition 2017-2022 (May 2017)
Alcanz Consulting Group Inc. Repositioning Nutrition in Philippine Development: Midterm Assessment and Update of the Philippine Plan of Action for Nutrition 2011-2016.
Herrin, A. (2017). Preventing childhood stunting: Why and How? Philippine Institute of Development Studies Policy Note. Manila, Philippines.
Save the Children Philippines (2017). Lives Cut Short: Rate of child deaths due to undernutrition in the Philippines now higher than global average. Manila, Philippines.

19. Save the Children Philippines (2015). Sizing Up: The Stunting and child Malnutrition Problem in the Philippines. Manila, Philippines.

19. **Communication Strategy** *(2-3 bullets identifying the key objectives for the dissemination of the evaluation results, linking back to the purpose of the evaluation study (item #10))*

- Engage a broad range of stakeholders in civil society and business to ensure multi-sector support
- Provide materials for consumption of NGAs, LGUs and GOCCs in their implementation of the PPAN

Figure 1. PPAN 2017-2022 Program Framework

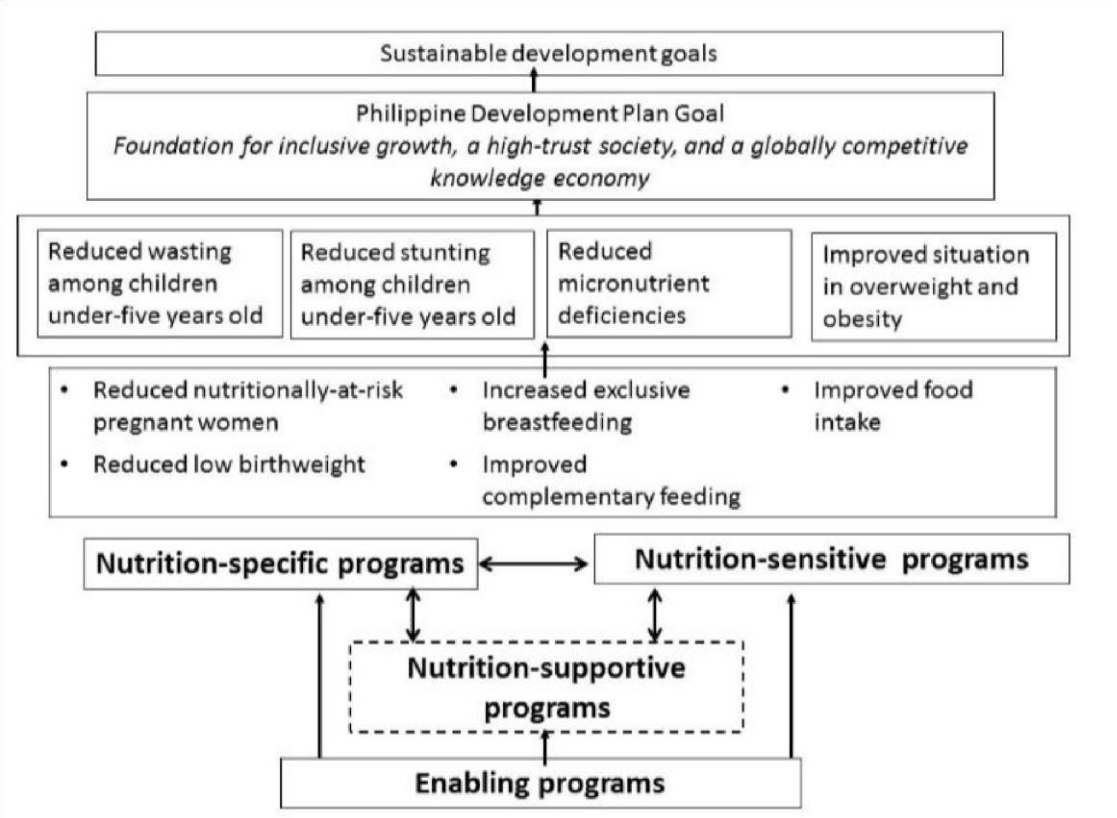


Figure 2. PPAN 2017-2022 Results Framework

Outcome targets

28. To reduce levels of child stunting and wasting

Indicator	Baseline	2022 Target
• Prevalence (in percent) of stunted children under five years old*	33.4	21.4
• Prevalence (in percent) of wasted children		
o Under five years old*	7.1	<5
o 6 – 10 years old	8.6	<5

* Consistent with the 2025 Global Targets for Maternal, Infant and Young Child Nutrition

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

Indicator	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*	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	70	≥100

Indicator	Baseline	2022 Target
• Percent with urinary iodine concentration <50 mcg/L		
- Children 6-12 years old	16.4	<20
- Lactating women	33.4	<20

* Consistent with the 2025 Global Targets for Maternal, Infant and Young Child Nutrition

30. No increase in overweight among children

Indicator	Baseline	2022 Target
• Prevalence (in percent) of overweight		
o Under five years old*	3.9	<3.9
o 6 – 10 years old	4.9	<4.9

* Consistent with the 2025 Global Targets for Maternal, Infant and Young Child Nutrition

31. To reduce overweight among adolescents (from 8.3% to <5%) and adults (from 31.1% to 28%)

Sub-outcome or intermediate outcome targets[3]

32. To reduce the proportion of nutritionally-at-risk pregnant women from 24.8% to 20% by 2022

33. To reduce the prevalence of low birthweight from 21.4% in 2013 to 16.6% by 2022

34. To increase the prevalence of exclusive breastfeeding among infants 5 months old from 24.7% in 2015 to 33.3 by 2022

35. To increase the percentage of children 6-23 months old meeting the minimum acceptable diet from 18.6% in 2015 to 22.5% by 2022

36. To increase the proportion of households with diets that meet the energy requirements from 31.7% in 2013 to 37.1 by 2022

Figure 3. Causal framework of child and maternal undernutrition

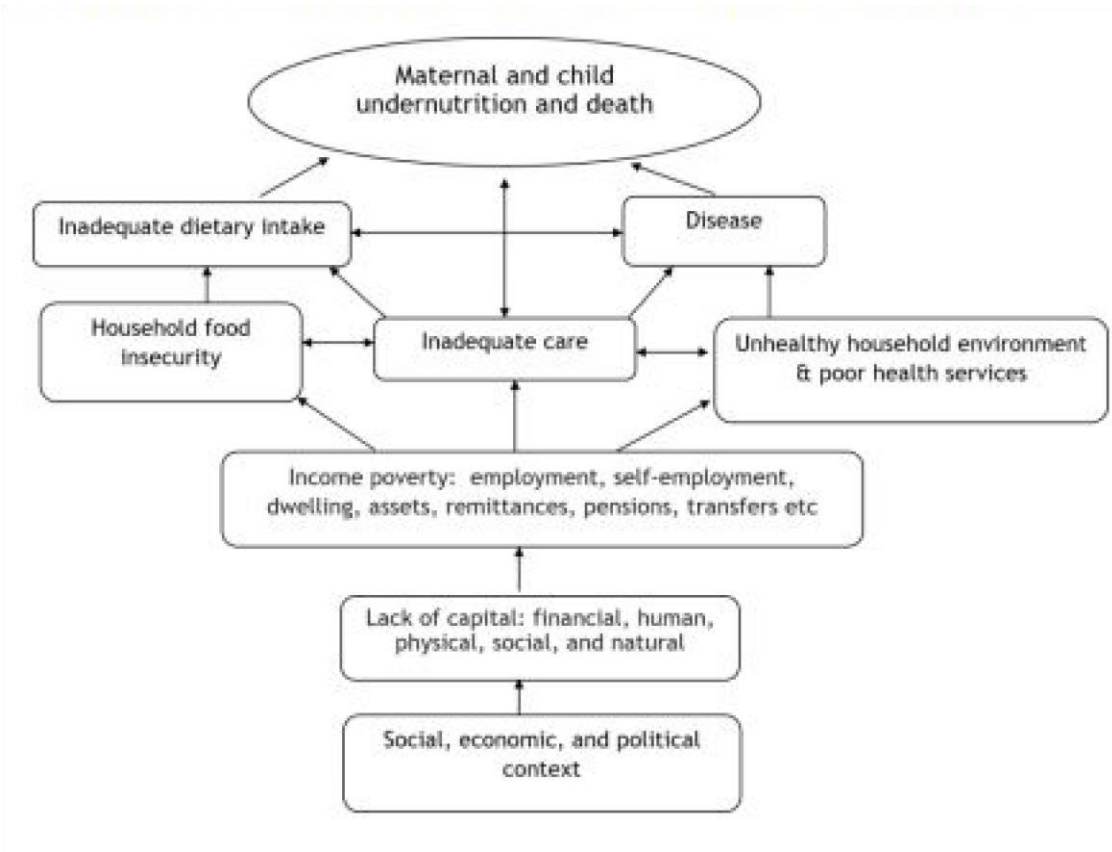
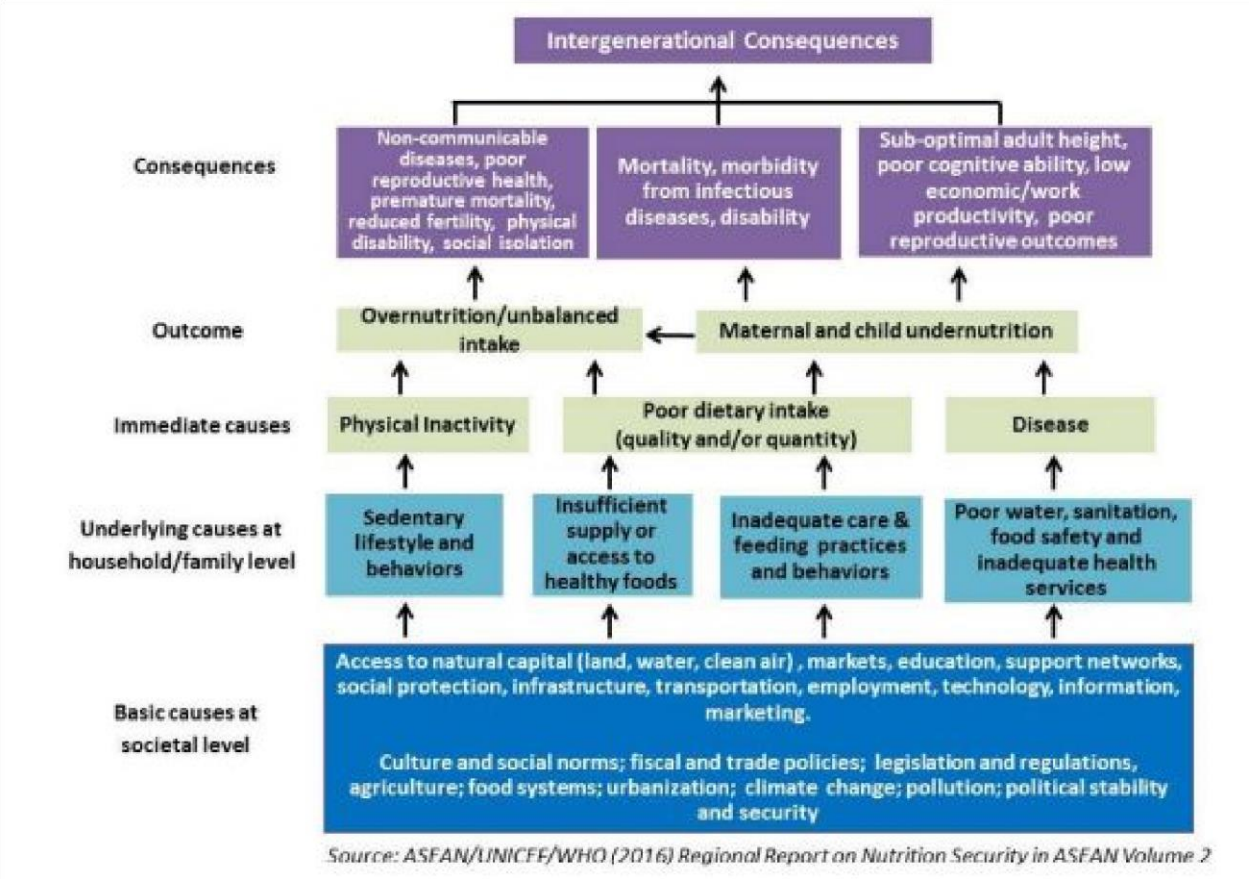


Figure 4. Conceptual framework of malnutrition



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

Appendix G: Evaluators Biodata

(please see separate file)

Appendix H: Evaluation Matrix

Evaluation criteria		Key Questions	Sub-Questions	Data Sources	Data collection Methods/Tools	Indicators/ Success Standard	Methods for Data Analysis
Relevance		How have nutrition programs been adjusted to better align with PPAN 2017-2022 Strategic Thrusts and to what extent do existing nutrition programs and related budget allocations align with the PPAN Strategic Thrusts?	1. How do programs focus to First 1000 days of life? 2. What are the nutrition-sensitive programs that contribute to the priority nutrition-specific programs? 3. How are LGUs mobilized? 4. How did PPAN 2017-2022 improve program reach of GIDAs, communities of indigenous peoples and urban poor, especially those of resettlement areas? 5. How do actions of national and local government complement each other?	• PPAN 2017-2022, nutrition program policies and guidelines • Focal persons from implementing agencies: DOH, DSWD, DILG, DepEd, NNC, FNRI etc • MELLPI • Program or LGU administrative data	• Desk review of policies, guidelines and other program documentation • KIIs and FGDs of focal persons at CO and local levels • Exploratory analysis of MELLPI and other M&E of priority programs and administrative data of LGUs	• Presence of updated policies and guidelines • Alignment of practice and policy • Substantial implementation coverage of programs	• Thematic analysis • Triangulation with admin data

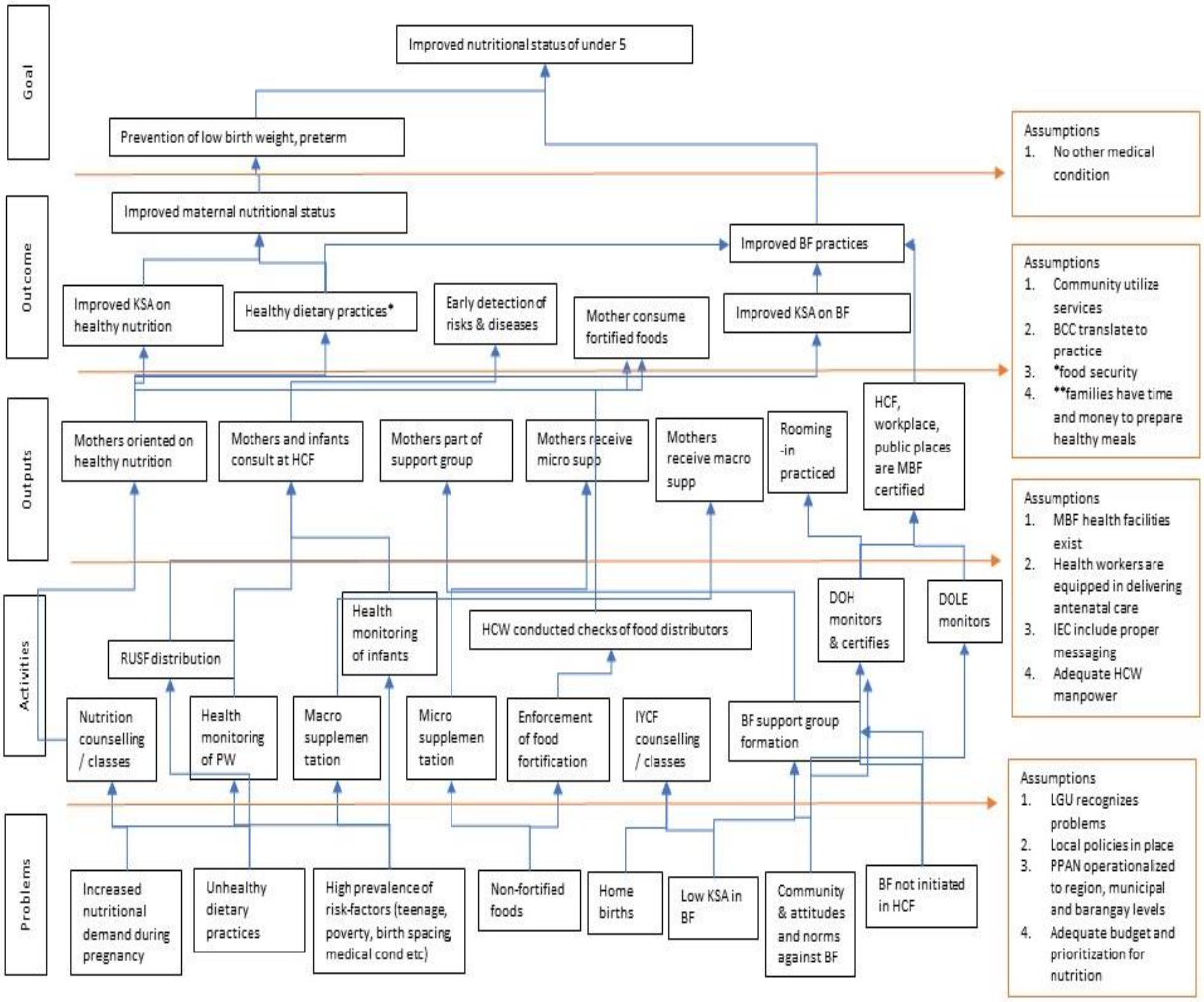
Evaluation criteria		Key Questions	Sub-Questions	Data Sources	Data collection Methods/Tools	Indicators/ Success Standard	Methods for Data Analysis
		How do budgets allocated to nutrition programs align with PPAN 2017-2022 Strategic Thrusts?	1. How are nutrition concerns being prioritized in national and local budgeting processes? 2. How do budgets for nutrition programs in GIDAs compare to other areas?	• OPT • NNS • MELLPI • Program or LGU administrative data • Focal persons from implementing agencies: DOH, DSWD, DILG, DepEd, NNC, FNRI etc	• Exploratory analysis of OPT, NNS, MELLPI and program or LGU administrative data • Budget and expenditures data • KIIs and FGDs of focal persons in case study sites	• Alignment of budget allocation and expenditures with malnutrition severity in LGUs	• Exploratory analysis • Triangulation with data on health outcomes and finances
Implementation Fidelity	•	• To what degree are nutrition interventions being implemented as planned? • To what degree are M&E systems in place to monitor program performance and how are they being utilized?	Inputs Financial • How much of the budget was allocated to the nutrition program? Human • To what extent are LGUs properly staffed to implement nutrition programs? • How qualified and well-trained are personnel implementing these programs? Material	• NNS • OPT • MELLPI • Policies and implementing guidelines • Program implementation sites • Ground level implementers (i.e. barangay nutrition scholar, teacher) • Program beneficiaries (i.e. households, mothers)	• Unstructured observations of actual program implementation • Exploratory analysis of existing datasets: NNS, OPT, MELLPI • KIIs, FGDs of implementers and program beneficiaries • Review of program administrative data	• Presence of policies and implementing guidelines • Alignment of financial and human resource allocation • Improved program coverage • Beneficiary satisfaction towards nutrition programs • Positive implementer feedback	• Panel data analysis • Thematic analysis • Triangulation with admin data

Evaluation criteria	Key Questions	Sub-Questions	Data Sources	Data collection Methods/Tools	Indicators/ Success Standard	Methods for Data Analysis
		• Are there clear implementation guidelines? • Are the necessary materials successfully procured? Outputs • Are the programs being delivered on a timely basis? • What is the coverage of the priority program among the targeted population? What measures are being practiced to ensure transparency and combat corruption? • How much of allocated budget are spent on the nutrition program? • Which line items or areas are most/least over/under spent? Intermediate Outcomes • To what extent does the targeted population take up the intervention? • How has the intervention influenced the behaviors of communities and families about				

Evaluation criteria	Key Questions	Sub-Questions	Data Sources	Data collection Methods/Tools	Indicators/ Success Standard	Methods for Data Analysis
		appropriate nutrition practices? Goals • How did the target recipients benefit from the program? • How can they benefit more? • Do poor and disadvantaged population benefit from these programs more or less than other populations? • How satisfied are beneficiaries with the nutrition program delivery?				
Sustainability	What are the success factors and challenges in ensuring the sustainability of nutrition programs?	Management: 1. How has PPAN 2017-2022 supported LGUs in efforts to maintain good performance over time? 2. How has PPAN 2017-2022 enabled underperforming LGUs to improve their performance? Funding: 1. When is funding sustainability most likely to be a challenge? 2. For which specific programs is funding sustainability most likely to be a challenge?	• Policies • Focal persons from implementing agencies: DOH, DSWD, DILG, DepEd, NNC, FNRI etc	• Desk review of policies, guidelines and other program documentation • KIIs and FGDs of focal persons	• Presence of policies, advocacy groups, regular activities on nutrition • Implementers express ease in continuing program implementation	• Thematic Analysis • Extrapolation of nutrition outcomes

Evaluation criteria	Key Questions	Sub-Questions	Data Sources	Data collection Methods/Tools	Indicators/ Success Standard	Methods for Data Analysis
		3. How can we promote increased funding in areas where funding is most likely to be a challenge? Governance: 3. How well suited are government structures in enabling PPAN? 4. What are the policies and ordinances on food and nutrition created by LGU in response to their commitment to PPAN? 5. What are the policies and administrative orders created by other implementing agencies to enact PPAN?				

Appendix I: Theory of Change



Component Programs / Campaigns:

- Mother-Baby Friendly (MBF) health facilities initiative
- Nutrition Guidelines for Filipinos
- Promoting Good Nutrition (PGN) of Accelerated Hunger Mitigation Program (AHMP)
- Breastfeeding TSEk
- Pabasa sa Nutrisyon
- Ten Kumainments
- Integrated Management of Pregnancy and Childbirth (IMPAC)
- Integrated Management of Childhood Diseases (IMCI)
- Food fortification
- Nutrition in Emergencies

Acronyms

- BF – breastfeeding
- HCF – healthcare facility
- HCW – healthcare worker
- IYCF – Infant and Young Child Feeding
- KSA – knowledge, skills, attitudes
- MBF – mother-baby friendly
- PW – pregnant woman

Appendix J – Qualitative Protocol

PPAN 2017-2022 Evaluation
Qualitative Data Collection Field Protocol

Contents

I. Overview

This is a formative evaluation of the Philippine Plan of Action for Nutrition (PPAN) 2017-2022. The objective of this field data collection is to understand prioritization and implementation of nutrition programs. Specific objectives are to assess the relevance of priority nutrition programs and alignment with PPAN Strategic Thrusts, identify best practices and challenges in achieving high implementation fidelity and explore challenges in good program performance and sustainability. This field manual along with an extensive training will guide the field staff in every step of each of data collection methods. This will also outline the important principles to adhere to when collecting qualitative data.

II. Team Structure

A field team will be responsible for collecting qualitative data from 6 LGUs selected by PPAN Evaluation Resource Group. They will also collect secondary quantitative data as needed from government offices. The entire field work will span for approximately 2 months.

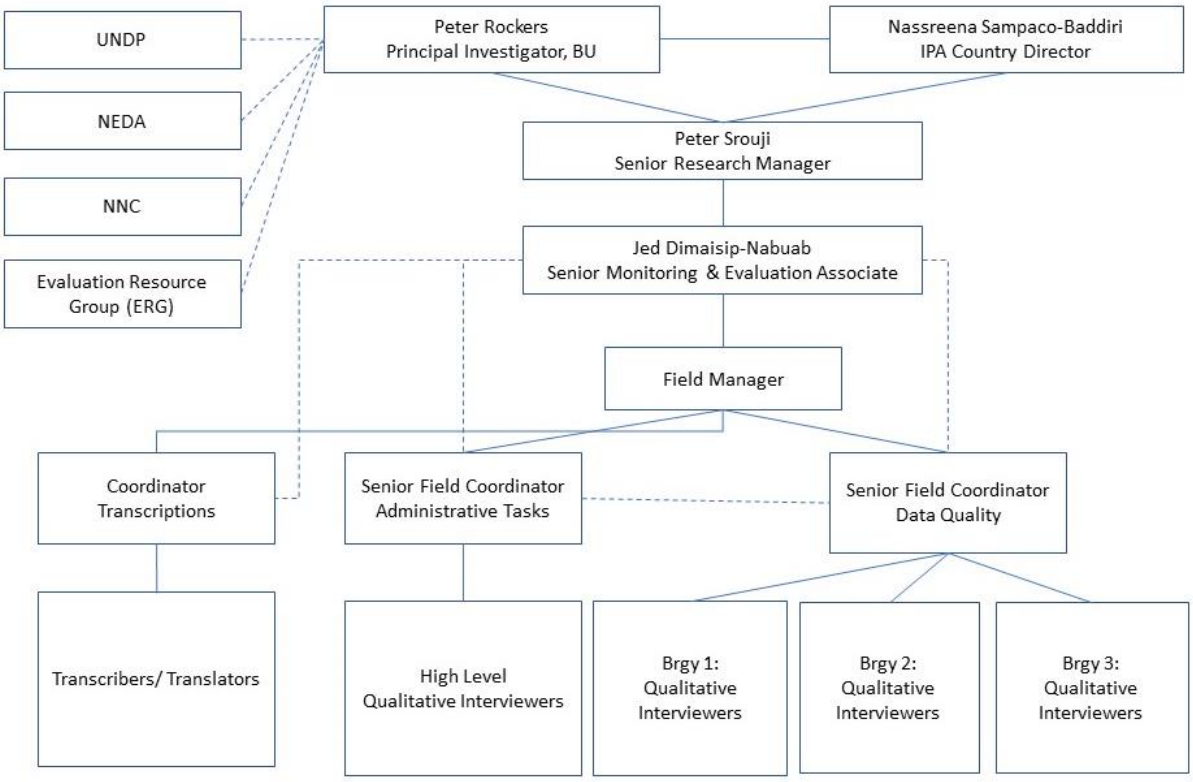
The Senior Monitoring and Evaluation Associate (SMEA) will act as the bridge between the evaluation team and the field team. The SMEA will be fully-engaged in the project and oversees over-all field coordination, partner coordination, data management and analysis. The SMEA will be supervised by the Senior Research Manager and will receive technical backstopping from the Principal Investigator.

The field team will be composed of one Field Manager (FM), two Senior Field Coordinators (FCs), and Qualitative Interviewers (QIs). The FM will be responsible for recruitment and training of QIs, formulating logistical survey plans, managing day-to-day field activities, handling field budgets, ensuring that data collection is in track, overseeing translations and transcriptions of interviews, assist the SMEA and SRM in conducting field debriefing sessions. The field manager is in charge of submitting daily team summaries to SMEA. The FM will also coordinate with government partners at all levels and community members. Senior Field Coordinators will assist the FM in creating and maintaining logistical plans; interviewing high-level respondents at the regional, provincial, and municipal levels; ensure adherence to field protocols; conduct accompaniments and data quality checks; and help lead debriefing sessions. The QIs will be responsible for conducting interviews, focus group discussions and observations. They will also complete the documentation of these activities and submit these to the FM. As necessary, they may also be needed to coordinate with partners and community members to arrange for data collection.

The SMEA together with support from FM will conduct daily debriefing with the field team. The debriefing sessions will provide preliminary analysis of information from data collection within the day, assess the contents of interview guide and adjust as necessary and gather feedback from the field team about challenges in the field. The debriefing report will be shared with the Senior Research Manager and Principal Investigator for analysis. The qualitative nature of the study will allow some flexibility for the field team to adjust the approach as the situation demands. However, basic research ethics principles and qualitative data collection principles will always take precedence.

In addition, a team of transcribers and translators may be hired as needed to support the documentation. An office-based coordinator shall assist in hiring, work distribution, and supervision of the transcribers and translators.

Figure 1. Organizational Structure of PPAN Formative Evaluation Team



III. Participants

Profile of Participants

There will be three main types of participants:

1. Decision Makers

Decision makers will be interviewed to answer questions on program relevance, particularly on how LGUs prioritize nutrition programs and budgets align with PPAN 2017-2022 Strategic Thrusts. Decision makers will include key persons at the Central Offices of concerned government agencies and LCEs who are involved at formulating policies, strategic plans and budgets, and monitoring and evaluation of nutrition programs. In addition, we will also interview those who advocate for nutrition programming along the PPAN's Strategic Thrusts, including the Regional NNC Coordinators, Provincial Nutrition Action Officers, and Municipal Nutrition Action Officers.

2. First-line Implementers

First-line implementers refer to people who are directly delivering nutrition program services to beneficiaries. This will include barangay nutrition scholars, barangay health workers, midwives, social workers, feeding coordinators, etc. They will be interviewed about their roles in program delivery, experiences and perceptions about nutrition programs.

3. Beneficiaries

Focus group discussions with program beneficiaries will be conducted to better understand their perceptions regarding nutrition, experiences with nutrition programs, and level of satisfaction about the

nutrition program. This evaluation will only include adult recipients or parents or primary care-givers of recipients within selected LGU.

Participant Recruitment

The study sites and government agencies involved in the study will be determined by the LGU selection and program prioritization of the ERG. Purposive sampling will be done to determine decision makers and key-implementers. Beneficiaries will be recruited based on convenience sampling. The FM will coordinate with implementers to identify beneficiaries who will be invited to join the FGD or possible venues to recruit participants (i.e. health center visits, parent-teacher meetings).

IV. Qualitative Research Techniques

This evaluation will utilize three qualitative research techniques, namely Key Informant Interviews (KII), Focus Group Discussions (FGD) and Complete Observations (CO). Below is a discussion of the steps that the field team will follow in conducting each technique

Key Informant Interviews (KII)

1. A KII will be conducted by one QI/SFC at a time.
2. Prior coordination with the target respondent may be required to ensure their availability.
3. As much as possible, the KII will be conducted at their workplace. The QI will ensure the comfort and privacy during the KII.
4. The participant will be invited to answer questions about nutrition programs. The QI will explain the purpose of the study and reason why the person is invited.
5. The QI will explain the need to take notes and audio recording
6. A written informed consent will be taken including consent to audio recording
7. The participant will be asked to introduce themselves, explain their job title, agency or their role in nutrition program
8. In case the person is uncomfortable with an audio recording but willing to be interviewed, the KII will proceed without the recording
9. The QI will place the audio recorder in a strategic position visible to both interviewer and interviewee. The QI will for ask verbal consent to start the recording.
10. The QI will carry a print-out of guide questions. The direction of the interview will be based on the guide questions. The QI will probe and ask related questions as necessary. All questions and discussion topics will be related to the evaluation questions.
11. During the interview, the QI will write down keywords to help him / her in steering the discussion and recall the important points in the discussion for documentation.
12. KIIs will be approximately 30 minutes and will be no more than 1 hour.
13. The QI will close the interview by thanking the participant and giving a small token for participation.
14. The QI should switch-off the recording as soon as the interview ends. The participant will be informed about the end of recording.
15. It may happen that some follow-up conversations or comments from participant will occur after the audio recording has been switched-off. In these cases, audio recording will not be restarted unless the topic is relevant, and the participant consented to resume the recording.

16. The QI should flesh out their notes immediately after the interview or at least within 24 hours while their memory of the interview is still fresh.

Focus Group Discussion (FGD)

1. FGDs will be conducted by two QIs: one will be in charge of discussion facilitation and the other will be in charge of documentation and logistics support.
2. Prior coordination may be required to ensure of the participants' availability.
3. The QIs will arrange for the FGD to be conducted in a private and quiet room.
4. The participants will be asked to sit in a circle together with the moderator and documenter.
5. The QIs will introduce themselves. They will also explain the purpose of the study and why the participants were invited.
6. A written informed consent will be secured individually from each participant. Only those who consented will be part of the FGD.
7. The facilitator will provide the following ground rules for FGD:
    a. Confidentiality – ask everyone to keep the contents of the discussion private
    b. Orderliness – explain the importance of having everyone contribute to the discussion, wait to be acknowledged before speaking, allow others to complete statement before speaking or starting another discussion
    c. Moderation - explain that there might be pauses to allow the moderator to think about next questions and review notes, there might be a need to redirect the conversation and focus on the topic at hand, the moderator will try to manage time and move to the next topic depending on the time
    d. Recording – explain the recording again and ask for permission before starting the recording
8. Each participant will be asked to introduce themselves with their name and the name of programs they are beneficiaries of. To aid in facilitation, the documenter will ask them to wear a name tag.
9. The QI will place the audio recorder in a strategic position in the middle of the room, visible to all participants. The QI will ask for verbal consent to start the recording.
10. Both the documenter and facilitator will carry a print-out of guide questions. The direction of the interview will be based on the guide questions. The facilitator will probe and ask related questions as necessary. All questions and discussion topics will be related to the evaluation questions.
11. During the interview, the QI and documenter will write down keywords to help them in steering the discussion and recall the important points in the discussion for documentation.
12. An FGD will take approximately 30 minutes and no more than 1 hour.
13. The facilitator will close the interview by thanking the participant and giving a small token for participation.
14. Any person can opt out at any time for any reason. In case of drop-outs, the FGD will still proceed with only the consenting participants. The person who opted out will be asked his/her previous responses could be kept. If the person also completely changes his/her mind about participation, his/her responses will not be included in any written documentation and analysis.

Complete Observation (CO)

The field team will conduct ethnographic observations of actual program delivery on the ground where they will remain detached and refrain from adding unusual occurrences other than what usually happens. The observation will be conducted in public places where programs are being delivered like barangay halls, streets, school grounds, publicly accessible parts of health centers. The government officials at higher levels of LGU will be informed that there will be an observation in their implementation sites. To avoid observer bias, the actual date of the visit will not be declared.

V. Documentation

Summaries

A summary contains the general information about the interview or FGD including the profile of participants, date of interview, setting and other notable occurrences during the interview. It should also contain the key findings and highlights of the interview. In the beginning of the data collection, a general summary form is prepared but as the data collection progresses, the summary format may change to be more specific and accommodate changes in the interview guide.

Transcription

1. Text formatting
    - Font: Arial, size 11,
    - Single spaced
    - Left justified, no indents
2. Heading
    - All transcripts will have the following heading at the beginning of the first page

Interview Code
Location
Date
Duration of interview:
Time at start of interview:
Time at end of interview:
Participants: Position or beneficiary of which program
Interviewer:
Observations at start of interview:

3. Labelling
    - Interviewer is marked by “I:”
    - Participant is marked by “P:”, in cases of dyads and FGDs, a number is added to say “P1:”, “P2”
    - In cases of groups and speaker is not identifiable: “Px”

- Transcription

4. Ideally, interviewer should do the transcription. If not possible, the interviewer should do the checking.
5. Will be done semi-verbatim; only essential core statements will be transcribed. Fillers like "uhm", "eh" will not be transcribed. Repetitive statements like "I, I don't know. I don't know" will be transcribed as "I don't know"
6. Relevant non-verbal sounds, emotional utterances or emphasis will be indicated in parenthesis: (short laugh), (loud voice), (long pause), (sigh)
7. Whenever possible and relevant, external occurrence will be inserted in the document in brackets: e.g. [director enter the room], [participant stepped out to take a phone call]
8. Incorrect words or pronunciation will be corrected in brackets and backslash: e.g. "When I am stressed, I watch Netflix to rewind [/unwind/]
9. To mark short pauses, ellipsis (…) will be used
10. Do not transcribe filler words from interviewer such as "yes", "right", "mm-kay"
11. Words given special emphasis should be CAPITALIZED
12. Incomprehensible words will be indicated by [inc.]. The reason should be stated whenever apparent [inc., ambulance siren]. The transcriber should indicate the duration of which the recording is incomprehensible e.g. [inc., rustling sound, 1 min]
13. Speech overlaps are marked by // at the point of the interjection and end of the present speakers contribution.
14. If a participant uses his or her own name during the transcription, this should be replaced by the participant signifier (e.g. P1). Eg. 'My teacher said to me, P1, wash your hands.
15. If a participant provides sensitive information which could identify them such as names of locations or organizations, the transcriber should enter an = just before and after the sensitive information so that this can be substituted by the analyst (e.g 'regular feeding is conducted at = Congressman Dizon's= residence at = Forbes Park=)
16. A time stamp should be added every five minutes in green as a separate line
17. "END OF INTERVIEW" at end of transcription
18. All transcriptions will be checked by a person other than the transcriber. Track changes function should be used when checking.
19. Checking of transcriptions will also be done while listening to actual recording
20. The Field Management team should conduct random checks of the transcriptions.

Translation

1. Translation will follow transcription rules as applicable
2. Translation to English will be done after transcription is checked
3. Translation to English will be done in the same document, line by line or per statement of speaker, and will be done in blue font.
4. Local language (Tagalog, Bisaya, etc) should be in black font, English will be in blue font
5. Translation will be checked by a person other than the primary translator. Track changes function should be used when checking.
6. Translation and checking of translation will be done will listening to the audio recording
7. The interviewer should do the final checking, adding notes such as body language, relevant occurrences and setting description.

8. A clean version of the translated transcript, that is checked by the interviewer, is the final outpit to be submitted to the SMEA.
9. The Field Management team should conduct random checks of the translations.

Debriefing

1. Debriefing sessions will be conducted with the field team at the end of each data collection day.
2. The debriefing is like a focus group discussion with interviewers/ field officers as participants and members of the Evaluation Team (Principal Investigator, Sr. Research Manager, Sr. M&E Associate) as the moderator. The Field Manager may also be asked to lead these sessions.
3. Debriefing will be done to gather feedback on interview processes, interview guide and to provide initial analysis of the data to enrich interview protocol.
4. Some general questions that need to be answered during a debriefing session are:
    a. What information do we have on our research questions? Run through the interview guide.
    b. Do we need to improve the questions? Are we asking the right questions? How can we better elicit answers?
    c. What works best?
    d. What doesn't work?
    e. What other information do we need? Which documents should we review? Who do we need to interview next?
5. Debriefing sessions could evolve as data collection goes on. It will be adjusted based on the amount and nature of information we gather, dynamics of the team, logistics concerns.

VI. Data Management

Files

The Field Manager will maintain the quality, timeliness and security the following files:

1. Audio recording
2. Raw transcription
3. Checked transcription
4. Translation
5. Checked translation
6. Summary notes of interviewer
7. Debriefing notes
8. Summary report per LGU at city or municipality level
9. Summary report per agency as applicable

Filing Procedure

- File name
  To help in organization and searchability, the files will be named using the ff format:
  <Agency>_<Level>_<Type>_<Location>_<Gender>_<Date>_<Interviewer>_<ID#>_<Format>
  The transcription of the first interview with a female barangay nutrition scholar in Cebu conducted by Jed on March 5, 2019 will have the following ID:
  DOH_BG_K_1_F_0305_JD_01_TR

Jed's summary notes will be filed as: *DOH_BG_K_1_F_0305_JD_01_SU*

- Codes
  - Agency – enter agency or organization initials, the list will be updated as the respondents are determined
    - DOH – Department of Health
    - DILG – Department of Interior and Local Government
    - DWSD – Department of Social Welfare and Development
    - Ben - Beneficiary
  - Level
    - CO – Central Office
    - RE – Region
    - PR – Provincial
    - LU – LGU/ City/ Municipality
    - BG – Barangay
    - SC - School
  - Type
    - K – Key Informant Interview
    - D – Dyad
    - F – Focus Group
  - Location
    - Enter first 3 letters of name of municipality
    - 0 – Central, Regional, Provincial
  - Gender
    - M – Male
    - F – Female
    - X – Mixed (FGDs, Dyads)
  - Date
    - MMDD format; an interview completed on March 17, 2019 will be coded 0317
  - Interviewer
    - Initials for first name and last name of the interviewer; Jed Dimaisip will be JD
  - ID#
    - Two-digit code; first interview completed on a given day(1st interview will be 01, 2nd interview will be 02 and so on)
  - Format
    - RE – Recording
    - TR – Raw transcript
    - TRC – Checked transcript
    - TL – Raw translation
    - TLC – Checked translation
    - SU – Summary notes

VII. Anonymization

The thematic analysis would require the researcher to be fully aware of the areas, positions, and other proper nouns of persons, places and organizations involved in the interview to allow for the understanding

of the full story. Thematic analysis includes the summarization and debriefing as the essential steps in rapid analysis. The entire data collection team should be able to freely communicate their findings and experiences and refer to each other during the data collection process. For these reasons, the raw files would clearly be identified according to location and type of respondent and may contain other personally identifiable information. After the full analysis had been completed, anonymization process shall be done. The following changes will be made to the transcripts:

- Name of person – change to "= Person ="
- Name of place – change to "= Place ="
- Name of company / organization – change to "= Company ="
- Name of local brand/ local manufacturers – change to "= Brand ="

Widely-known nationwide brand names in such as Cerelac, Tiki-tiki, Cherifer will be kept in the transcripts whenever they appear. Anonymization will also be applied in file namins:

- Regions: to name "A", "B" and "C"
- Province: numbered 1 to 6 instead of first letters
- Municipality/ City: to number 1 to 6
- Barangay: to number 1 to 3 and restart in each municipality

VIII. Data Security

IPA employs strict data management protocols in order to ensure that our surveys are administered with complete transparency of purpose, and with an emphasis on maintaining the privacy of respondents. In compliance with the 2012 Data Privacy Act, IPA Philippines has registered with the National Privacy Commission and is currently finalizing its Data and Device Security Protocol Policy. Current standards of practice being implemented in light of the law are: (1) all staff sign a nondisclosure agreement (NDA); (2) use of a consent form that respondents must sign before beginning a survey; (3) no one aside from the enumerator and respondent should be present during administration of the survey; (4) enumerators are not allowed to ask questions outside of what is in the survey; and (5) removal of all Personally Identifiable Information in our data.

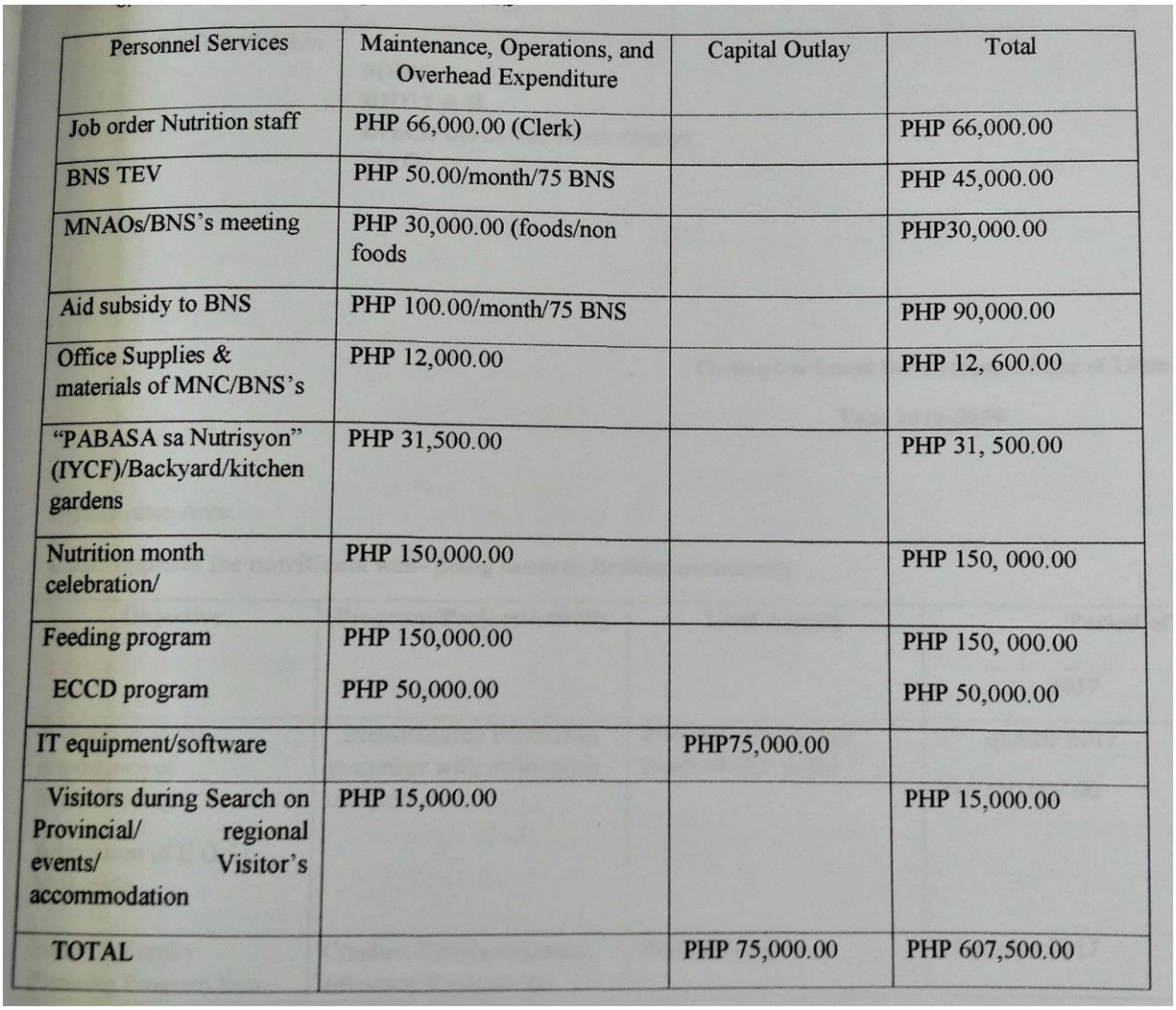
Audio recordings may unintentionally contain PII from participants. The research team will employ additional security measures. Field staff will only use IPA owned recording devices. Recordings saved in recorder will be immediately transferred to an encrypted folder in a cloud storage system called Box. Recordings will only be accessed through IPA computers.

Appendix K: Sample Local Nutrition Action Plan

I. Budget Prioritization in LNAP

Table 1. Excerpt from RNAP showing list of PPAN programs and corresponding budget requirements

Programs	Total budget (pesos)	% of total RPAN budget
Program 1: MIYCF and First 1000 Days (F1K)	643,108,768	11.54
Program 2: Dietary Supplementation	1,219,077,469	21.87
Program 3: Adolescent Health and Development	1,130,342,820	20.3
Program 4: Micronutrient Supplementation	80,640,000	1.45
Program 5: Overweight and Obesity Management and Prevention	0	0.00
Program 6: Mandatory Food Fortification[9]	400,000	0.01
Program 7: Philippine Integrated Management of Acute Malnutrition (PIMAM)	9,197,058	0.16
Program 8: Nutrition in Emergencies	1,179,783	0.02
Program 9: Nutrition Promotion for Behaviour Change	4,090,950	0.07
Program 10: Nutrition Sensitive	2,484,390,447	44.56
Program 11: Enabling Program	2,754,206	0.05
Grand Total	**5,575,181,501**	**100.0**



Personnel Services	Maintenance, Operations, and Overhead Expenditure	Capital Outlay	Total
Job order Nutrition staff	PHP 66,000.00 (Clerk)		PHP 66,000.00
BNS TEV	PHP 50.00/month/75 BNS		PHP 45,000.00
MNAOs/BNS's meeting	PHP 30,000.00 (foods/non foods		PHP30,000.00
Aid subsidy to BNS	PHP 100.00/month/75 BNS		PHP 90,000.00
Office Supplies & materials of MNC/BNS's	PHP 12,000.00		PHP 12, 600.00
"PABASA sa Nutrisyon" (IYCF)/Backyard/kitchen gardens	PHP 31,500.00		PHP 31, 500.00
Nutrition month celebration/	PHP 150,000.00		PHP 150, 000.00
Feeding program ECCD program	PHP 150,000.00 PHP 50,000.00		PHP 150, 000.00 PHP 50,000.00
IT equipment/software		PHP75,000.00	
Visitors during Search on Provincial/ regional events/ Visitor's accommodation	PHP 15,000.00		PHP 15,000.00
TOTAL		PHP 75,000.00	PHP 607,500.00

Figure 2. Excerpt from MNAP showing program activities and budgetary requirements

Table 1. Excerpt from BNAP showing program activities and budgetary requirements

Activity	Cost
Feeding program to 44 children aged 24-71 months, 5x/week for 120 days	Php 137,000 (food &utensils)
Clean and Green Program in 7 zones	Php 9,000 (provision of gardening tools and seedlings)
Backyard gardening (provision of seedlings and fertilizer)	No info
Vitamin A supplementation 2x per year to 0-11 months	No info
Mothers class to 30 pregnant & nursing mothers	Php 12,240 (food, utensils, brochure, pen, paper)

II. Problem Recognition in LNAP

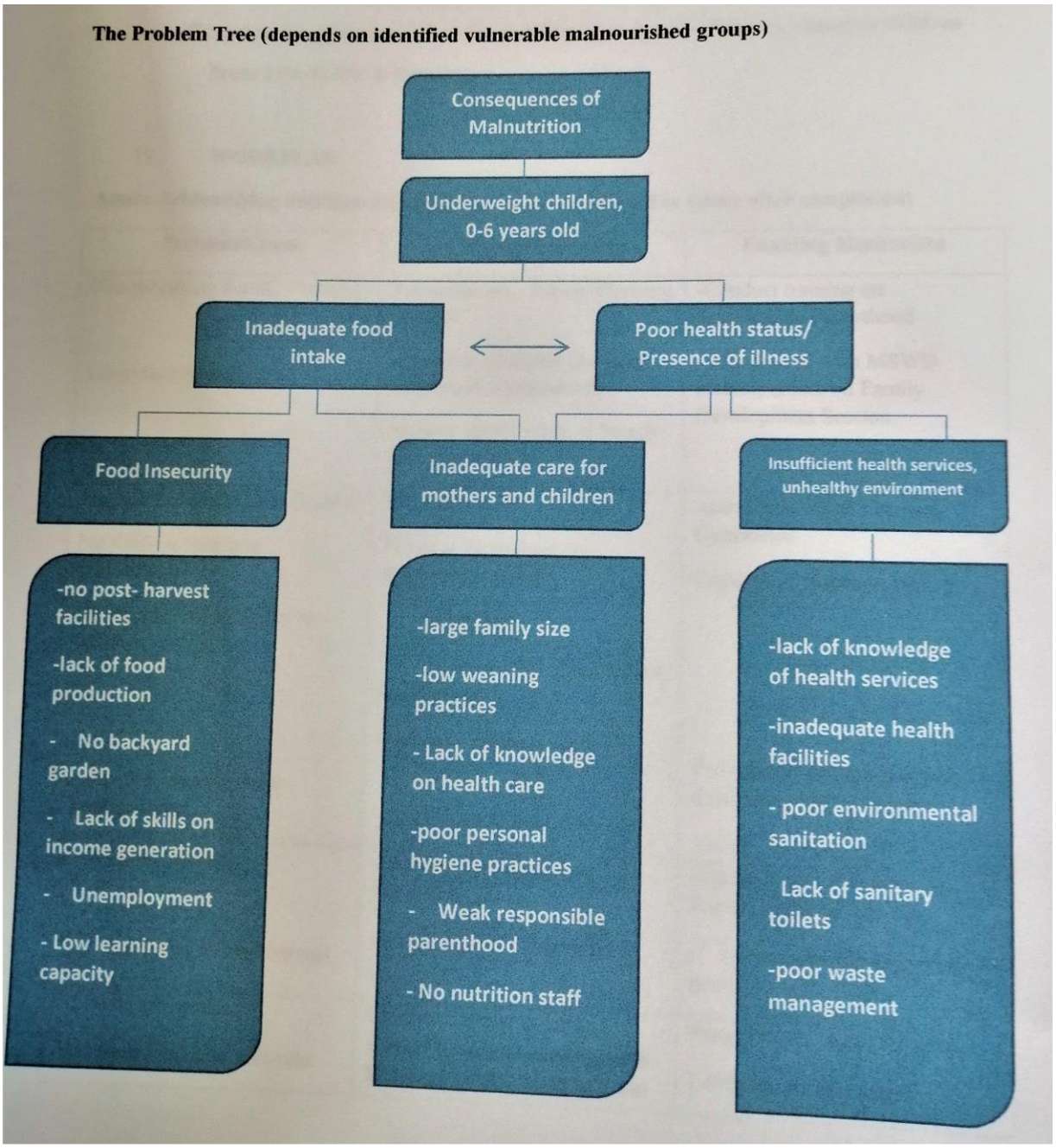


Figure 3. Sample Problem Tree from MNAP

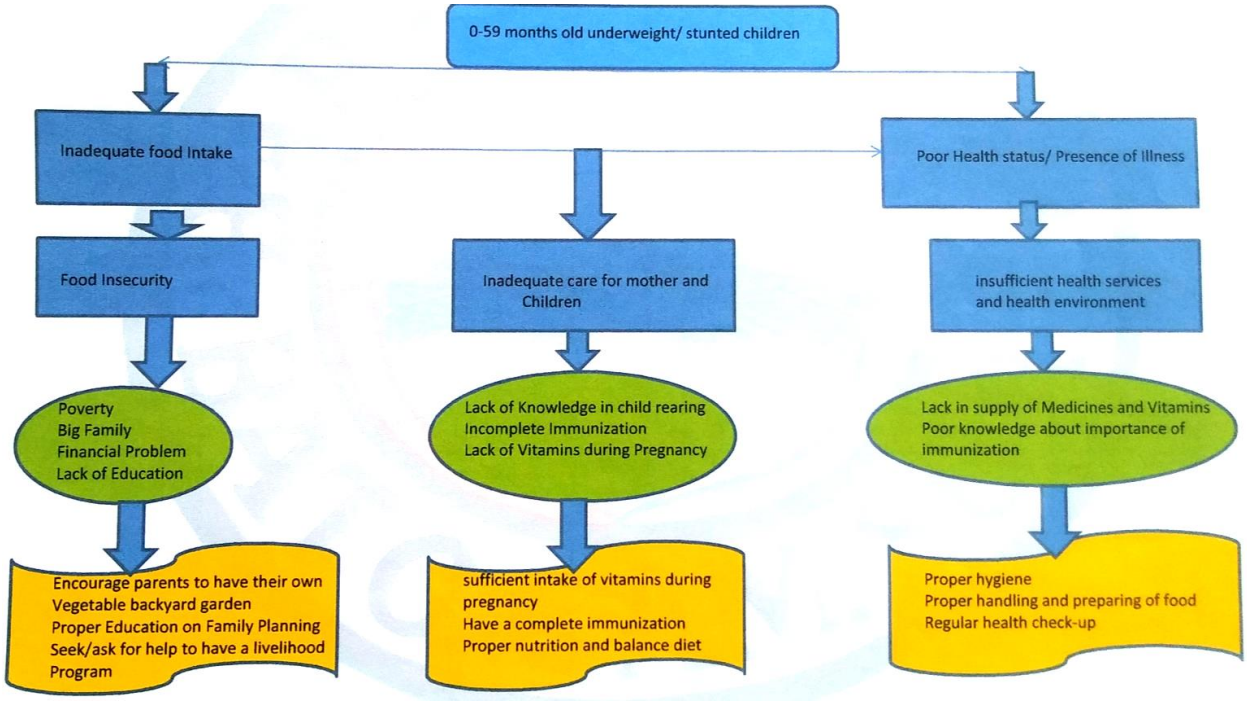
Resources	Present/Absent	Remarks
Nutrition Office	Present	Functional
Full time Nutrition Officer	Absent	Designated Multitasking
Trained Nutrition Staff	Absent	Lack budget for additional manpower
Trained BNS per barangay	Present	75 active BNS
LNC Structure	Present	Revitalization
LNC Planning Core Group	Absent	Form planning core groups
Nutrition budget from LGU (appropriated through legislation)	Absent	Inadequate budgetary for nutrition (Subsidy GAD/MHO-MOOE)
Resources from NGOs, POs and Private entities	Present (CDL)	Active participation
Other resources	Present DOH-NNC, DA-RIC, DSWD-Day Care	Granting Agencies

Figure 4. Overview Assessment of Resources for Nutrition from Municipal Nutrition Action Plan

Table 2: List of Problems and Interventions from Sample Barangay Nutrition Action Plan

PROBLEM/CAUSES	INTERVENTION
• Ang Problema sa aming Barangay ay ang walang disiplina ang ibang ta sa pagtapon ng basura o ang pag hiwalay ng nabubulok at dina nabubulok.	• Dapat mabigyan lunas ang lahat ng problemang inilahad dito sa aming Barangay.
• Ang mababang lugar sa aming Barangay, gaya ng Zone-1, Zone 02, at Zone- 03 ay madaling maabot ng tubig sa tuwing may kalamidad.	• Mabigyan ng "feeding program" dito sa aming Barangay ang mga batang edad 1 year to 7 year para mabigyan sila ng pagkain na tamang nutrisyon at para maiwasan ang mga batang underweight.
• Ang kakulangan ng sanitary toilet or comfort room. Sa Zone -01 kasi madaling masira ang mga CR. Dahilan sa madaling maabot ng tubig kaya madalas magkaroon ng sakit na pagtatae ang mga nakatira. Lalo na nag mga bata.	• Maraming mga menor na de edad ang halos magdamag na nakatambay sa lansangan abot hating gabi at sa labas pa sila nag iinom. Ito ang dapat mabigyan tuon n ating pamahalaan.
• May ilan ding tao na nasasangkot sa droga.	

Figure 3: Sample Problem Tree in Barangay Nutrition Action Plan


0-59 months old underweight/ stunted children
Inadequate food Intake
Food Insecurity
Poverty
Big Family
Financial Problem
Lack of Education
Encourage parents to have their own
Vegetable backyard garden
Proper Education on Family Planning
Seek/ask for help to have a livelihood
Program
Inadequate care for mother and
Children
Lack of Knowledge in child rearing
Incomplete Immunization
Lack of Vitamins during Pregnancy
sufficient intake of vitamins during
pregnancy
Have a complete immunization
Proper nutrition and balance diet
Poor Health status/ Presence of illness
insufficient health services
and health environment
Lack in supply of Medicines and Vitamins
Poor knowledge about importance of
immunization
Proper hygiene
Proper handling and preparing of food
Regular health check-up

Appendix L: PPAN Common Results Framework

(please see separate file)