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ECCD-F1KD Situation Analysis in Selected KOICA-UNICEF Municipalities in Northern Samar

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Abstract

This report examines the context, practices, and strategies in selected KOICA municipalities in Northern Samar. Using the Nurturing Care Framework, it analyzes how these LGUs implement and govern ECCD-F1KD initiatives. It also analyzes the factors and processes that influence the implementation and delivery of, and access to ECCD-F1KD services, and provides recommendations on strategies and related interventions for the ECCD-F1KD Program. To do these, this report conducts a situation analysis of nutrition and health outcomes and provides recommendations on three elements, namely, enabling environment, supply, and demand.

Keywords: Early childcare development, nutrition, health

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List of Acronyms and Abbreviations

AIP	Annual Investment Program
BHW	Barangay Health Worker
BNAP	Barangay Nutrition Action Plan
BNC	Barangay Nutrition Council
BNS	Barangay Nutrition Scholar
COA	Commission on Audit
CSO	Civil Society Organizations
DA	Department of Agriculture
DBM	Department of Budget and Management
DepEd	Department of Education
DILG	Department of Interior and Local Government
DOH	Department of Health
DPC	District Program Coordinators
DSWD	Department of Social Welfare and Development
ECCD-F1KD	Early Child Care and Development-First 1000 Days
EDF	Economic Development Fund
ELA	Executive Legislative Agenda
FDS	Family Development Session
FHSIS	Field Health Service Information System
GIDA	Geographically Isolated and Disadvantaged Areas
IEC	Information, Education, and Communication
IGP	Income Generating Projects
ILHZ	Interlocal Health Zones
IMAM	Integrated Management of Acute Malnutrition
IOS	Index of Occupational Services, Position Titles, and Salary Grades
IRA	Internal Revenue Allotment
KOICA	Korea International Cooperation Agency
LCE	Local Chief Executive
LCPC	Local Council for the Protection of Children
LDIP	Local Development Investment Program
LGU	Local Government Unit
MC	Memorandum Circular
MDC	Municipal Development Council
MELLPI	Monitoring and Evaluation of Local Level Plan Implementation
MHO	Municipal Health Officer
MNAO	Municipal Nutrition Action Officer
MNAP	Municipal Nutrition Action Plan
MSWDO	Municipal Social Welfare and Development Officer
NC	Nurturing Care
NDP	Nurse Deployment Program
NGO	Non-Government Organizations
NNC	National Nutrition Council
OPT	*Operation Timbang*

PD	Presidential Decree
PHO	Provincial Health Officer
PNAO	Provincial Nutrtion Action Officer
PNAP	Provincial Nutrition Action Plan
PPAN	Philippine Plan of Action for Nutrition
PPAs	Programs, Projects, Activities
RHU	Rural Health Unit
RUTF	Ready to Use Therapeutic Food
SAM	Severe Acute Malnutrition
SE	Social Enterprise
SHF	Special Health Fund
UHC	Universal Health Care
UNICEF	United Nations Children's Fund
WHO	World Health Organization
YDS	Youth Development Session

List of terms

Caregivers	Family members and people other than the parents who look after the children
First 1,000 Days	Starts from the mother's conception to the child's two years of age
Frontline workers	Barangay Nutrition Scholars and Barangay Health Workers
Health workers	Personnel working in rural health units such as midwives, doctors, nurses
Program managers	Nutrition Action Officers (e.g. MNAO, PNAO)

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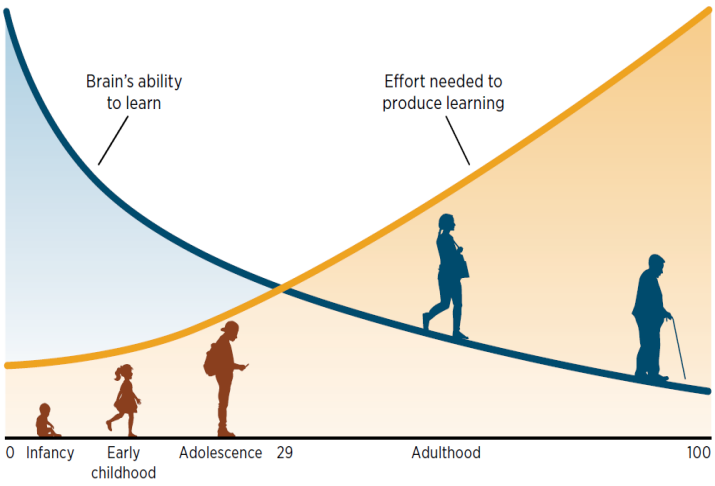
1. Introduction

1.1 The ECCD-F1KD and the Nurturing Care framework

In the Philippines, the Early Child Care and Development-First 1,000 Days (ECCD-F1KD) is an initiative of the National Nutrition Council (NNC). The Program aims to provide young children an integrated service of health, nutrition, social welfare, and education. To do this, the Program focuses from the time that the child is in the womb (270 days) up to the first two years of life (730 days). This very specific focus has its roots in scientific researches, which show the fastest synaptic growth and connections are established during this period (Thompson et al. 2001). As the 2019 World Development Report (figure 1) aptly shows, the brain's ability to learn is the highest in infancy since the architecture of the brain is being formed during this period (figure 1). This means that the appropriate investments in the health and nutrition of both mother and child are critical to maximize a person's learning and well-being.

Without these investments, a plethora of problems are likely to occur including low cognition and low productivity in later life. A considerable body of literature shows that initial conditions at birth are major determinants of outcomes in an adult's later life (Black et al. 2007; Maccini and Yang 2009; Thai and Falaris 2014) and are important in explaining social outcomes, such as crime, social engagement, trust, and voting (Francesconi and Heckman 2016). Hence, interventions at the early stage of life is likely to be more effective than those administered later in life (Belot and James 2011; Aizer and Currie 2014).

Figure 1: Age, learning ability, and effort to learn



Source: WDR 2019 team.

The emphasis on the early intervention through the ECCD-F1KD has a legal foundation and is consistent with national and international development goals. The Early Years Act of 2013 (RA 10410a) provides for the ECCD system, which refers "to the full range of health, nutrition, early education and social services development programs that provide for the basic holistic needs of young children from age zero to four years to promote their optimum growth

and development"[1]. Later, the ECCD-F1KD has been developed to reinforce ECCD programs. Based on the implementing guidelines of the ECCD-F1KD, by 2022, the following will be achieved:

a. reduction of the prevalence of nutritionally at-risk pregnant women by 5.4-percentage points (31.8 to 26.4),
b. reduction of the prevalence of stunting among children 0–23 months old by 6.4-percentage points (19.6 to 13.2),
c. reduction of the prevalence of wasting among children 0–23 months old to less than 5 percent (from 7.5%), and
d. age-appropriate developmental milestones of 95 percent of children 0–23 months.

The ECCD-F1KD Program seeks to address four health and nutrition concerns: 1) maternal, neonatal, infant, and child mortality, 2) undernutrition, 3) infectious diseases, and 4) the need for psychosocial stimulation and early education. These objectives are also articulated in the Chapter 10 of the *Philippine Development Plan 2017–2022*, which recognizes that human development is a means to equalizing opportunities. As such, these objectives are consistent with the Filipino's aspirations that are articulated under the pillar of *Pagbabago* in the *AmBisyon Natin* 2040.

The ECCD-F1KD Program is also consistent with the sustainable development goal (SDG) 2 that aims to end hunger and all forms of malnutrition and with the SDG 3 that aims to ensure good health and well-being. Targets under the SDG 3 include the reduction of the global maternal mortality ratio to less than 70/100,000 live births and ending preventable deaths of newborns and children under 5 years-old. The ECCD-F1KD Program is also a means to achieving the SDG 10 that aims to reduce inequalities through the promotion of equal opportunities. On November 29, 2018, the "*Kalusugan at Nutrisyon ng Mag-Nanay* Act" or the First 1,000 Days Law was passed. This law aims to strengthen the delivery of integrated strategy for maternal, neonatal, child health and nutrition in the first 1,000 days of life[2].

The NNC has crafted the *Philippine Plan of Action for Nutrition (PPAN) 2017-2022*, the country's framework plan on nutrition. It has an overarching goal of improving the nutrition status of the country to achieve not only the development goals and the objectives of national plans but the Filipino's aspirations as well. The PPAN's strategic thrusts is to focus the delivery of health, nutrition, and early education in the first 1,000 days of life. In addition, the complementation of nutrition-specific and nutrition-sensitive programs is crafted in recognition of the multifaceted issues in nutrition. Nutrition-specific programs are programs that are planned and designed to address immediate causes of malnutrition[3]. Nutrition-sensitive programs are programs that can be tweaked to produce nutritional outcomes, which can be done by targeting specific groups/areas as beneficiaries of nutrition-specific interventions[4]. To ensure efficiency, enabling programs should be put in place. Enabling programs include the mobilization of local government units (LGUs) for nutrition

[1] Implementing guidelines of early childhood care and development in the first 1,000 days
[2] Taken from https://www.doh.gov.ph/node/16268.
[3] These include 8 programs, namely, Infant and young child feeding, Integrated Management of Acute Malnutrition, National Dietary Supplementation Program, National Nutrition Promotion Program for Behavior Change, Micronutrient supplementation, Mandatory Food Fortification, Nutrition in emergencies, and Overweight and Obesity Management and Prevention Program.
[4] These include projects such as backyard gardening, caravans, farm-to-market roads, livelihood programs, FDS/learning sessions, and infrastructures to promote good hygiene and sanitation.

outcomes, development of policies for food and nutrition, and strengthening of support to the PPAN 2017–2022.

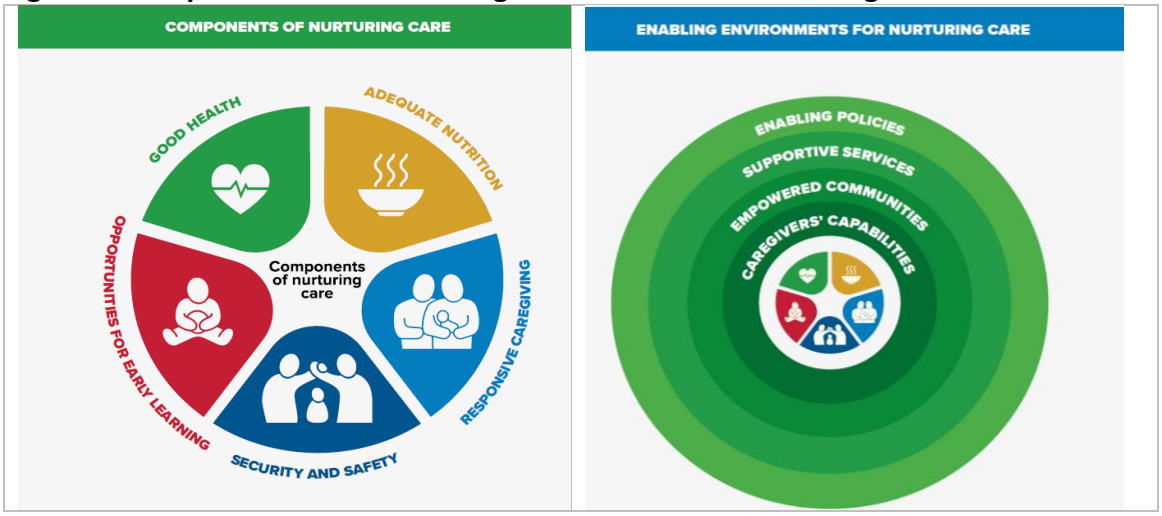
Essential to the operationalization of the PPAN 2017-2002 are the nutrition action plans at various governance levels, which are designed to capture the local contexts and are updated annually to reflect the evolving needs in the community. The plans crafted at the barangay level are inputs to the municipal nutrition action plans, the programs/projects/activities (PPAs) of which are included in the LGU's Annual Investment Program (AIP) and in the Executive Legislative Agenda (ELA) that covers the three-year term of the local chief executive (LCE). Action plans at the municipal level are inputs to the provincial nutrition action plans. Currently, the PPAN 2017–2022 has 36 focus areas[5].

In March 26, 2018, the Department of Interior and Local Government (DILG) Memorandum Circular (MC) 2018-42 was issued to DILG regional/provincial/city directors and to LGUs starting from the provincial government to the *Barangay* Captains. This MC outlines the roles of LGUs in the formulation, planning, implementation, monitoring, and evaluation of the action plans included in the Local Nutrition Action Plans and the PPAN.

Early on, however, the 1978 Presidential Decree (PD) 1569, has already provided for the strengthening of the barangay nutrition programs through the presence of one Barangay Nutrition Scholar (BNS) in every barangay. Today, BNSs are among the frontline workers that implement the LGUs' nutrition programs.

In recognition of the need for an optimal environment, one that supports children's physical, emotional, social, and cognitive development, the World Health Organization, United Nations Children's Fund, and the World Bank Group (2018) have developed the Nurturing Care Framework. This Framework is a roadmap of strategic actions aimed at a holistic child development. Nurturing Care (NC) recognizes the importance not only of health, nutrition, and safety, but of psychosocial and neurological stimulations as well (figure 2).

Figure 2: Components of and enabling environments for nurturing care



Source: World Health Organization, United Nations Children's Fund, and the World Bank Group (2018)

[5] These include Abra, Aurora, Agusan del Sur, Aklan, Albay, Antique, Biliran, Bohol, Bukidnon, Camarines Norte, Camarines Sur, Catanduanes, Capiz, Eastern Samar, Negros Occidental, Ifugao, Lanao del Norte, Lanao del Sur, Masbate, Maguindanao, Mountain Province, Negros Oriental, North Cotabato, Northern Samar, Occidental Mindoro, Palawan, Quirino, Romblon, Samar, Sarangani, Sibugay, South Cotabato, Sultan Kudarat, Sulu, Tawi-Tawi, Zamboanga, and Zamboanga del Norte.

In particular, the NC Framework provides strategic directions for supporting the holistic development of children from pregnancy up to age 3[6]. It aims to inspire multiple sectors—including health, nutrition, education, labor, finance, water and sanitation, and social and child protection—to work in new ways to address the needs of the youngest children. It also articulates the importance of responsive caregiving and early learning as integral components of good-quality care for young children. In addition, it illustrates how existing programs can be enhanced to be more comprehensive in addressing the needs of young children.

It has five components: good health, adequate nutrition, responsive caregiving, security and safety, and opportunities for early learning. Together, these components help in making children achieve their full potential and in preparing them to become well-rounded and productive individuals. These components require strategic and synergistic actions at the household, community, local, and national levels.

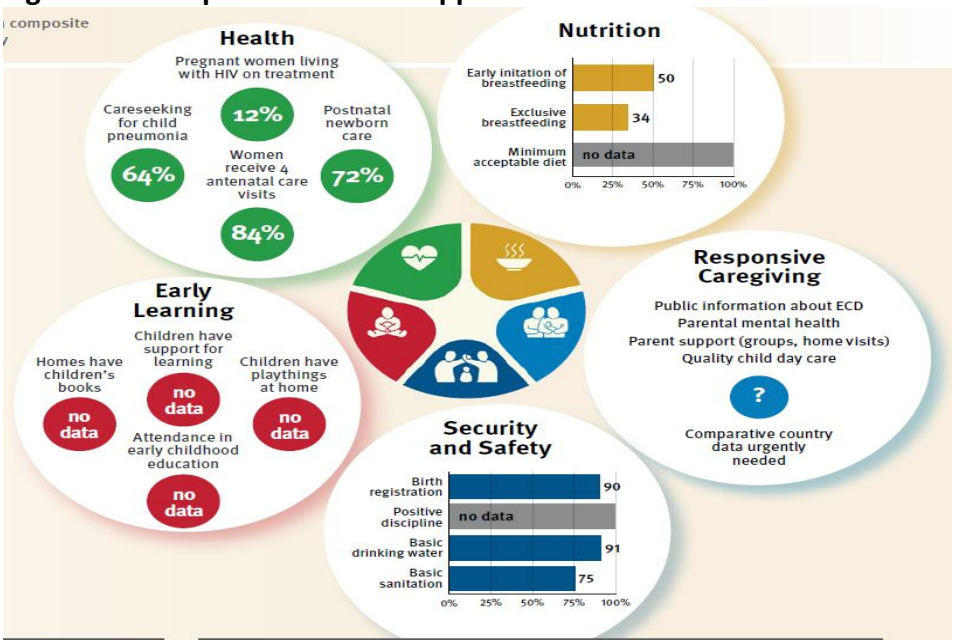
At the household level, parents and caregivers take a central role in providing for a safe and healthy environment to children although other stakeholders in the community are also involved since the NC Framework requires concerted actions that follow the spirit of a whole-of-governance approach. This means that the NC should have support from other sectors such as labor, education, water, social protection, and welfare, among others. The NC framework also requires the whole-of-society approach that involves the participation of the family, community, donors, non-government organization (NGOs), CSOs, and the private and public sectors. It also requires programs/policies/laws that will provide for services and interventions to meet the five NC components.

The ECCD profile in the Philippines indicates that the country has achieved progress in the ECCD's health component with 84% of women receiving four antenatal care visits (figure 3)**.** However, much remains to be done in receiving postnatal care, in careseeking for child pneumonia, in treating HIV-infected pregnant women, and in the ECCD's nutrition component. Considerable progress is observed in the ECCD's security and safety component with 9 out of 10 births registered and 9 out of 10 households have basic drinking water. Sanitation remains an issue, however. No data are available to shed light on how the country fares in terms of the early learning and responsive caregiving components. This brings to the fore the need for aggressive data collection in order to make the gaps in these components visible.

Despite efforts geared towards the implementation of nutrition and health action plans, much remains to be done in the Philippines. For example, stunting remains a big issue in the Philippines, with 37 in 100 children aged 12–23 months old (36.6%) are affected by stunting in 2018. Maternal mortality rate is at 114 per 100,000 births, a rate that is still high relative to the SDG's target of 70 per 100,000 births while babies with low birthweight is at 21% in 2015. Inequalities in access to immunization are also observed in the poor communities in Manila and Taguig (Integrative Competitive Intelligence Asia, n.d.a).

[6] The remainder of this paragraph has been lifted from World Health Organization, United Nations Children's Fund, World Bank Group (2018).

Figure 3: ECCD profile in the Philippines



Source*: https://nurturingcare.org/wpcontent/uploads/2018/10/Philippines.pdf*

1.2 Literature review

Due to several scientific evidence, the timing of interventions has been increasingly acknowledged as an important element when implementing social programs. An advocacy, one that is popular in the health sector, involves interventions from the time of conception. This follows from the well-established findings that the critical period for brain development takes place from the life in the womb to the first 4–8 years of life. In addition, inequality begins in the uterus since mothers from different socioeconomic and cultural backgrounds have varying capabilities to provide for the growing life in their womb. These varying capabilities have different implications for the mothers' access to medical care, health behavior during the prenatal period, and exposure to harmful environmental factors (Narayan et al. 2018). To date, the early childhood development program has attracted a lot of attention from donors such as the Inter-American Development Bank and the Word Bank[7].

There are several reasons why the call for early intervention has gained traction in the conduct of social programs. First, interventions at an early age are likely to be more productive than those administered later in life (Crawford, Machin, and Vignoles 2011). For example, malnutrition can result in low productivity and poor learning and health outcomes (Alderman et al. 2006). Indeed, The Lancet (2016) has shown that around 43% of children under 5 years old in the low- and middle-income countries are at risk to suboptimal development due to poverty and stunting. The case for early intervention is widely supported by evidence. A considerable body of literature shows that initial conditions at birth are major determinants of outcomes in an adult's later life (Black, Devereux, and Salvanes 2007; Maccini and Yang 2009; Thai and Falaris 2014) and are important in explaining social outcomes, such as crime, social engagement, trust, and voting (Francesconi and Heckman 2016).

[7] The Inter-American Development Bank has approved more than 150 projects for over US$1.7 billion since 2000 while the World Bank invested $3.3 billion in 273 projects from 2000 to 2013 (The Lancet 2016).

Second, it has a huge potential in achieving social cohesion. Social cohesion has three interrelated elements, namely, social mobility[8], social inclusion[9], and social capital[10]. Early interventions help in correcting inequalities stemming from circumstances at birth and social origins. These break the dependence of future outcomes on family background, create better labor market opportunities in the future, and ensure equality of opportunity[11] to all walks of life. Social mobility can make growth more inclusive. In fact, societies that are highly mobile have low income inequality as well (Krueger 2012). Early interventions can also improve human capital, which has a positive correlation with trust. Trust, in turn, is correlated with economic growth (Whiteley 2000; La Porta et al. 1997; Knack and Keefer 1997).

In the Philippines, several studies have been done to analyze factors that affect nutrition and health outcomes and common and recurring factors include constraints in household's economic opportunities, limited budget and human resources of health workers and service providers, and issues on external environments. For example, the Integrative Competitive Intelligence Asia (n.d.b) analyzes factors that contribute to the undernutrition of maternal, infant and young children in five UNICEF partner municipalities and finds that parents and caregivers are faced by constraints in economic opportunities, which hamper their access to health and nutrition services. This is a result echoed by the De la Salle University-Social Development Research (n.d.) that finds the lack of income as a limiting factor to the adoption of good maternal and neonatal health practices and by Gordoncillo et al. (2018) who find that the lack of resources is a barrier to optimal feeding among infants 0–5-month-old.

Perceptions, beliefs, and attitudes are important factors in adopting good practices as well. Gordoncillo et al. (2018), for example, find that traditional beliefs and the lack of time, resistance to change, and deference to relatives' opinions can be barriers to optimal feeding. Similarly, Integrative Competitive Intelligence Asia (n.d.a) identifies the mothers' religious beliefs and fear of adverse effects as factors of nonimmunization of children in Taguig and Manila. In addition, De la Salle University-Social Development Research (n.d.) finds that mothers are aware of the recommended maternal and neonatal health practices although they lack knowledge on the reasons for these practices.

Supply-side constraints are also identified. The Integrative Competitive Intelligence Asia (n.d.b) finds that the LGUs' ability to respond to health challenges is beset by budget constraints and inadequate human resources. Despite these challenges, Herrin et al. (2018) find that there is interest in the implementation of ECCD-F1KD Program and that coordinated efforts of the LGUs can help address the issues on governance and health systems, and gaps in existing health and nutrition programs. External conditions, such as impassable roads, unpredictable weather conditions, and safety and security issues, have adverse effects on the timing and quality of delivery of health services as well (Integrative Competitive Intelligence Asia n.d.b).

[8] e.g., equality of opportunity. Connotes the movements of entities from lower socioeconomic status/social origins to higher socioeconomic outcomes/social destinations (Galiani 2010; Crawford, Machin, and Vignoles 2011; Torche 2015)

[9] e.g., equality in participation on economic, social, and political arena

[10] e.g., trust of people in institutions

[11] This is the idea that success should depend on hard work and circumstances at birth should not be a factor in becoming successful (Mitnik and Grusky 2015).

2. Objectives of the Study

The UNICEF is supporting the government of the Philippines in improving outcomes for children focusing on the first 1,000 days. With funding from the Korea International Cooperation Agency (KOICA), the UNICEF has committed to provide technical support on ECCD-F1KD Program to the provinces of Samar, Northern Samar, and Zamboanga del Norte. Hence, the UNICEF has initiated an assessment of the current situation in these provinces, one that focuses on policy and governance *(enabling environment*), programs and services *(supply),* and nurturing care practices among parents and caregivers of young children *(demand).*

This paper aims to provide a situation analysis in the two municipalities in Northern Samar, namely, Lope De Vega and Catarman. In particular, based on the Nurturing Care Framework, it will

- examine the context, practices and strategies of the selected provinces on how these LGUs implement ECCD-F1KD initiatives;
- analyze the factors and processes that influence the implementation and delivery of ECCD-F1KD services;
- analyze the factors and processes that influence the access to ECCD-F1KD services; and
- provide recommendations on strategies for the ECCD-F1KD Program at the local level.

3. Methodology

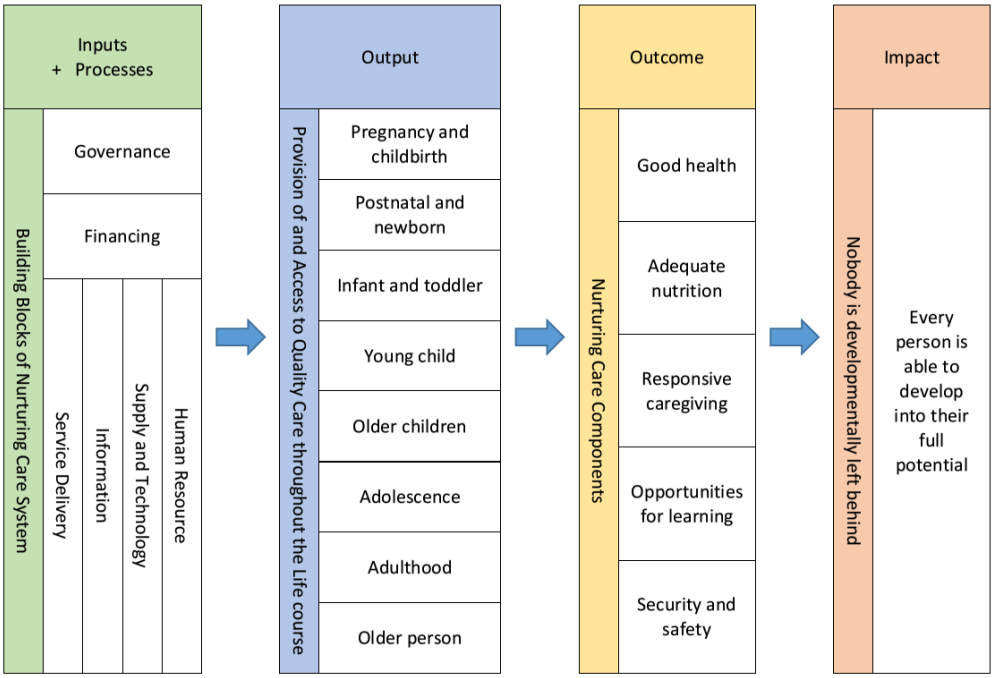
3.1 Conceptual framework

The situational analysis is guided by a results framework that the study team developed based on the frameworks elaborated in World Health Organization [WHO] (2007), and in WHO, UNICEF, and World Bank (2018). The proposed framework integrates the building blocks of health systems as inputs and process that are necessary in the provision and accessibility of the continuum of quality care throughout the life course. This then results in the components of nurturing care, which contributes to the long-term goal of attaining full potential for all (see the schematic diagram of the framework below, figure 4).

The continuum of care highlights the need for age-appropriate interventions to allow each child to remain developmentally on track. For the ECCD-F1KD, the focus is on services relevant to the first 1,000 days of life, from the prenatal to immediate postpartum to postpartum period and from infancy up to age two of children.

The provision of the continuum of care necessitates the mobilization of resources. This requires ensuring that a cadre of human resources are available to provide the services. The human resources, in turn, need to be supported by other resources, such as health and education supplies and technology, information systems, and finances, which are all governed by strategic policy frameworks to ensure that services are delivered efficiently and effectively. The provision of these nurturing care environments is expected to contribute to good health and adequate nutrition among children and child caregivers, opportunities for early learning among infants and toddlers, responsive caregiving among child caregivers, and security and safety among families.

Figure 4: Continuum of Nurturing Care Results Framework



Source: Based on WHO, UNICEF and WB (2018), and WHO (2007)

3.2 Evaluation methodology: Situation analysis

The situation analysis looked into three overarching themes: policy and governance, programs and service delivery, and nurturing care practices. To do this, the research employed a mixed methods approach, which combined the analysis of documents collected from the LGUs and the examination of primary and secondary data.

- Documents collected from LGUs include the Statement of Comparison of Budget and Actual Amounts, AIP, Provincial Nutrition Action Plan, and Municipal Nutrition Action Plan. At the national level, the PPAN was examined to understand the nutrition programs implemented on the ground while a number of executive issuances were investigated to understand the enabling mechanisms of nutrition programs.

  The team intended to collect documents from all 24 municipalities in Northern Samar. However, 5 are island municipalities, which require travel by boat, and 4 are along the Pacific Coast, which can be accessed through motorcycle or motorboat from the municipality of Laoang. To minimize concerns on the safety and security of ground facilitators, the team decided to collect documents from the KOICA-UNICEF municipalities (Bobon, Gamay, Lapinig, Mapanas, Mondragon, San Jose, Catarman, and Lope De Vega).

- Primary data were collected through key informant interview (KII) and focus group discussion (FGD) with several stakeholders. The KII and FGD guide questions were developed by the PIDS team who worked closely with the UNICEF personnel to ensure that the objectives of the situation analysis are met. Catarman (a 1st class municipality with low stunting prevalence) and Lope De Vega (a 4th class municipality with high stunting prevalence) were the project areas that the team had conducted KIIs and FGDs in.

The situation analysis was done in Northern Samar, Western Samar, and Zamboanga Del Norte. Catarman and Lope De Vega were selected in Northern Samar to cover municipalities with income and stunting attributes that are different from those covered by the other project sites in Western Samar and Zamboanga Del Norte. This helped to ensure that a richer information was collected by the project as a whole.

A total of 59 people participated in the KII/FGD in Lope De Vega and Catarman: 2 personnel at the provincial level, 13 personnel at the municipal level, 15 Barangay Health Workers (BHW)/Barangay Nutrition Scholars (BNS), 4 midwives, 20 parents/caregivers, and 5 representatives of CSOs (see Table 1 for details.) Parents/caregivers were selected such that there was a good mix of people from different barangays and of people from different income class (e.g., 4Ps and non-4Ps beneficiaries).

Table 1: Participants in the KII/FGD in Lope De Vega and Catarman

	Catarman	Lope de Vega
Provincial Health Officer (PHO)	1	
Provincial Nutrition Action Officer (PNAO)	1	
Mayor	-	1
Municipal Administrator	1	-
Municipal Health Officer (MHO)	1	1
Municipal Social Worker and Development Officer (MSWDO)	1	1
ECCD Coordinator	-	1
Municipal Nutrition Action Officer (MNAO)	1	1
Municipal Budget Officer (MBO)	1	1
Municipal Planning and Development Coordinator (MPDC)	1	1
Barangay Health Workers (BHWs)	5	3
Barangay Nutrition Scholars (BNS)	4	3
Midwives	2	2
Civil Society Organizations (CSOs)	-	5
Parents	7	13
TOTAL	***26***	***33***

- Secondary data collected are data from the Bureau of Local Government Finance's Statement of Receipts and Expenditures, Field Health Service Information System (FHSIS), OPT (Operation *Timbang*) results, Commission on Audit (COA) reports, and poverty and occupation data collected and published by the Philippine Statistics Authority.

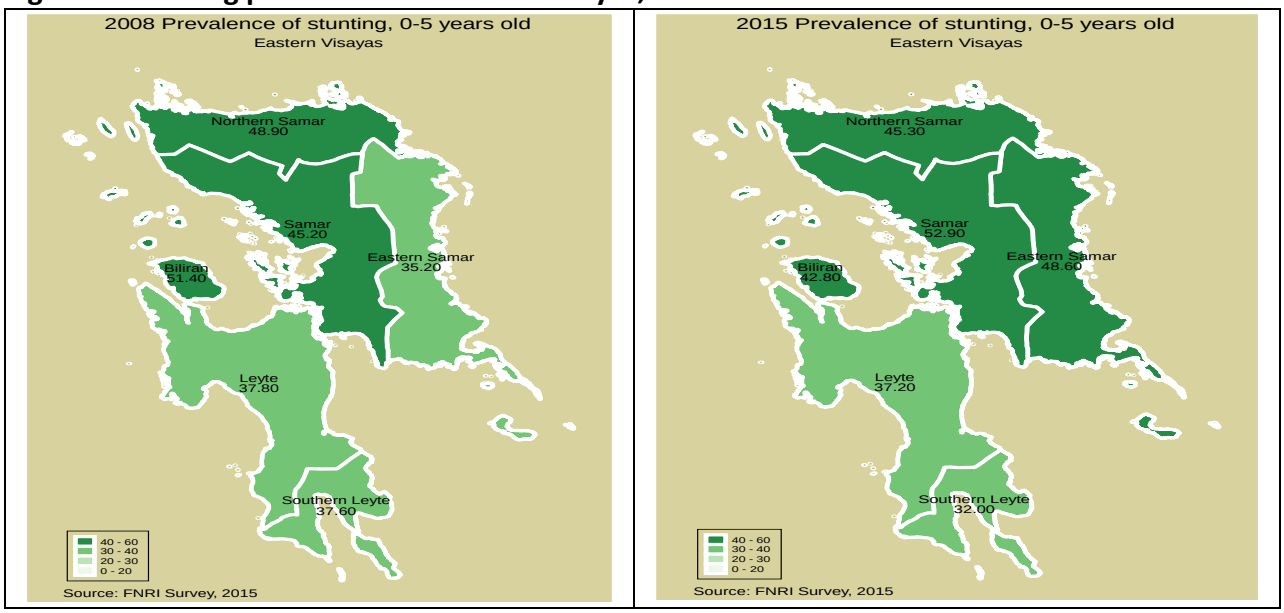
There were 20 parents/caregivers who participated in the FGD in Lope De Vega and Catarman whose age ranged from 20–40 years (average age is 31). The number of children of these respondents ranged from 1–9 (average number of children is 3). Around 75 percent were elementary graduates, 20 percent had high school units, and the rest were college graduates. Around 30 percent were 4Ps beneficiaries, 55 percent owned a mobile phone, and 40% had a social media account.

There were 12 frontline workers who participated in the FGD in Lope De Vega and Catarman and their age ranged from 39–61 years old. Around 37 percent had college units and 16 percent were college graduates. Around 89 percent owned a mobile phone, and 47 percent had a social media account.

4. Health and Nutrition Profiles in the Study Sites

The province of Northern Samar, together with Samar, Eastern Samar, Biliran, Leyte, and Southern Leyte, is in the Eastern Visayas region (region VIII). In 2008, the Eastern Visayas region has a stunting prevalence[12] (0–5 years old) of 41.1 percent (figure 5). This is 8.9-percentage points higher than the stunting prevalence at the national level. Based on the World Health Organization (WHO) cut-off values for public health significance[13], the stunting prevalence in Northern Samar is very high. It has one of the highest stunting prevalence among the provinces in region VIII (48.9% or 7.8-percentage points higher than the stunting prevalence at the national level).

Figure 5: Stunting prevalence in Eastern Visayas, 2008 and 2015



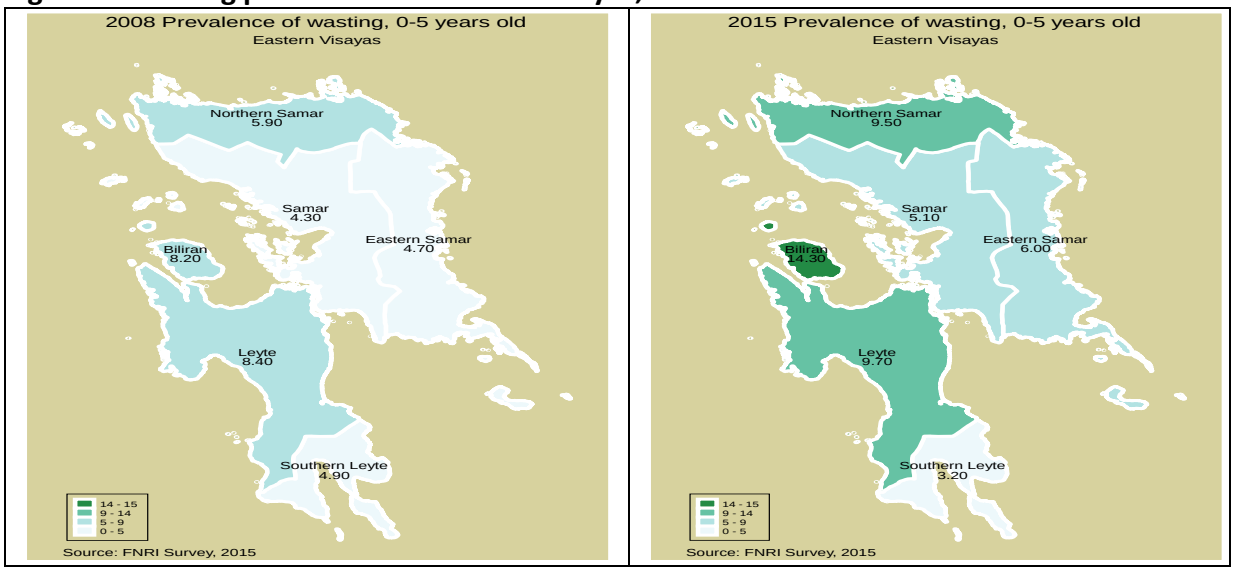
In 2015, the stunting prevalence in Eastern Visayas has not improved from its 2008 value (41.7% or around 8.3-percentage points higher than the stunting prevalence at the national level). Meanwhile, the stunting prevalence in Northern Samar has improved by 3.6-percentage points although this is still very high based on the WHO cutoff values. Northern Samar remains as one of the provinces with the highest stunting prevalence in the region.

Looking into the wasting prevalence[14] in 2008, that of Eastern Visayas is 6.7 percent or 0.7 percentage points higher than the national level (figure 6). The wasting prevalence at the regional level is poor based on the WHO cut-off values[15]. The 2018 wasting prevalence in Northern Samar, although lower than the national and regional prevalence, is still poor at 5.9 percent.

[12] Height for age indicator (*pagkabansot*)
[13] <20%, low prevalence; 20-29% medium prevalence, 20-29% high prevalence; 30-39% high prevalence and greater than 40% very high prevalence (WHO 2010)
[14] Weight for height indicator (*pagkapayat*)
[15] <5%, acceptable; 5-9%, poor; 10-14% serious; greater than 15%, critical (WHO 2010)

In 2015, the wasting prevalence has worsened at the national (7.1%) and regional (8.5%) levels. The same trend is observed in Northern Samar with a wasting prevalence of 9.5 percent or 3.6-percentage points higher than its 2008 value.

Figure 6: Wasting prevalence in Eastern Visayas, 2008 and 2015

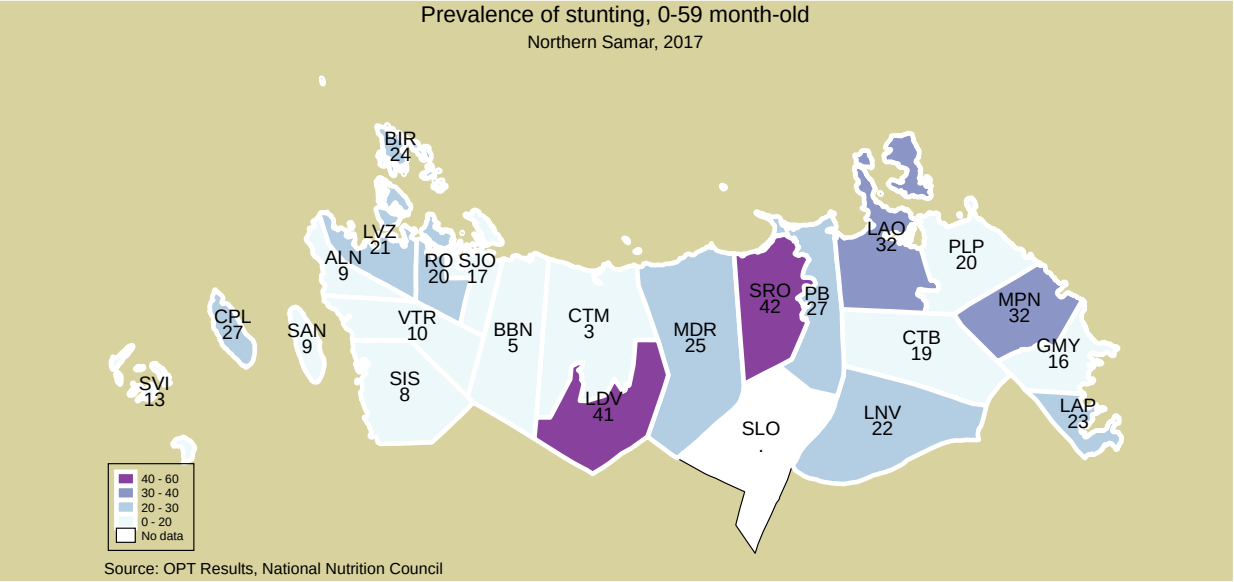


Lope De Vega is a 4th class municipality and it has 22 barangays, 16 of which are GIDA (Geographically Isolated and Disadvantaged Areas). The 2018 FHSIS data indicate that the municipality has 6 barangay health stations and 13 health centers. It has 1 doctor, 1 dentist, 12 nurses (11 of which are from the Nurse Deployment Program (NDP)), 10 midwives, 1 medical technologist, and 2 sanitation inspectors. Out of the 3,040 households, 15 percent, 12 percent and 0 percent have level I, level II, and level III access to water supply[16], respectively, while around 65% have sanitary toilet facilities. Out of the 162 pregnancies, 57 percent are delivered at home and the weight upon birth of around 41 percent of the babies has not been recorded. Based on the 2017 OPT of those aged 0–59 years, Lope De Vega has a stunting prevalence of 41 percent (see figure 7).

Catarman is a 1st class municipality and it has 55 barangays, 11 of which are GIDA. The 2018 FHSIS data indicate that the municipality has 21 barangay health stations and 21 health centers. It has 1 doctor, 1 dentist, 5 nurses, 16 midwives, 1 medical technologist, and 2 sanitation inspectors. Out of the 27,344 households, 30 percent, 12 percent and 26 percent have level I, level II, and level III access to water supply, respectively while around 65 percent have sanitary toilet facilities. Out of the 3722 pregnancies, 27 percent are delivered at home and a very small percentage of live births have not been weighed upon delivery. Based on the 2017 OPT of those aged 0–59 years, Catarman has a stunting prevalence of 3 percent (see figure 7) although this is an administrative data that may not necessarily reflect the actual prevalence of stunting.

[16] Level I: A protected well or a developed spring with an outlet but without a distribution system, generally adaptable for rural areas where the houses are thinly scattered.
(*http://nap.psa.gov.ph/glossary/terms/indicatorDetails.asp?strIndi=39331482*)
Level II: A water supply facility composed of a source, a reservoir, a piped distribution network with adequate treatment facility, and communal faucets. *(https://psa.gov.ph/content/level-ii-water-supply-facilityservice-communal-faucet-system-or-standposts*)
Level III: A water supply facility with a source, a reservoir, a piped distribution network with adequate treatment facility and household taps (*http://nap.psa.gov.ph/glossary/terms/indicatorDetails.asp?strIndi=39331484*)

Figure 7: Stunting prevalence in Northern Samar, 2017



Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

5. Results

5.1 Policy, leadership, and governance

5.1.1 Major players

The BNS and BHW are frontline nutrition workers who serve at the Mayor's discretion. BNSs monitor children aged 0–59 years and report directly to the municipal nutrition action officer (MNAO). Their main responsibilities include the conduct of home visits to encourage pregnant women to visit health centers, monitor new born babies, and collect height and weight data. They submit a monthly accomplishment report to the MNAO, which is the basis of receiving honorarium.

On the other hand, BHWs monitor children aged 0–71 months and directly report to the midwife. Aside from data collection, BHWs participate in the survey of damages in the community after natural disasters. This helps the LCEs and the Department of Social Welfare and Development (DSWD) to assess the damage and craft post-disaster plans. They submit a monthly accomplishment report to the midwife, which is the basis of receiving honorarium. BNSs and BHWs conduct household profile by *purok*[17] and submit reports of household profiles to DILG and to health centers. They have nonplantilla positions and are hired or fired at the discretion of barangay captains.

In Lope De Vega, where schistosomiasis has become prevalent, frontline workers also advise suspected patients to submit themselves to medical check-up and laboratory tests. In Catarman, BNS and BHWs monitor the ongoing construction of houses and provide a quarterly report to the health and sanitation office if comfort rooms are constructed as well.

[17] A political subdivision of barangay while barangay is the smallest political unit.

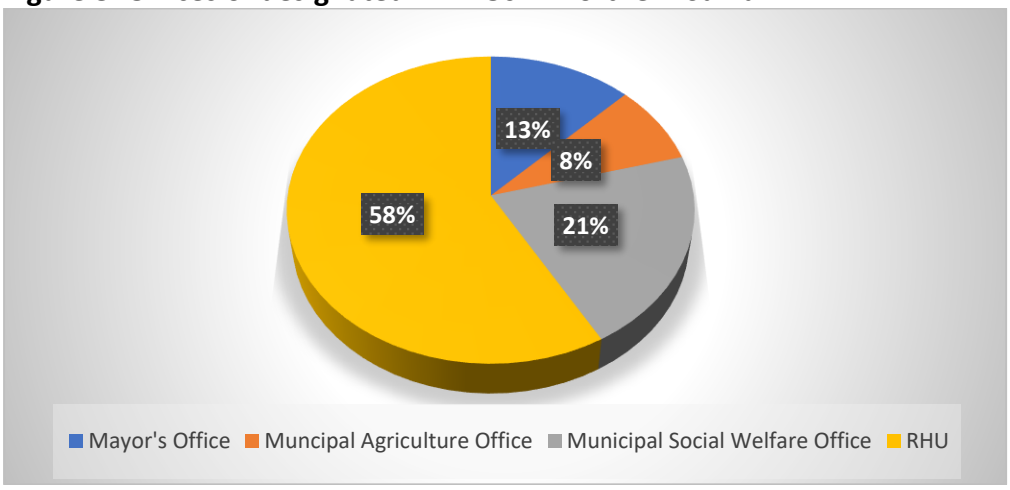
Frontline workers need to show resourcefulness and patience when dealing with mothers and caregivers. BHWs have shared that mothers/caregivers are sometimes not available despite their agreement to the schedule of home visits while others have shared that they adjust their home visit to accommodate the caregivers' favorite TV shows. A BHW has shared that she even joined in the washing of laundry just to be able to talk with caregivers.

Caregivers also have beliefs that get in the way of vaccination/immunization and attitudes that get in the way of proper sanitation and good health. For example, a BHW has shared that some fathers are against vaccination due to the fever associated with it while another has shared that a father has sharpened a bolo to scare the health worker who will administer the vaccination.

The municipal nutrition action officer (MNAO), a designated nutrition officer, is the manager of nutrition programs at the municipal level. The MNAO monitors BNSs, consolidates OPT results, and crafts the Municipal Nutrition Action Plan (MNAP) based on the data collected by frontline workers. The MNAO is under the direct supervision of the mayor and is a designated officer. As such, being an MNAO is an added responsibility on top of their existing functions.

In Northern Samar, although a large proportion of designated MNAOs are working in the Rural Health Units (RHUs), around 21 percent are working in nonhealth related sector (see figure 8). While each municipality has a designated MNAO, based on the Provincial Nutrition Action Plan 2019-2023, only nine are actively participating in implementing nutrition programs. Around half of the MNAOs in Northern Samar are new to the position and need training in nutrition management. Mondragon has one of the recently installed MNAO.

Figure 8: Offices of designated MNAOs in Northern Samar



In the KOICA municipalities, MNAOs' plantilla positions are varied (see Table 2). Around 50 percent are health-related workers and the rest are either Municipal Social Worker and Development Officer (MSWDO), Administrative Officer in the LGU, or in the Municipal Agriculture Office. The number of years working as an MNAO also vary from as high as 29 years to as low as three months. The MNAOs in Bobon and Catarman have the greatest number of years as an MNAO while those in Lope De Vega and Mondragon have the least.

Table 2: MNAO's plantilla position in Northern Samar

Municipality	Plantilla Position	Year designated as MNAO
Bobon	MSWDO	1992
Catarman	Agriculture Supervising Specialist	1990
Gamay	Public Health Nurse	2006
Lapinig	Nurse II of RHU	2013
Lope De Vega	Midwife	2017
Mapanas	Admin Officer I (Supply Officer I of RHU)	2013
Mondragon	Public Health Nurse	2019
San Jose	MSWDO	2013

The provincial nutrition action officer (PNAO), also a designated nutrition officer, is the manager of nutrition programs and is currently the sole nutrition worker at the provincial level. Similar to MNAOs, the PNAO is a designated officer whose plantilla position is nutritionist/dietician. The PNAO consolidates reports coming from the municipalities, and distributes information, education, and communication (IEC) materials, downloads directives and memos, and shares invitations/communications on workshops/conferences to municipal program managers. The PNAO is also responsible for providing technical assistance to frontline workers. However, due to the lack of manpower to operationalize nutrition programs, the PNAO herself acknowledges that she could not accommodate the requests of municipalities and barangays for technical assistance. Ideally, the PNAO should have District Program Coordinators (DPCs) but these positions were dissolved by the previous governor. Currently, the PNAO is the only personnel working on nutrition at the provincial level.

Program managers are not health workers, so they are not covered by the Magna Carta of Health Workers. MNAOs have shared that they are health workers and are entitled to get the hazard pay and subsistence allowance enjoyed by personnel in the health office. However, half of the program managers have plantilla positions that are not related to health (e.g., agriculture supervising specialist). Hence, this sentiment does not get much support even from the LCEs.

Program managers have duties other than their work as nutrition action officers and they could not focus all their efforts on nutrition projects and programs. On top of her function as dietician/nutritionist, the PNAO has to attend conferences and meetings so she rarely accommodates requests of municipalities for technical assistance, an assistance that a number of barangays need in order to craft a Barangay Nutrition Action Plan (BNAP). This is confirmed by the MNAOs and frontline workers who have shared that they see the PNAO only on certain occasions. In addition, an MNAO has shared that in a typical workweek, she spends four days as a midwife and only a day as an MNAO.

Program managers think that they should not be designated officers. Rather, they should have a plantilla position. Understandably, the sentiment arises from the demands of performing two jobs if not from the meager honorarium they get from performing other tasks. A number of MNAOs receive PHP 2,000/month as honorarium. This issue has already been brought to the attention of the LCEs, who are receptive to the idea of requesting a plantilla position for nutrition officers if not for the LGUs' budget constraints. However, the LGU in Lope De Vega appears to be headed in this direction since the LCE is planning to create a plantilla position for the MNAO before her term ends.

Being an MNAO appears to be a fulfilling job despite issues on workload and monetary compensation. An MNAO has shared that she likes the work because the tasks are nonroutine

and challenging. Given a choice, she will choose to be an MNAO rather than a midwife. Another MNAO has shared that the LCE's trust in her has given her the motivation to perform well. In turn, she gets to travel and talk with different people, rewards that she does not get from her other job.

A number of key personnel are about to retire and ensuring the continuity of nutrition programs is of paramount importance. The PNAO and Catarman MNAO are about to retire and this means a succession plan should be in place to ensure minimal disruptions on the implementation of nutrition PPAs. However, succession plans (e.g., training of potential MNAO or PNAO) can be challenging to implement since early on, potential candidates have to be involved in the planning and implementation of nutrition programs. Currently, there are no nutrition personnel (other than the designated officers) who can be tapped as potential candidates nor a nutrition office where potential candidates can be selected from. Enticing somebody to take on an additional job can present challenges.

The Municipal Health Officer (MHO) provides inputs to the MNAO's nutrition programs. The MHO is under the direct supervision of the mayor. Being a doctor, the MHO's input on the MNAP is on the prenatal and postnatal care of mothers and infant. MHOs advise pregnant and trying-to-be-pregnant mothers and conduct prenatal and postnatal checkups. They also refer mothers to the General Hospital for tests that are not offered in the municipality.

LCEs are key to the successful implementation of health and nutrition programs. Program managers and health officers are directly under the mayor's supervision. Therefore, all activities envisioned by these personnel should be understood and supported by the mayors. The mayors' recognition of the MNAOs' work also matters since this motivates program managers to perform well. Barangay captains are also important players since activities such as learning sessions, are funded at the barangay level.

5.1.2 Priority setting

The mayors of Lope De Vega and Catarman are supportive of the health and nutrition programs of program managers. MNAOs and MHOs have shared that it is easy to discuss issues with the LCEs and to get support for their programs. In Catarman, the wife of the mayor used to be a nutritionist and this played a big role in the mayor's strong support for the fight against malnutrition. In Lope De Vega, data collected through the household profiling played a big role in the mayor's overwhelming support. Lope De Vega's LCE, although serving her last term, has a vision to create a plantilla position for MNAO to ensure the continuity of nutrition programs.

While the mayors are supportive of health and nutrition programs, they prioritize infrastructure projects. In Catarman, the current mayor has continued the former mayor's infrastructure projects such as the construction of farm-to-market roads. The Municipal Administrator has shared that the mayor actively seeks funds to finance not only the construction of roads and buildings but the maintenance of these as well. In Lope De Vega, the mayor's priorities include infrastructure, health, agriculture, and education projects. Out of the 20 percent allotted to the Economic Development Fund (EDF), 5 percent is used in health and nutrition programs. In both Catarman and Lope De Vega, the mayors' prioritization of programs and projects is a response to the identified problems that need immediate interventions.

Priorities are based on the needs of the constituents, which are determined through the use of data such as those collected in household profiling. Various departments, like the Department of Agriculture (DA) and Department of Health (DOH), also identify sector-specific programs, which will then be proposed to the Municipal Development Council (MDC). The MDC deliberates on the proposed projects and those that are approved are included in the Annual Investment Plan (AIP). The Municipal Planning Team has shared that those included in the AIP will be funded.

Nutrition is not a priority of some barangay captains. Due to this, MNAOs need to be persistent and creative in order to get barangay captains on board the MNAOs' nutrition programs. In Lope De Vega, for example, there are barangays without BNS and BHWs, the barangay captains of which are indifferent towards the absence of health centers in their area. Clearly, convincing these LCEs to shell out money for nutrition programs needs art and psychology.

This is not a problem in Catarman where the MNAO has learned the art of talking to LCEs, a knack that she has acquired in her 29 years of service as an MNAO. She gets the barangay captains to listen to her when she intervenes on behalf of BNSs that are about to be fired and she gets them to support the LGUs income-generating project such as the nutripack, a nutrient-enhanced snack, produced in the facility that she manages. To get her programs funded, she talks with barangay captains and points out that there will be nobody in the future who can lead their constituents if they do not give money for health and nutrition programs now.

Program managers and health officers have shared that the problem in health and nutrition can be attributed to devolution. Prior to the devolution of the health sector in 1991, the DOH has the command responsibility up to the barangay health workers so mandates coming from the national level will be implemented up to the barangay level. In the current system, the DOH provides the vaccines to LGUs. In turn LGUs delivers these to their constituents through the health centers and RHUs.

In terms of financing, funds downloaded to the LGUs go to the general fund, the use of which depends on LCEs' discretion. Hence, if health and nutrition are not priorities, then the implementation of programs is challenging. This is the case in Northern Samar where the previous governor had abolished the Provincial Nutrition Office and transferred the PNAO to the Provincial Health Office. This has resulted in the PNAO being the sole personnel attending to nutrition-related programs at the provincial level and in the lack of technical assistance to barangays and municipalities.

5.1.3 Planning and implementation

The Barangay Nutrition Action Plan (BNAP), Municipal Nutrition Action Plan (MNAP), and the Provincial Nutrition Action Plan (PNAP) are nutrition action plans crafted at different governance levels. To craft the BNAP, nutrition programs are identified through family/household profiling in January of every year. Results from the profile informs the Barangay Nutrition Council (BNC) of the nutrition status in the barangay. The BNC is composed of the barangay captain, day-care teachers, representative from the MHO, nurse, and agricultural technologist. In turn, the BNC crafts the BNAP, a plan that identifies the priority nutrition programs in the barangay, the funding sources, and the concerned government agencies. Programs included in the BNAP are mother's classes, backyard/school gardening, and feeding programs. Funds for mother's classes and feeding programs typically comes from

the barangay captain while inputs to gardening comes from the DA. In addition, BNAP is presented at the Barangay Development Council, composed of *Sangguniang Barangay* members and representatives of the congressman and NGOs. In the absence of the BNAP, MNAOs use observations from their fieldwork to identify potential programs to be included in the MNAP.

The MNAO consolidates the BNAPs to craft the MNAP, which is then used by the PNAO to craft the PNAP. MNAOs present the MNAP to the MDC, composed of the mayor, barangay captains, the congressman, and NGO representatives. The MDC reviews and prioritizes from the proposed development projects that will become part of the LGU's Annual Investment Program (AIP, 1-year plan) and Local Development Investment Program (LDIP, 3-year plan). AIP and LDIP are inputs to the Executive Legislative Agenda, a planning document that covers three years, the period that coincides with the terms of the LCEs.

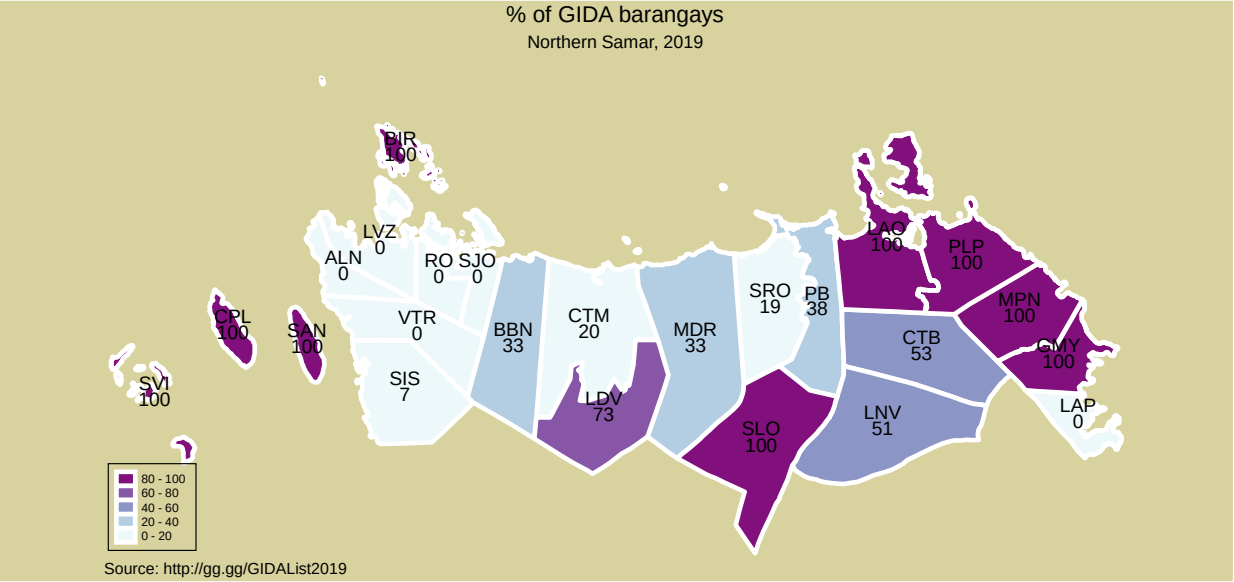
The AIP contains the projects/programs that will be funded by the LGU budget and is an important plan that determines the continuity of LGU's programs. To craft the AIP, budget hearings are set to decide on which programs are going to be included as priority programs. Proponents defend the project/program proposals and once approved these proposals are included in the AIP. Hence, the lobbying powers of proponents play an important role in getting their PPAs approved. Due to the cash-based budgeting, projects included in the AIP are those that can be implemented within the year. Multi-year programs/projects are programmed by phase and this typically happens in infrastructure projects.

The delivery of health and nutrition services are hampered by bottlenecks in the logistics system and in the management of supplies at the LGU level. Supplies coming from the national government are delivered to the Provincial Health Office. The provincial health officer (PHO)/PNAOs then inform all MHOs/MNAOs that supplies are available for pick-up. This simple process of supply management reveals issues that need to be addressed.

First, communication protocols between program managers are mostly verbal notifications and the lack of formal communication can result in inadequate actions among personnel. Second, distribution of supplies is affected by a weak logistics system. Supplies typically come in big boxes, which presents challenges especially to municipalities with GIDA areas. In Northern Samar, 9 out of 24 municipalities have barangays that are all GIDA (Biri, Capul, San Antonio, San Vicente, Silvino Lobos, Laoang, Palapag, Mapanas, and Gamay). There are also municipalities that have many GIDA barangays. From figure 9, of the 57 barangays in Lope De Vega, Catubig, and Las Navas, 73 percent, 53 percent and 51 percent are GIDA, respectively. Most often than not, these far-flung municipalities will pick up a few boxes (ones that they can carry by hand) and leave the bulk of the supplies in the Provincial Health Office. This results in medicines/supplies not getting to the intended beneficiaries as these pile up and eventually reach expiration date in the Provincial Health Office.

Collaboration with different agencies has greatly helped program managers to implement nutrition projects and programs. In Norther Samar, several events, such as nutrition month, farmer's week, and fisherfolk week, cooking demonstrations, *Buntis* party, are jointly held by the PHO and the personnel of RHU, NDP, and DOH. Program managers understand that the elimination of malnutrition is difficult to achieve on their own and collaboration is the key to sustainable nutrition projects/programs.

Figure 9: GIDA barangays Northern Samar's municipalities, %



Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

The Pantawid Pamilyang Pilipino Program (4Ps) has been a big help to the achievement of good health and nutrition outcomes. Since beneficiaries are required to go to health centers for the children's vaccination and checkup and to attend the Family Development Sessions (FDS), poor families have the incentives to participate in nutrition-specific programs offered by the LGU, RHU, and DSWD. The DSWD's Sustainable Livelihood Program also help in achieving good health and nutrition through its nutrition-sensitive programs (Employment Facilitation and Microenterprise).

Listahanan or the National Household Targeting System for Poverty Reduction, is regularly conducted to identify poor households although there are exclusion errors (poor but is not a beneficiary) and inclusion errors (nonpoor but a beneficiary) in the targeting of beneficiaries. While DSWD has processes to handle inclusion and exclusion errors once information on these errors are reported and verified (Albert and Dacuycuy 2017), exclusion may occur due to inadequate information (e.g., potential beneficiaries are not aware when the *Listahanan* enumerators are going to visit) and non-compliance with DSWD's required documents (e.g., absence of birth certificates).

5.1.4 Financing and resource mobilization

The Internal Revenue Allotment (IRA) is the main source of LGUs funds although richer LGUs have income generating projects (IGPs) and economic enterprises as well. In 2009, 75 percent and 83 percent of the total income in Catarman and Allen, respectively, come from the IRA (see figure 10). This means that these municipalities have local sources such as IGPs. For example, in Catarman, the MNAO manages a facility that produced nutrient-enhanced snacks, which are sold to CSOs and to LCEs. This facility has helped in targeting the LGU's nutrition status and revenue generation. In addition, Catarman has economic enterprises, such as the transportation terminal and the public market. While Lope De Vega has a public market, the *Sangguniang Barangay* has yet to declare this public market as an economic enterprise. In

addition, only a few rent the market space because most people do not have the knowledge and the capital to make a business work.

Some municipalities have more fund sources for health and nutrition programs than others. As such, these municipalities have varied nutrition-specific and nutrition programs than others. As provided for by the Republic Act Number 7160, 20 percent of the IRA is allocated to the EDF, which will finance the LGU's priority projects on social development, economic development, and environment management. In Lope De Vega, health and nutrition PPAs are funded by the Local Council for the Protection of Children (LCPC) fund under the EDF. The LCPC caters to programs related to welfare and health/nutrition, with the latter getting the bigger chunk of the fund. Based on Lope De Vega's 2018 AIP, health and nutrition PPAs include the provision of Mid-Upper Arm Circumference, multivitamins to malnourished children, advocacy materials on HIV/AIDS, and early learning materials, the celebration of children's month, and the conduct of Youth Congress. In San Jose, health and nutrition PPAs are funded by the 5 percent GAD and are mostly on trainings, nutrition classes, nutrition month celebration, and youth development programs.

Figure 10: Total external sources in 2009 and 2017, % of total sources

Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

Collection from economic enterprises go into the general fund, which are used to finance the LGU's priority programs. The rest of the municipalities in Northern Samar depends heavily on the IRA. For example, Lope De Vega's IRA accounts for 99 percent of its total income in 2009. Similar observations can be noted in 2017 (see figure 10).

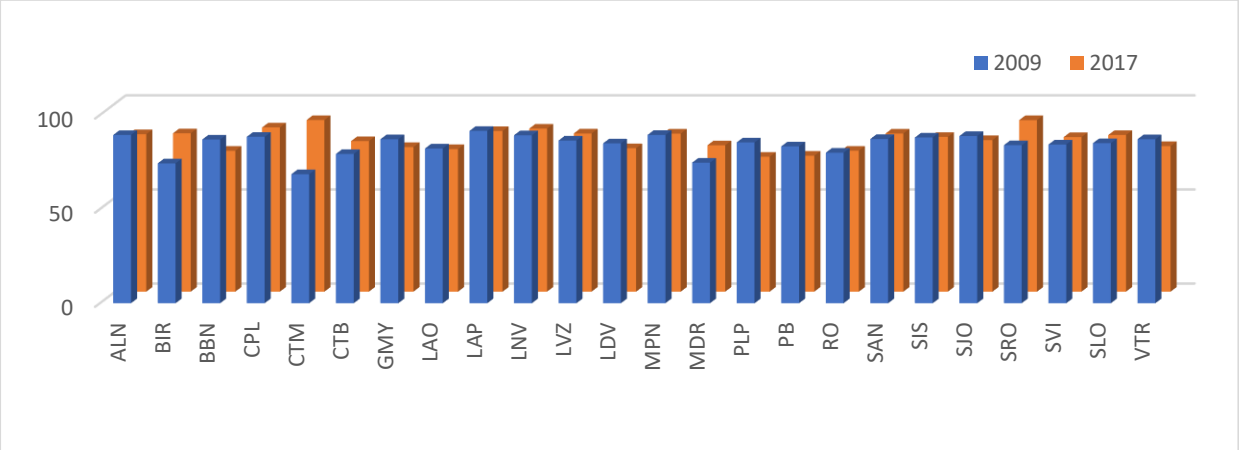
In contrast, Catarman's funds for health and nutrition PPAs come from various sources such as the GAD fund, EDF, and general fund. These PPAs include nutrition-specific programs like the procurement of medicines/supplies/equipment, implementation of zero defecation program, establishment of TB DOTS, supplemental feeding, and health promotion/nutrition education activities. These also include nutrition-sensitive programs such as *Gulayan sa Barangay*, BNS evaluation/Monitoring and Evaluation of Local Level Plan Implementation (MELLPI), and adolescent health programs.

Similarly, Bobon has various funding sources for its health and nutrition PPAs, which include the LGUs (municipal and barangay) fund, EDF, general fund, Maternal Care Package Trust Fund, and DOH. As such, Bobon has a variety of health and nutrition programs that include a number of nutrition-specific programs (natal care, post-partum care, family planning program, expanded program on immunization) and advocacy campaigns.

The IRA is released on time although funds are usually not enough to pursue development programs. Municipalities facing budget challenges rely on different partner agencies such as the DA, Department of Social Welfare and Development (DSWD), and Department of Education (DepEd) to implement a number of the LGUs' nutrition programs.

In terms of the LGUs' expenditures by function, the combination of general public services and economic services account for the majority of LGUs' expenditures. The former refers to expenditures for services that are indispensable to the existence of an organized LGU[18] while the latter covers sector expenditures for activities directed in the promotion, enhancement, and the attainment of desired economic growth (BLGF n.d.). For most LGUs, the proportion of expenditures on these services has declined from 2009 to 2017 and this decline is the highest in Bobon, Gamay, Lope De Vega, Palapag, Pambujan, and Victoria (see figure 11). Among these municipalities, Palapag has the highest decline at 14-percentage points. On the other hand, it has accelerated for municipalities like Biri, Catarman, and San Roque, with Catarman showing the highest increase at 23-percentage points.

Figure 11: Public services + Economic Services, % of LGUs' total expenditures



Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO

[18] These include executive and legislative services; overall financial and fiscal services; the civil service; planning; conduct of foreign affairs; general research; public order and safety; and centralized services. These exclude general administration, regulation, research, and other services of departments that can be identified directly under each specific sector.

Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

The expenditures of most Northern Samar's municipalities are heavily concentrated in general public services. In 2009, these expenditures account for more than 50 percent of the total expenditures of all LGUs except Catarman. These expenditures account for at least 80 percent in municipalities like San Jose, Lavezares, Bobon, San Antonio, Capul, Las Navas, Mapanas, San Isidro, and Allen while these account for only 47 percent of the total expenditures in Catarman. These heavy concentration of expenditures on general public services affects the expenditures on economic and health/nutrition/population services. From Figure 12, even though only 7 percent of Catarman's total expenditures are spent on health/nutrition/population services, around 21 percent of its total expenditures are expended on economic services. These services are important in the implementation of nutrition-sensitive programs.

In contrast, substantial portion of Lope De Vega's total expenditures (76%) are spent on general public services while only 9 percent are each expended on economic services and health/nutrition/population services. Together, expenditures on these three services already account for 94 percent of Lope De Vega's expenditures while these account for only 75% of Catarman's total expenditures. Hence, there are expenses on housing and community development in Catarman, which accounts for 17 percent of its total expenditures. Expenses on housing and community development cover expenditures for the provision of housing and sanitary services, promotion of community development, slum clearance, zoning, and control of population (BLGF n.d.). As such, these also help in the implementation of nutrition-sensitive programs in the municipality.

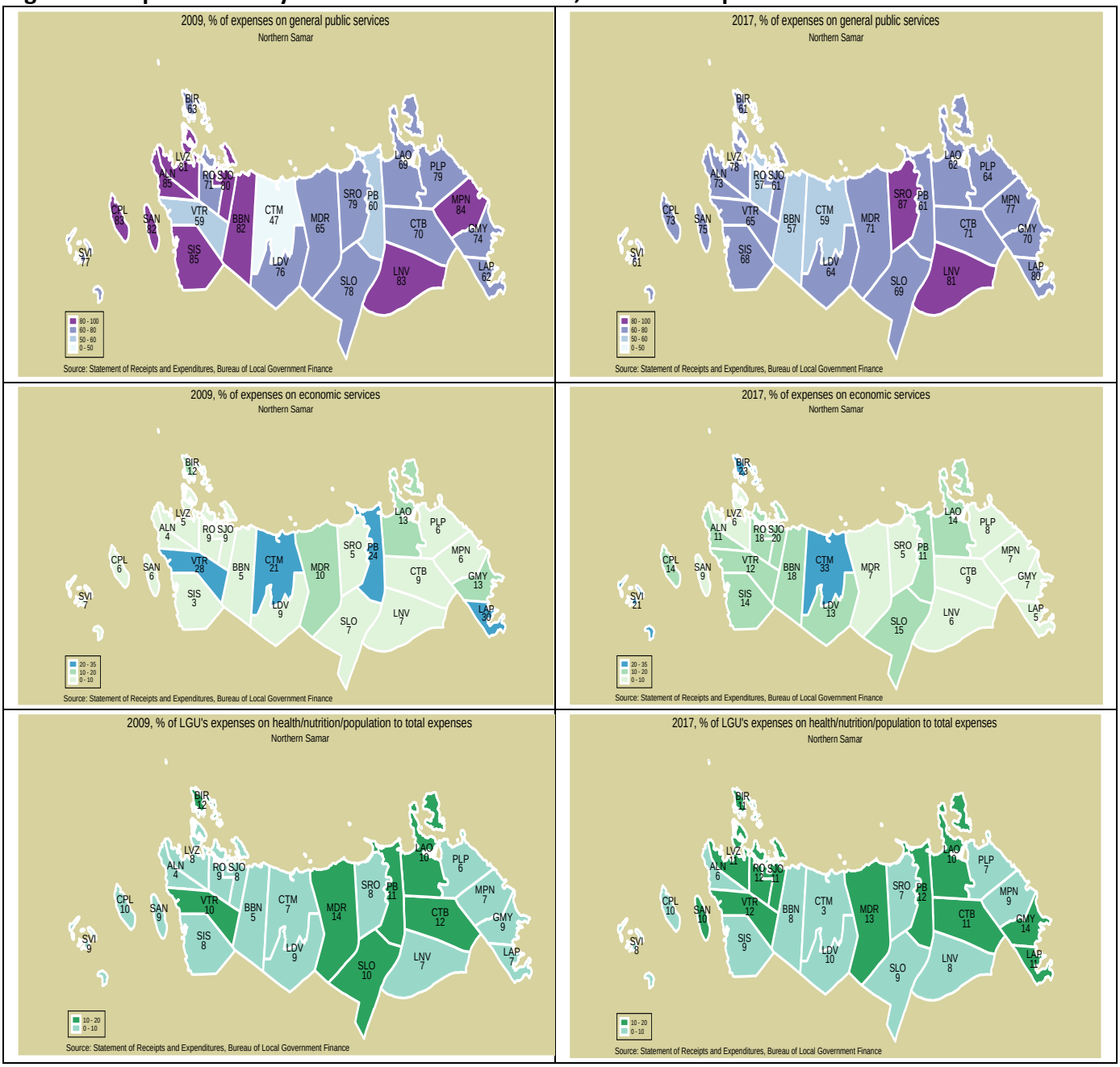
In 2017, the proportion of expenses on general public services in most municipalities has become less substantial except for Las Navas (81%) and San Rosario (87%). Among the municipalities that reduced the proportion of these expenses, Bobon has the most decline at around 25-percentage points. On the other hand, among those that increased the proportion, Lapinig, Catarman, and San Rosario have the highest increase at 18-, 11-, and 8-percentage points, respectively. Catarman has substantially decreased the proportion of expenses on housing and community development (16-ppt). This has allowed Catarman to increase the proportion of its expenses on economic services (11-percentage points) even while the proportion of expenses on general services has increased as well. In Lope De Vega, the 12-percentage points decline in the proportion spent on general public services have been expended on social security/services/welfare (7-percentage points increase) and on economic services (4-percentage points increase).

While LGUs independently decide on their PPAs, the use of the fund follows the regular audit conducted by the COA. In both Lope De Vega and Catarman, the COA 2018 reports have findings on the use/appropriation of funds that can have adverse effects on health or nutrition. For example, Catarman has only provided 0.5 percent of its total budget to the Gender and Development Fund. In addition, the LGU does not have a 10-year Solid Waste Management Plan, a plan that is important for public health. Wastes that are not properly disposed of, especially organic domestic wastes, are breeding grounds of microbial pathogens that can contaminate water and food sources. These also attract insects and animals that aid in the spread of microbes in the environment. Infants are most susceptible to infections brought about by inadequate waste management since they crawl and have the tendency to put objects in their mouths. Young children are vulnerable from the risks posed by hospital/medical wastes such as needles and cotton swabs and chemical wastes as they play outside and explore their

environment. During the validation workshop, the key informant has shared that Catarman has a Solid Waste Management Plan but that its current form is yet to be approved by the Environment Management Board.

In Lope De Vega, the COA has found that there are no established guidelines in granting financial assistance to indigent individuals and families. In addition, the LGU has not provided for its Ecological Solid Waste Management Plan so PPAs related to the plan were not carried out. In addition, Lope De Vega did not fully implement PPAs outlined in its GAD Plan.

Figure 12: Expenditures by function in 2009 and 2017, % of total expenditures



Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

Community-based organizations help in funding some of the nutrition-specific and nutrition-sensitive programs. In Lope De Vega, the *Samahan ng mga Kababaihan* (SAMAKABA) assists women and children to enhance their well-being through several projects. It acts as a lending conduit of the Agricultural Credit Policy Council (ACPC) and encourages members to save. It also participates in the campaign against malnutrition through the *Ganap Buhay* program, a feeding program of malnourished children. It also works in close collaboration with the BNS and BHW to identify malnourished children, sits in local development council (LDC) meetings, and is a member of the Local Health Board. Plan Philippines buys nutrient-enhanced snacks from the facility in Catarman and distributes these to municipalities. These provide income to the LGU and help improve nutrition outcomes at the same time.

The Interlocal Health Zones (ILHZ) appear to be a good collaboration initiative of LGUs. The ILHZs are groupings of municipalities that work together to meet the health care needs of their member municipalities. This means that resources, such as health service providers and facilities, are shared among municipalities. Patients of one municipality, through referrals, will have access to the facilities of another member municipality. 1% of the IRA goes to a common fund, which is earmarked to improve the delivery of health services. Catarman and Lope De Vega have programmed PHP 470,000 and PHP 94,294 for the ILHZ fund in 2019, respectively. Member LGUs can access the funds on behalf of indigents who are sick. It can also be used to purchase an ambulance to be used by other resource-challenged municipalities.

There are six ILHZs in Northern Samar: Allen[19], CaLasNa[20], GaMaLa[21], PaLao[22], PSALM[23], and RoBiCLoBS[24]. While RoBICLoBS is the first ILHZ in the province, it is yet to be functional due to several reasons.

- Some mayors are not yet convinced of the benefits of the ILHZs. This is especially true for LCEs of better-off municipalities that already have health facilities and care providers.
- Potentially due to the cold reception of some LCEs of RoBICLoBS to the ILHZ, an account where the LGUs' contributions should be deposited is yet to be established. However, municipalities program ILHZ funds into their annual budget. Since this appropriation will be cancelled in the future budget if not expended, MHOs are already thinking of using the money to fund services that the Municipal Health Office has yet to provide.

5.1.5 Monitoring and evaluation

The BNS and BHW prepare accomplishment reports, which are submitted to their respective supervisors every month. In Lope De Vega, BHWs report their accomplishments to the midwife every second Thursday of the month. BNSs prepare their monthly accomplishment report and discuss this with the MNAO every second Friday of the month. Nurses validate the SAM report and OPT results. Sometimes, MNAOs also conduct home visits to validate.

[19] Composed of Allen, Capul, San Antonio, San Isidro, San Vicente, Victoria, and Lavezares
[20] Composed of Catubig and Las Navas
[21] Composed of Gamay, Mapanas, and Lapinig
[22] Composed of Lao-ang and Palapag
[23] Composed of Mondragon, Pambujan, San Roque, and Silvino Lobos
[24] Composed of Rosario, Biri, Catarman, Lope De Vega, Bobon, and San Jose

There are conflicting reports on whether OPT results are validated or not. MNAOs have shared that, together with the nurses, they validate OPT results especially in areas where there are findings of SAM. On the other, BNSs express doubts on the reports of OPT results of other municipalities like Catarman and Bobon, which indicate low proportion of and zero malnourished children, respectively. The PNAO has acknowledged that she does not have time to validate OPT results.

A number of program managers and even frontline workers raise several challenges in the determination of nutrition status. These include the following:

- BNS and BHW need training in getting the age in months. If the recorded age in months is wrong, then nutritional status will be wrong.
- The computation of the prevalence rate depends on the accuracy of the master list, including height and weight measurements, calculation of age, and encoding of data. The denominator in the formula of the prevalence rate is given by the following: children in the master list divided by the 80% of the total number of preschoolers [or 16.2% of the projected population to estimate the number of 0 to 71 months old children as target coverage] (Ramirez et al 2019). If the target coverage is high (which is based on projection) and the number of children in the master list (which is based on the actual population) is low, the computation would result in high prevalence. Despite this issue, the MNAO of Lope De Vega has shared that when she did a fieldwork two years ago, the stunting prevalence was high and so the high stunting prevalence currently observed is correct since the problem of stunting is chronic and irreversible.

There are monitoring gaps on a number of LGU-initiated programs. While the Municipal Agriculture Office provides livestock dispersals, there appears to be no monitoring to assess if the program has been successful. Similarly, nobody monitors if the distributed seedlings are indeed planted. Monitoring could have made the program more sustainable since this will help concerned agencies to understand problems and challenges and to revise the program accordingly. Representatives from community-based organizations share that the municipal staff should immerse in the community to understand what the community needs. This should be done especially in GIDA. Targeting the beneficiaries of some of the nutrition-sensitive programs is also an issue. Program managers share that households with malnourished children are not the priorities of the agricultural office.

OPT and e-OPT are the main tools to monitor the nutrition status. During OPT months (February and December), e-OPT is used while for the rest of the months, OPT is in place. e-OPT automatically computes the nutrition status of children given the height and weight data collected by frontline workers. Prior to conducting OPT, frontline workers visit households to consult with parents/caregivers of children up to 72 months on their availability. Frontline workers then visit on the agreed schedule and bring with them the weighing scale and height board. In other municipalities, there is a designated weighing area where parents/caregivers bring their children on the agreed schedule. The BNS and BHW visit those who are not able to participate. For the severely underweight 0–24-month-old, weight and height measurement is done every month while for the 25–72-month-old, weight and height measurement is done every quarter. Frontline workers submit OPT results to the MNAO who will consolidate these results and check for children that need further interventions.

While e-OPT is an innovation that improves the accuracy of nutrition status records, it still relies on the data collected by frontline workers. The MNAO gives the master list of children to the BNS in January in preparation for the e-OPT in February. During OPT months, the MNAO will record the age in months and BNSs collect the height and weight data. The MNAO consolidates all e-OPT results and submits a report to the PNAO. e-OPT results are the basis of targets, which will be submitted to the National Nutrition Council (NNC) in April. Regular OPT results are used by MNAOs for monitoring.

There is a need to validate the OPT results since there are conflicting evidence on the stunting prevalence in Northern Samar. The prevalence rate of stunting in the province is 16 percent based on the 2016 OPT results. However, based on the 2015 National Nutrition Survey conducted by FNRI, the prevalence rate of stunting is 45 percent. While the latter has limited respondents compared to the OPT that covers all preschoolers in the area, the gap between these two results necessitates validation by personnel from the province or national. At the provincial level, there is an issue of inadequate manpower, however.

5.2 Programs and services delivery

5.2.1 Programs and services

Bulk of nutrition programs in Northern Samar are nutrition-specific programs.

In Lope De Vega:

- In terms of Dietary Supplementation Program, there is a supplemental feeding of malnourished children although this depends on the LGU budget.
- In terms of micronutrient supplementation, vitamin A, ferrous sulfate, and milk supplement (e.g. Anmum) are given to expectant mothers while supplements are given to young children.
- Deworming is administered twice a year
- In terms of programs for behavior change, home visits by BNSs and BHWs are regularly done to encourage mothers, especially those with malnourished children, to visit the health center/facilities. Counselling is also done to inform mothers of the importance of proper hygiene and sanitation, serving nutritious foods, and correct food preparation.
- There are also learning sessions although almost all attendees are mothers even though other adults are also invited.

In Catarman:

- Midwives not only deliver babies in birthing facilities but they administer vaccines, conduct house-to-house visits to provide counsel to pregnant/lactating mothers and mothers of Severe Acute Malnutrition (SAM) children, and participate in medical missions. Mothers are enjoined to seek medical health for their SAM children.
- In terms of programs for behavior change, other than the home visits by frontline workers, mothers' classes are also sponsored by the LGU. There are 6 modules, each of which is completed in one class and the LGU provides incentives, such as grocery items, to mothers/caregivers who finished all 6 modules.

A number of nutrition-sensitive programs are also implemented in Northern Samar. In Lope De Vega, the DA distributes seedlings to households to encourage backyard gardening. This is designed to help households prepare healthy meals despite financial constraints. In line with this objective, the DepEd implements *Gulayan sa Paaralan* and the DA distributes livestock dispersals to households with malnourished children. The LGU in Lope De Vega also distributes toilet bowls including PVC pipes, cement, and steel bars for the construction of comfort rooms. In this initiative, households are expected to provide the labor and build the comfort rooms themselves.

The constraint in budget affects the implementation of health and nutrition programs initiated by the LGU.

- In Catarman, for example, there is a *Buntis* Party, an event for expectant women and is held twice a year. In this event, lectures and counseling are held. Participants are provided free laboratory services such as hemoglobin determination, urinalysis, Hepatitis B Screening, and Blood Typing. Hygiene kits including toothbrushes and toothpaste, maternity pads, and baby clothes and 2-month supply of vitamins such as ferrous sulfate with folic. Due to lack of budget, however, not all pregnant women get to participate.
- Malnutrition status is partly caused by behavioral problems of parents/caregivers that have accumulated over a span of time but a number of well-intended programs are implemented within a short period. For example, in an effort to reduce the number of malnourished children, the LGU in Lope De Vega has provided a 3-week in-house training to parents with malnourished children and has provided services such as deworming and laboratory tests. Ideally, interventions like this should be on a regular basis if not for the lack of budget.

LGUs give incentives to enhance the participation of people in nutrition-specific programs. In Lope De Vega, to ensure that micro supplements are given to pregnant women during their first trimester, Anmum, a milk supplement for pregnant women, is given to those who visited the health center during their first trimester. To encourage giving birth in the RHU, Lope De Vega has "waiting rooms" or halfway houses where pregnant women from far-flung areas who are a few weeks away from their expected delivery can stay in. It also gives PHP 750 and a hygiene kit to women who have completed prenatal checkups and have given birth in the RHU.

There is a mismatch between the programs initiated by the LGU and the needs of the community. For example, the DA provides chicken and swine dispersals. However, there have been no consultations with beneficiaries to assess their skills in raising hogs/poultries and the chickens/swine ended up dead or sold to their neighbors. In addition, the DA distributes sprayers and rotavators for backyard gardening. While these are important inputs, there is an immediate need to address the adverse effects of climate change through rain shelter or greenhouse. These are inputs that the DA has yet to provide.

Looking into the checklist of the ECCD-F1KD programs and services in the LGUs, a number of services are yet to be provided in the KOICA municipalities. These include the following:

- **In terms of services:** 1) promotion of the consumption of iodized salt and foods fortified with such, 2) provision of oral health services, and 3) conduct of newborn hearing screening.

- **In terms of support**: 1) counselling to high-risk pregnant women and adolescent females belonging to the poorest, 2) provision of support to fathers/caregivers to ensure their commitment to mother and child care, 3) community-based mother support groups and peer counselors for breastfeeding, 4) work-based breastfeeding support groups, 5) provision of locally available grown crops, vegetables, and fruits, 6) provision of home-based ECCD programs.
- **In terms of infrastructure:** 1) Child-friendly spaces during calamities/emergencies, 2) lactation breaks for women, 3) lactation stations in workplace, and 4) human milk pasteurizer.
- **In terms of health worker's capacity:** 1) identification/management of malnutrition of chronically energy deficient and nutritionally-at-risk postpartum and lactating women, and 2) social welfare support.

There are best practices that need to be highlighted. Catarman has a facility (nutripack plant) that produces crunchies and nutrient-enhanced snacks. This serves as an IGP to the LGU since the MNAO peddles these to barangay captains and to community-based organizations. In addition, these crunchies are also included in the emergency kit to be distributed in evacuation areas. Both Catarman and Lope De Vega have Child Protection Service that caters to all forms of child abuse.

5.2.2 Demand-side challenges

Despite the support of LCEs and the efforts of frontline workers and program managers to implement nutrition programs, there are several demand-side challenges that hamper the improvement of nutritional status. The prevalence of stunting and health and nutrition-related problems are attributed by frontline workers, program managers, CSOs, and even LCEs, to a number of interrelated factors:

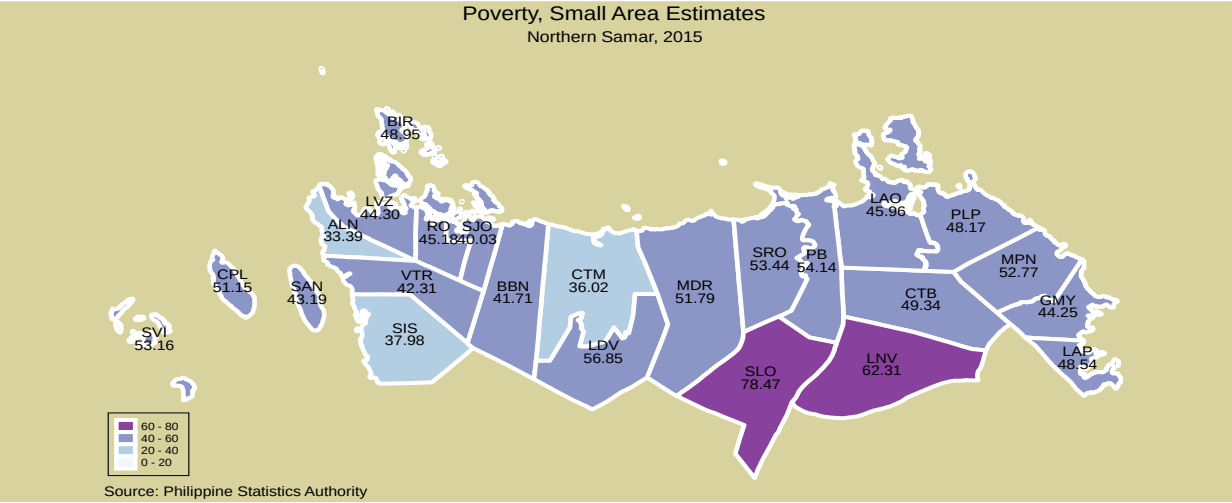
- **Poverty and its concomitant causes such as lack of economic opportunities and geographical isolation have adverse impacts on health and nutrition outcomes.** Based on the small area estimates of the Philippine Statistics Authority in 2015, poverty incidence in Northern Samar municipalities ranges from 24 percent to 78 percent (figure 13). Allen, Catarman, and San Isidro have the lowest poverty incidence. Catarman and San Isidro have few GIDA barangays while Allen has none. Meanwhile, Lope De Vega, Las Navas, and Silvino Lobos have the highest. Silvino Lobos is a GIDA municipality while around 73% and 51% are GIDA barangays in Lope De Vega and Las Navas, respectively. Incidentally, these municipalities have high stunting prevalence as well.

  Majority of municipalities in Northern Samar do not offer much economic opportunities and this can be seen in the concentration of workers in certain types of occupation (figure 14). In Silvino Lobos, a GIDA municipality with the highest poverty incidence in the region, around 46 percent of workers are engaged in elementary occupation[25] and around 44 percent are engaged in the agriculture, fisheries, and resources sector. Workers in elementary occupation and in the agriculture, fisheries, and resources sectors account for 73 percent of

[25] Occupations that involve the performance of simple and routine tasks that may require the use of handheld tools and considerable physical effort.

all occupation in Las Navas, a municipality that has the second highest poverty incidence in the region. Similar observations can be noted in Lope De Vega, a municipality with around 73 percent GIDA barangays. Given that these occupations are affected by fluctuations in prices and by the vagaries of weather, the stability of income becomes an issue. In Lope De Vega, for example, the main source of income is copra, which recently fetches low market price.

Figure 13: Poverty estimates for municipalities in Northern Samar

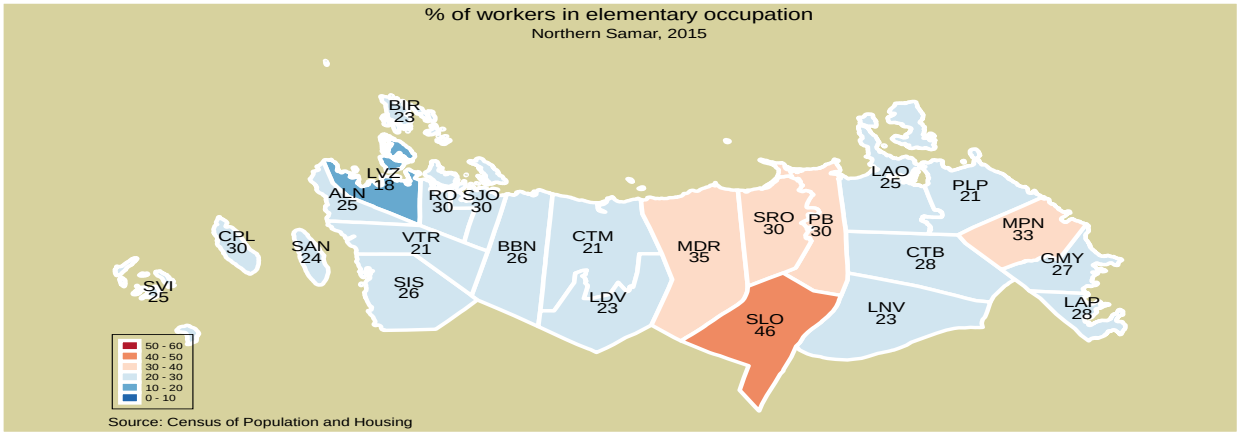


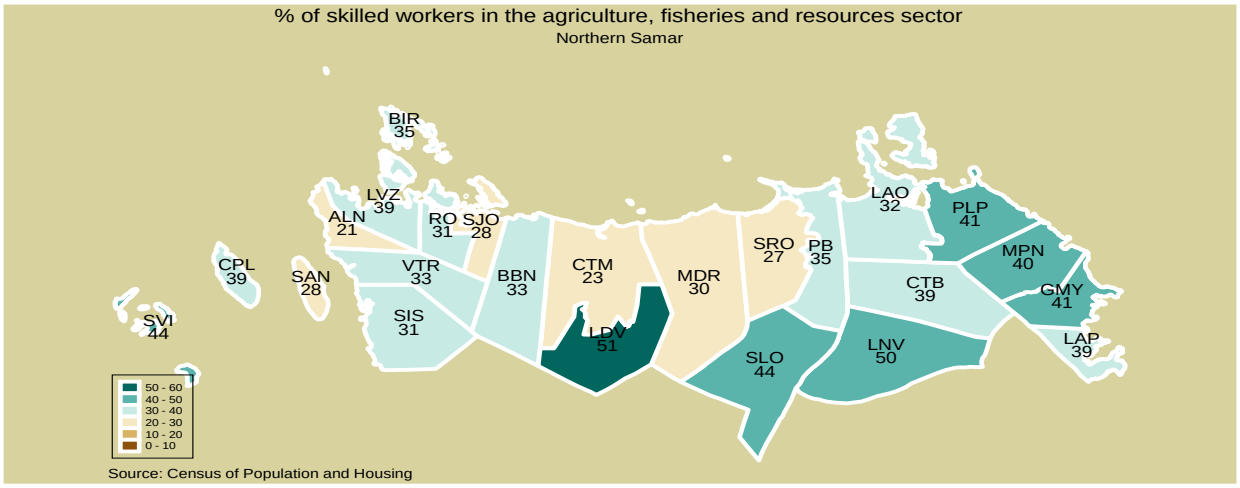
Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

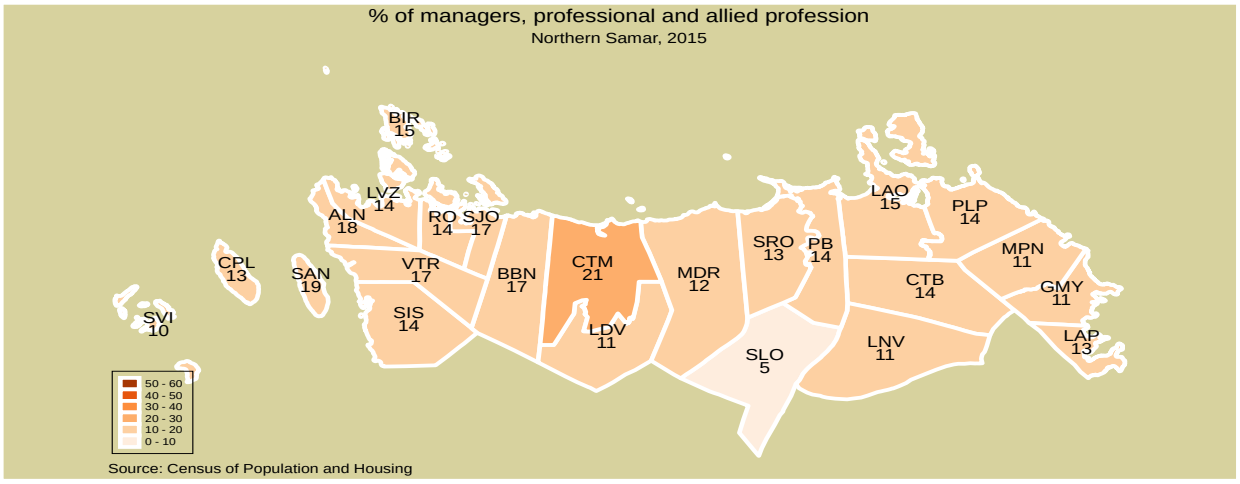
Probably due to poverty, program managers share that it is common for school children to eat cheap junk foods with rice. In addition, RUTFs that are intended for a specific child are shared with other siblings at home. This potentially explains why Catarman, a city with varied economic opportunities, has a substantially low stunting prevalence compared with Lope De Vega. However, respondents think that poverty should not prevent households from preparing good foods and from pursuing good sanitation and hygiene given the nutrition-specific and nutrition-sensitive programs in place.

- **Feeding practices of infants and young children are one of the important barriers to good health and nutrition.** While mothers are aware of the importance of exclusive breastfeeding, a number of mothers introduce solid foods before infants turn to 6-month-old due to several reasons such as insufficient production of breastmilk and the need to work or to look for work. In addition, they do not convince their children hard enough to eat good foods. There are food supplements distributed by the LGUs and the DOH but whether these are prepared at home is an issue. Even parents/caregivers themselves admit that they know parents/caregivers who are too lazy to prepare foods.

Figure 14: Workers in selected occupation in 2015, %







Note: ALN Allen; BIR Biri; BBN Bobon; CPL Capul; CTM Catarman; CTB Catubig; GMY Gamay; LAO Laoang; LAP Lapinig; LNV Las Navas; LVZ Lavezares; LDV Lope de Vega; MPN Mapanas; MDR Mondragon; PLP Palapag; PB Pambujan; RO Rosario; SAN San Antonio; SIS San Isidro; SJO San Jose; SRO San Roque; SVI San Vicente; SLO Silvino Lobos; VTR Victoria.

- **The attitude of mothers and caregivers towards programs aimed at improving health, nutrition, hygiene, and sanitation is a factor as well.** Respondents share that there is a need to provide incentives (in the form of cash or groceries) in order to entice parents/caregivers to attend learning sessions and classes. This is confirmed by the parents/caregivers themselves. In addition, there is a need for adults themselves to become role models at home so that

children will appreciate the value of hygiene and sanitation. In Lope De Vega, to address the diseases associated with the lack of sanitary latrines, the LGU has distributed construction materials to build comfort rooms. However, a number of households have yet to construct while others have already sold the materials to their better-off neighbors.

- **There are knowledge gaps among adults**. For example, some fathers in Catarman do not want their kids vaccinated due to the fever associated with vaccination. Some parents think that weight and height measurement is useless while others believe that they have survived even without these programs and their children would do so as well.
- **Traditional beliefs and social norms still exert strong influence in pursuing specific actions towards health and nutrition.** Mothers still seek the advice of *albularyo* (herbal doctor) and *manghihilot* (local chiropractors) when children are sick. In addition, parents, who did not receive vaccines when they were young, believe that vaccination do not have any value-added to their children's health. While MHOs advocate family-focused child-rearing, wives accept the norm that their husbands are passive participants. Fathers rarely attend learning sessions and prenatal/postnatal checkups.
- **Some women deny their pregnancies, either because these are unwanted or unplanned.** As a result, these pregnant women miss out on the micronutrient supplementation, such as iron and folic acid, that are critical to be provided during the early months of life in the womb. This issue becomes more salient due to teenage pregnancy, which in in 2017 is high for a number of Northern Samar municipalities. Teenage pregnancy (15–19 years old)[26] is high in Mondragon (14%), San Jose (12%), Palapag (6%), Pambujan (6%), and San Isidro (6%). These teenage mothers need to understand the value of healthy and safe pregnancy and responsible parenthood.
- **National issues have stirred parents/caregivers into actions that are unfavorable to health and nutrition.** At the height of the Dengvaxia scare, even the utilization of deworming has been low in Catarman. There are also cases when husbands, who participate in insurgency, bring their pregnant wives into mountainous areas. This results in pregnant women missing out on the 1-2-2 visits in the 1st-2nd-3rd trimesters.

5.2.3 Supply-side challenges

Community-based organizations and parents/caregivers share the following supply-side challenges:

- **There are some services and laboratory tests that the RHU do not offer.** In Lope De Vega, the LCE's solution was to tie-up with owners of laboratory machines/supplies. Despite this, it still takes time for the maintenance to provide the necessary service when machines break down. Lope De Vega's MHO shares that they do not have machines to test HIV, x-ray, and ultrasound and even if they do, skilled people who can operate these machines are not available. The recourse, in this case, is for the MHO to refer patients to the General Hospital

[26] Computed as (*2017 pregnant 15-19 year-old/female population 15-19 year-old*). Data on pregnant 15-19 year-olds are taken from the DOH Samar Provincial Office while data on female population is based on the 2015 Census of Population and Housing.

in Catarman. In addition, the supply of coated ferrous sulfate tablet with folic acid, a vitamin for pregnant women, is inadequate.

- **Transportation, safety, and security issues play a role in the delivery of health and nutrition services.** This is especially true for municipalities with many GIDA. A number of respondents share that the KALAHI has made substantial contributions in decreasing GIDA barangays. While this is the case, there are still municipalities that have a large number of GIDA barangays. In Lope De Vega, 16 out of 22 barangays are GIDA and these barangays are riddled with armed conflicts. Most of these areas do not have health centers. This is confirmed by program managers who acknowledge that access to services is problematic for these areas.
- **The lack of clean water also hampers the efforts to achieve good health and nutrition**. LCEs from LGUs facing challenges in resources acknowledge that indeed this is a problem. The problem of inadequate access to clean water is compounded by the lack of sanitary facilities in these areas. In Lope De Vega, for example, only 15 percent and 12 percent of its 3040 households have level I and level II access to water supply and around 65 percent have sanitary toilets in 2018.

- **A number of barangays do not have BNSs.** This means that even though nutrition programs are in place, there are no frontline workers to disseminate information and create awareness among people.

Parents/caregivers have identified several issues on the services provided in health centers/facilities. These include the following:

- **The doctor is sometimes late or not available. In other times, the health center is closed.** For cases that need immediate attention, respondents are forced to go the General Hospital where they are accommodated for a fee while for vaccination, respondents come back at a later date.
- **There is a limit on the number of patients being accommodated per day**. Patients need to go to the center early so they can get into the quota. Otherwise, they have to seek medical attention elsewhere. Given this, respondents share that they go straight to the General Hospital where they will be accommodated. Respondents share that there are many doctors in the hospital compared to health centers where there is only one.
- **The queueing system can be based on friendship/association with some health workers.** Respondents share that patients who know people in the health center are already listed in advance for check-up. These people can also come in late and will still be accommodated.
- **The RHU has a schedule of activities that they follow.** For instance, Wednesdays are for vaccination and the personnel would not accept checkups. This becomes an issue for parents whose children are sick since they have to wait for the appropriate date to get medical attention or they have to spend money (e.g. fare) to go to the General Hospital.
- **Some advice from the RHU personnel are not correct.** A mother has shared that she went to the RHU when she felt that she was about to give birth. Having been advised that she's not due yet, she went home where she eventually delivered the baby. Since there was not enough time to go to the RHU, she delivered through a *hilot*.
- **Some RHU personnel are dismissive and unsympathetic.** A mother has shared an instance when she lost the request for a laboratory test. The RHU personnel

appeared irked and commented "You're always doing this." when the mother asked for another request.

There are emerging needs/issues that need to be addressed as well. These include dealing with parents/caregivers that have mental health problems and the increasing prevalence of teenage pregnancy, and obesity and tuberculosis among young children. Health officers and program managers share that identifying malnourished pregnant mothers and nutritionally-at-risk women is also a challenge

5.2.4 Resources

The PD 1569, enacted in 1978, has provided for the qualifications of BNS. Under this Decree, a BNS should be a resident of the barangay for at least four years, at least a primary school graduate, be between 18 and 60 years old, has the ability to speak the dialect, possesses leadership potential, and willing to learn. Program managers share that the minimum requirement is that BHW and BNS should be at least 18 years old, should have finished 72 units at the college level (2nd year college), a resident of the barangay, and has attended the basic training. Program managers think that being strict with the qualifications can result in few recruitments. People with such qualifications are likely to look for jobs that pay more**.**

In practice, minimum requirements are rarely enforced when hiring frontline workers. In Lope De Vega, for example, the only requirement is for the potential candidate to be able to read and write. There are several reasons for this. First, barangay captains are responsible in hiring BNS and BHW and in most cases, politics supersedes the minimum requirements. This means alliance with barangay captains can help people get the position regardless of qualifications. Second, enforcing the minimum requirements can be a barrier in getting frontline workers since there might be very few people with those qualifications who will be willing to become BNS and BHW. People are disinclined to participate due to the low compensation and due to the fact that the position is vulnerable to politics. These realities have contributed to the compromise of lowering the standards of hiring frontline workers.

BHW and BNS receive honoraria, the amount of which depends largely on the IRA of the LGUs and to some extent, on the achievement of targets. In Lope De Vega, frontline workers receive up to PHP 1,150 per month (PHP 150 comes from the province, PHP 200 from the national, PHP 400 each from the municipal and the barangay). In Catarman, a BNS receives PHP 250-PHP 500/month and PHP 4,200/year from the municipal and provincial governments. Transportation allowance is not enough to cover the transportation cost going to GIDA barangays.

Frontline workers have different workloads depending on the available funds, the number of households in the barangay, and the available frontline workers. Ideally, there should be one BNS in each barangay. However, there are barangays that have bigger population and BNSs in these areas can reach up to four. In 2018, there are 34 BNSs that cover 22 out of 24 barangays in Lope De Vega. The remaining 2 barangays have no BNS since the honorarium is not enough to even cover the travel cost to reach these barangays.

In addition, there should be one BHW for every 20 households. Based on the 2018 FHSIS data, there are 76 active BHWs in Lope De Vega while there are 715 in Catarman. If the ideal ratio

is to be followed, there should be 160[27] and 1068[28] in Lope De Vega and Catarman, respectively. The ideal ratio is not achieved due to many factors such as the challenges in hiring BHWs and in the available funds at the barangay level.

Despite the mandate of the PD 1569 that provincial governor/city mayor shall be responsible for the implementation of nutrition programs throughout the province/city, the previous governor had abolished the Provincial Nutrition Office and transferred the PNAO to the Provincial Health Office. This has resulted in the PNAO being the sole personnel attending to nutrition-related programs at the provincial level.

The government and community-based organizations provide trainings to frontline workers although only selected BNS are able to participate. In most cases, frontline workers receive trainings depending on the strategy of the MNAO since the MNAO decides on who gets to participate. A number of frontline workers have attended a WHO-sponsored training in how to compute the nutritional status and how to use height boards and an NNC-sponsored training in the F1KD and on programs for SAM children. In other cases, the participants depend on the funder. For example, Plan Philippines conducts training to BNS in non-GIDA barangays only.

In the past, the Monitoring and Evaluation of Local Level Plan Implementation (MELLPI) had been implemented. During MELLPI, the province goes to municipalities to evaluate the performance of BNSs using a format prescribed by the NNC. However, MNAOs think that the evaluation is very subjective and their municipalities did not participate.

Despite the support coming from various sectors, frontline workers have raised the following issues:

- **High turnover among BNS and BHW hampers the continuity of implementation of the F1KD.** Barangay captains are elected every three years and non-supporters can be easily removed from the position. With the entry of new appointees, there is a need to regularly train frontline workers. Without these trainings, there can be substantial errors in the data collection and OPT computation. In one of the municipalities, representatives from community-based organization who join BNS and BHW in OPT have noted that BNS and BHW have different interpretations on the weight registered in the weighing scale.
- **Inadequate honorarium.** There is a need to increase the honorarium and to provide transportation allowance for frontline workers going to GIDA areas.

Parents/caregivers deem frontline workers to be trustworthy and competent. Frontline workers always advise them to seek medical treatment at the health center. BHWs are viewed to have genuine concern for the parents and children. They explain why they collect the data and inform parents/caregivers if the doctor is in or when the medicines are available. In terms of record-keeping, a number of BHWs hold the immunization book.

Mothers are satisfied that family planning is discussed in the FDS. The discussion gives them information on what methods are available to them (e.g., injectables, pills, implants). Most preferred the injectables while other have adverse reactions to it.

[27] Computed as *Projected population/(20 Households*Average family size)* using FHSIS data: 104672/(20*4.9)

[28] Computed as *Projected population/(20 Households*Average family size)* using FHSIS data: 16348/(20*5.1)

5.2.5 Community engagement and advocacy

Although th**ere are several ways in which health and nutrition campaigns are communicated, mothers/caregivers and even frontline workers favor a certain mode of communication.** *Bandilyo* (announcement by roving personnel through megaphone) is commonly used in announcing *pabasa*/learning classes /workshops/trainings. In Catarman, communications of the LGU's advocacies are also done through the local radio station. Despite these, frontline workers prefer home visits since they develop a more personal relationship with mothers/caregivers. The personal relationship with people, in turn, facilitates trust among mothers/caregivers. The latter prefers home visits as well. Similarly, communications with LCEs are done through meetings or professional consultations.

While several campaigns on health and nutrition are regularly done, frontline workers recognize the need for training in **communications that can help in reshaping mindsets.** Workers have shared that people ignore IEC materials and do not heed the advice of frontline workers. Despite incentives, there is still a large proportion of mothers giving birth at home.

5.3 Nurturing care practices

5.3.1 Health and nutrition

Parents/caregivers are aware of the LGUs' health and nutrition programs. They have availed of vaccination, vitamin supplementation, and deworming for children aged 1–4 years. In addition, they visit the RHU for prenatal and postnatal checkups and family planning information while nutrition workers visit their homes to monitor the height and weight of babies. They also participate in feeding programs and learning sessions, although these happen once a year. Parents/caregivers have shared that these programs are beneficial and that they are comfortable in attending the learning sessions. 4Ps respondents have shared that being part of the 4Ps program is an incentive for them to seek health and nutrition programs offered in the LGU.

Mothers are aware of the symptoms of pregnancy and the danger signs they need to look out for. Missing on their menstrual period is the main indicator they look out for. They then go to the health center to validate and avail of the vitamins/supplements (e.g., ferrous sulfate, folic acid) for pregnant women. They also undergo checkups and health workers advise them to eat good foods and get enough sleep. In addition, mothers are also aware of the signs that something might be wrong with her pregnancy. These include bleeding and frequent vomiting.

Mothers are aware of the signs of malnutrition and its impact on children. The respondents share that malnourished children easily get sick, have low weight, and are pale and inactive. Malnourished children do not perform well in school due to slow comprehension.

Mothers avail of health services offered in the health center. They go to the health facilities for family planning services and prenatal and postnatal checkups and to seek treatment for diseases, such as diarrhea and infection. Mothers go to the RHU for children's vaccination (e.g., BCG, MMR, and DPT) as well. The respondents are also aware of the benefits of giving birth in the RHU including the birth certificates and incentives from the LGU.

Mothers understand the importance of breastfeeding although exclusive breastfeeding and its duration depend on several factors. Some mothers have exclusively breastfed their

children up to the 6th month while others have introduced solid foods early on. This is true for mothers who are not able to produce milk or are looking for work. For these mothers, they use commercial milk as substitutes. Solid foods introduced to babies include Cerelac, porridge, and mashed foods such as banana, camote, monggo beans, and squash. In addition, they believe that breastfeeding is beneficial not only to the baby but also to the mother since it serves as a natural family planning method.

Women's practices on antenatal care differ depending on who delivered the baby. When mothers give birth in the hospital, health workers advise mothers to take a bath a day after their delivery. They also advise that mothers do the same for the newborn. In addition, to giving ferrous sulfate to mothers to regain the blood lost during childbirth, health workers also advise mothers to refrain from performing strenuous task. On the other hand, *hilots* advise mothers to take a bath after a week to prevent relapse. They also advise mothers to give their newborns a bath after five days, to eat a lot, and avoid cold water to prevent the breastmilk from getting cold.

5.3.2 Security and safety

Mothers are aware that there are foods/beverages/activities that expectant mothers should and should not eat/drink/do.

- Respondents know that expectant mothers should eat nutritious foods such as fruits, vegetables, and dairy products. They know that they should avoid eating fatty and sweet foods since these can make the unborn big and the delivery difficult. Some believe that they should avoid fish, twin bananas, and cold water/beverages.
- Respondents share that expectant mothers should avoid cold drinks as cold drinks can make children sickly. They should avoid alcoholic beverages as well.
- Respondents know that expectant mothers should not smoke or carry heavy things. They should avoid too much sleeping at day time to avoid sleeplessness at night, should avoid taking medicines that are not prescribed by doctors as this can have side effects on the unborn, and should avoid sexual intercourse as this can cause bleeding and can make the unborn's head dirty.

Mothers are aware that there are foods/beverages/activities that lactating mothers should and should not eat/drink/do.

- Respondents know that lactating mothers should eat soupy meals with papaya, bamboo shoots, and *malunggay* leaves. This will help in the production of breastmilk.
- Respondents know that lactating mothers should avoid alcohol. They should also avoid being sick since the fever will get passed on to the baby through the breastmilk.

Mothers/caregivers are aware that danger or harm can easily befall on infants and young children. All the respondents are aware not to leave the infant or young child near any sharp objects. They put infants in the crib or they ask somebody they trust to look after their children when they need to do other tasks.

5.3.3 Learning

Only a few of the mothers/caregivers are aware of the importance of neurological stimulation.

- Most women did not talk to the unborn and they only did so when they were about to give birth (e.g., asking the baby to not give the mother a hard time during delivery). However, all parents/caregivers talk to infants and young children by teaching simple words.
- Almost all respondents give toys that are appropriate to the baby's age. Soft toys and toys without small parts are given to children 0–6 months old. Colorful toys are given to babies 6 months or older.
- Two of the caregivers read to their children in the belief that this will sharpen the children's memory. They also play soothing music to put their children to sleep.

5.3.4 Responsive caregiving

Most of the mothers are full-time housewives so they do not rely on anybody else to take care of the children. While this is the case, mothers get help and advice from other women in the household such as their mothers, sisters, and mothers-in-law. For example, when the baby is crying excessively, they are advised to make the baby burp and apply *manzanilla* (a medicated oil) and massage the baby's stomach. One parent shared that she gets advice from her father on the foods that should be given to the baby.

Parents/caregivers actively seek out health and nutrition information. Technology-savvy parents get advice from other parents on Facebook and online forum. Others use Google search to get first-hand information on diseases, symptoms, and first-aid medicines. All parents talk with frontline workers on a regular basis and they look out for information on medical missions and feeding programs through the *bandilyo* (announcement using a megaphone). Parents watch television programs (e.g., *Salamat Dok*) and listen to the radio so they can be updated on health and nutrition issues.

Parents/caregivers actively seek out professional medical help when children are unwell. Almost all parents administer first-aid medicines on sick infants and young children. When the fever persists, parents/caregivers seek medical help. However, one parent does not take any chance and brings her child into the RHU at the first signs of sickness. A number of parents/caregivers queue in the health center while others go straight to the hospital where there is certainty of being accommodated.

Mothers are aware of the benefits of family planning. A large number of respondents use injectables while a few use pills or implants. One mother has stopped using any of these methods due to negative effects and is currently using the rhythm method. All mothers agree that proper spacing is beneficial to the children and mothers. Respondents believe that proper spacing means more attention to infants and more time for the mothers' body to recover. A number of mothers breastfeed their babies in the belief that this will also help in the family planning.

Mothers/caregivers check their children for symptoms such as bruises, mosquito bites, and wounds. When infants cry, mothers are aware that something is wrong and they give milk or help their babies burp. When infants cry incessantly, they dance, sing, and find ways to make the baby stop from crying.

Mothers are hoping to expand not only their knowledge on child care but the ways in which they can achieve good health and nutrition as well. Most mothers are interested in being able to help their husbands generate income and hope that more home-based livelihood trainings are conducted.

6. Recommendations

6.1 Policy, leadership, and governance

Restore the abolished Provincial Nutrition Office. There should be District Program Coordinators (DPCs) who will coordinate and collaborate with nutrition workers on the ground to assess problems, formulate solutions, and implement and monitor programs. The need to restore the abolished Provincial Nutrition Office is critical in the light of issues brought about by inadequate manpower. First, the PNAO is the only personnel who works on nutrition at the provincial level. This results in the inadequate technical assistance to barangays and municipalities, an assistance that can help not only in crafting BNAP and MNAP but in encouraging nutrition workers to do well in program management and their advocacies as well. Second, OPT results are not validated. Frontline workers have expressed concerns over the validity of OPT results of some municipalities and even program managers have raised the need for random audit, which could not be done by the province due to manpower issues. These concerns are warranted given that OPT results inform the nutrition status and hence the effectiveness or inadequacies of nutrition programs and services. Third, problems in the logistics of delivery of supplies to each municipality can be potentially solved by restoring the Provincial Nutrition Office with DPCs who can be tasked to oversee the distribution of supplies especially in GIDA municipalities.

Restoring the PNO depends on the LCE at the provincial level. The creation of new positions/offices in LGUs, such as the DPCs, is subject to the conditions[29] of the Department of Budget and Management (DBM). DPCs are already in the Index of Occupational Services, Position Titles, and Salary Grades (IOS) in the Local Government[30] and so there is no need to provide justifications for the creation of the new class of positions. However, one of the conditions that the LCE needs to look into involves the general limitations on expenditures on personal services. This should not be exceeded by the LGU and so there is a need to take stock of the number of job order personnel, or those contracted to deliver a certain task, currently employed and whether the LGU can do without these personnel. To a great extent, it takes political will to remove these personnel since they are most likely political allies. Request of new office/position is then filed at the DBM for evaluation and approval.

[29] These conditions include 1) All the mandatory positions listed under RA 7160 have been created and provided for; 2) The Salary Standardization Law has been fully implemented; 3) The absorption of national government personnel by LGUs on account of the devolution of functions has been fully effected; 4) The general limitations on personal services expenditures are not exceeded; 5) The classification of the positions should be consistent with the standards and implementing rules and regulations of RA 6758; 6) The creation of new positions or offices is subject to the conditions prescribed under Civil Service Commission Memorandum Circular No. 19, s. 1992; and 7) The classification of the heads of new offices shall be dependent on the level of the organizational structure of the new offices. If the new office is considered a department, the head shall be classified as Department Head. If lower than a department but higher than a division, the head shall be classified as Assistant Department Head (*https://www.dbm.gov.ph/wp-content/uploads/2012/03/Manual-on-PCC-Chapter-9.pdf*).

[30] This is a document listing the different occupational services, occupational groups, series of classes and classes of positions existing in LGUs and shows the salary grade assignment of each class of positions (Department of Budget and Management [DBM] 2016).

Use the 2022 increase in the IRA to strengthen factors that can help in nutrition-related issues. Currently, the IRA is 40% of the national internal revenue taxes[31]. Due to the Mandanas ruling, IRA will be computed as a percentage of the (much broader base) national taxes[32] starting 2022. The PNAO and MNAOs are designated personnel and their job on nutrition is an additional work. Given the challenge in the nutrition status in the country, it is worth considering giving plantilla positions to nutrition personnel so they can focus their time and efforts on the implementation and monitoring of nutrition programs. In addition, giving nutrition officers full-time jobs can help in ensuring the continuity of programs since this creates a pool of potential officers that can be trained early on. This helps guarantee minimal disruptions when key personnel resign or retire.

Some LCEs are open to the possibility of creating a plantilla position although budget is a binding constraint. However, the IRA of LGUs will increase by 2022 and this increase can potentially be tapped to fund such positions. Other than the DPCs, personnel that can be considered for plantilla positions are nutrition action officers. Currently, PNAO and MNAO are not yet listed in the IOS. Thus, the LGU needs to provide a justification for the creation of the new class of positions, and the duly accomplished Position Description Form and structural, functional, and position charts[33]. Similar to the issue on the creation of DPCs, there is a need to ensure that the general limitations on the expenditures on personal services are not exceeded. Hence, there is a need to take stock of job order personnel that may be duplicating the functions of regular personnel. Once these personnel are given plantilla positions, they can potentially qualify for the benefits provided for by the Magna Carta of Public Health Workers. This gives them substantial incentives to work on nutrition targets and deliver the much-needed boost in nutrition outcomes.

Develop income generating projects and economic enterprises to increase funds. Most municipalities in Northern Samar rely heavily on IRA and a large portion of their expenditures are concentrated in general public services. Catarman, however, has IGPs such as the facility that produces nutrient-enhanced snacks and economic enterprises[34] such as the transport terminal and public market. Proceeds from these go to the general fund and can help augment the resources needed to implement LGU programs. Currently, Catarman's health and nutrition PPAs include a good number of nutrition-specific and nutrition-sensitive programs. It is recommended for LGUs to assess what businesses have the potential to flourish in the local context and to identify the types of assistance that can be provided, which can include the provision of training, development of skills, facilitation of loans, and linking up with potential partners such as CSOs and social enterprises.

Provide program managers training in communications and advocacy strategies. Campaigns on good health and nutrition need to be articulated to people from different walks of life. This means that program managers need to develop skills to convince LCEs to support nutrition programs, to be friends with budget officers/treasurers, to motivate frontline workers to perform well in the field, and to establish rapport with community-based organizations and other government agencies.

[31] Includes income tax, state and donor's taxes, value-added tax, other percentage taxes, excise taxes, documentary stamp taxes, and other taxes collected by the Bureau of Internal Revenue.
[32] Includes all taxes collected by the national government, and duties and other taxes collected by the Bureau of Customs.
[33] See *https://www.dbm.gov.ph/wp-content/uploads/2012/03/Manual-on-PCC-Chapter-9.pdf* for more details.
[34] Economic enterprises include public markets and slaughterhouse. "Other enterprises" is added, which connotes that any other utilities or services can be considered as economic enterprise, provided they generate income or revenues (DBM 2016).

Ensure that a plan for Solid Waste Management, a plan that has substantial effects on health outcomes, exists and funds are appropriated and expended accordingly. Per the 2018 COA report, Catarman does not have a Solid Waste Management Plan. The LGU needs to ensure that its plan is approved. While Lope De Vega has one, it has not provided funds for its PPAs. Solid Waste Management is very important for public health and can be considered as a means to achieve good health and nutrition.

Strengthen Interlocal Health Zones. The passage of the Universal Health Care (UHC) Law has provided for the integration of local health systems into province-wide and city-wide health systems. LGUs have already been working on this integration in the context of the ILHZs. ILHZs are inter-local initiatives to improve the delivery of health programs and services to their constituents. However, some are yet to be functional, including the RoBiCLoBS cluster where Lope De Vega and Catarman are members of. Currently, a number of LCEs, especially those in the richer LGUs, need to be convinced of the benefits of the ILHZ to their municipalities. The head of the RoBiCLoBS needs to strengthen his selling pitch and repackage RoBiCLoBS in the context of outreach, social responsibilities, and positive externalities that are beneficial to all.

The passage of UHC Law can help the head of RoBiCLoBS to advocate for the integration since all resources including financial grants and subsidies from national government agencies such as the DOH, grants and donations from NGOs, and Official Development Assistance will be pooled into a Special Health Fund (SHF). The SHF can be allocated not only to services, capital investments, and operating costs but to the remuneration of additional health workers and incentives for all health workers as well.

Strengthen collaboration with different agencies and stakeholders. Nutrition problems are multifaceted. Hence, the implementation of nutrition-specific and nutrition-sensitive programs requires an equally multifaceted approach. The participation of other government agencies, donors, CSOs, and LGUs will ensure that resources, supplies, infrastructures, and livelihoods are provided for and that efforts towards good health and nutrition are sustainable.

Currently, the implementation of some initiatives is fragmented. An example of this is the distribution of the DA of livestock dispersal, an initiative that has been reported to have fallen short of consultation and monitoring. To make any collaboration impactful, there should be an overarching objective that should direct the actions of all stakeholders. One such overarching objective is to provide sustainable economic opportunities to people, the attainment of which depends on coordinated efforts of various stakeholders. For example, there should be an assessment of feasible livelihood programs (jointly determined for example by the community, LGU, CSO, DA, and DSWD), identification/addressing of skill gaps (to be done by LGU, CSO, DA, and DSWD), provision of inputs (to be done by LGU and DA), addressing of financing (LGU, microfinance institutions, cooperatives, and social enterprises), and monitoring (to be done by LGU, CSO, and DA).

The LGU, being the common stakeholder in these PPAs, should take the lead and create an Action Team that will be responsible for crafting the overarching objectives of health and nutrition PPAs, formulating the interrelated PPAs, and identifying stakeholders and collaborators. The team will be responsible for selling this integrated health and nutrition PPAs to the MDC. The MDC, composed of various stakeholders and responsible for formulating development plans, policies, and investments in the LGU, can be used as a platform to affect a better coordination of these multi-sectoral PPAs.

6.2 Programs and services delivery

Strengthen the human resources working on nutrition. This is important in the light of critical issues that nutrition personnel face. First, a number of MNAOs are recently designated and they need trainings not only in crafting the MNAPs but in communicating their advocacies to different stakeholders as well. As program managers, MNAOs need to develop the creativity in getting their LCEs to support nutrition PPAs. Early on, MNAOs, especially the recently designated, should realize that crafting their communication strategies depends on how well they know their LCEs and MNAOs. They should have abilities to build rapport and good working relationships with their LCEs as well.

Second, there is a high turnover among frontline workers since they are hired and fired at the LCEs' discretion. Frontline workers need to collect accurate data so that program managers can correctly assess the effectivity of nutrition PPAs. Beyond this, frontline workers are the faces of nutrition programs and they have the capacity to influence the behavior and attitudes of parents/caregivers. Around 30 percent of the parents/caregivers (FGD respondents) trust frontline workers and if this is an indication, much remains to be done so that frontline workers can demonstrate competence and elicit trust among parents/caregivers. Given the evolving needs of the community, the development of technical skills (e.g., data collection, identification of nutritionally-at-risk women) and communications skills is essential.

Third, health workers need capacity-building on emerging issues such as the identification of chronically energy deficient and nutritionally-at-risk lactating and postpartum women, an ECCD-F1KD program/service that is yet to be provided in most Northern Samar municipalities. Since health workers have yet to acquire skills in identifying these women, the management of these cases and the provision of social welfare support such as counselling are also lacking.

Enforce the minimum qualifications when hiring BNSs/BHWs. There are minimum qualifications on hiring frontline workers (per PD 1569) and most program managers share that these qualifications are rarely considered when hiring. Program managers think that frontline workers need to have at least college units since they collect data that are critical inputs to the assessment of nutrition programs. In addition, they are the ambassadors of nutrition programs and they need to demonstrate credibility and competence. Strictly enforcing the minimum qualifications in hiring, however, can result in fewer volunteers. Therefore, an increase in incentives alongside the increase in minimum qualifications, can be explored.

Ensure that poor families are 4Ps beneficiaries. Poverty is a big factor in poor health and nutrition and it is no coincidence that Northern Samar municipalities, mostly with high poverty incidence, have high stunting and wasting prevalence. 4Ps is a program that is known to improve welfare through investment in health and education. It has also helped beneficiaries through stronger values formation and improved social awareness since beneficiaries regularly attend the FDS and Youth Development Session (YDS).

The institutionalization of 4Ps in 2019 through Republic Act 11310 ensures that participating households will continue to benefit. However, there are still poor households in Northern

Samar that 4Ps has yet to cover. Based on rough estimates[35], Pambujan has the highest number of poor households (1733) that are not 4Ps beneficiaries, followed by Las Navas (1631), Catubig (1248), Mondragon (1189), San Roque (1095), Silvino Lobos (1,000), and Palapag (984). Thus, LGUs need to play a critical role in ensuring that their constituents are advised of the conduct of the *Listahanan*, in ensuring that live births are recorded at the local registry, and in helping families in going through the process of delayed registration.

Improve the delivery of health and nutrition PPAs and supplies to GIDA with high stunting levels. There are 9 GIDA municipalities in Northern Samar and 3 municipalities have more than half of their barangays that are classified as GIDA. Programs and services should reach GIDA. The passage of the UHC Law has come at the most opportune time since it provides for the appropriate compensation of health workers in these areas. However, this does not cover frontline workers who are equally important in the implementation of health and nutrition programs. In Lope De Vega alone, there are 2 out of 22 barangays that do not have BNSs due to the cost associated with covering these areas. This issue could be much worse in other municipalities.

In addition, there is a need to ensure that supplies get to GIDA. Currently, supplies are delivered to the Provincial Health Office, and personnel in GIDA only get what they can carry. The provincial governor, the personnel responsible for the implementation of nutrition programs throughout the province per PD 1569, should ensure that these supplies are delivered to all municipalities by restoring the Provincial Nutrition Office that can be tasked to ensure the delivery of these supplies to GIDA.

Address other supply-side issues, including nutrition in emergencies. Other than ensuring that services reach underserved areas, there are ECCD-F1KD services that are not yet provided even in non-GIDA. These are the promotion of iodized salt, the provision of oral health services, the conduct of newborn hearing screening, the establishment of community-based and work-based support groups for breastfeeding, and the child-friendly spaces during natural disasters. There is also a need to strengthen water, sanitation, and hygiene (WASH) services, such as the provision of sanitary latrines and improvement in access to clean water, since these can reduce the risk of stunting. Nutrition in emergencies is another important issue that LGUs need focus on.

Craft appropriate livelihood assistance programs and strengthen the monitoring of such. Currently, the livelihood assistance in Northern Samar comes in the form of distribution of inputs for backyard gardening of hog/poultry raising. This is not 100 percent successful due to several issues that touch on sustainability and the general attitude of people towards the program. There is also an apparent mismatch between the programs and the needs of the communities.

All of these highlight the importance of properly assessing the issues and challenges in the community. Consultation among stakeholders ensures buy-in from the community as it fosters a sense of ownership of the projects. This also ensures that programs are appropriate to the geography. For example, the type of soil in coastal areas are different from the upland and therefore the seedlings that should be distributed are different as well. Once the correct livelihood program is identified, trainings should be provided to ensure that beneficiaries are

[35] Computed as *[Active 4Ps beneficiaries – (Number of households*Poverty SAE)].* Data: 2016 active 4Ps beneficiaries are taken from DSWD, number of households from the PSA 2015 Census of Population and Housing, and the 2015 poverty SAE from the PSA as well.

equipped on how to make the enterprise sustainable. Monitoring is an important aspect as well. Currently, there is no follow-up on the progress of whether the inputs from DA have actually resulted in backyard gardening or poultry/hog raising. Monitoring provides information on what can translate these programs into more sustainable livelihoods. There are reports that a number of these programs are not sustainable for most beneficiaries due to their lack of knowledge in farming and raising hog/poultry.

Rethink strategies for communicating health and nutrition advocacies for behavior change. Information campaigns are done through the conduct of learning sessions, mother's classes, home visits, and the distribution of IEC materials. Despite these efforts, issues on attitudes and behaviors remain. This should not come as a surprise since attitudes and behaviors are caused by the confluence of factors that cut across generations. The challenge in most cases is how to influence and change mindsets that are programmed by social norms and by the persistent experience of poverty and inadequate livelihood. There appears to be information fatigue among people as they ignore IEC materials and the advice of health and nutrition workers.

Despite these issues, frontline workers, program managers, and even parents/caregivers prefer traditional ways of communication. Hence, rethinking communication strategies need not be in changing the channels of delivery. Rather, it can be in tweaking the content of the IEC materials. Currently, these are coming from the NNC and contain generic information on good health and nutritious foods. Potentially due to the lack of local context, most people are indifferent to these IEC materials.

One way of localizing IEC materials is to inspire people by putting a face on success stories. Campaigns can use the stories of local poor households and if there's none, then the narratives from other municipalities. This capitalizes on the idea that people appreciate stories that are closer to home and are, therefore, relatable. Campaigns can also be in the form of a challenge (e.g. if others can do it, then so can we). Using catchy and easy to remember lines and key messages can also help (e.g., *hugot* lines phrased in the dialect). Engaging various sectors to identify the local context can substantially help in the messaging.

Launch a campaign that addresses teenage pregnancy. A number of municipalities in Northern Samar have high incidence of teenage pregnancy and this issue should be one of the focus of Family Development Session (FDS) and YDS. Information campaign on puberty and sex education can help young people comprehend the issues associated with early and unprotected intercourse, and the need for micronutrient supplementation when teenage pregnancy occurs. YDS sessions should emphasize the responsibilities associated with teenage pregnancy including prenatal checkups and the micronutrient supplementation of both the mother and the unborn/young child. To affect change in behavior, the involvement of the community, CSOs, and parent, youth, and religious leaders in crafting strategies is of paramount importance.

6.3 Nurturing care practices

Strengthen the promotion of exclusive breastfeeding and the proper timing of introducing solid foods. This can be done by organizing community-based support groups and peer counselors for breastfeeding. Currently, these are programs in the ECCD-F1KD checklist that are yet to be focused on in most municipalities.

Strengthen the promotion of neurological stimulation of the unborn, infants, and young children. Although parents/caregivers are aware that giving appropriate toys to infants and young children has benefits, most mothers have not demonstrated an appreciation of talking, reading, or playing music to the unborn. Only a few have demonstrated an appreciation of playing music to infants and young children. These point to knowledge gaps that can be addressed through a stronger campaign that promotes these activities to mothers and expectant mothers. This should be highlighted in mothers' classes, FDS, and even in doctor's consultation and in the frontline workers' home visits. This can also be highlighted in IEC materials.

Continue the campaign on giving birth in health facilities. To ensure proper maternal and neonatal care and prevent neonatal infections and postpartum complications, babies should be delivered in health facilities. Mothers get advice from *hilots* that are not in the best interest of good postpartum care. While several municipalities have reported low proportion of live births delivered at home (Gamay and Lapinig at 0.01% based on the 2018 FHSIS data, Mondragon at 11%), municipalities like Lope De Vega and Bobon have reported a fairly high proportion at 57 percent and 50 percent, respectively. Catarman has reported 25 percent

Craft programs for women's livelihood. Mothers have expressed the willingness to contribute to the family's livelihood although they appear to be constrained not only by their reproductive roles (e.g., taking care of the children, housework) but by their capacity to make an enterprise work and, eventually, sustainable. Assessment of the needs of the community should be done and trainings on appropriate home-based work should be provided.

Explore tie-ups with social enterprises (SEs). SEs are businesses that put communities at the center of their enterprise with the objectives of promoting social welfare, enabling sustainable development, and encouraging investments for empowering communities (Ballesteros and Llanto 2017). SEs are highly evolved in their conduct of business as they employ certain groups of people such as the poor and women victims of rape or violence. Examples of SEs include *Gawad Kalinga* and Human Nature. LGUs can explore partnerships with these enterprises and work with them to identify business solutions that can address poverty, and eventually, nutrition issues.

7. References

Albert, J. and C. Dacuycuy. (2017). Evaluation and assessment of the effectiveness of the DSWD internal and external convergence as operationalized by the regional, provincial, and city/municipality action teams. PIDS Discussion Paper Series 2017-32. Quezon City, Philippines.

Alderman, H., Hoddinott, J. and Kinsey, K. (2006). Long-term consequences of early childhood malnutrition. *Oxford Economic Papers*, 58 (3): 450–74.

Aizer, A. and Currie, J. (2014). The intergenerational transmission of inequality: maternal disadvantage and health at birth. *Science*, 344(6186):856–61.

Belot, M and James, J. (2011). Healthy school meals and educational outcomes. *Journal of Health Economics*, 30 (3): 489–504.

Ballesteros, M. and Llanto, G. (2017). Strengthening social enterprises competitiveness for inclusive growth: Philippines. PIDS DP 2017-04. Philippine Institute for Development Studies, Quezon City, Philippines.

Black, S., Devereux, J. and Salvanes, K. (2007). From the cradle to the labor market? The Effect of birth weight on adult outcomes. *Quarterly Journal of Economics,* 122(1): 409-439.

Bureau of Local Government Finance (BLGF) (n.d.). The statement of receipts and expenditures: Concepts, input preparation and reporting. *http://blgf.gov.ph/wp-content/uploads/2015/12/SREManual.pdf*

Crawford, C., P. Johnson, S. Machin, and A. Vignoles (2011) Social mobility: A literature review. BIS Department for Business Innovation and Skills. Retrieved from *https://www.gov.uk/government/publications/social-mobility-a-literature-review* (accessed on November 14, 2018)

De la Salle University-Social Development Research (n.d.). Maternal and neonatal health care practices in selected municipalities in North Cotabato, Sultan Kudarat, Sangani, Region XII and Quezon City.

Department of Budget and Management (2016). Manual on the setting-up and operation of local economic enterprises.

Francesconi, M. and J. Heckman (2016) May. Symposium on child development and Parental Investment: Introduction. IZA Discussion Paper No. 9977. Bonn, Germany Institute of Labor Economics.

Galiani, S. (2010). Social mobility: What is it and why does it matter? *Economica*, 59: 167-229.

Herrin, A., M. Abrigo, Z. Tam, and D. Ortiz. (2018). Child stunting prevention: The challenge of mobilizing local governments for national impact. PIDS DP Number 2018-45. Philippine Institute for Development Studies, Quezon City, Philippines.

Integrative Competitive Intelligence Asia (n.d. a) Understanding determinants of low immunization coverage in highly urbanized areas. UNICEF.

Integrative Competitive Intelligence Asia (n.d. b). Qualitative research on maternal, infant, young child and adolescents nutrition in UNICEF partner municipalities.

Knack, S, and Keefer, P. (1997). Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics*, 112 (4): 1251–88.

Krueger, A. (2012). The rise and consequences of inequality. Presentation made to the Center for American Progress, January 12th. Retrieved from *http://www.americanprogress.org /events/2012/01/12/17181/the-rise-and-consequences-of-inequality/.* (accessed on November 14, 2018)

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1997). Trust in large organizations. *American Economic Review*, 87, 333-38.

Maccini, S. and D. Yang. (2009). Under the weather: Health, schooling, and economic consequences of early-life rainfall. *The American Economic Review*, 99(3): 1006-1026.

Mitnik, P. and D. Grusky. (2015). Economic mobility in the United States. A report from The Pew Charitable Trusts and the Russel. Sage Foundation.

Narayan, A, R. der Weide, A. Cojocaru, C. Lakner, S. Redaelli, D. Mahler, R. Ramasubbaiah, and S. Thewissen, (2018). Fair progress? Economic mobility across generations around the world. Washington, DC: World Bank.

Ramirez, A., Viajar, R. and Azana, G. (2019). Operationalizing local children nutrition surveillance system: The Philippines' Operation Timbang revisited, the case of Abra de Ilog. *World Nutrition*, 2019(10):86-98.

OECD (2011). Perspectives on Global Development 2012: Social cohesion in a shifting world. OECD Publishing, Paris.

Thai, T. and E. Falaris. (2014). Child schooling, child health, and rainfall shocks: Evidence from rural Vietnam. *Journal of Development Studies*, 50(7): 1025-1037.

The Lancet. (2016). Advancing early childhood development: from Science to scale. Retrieved from *https://www.thelancet.com/series/ECD2016.* (accessed on November 14, 2018)

Thompson, R. and Nelson, C. (2001). Developmental science and the media: Early brain development. *American Psychologist*, 56 (1): 5–15.

Torche, F. (2015). Intergenerational mobility: an interdisciplinary review. *The Annals of the American Academy*, 657(1): 37-62.

Whiteley, P. (2000). Economic growth and social capital. *Political Studies*, 48(3), 443–466.

World Health Organization, United Nations Children's Fund, World Bank Group. (2018). Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. Geneva: World Health Organization.

World Health Organization (2010). Nutrition Landscape Information System country profile indicators: Interpretation guide. Geneva, Switzerland.