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Bridging the Gap: Supplementary Feeding Program for IP Children in the Province of Apayao, Philippines

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Abstract:

This study is about the Supplementary Feeding Program (SFP) for indigenous children implemented by St. Paul University Philippines-Community Development Center Foundation, Inc. (SPUPCDC) in 58 villages in the Municipalities of Calanasan, Kabugao and Sta. Marcela in the Province of Apayao, Cordillera Administrative Region (CAR), Philippines. The SPUPCDCFI was able to serve a total of seven hundred four (704) children belonging to 0-6 years old. The Supplementary Feeding Program was carried-out between 102 to 120 days in different child development centers and health centers in the three municipalities. The program was aimed at providing food in addition to the regular meals serve to the identified malnourished children and improving the existing undernutrition and the prevention of undernutrition among the indigenous children in the covered municipalities. In assessing the growth status of the children beneficiaries, SPUPCDC and the Municipal Nutrition Action Officers (MNAO) utilized the World Health Organization's indices for children which include the weight for age, height for age and weight for height. Result of the 4 months Supplemental Feeding Program in the three (3) municipalities showed minimal improvements but significant positive effects on the weight and height of the children beneficiaries varying according to child nutrition status during the start of the intervention as observe in their physical appearance and as reflected in the monitoring reports.

Keywords: *Supplementary feeding, indigenous children, undernutrition, child protection, malnutrition*

1. Introduction

Malnutrition remains to be a global health issue affecting many people irrespective of location, age, and gender. This complex problem impedes development in spite of enormous public and private efforts geared towards addressing and alleviating malnutrition. Findings of the Joint Child Malnutrition Estimates by UNICEF, WHO, and World Bank Group show that globally, nearly 151 million children under 5 years old are suffering from stunting. Early childhood is arguably the most critical period in a person's life. It is a critical period for the survival and optimal development of a child. It is also a foundational period for a person's life-long wellbeing. Most recent evidences in neuroscience suggest that at birth, infants already have the greatest number of brain cells that humans will ever have and that the greatest number of neural connections are formed by the time the child is aged 2 (Finnegan & Lawton, 2016).

Studies show that children suffering from stunting will have difficulty in attaining their full possible height and their brains may never develop complete cognitive capacity. If not given immediate intervention, these children may end up having learning difficulties in school, may earn less as adults, and may have difficulties in coping and participating in the community. Programs and interventions such as ensuring good nutrition in early years have been found to have overwhelming rates of return to investment. However, the opposite is also true: low quality health and nutrition services could have devastating long-term effects on the health of a newborn or a low quality child care program where young children are abused or severely neglected could be harmful to their long-term cognitive and socio-emotional development. Today there are already 821 million people who are chronically undernourished, compared to 811 in the past three years. This means that one in every nine people in the world are food deprived or do not have enough food, are facing hunger, and have difficulty living a healthy and active life. The State of Food Security and Nutrition in the World (SOFI) confirms that there is a rise in world hunger for a third year now. Report shows that the number of hungry people in the world is back to where it was ten years ago despite efforts and various interventions (2018 Global Nutrition Report). Malnutrition presents extensive threats to human health. It is known that malnutrition is accountable for more ill health than any other causes. Today the world is confronted with double burden malnutrition, undernutrition and overnutrition most especially in developing countries. Studies show that factors that cause malnutrition include sub-optimal diets, such as food security, health status, education, social and gender relations, socio-cultural and behavioral distinctions, environmental and economic conditions to name a few.

In 2017, UNICEF statistics show that nearly 51 million children under 5 were wasted and 16 million were severely wasted in Asia. Wasting in children is undoubtedly a serious result of poor nutrient intake and/or disease that may result to weakened immunity, and developmental delays that may occur in the child's cognitive, motor and social skills, most especially when wasting is acute. Children who are severely wasted require immediate feeding, treatment, and care to survive.

In the Philippines, malnutrition remains an important health issue. Notably, the country remains challenged in preventing mortality among children under 5, especially neonates. In 2018, data showed that there are 28.4 children who die for every 1000 live births (Knoema, 2018). This remains to be a significant number as this reflects 336,000 Filipino children dying before reaching age 5 due to malnutrition (Pasion, 2017). Looking into the numbers, the prevalence of stunting in children is 30.3% while neonatal mortality is 12.6% (Pasion P., 2016). The national prevalence of under-five stunting is 33.4%, which is greater than the developing country average of 25%. Further, the Philippines' under-five wasting prevalence of 7.1% is less than the developing country average of 8.9%. Malnutrition persists to be a serious problem in the Philippines most especially that risk increases during state of emergencies (UNICEF Philippines, 2015.)

Knowing that proper nutrition is one of the primary factors that support and promote brain development, the data reflect that substantial effort must be done in order to provide catch-up mechanisms to improve the health status of these children for brain development.

Research shows that inadequate nutrition during the early stage of life of a child can have significant effect on the brain development in ways that it is difficult to offset on a later stage. There exist situations because there are Filipino families who have incomes that cannot buy food needed by family members for nutritional well-being and health most especially in the geographically isolated and difficult areas (GIDA) areas. Malnutrition if not given attention can lead to impairment, may contribute to reduced school performance and children's ability to reach their full potential. It has been established that poor nutrition can lead to less immunity, increased susceptibility to infection and illness, compromised physical and mental development, and reduced productivity.

Data from the 8th National Nutrition Survey conducted in 2013 by the Food and Nutrition Research Institute (FNRI) of the Department of Science and Technology (DOST) revealed that prevalence of under and over nutrition still persists among Filipino children and has significantly increased as compared to the last survey conducted in 2008. Moreover, local data on Nutritional Status in 2014 in the Cordillera Administrative Region (CAR) reported that among the 0-5 years old, the Province of Apayao has the highest prevalence of underweight in the region with the province of Abra. In 2011, The Philippine government launched the Supplementary Feeding Program (SFP) for the students of Early Childhood Care and Development (ECCD) as a strategic response to the call for the eradication of hunger. and ensuring access of families, particularly the poor and the indigenous peoples in vulnerable situations, including children, to safe and sufficient food. The SFP is aimed at improving the nutritional status of identified malnourished children aged 2 to 5 years old by providing more nourishing meals and teaching the parents to preparing affordable yet nutritious meals.

Consequently, the Project 'The Accelerating Bottom-Up Budgeting (BUB) through Inclusive and Effective Governance', a project under the partnership between United Nations Development Programme (UNDP) and the Department of Social Welfare and Development (DSWD), required CSOs/NGOs to implement the 'Supplemental Feeding Program' in Apayao Province particularly in the Municipalities of Calanasan, Kabugao and Sta. Marcela to children enrolled at Child Development Centers (CDC) and Supervised Neighbourhood Play Centers (SNP) was approved to be implemented by St. Paul University Philippines-Community Development Center Foundation (SPUPCDC).

St. Paul University Philippines (SPUP), an autonomous university in Tuguegarao City, Philippines, has a strong holistic thrust towards academic excellence, spirituality and value formation, and social responsibility. Likewise, the university has extensive community outreach projects which include development projects for the poor and indigenous people in the province of Apayao and Cagayan. SPUP Community Development Center Foundation, Inc. (SPUP-CDCFI), the social service arm of SPUP, is a highly performing NGO, duly licensed, registered and bestowed with level 2 accreditation by the Department of Social Welfare and Development (DSWD) Standards Bureau as a Social Welfare Development Agency (SWDA). In February 2019, SPUPCDCFI was recognized as National Awardee – 'BEST NGO' representing Luzon awarded by the DSWD during the PANATA KO sa BAYAN Awards.

The SPUP-CDCFI programs and projects are aimed to promote the integral human development of the people who are poor and marginalized, especially the rural poor and the indigenous people, in order to alleviate their causes through trainings, education and formation programs. SPUPCDC is aware that children are the most vulnerable to suffer deprivation and malnutrition caused by poverty. In its desire to help uplift the lives of the indigenous peoples and the children of Apayao, SPUP-CDCFI expressed its intent to implement the Supplemental Feeding Program in Apayao Province, Cordillera Administrative Region (CAR) particularly in the Municipalities of Calanasan, Kabugao and Sta. Marcela, to children enrolled at Child Development Centers (CDC) and Supervised Neighbourhood Play Centers (SNP). A project under the Accelerating Bottom-Up Budgeting (BUB) through Inclusive and Effective Governance', under the partnership between United Nations Development Programme (UNDP) and the Department of Social Welfare and Development (DSWD).

The SPUP President and Chairman of SPUP-CDCFI, and the Deputy Country Director of UNDP Philippines, entered into an agreement to implement the Supplemental Feeding Program in Apayao Province for children enrolled at Child Development Centers (CDC) and Supervised Neighborhood Play Centers (SNP) in the Province of Apayao. The project was implemented in 58 feeding sites in the Municipalities of Calanasan, Kabugao and Sta. Marcela. The program was able to serve a total of seven hundred four (704) children which was conducted from 102 to 120 days in different child development centers/health centers in the three municipalities.

The Supplemental Feeding Program for the indigenous children of Apayao is aimed to provide food in addition to the regular meals serve to the identified malnourished children. The project was successfully completed with the concerted effort of the UNDP Project Coordinator, the MSWD Officers, the Barangay Nutrition Scholars, Day Care Workers and the MEAL Volunteers in coordination with the Provincial Social Welfare and Development (PSWD), Provincial Nutrition Council (PNC) and Municipal Nutrition Action Officer (MNAO).

Hence, this research to evaluate the impact of implementation of the program specifically in the achievement of its goal and objectives, activities and the changes on the nutritional status of the children beneficiaries during the pre-feeding and post feeding, and identify the enablers, challenges and or barriers encountered during the implementation, and finally, to evaluate the perceived impact and benefits of the Supplementary Feeding Program (SFP) to the beneficiaries in terms of improved weight and height and nutrition status.

2. Statement of the Problem

This is a descriptive study of the Supplementary Feeding Program (SFP) for Indigenous Children implemented by SPUP Community Development Center. Specifically, the following are the objectives of the study:

- Identify the aims, objectives, and the extent of implementation of Supplementary Feeding Program (SFP) for Indigenous Children.
- Determine the enablers and barriers in the implementation of the Supplementary Feeding Program (SFP) for Indigenous Children; and
- Evaluate the perceived impact and benefits of the Child Supplementary Feeding Program (SFP) to the children beneficiaries in terms of improved weight and height and nutrition status.

3. Methodology

The study made use of documentary analysis of the reports of the SPUP-CDC, field observation, survey, interview, and focus group discussion. Questionnaires were administered to a sample of the beneficiaries and partners from the local government unit. The volunteers and parent-participants were also interviewed regarding the impact of the program and were asked recommendations to improve program operations.

4. Scope and Limitation of the Study

The study covers the period from November 2018 to September 2019 involving about 200 participants from the local government units, and other stakeholders in gathering data from three municipalities namely, Calanasan, Kabugao and Sta. Marcela. The participants of the study were family members of SFP beneficiaries and partner implementors. The researcher encountered difficulty in gathering data due to limited available data from local government and geographical location of the three municipalities. Also, the rainy season and the mountain terrain posed accessibility and mobility limitation.

5. Results and Discussion

The results were based on the data gathered during field visits, survey and interview with the participants and beneficiaries. Apayao is located at the northernmost tip of the Luzon mainland. It is bounded on the east by the province of Cagayan, on the west by Ilocos Norte and Abra, and on the south by Kalinga. It was formerly a part of the old province of Kalinga-Apayao which then was dubbed as the Prince of the Highland Philippines.

5.1. Location and Demographic Profile

The province is almost equally mountainous/hilly (Upper Apayao) and flat (Lower Apayao) with intermittent patches of valleys and plateaus (DILG-CAR). It composed of seven (7) municipalities, namely: Calanasan, Conner, Flora, Kabugao, Luna, Pudtol and Sta. Marcela. The municipalities of Calanasan, Conner and Kabugao are in Upper Apayao while the municipalities of Flora, Luna, Pudtol and Sta. Marcela is in Lower Apayao. Apayao is an agricultural province which is frequently affected by natural calamities such as typhoons, flood when the river swells, landslide, and drought. The IP families and their children are the once greatly at risk and affected by these calamities. Given the agricultural area, which is far smaller than the mountains, the IPs are left with no choice but to gather and eat root crops and other agricultural products that freely thrive in the forest.

The lack of income and scarcity of food supply affected the health, nutrition, safety, security, and protection of children in the province. The high poverty incidence in Apayao translates into the families living conditions. Most 0-5 children in the 3 municipalities are not in age-appropriate development status that constrained them to be fully functioning adults, among the reasons include: 1) insufficient parenting education services to support quality early childhood experiences, 2) parents and caregivers too often have inadequate resources to provide their children's basic needs worsened by lack of awareness on responsible parenting, and lastly 3) lack of home-based ECCD intervention since most of the villages are located in a geographically isolated and disadvantage areas.

The data on the profile of the indigenous families in Apayao as shown in Figure 1, were taken from the Apayao Statistical Data and Wikipedia.

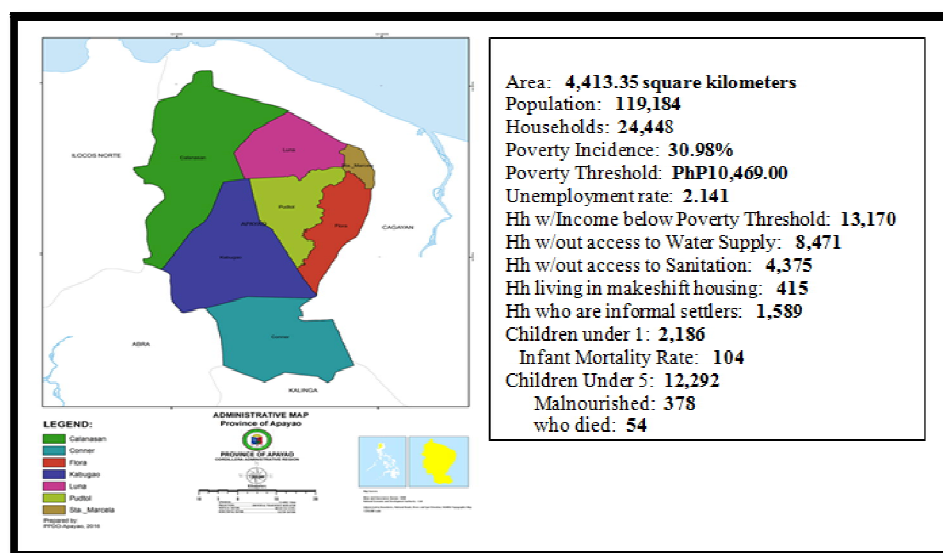


Figure 1: Demographic Profile of Indigenous Families in Apayao
Source: Apayao Statistical Data

The province has a land area of 4,413.35 square kilometers or 1,704.00 square miles. Its population as determined by the 2015 Census was 119,184. This represented 6.92% of the total population of the Cordillera Administrative Region, 0.21% of the overall population of the Luzon island group, or 0.12% of the entire population of the Philippines. Based on these figures, the population density is computed at 27 inhabitants per square kilometer or 70 inhabitants per square mile.

Data on Age Representation (PSA 2015, Census of Population and Housing)								
Age Group	Province of Apayao		Municipality of Calanasan		Municipality of Kibugao		Municipality of Santa Marcela	
	Population (2015)	Age group	Population (2015)	Age group	Population (2015)	Age group	Population (2015)	Age group
Under 1	2,285	1.92%	225	1.79%	339	2.18%	218	1.60%
1 to 4	10,144	8.51%	976	7.74%	1,375	8.85%	1,073	7.88%
5 to 9	12,776	10.72%	1,202	9.54%	1,707	10.99%	1,436	10.55%
10 to 14	12,455	10.45%	1,291	10.24%	1,645	10.59%	1,313	9.65%
15 to 19	12,399	10.40%	1,368	10.85%	1,669	10.74%	1,312	9.64%
20 to 24	11,354	9.53%	1,374	10.90%	1,366	8.79%	1,307	9.60%
25 to 29	9,449	7.93%	1,169	9.27%	1,143	7.36%	1,107	8.13%
30 to 34	8,435	7.08%	981	7.78%	1,062	6.84%	1,032	7.58%
35 to 39	7,682	6.45%	779	6.18%	950	6.11%	987	7.25%
40 to 44	6,943	5.83%	690	5.47%	929	5.98%	830	6.10%
45 to 49	6,135	5.15%	660	5.24%	772	4.97%	756	5.55%
50 to 54	5,474	4.59%	539	4.28%	759	4.89%	638	4.69%
55 to 59	4,340	3.64%	439	3.48%	587	3.78%	511	3.75%
60 to 64	3,157	2.65%	291	2.31%	384	2.47%	374	2.75%
65 to 69	2,204	1.85%	213	1.69%	304	1.96%	253	1.86%
70 to 74	1,543	1.29%	163	1.29%	196	1.26%	179	1.31%
75 to 79	1,184	0.99%	127	1.01%	163	1.05%	144	1.06%
80 and over	1,225	1.03%	117	0.93%	187	1.20%	143	1.05%
Total	119,184	100.00%	12,604	100.00%	15,537	100.00%	13,613	100.00%

Table 1: Data of Age Representation (Psa 2015, Census of Population and Housing)
Source: <https://www.philatlas.com/luzon/car/apayao.html>

As shown in the table, the age group with the highest population in Apayao is 5 to 9, with 12,776 individuals. Conversely, the age group with the lowest population is 75 to 79, with 1,184 individuals. Combining age groups together, those aged 14 and below, consisting of the young dependent population which include infants, children, and young adolescents/teenagers, which make up an aggregate of 31.60% (37,660). Those aged 15 up to 64, roughly, the economically active population and actual or potential members of the work force, constitute a total of 63.24% (75,368).

While the old dependent population consisting of the senior citizens, those aged 65 and over, total 5.17% (6,156) in all. The data further imply that the population in Apayao is generally young and able.

Municipality	Population of Under 5s	Total Number of Beneficiaries	% Coverage of the SFP
Calanasan	1201	166	13.82%
Kabugao	1714	238	13.88%
Santa Marcela	1291	300	23.23%

Table 2: Municipal Coverage of the Supplementary Feeding Program

The table shows the coverage of the program in the three municipalities. Santa Marcela had the highest coverage at 300 or 23.23%, followed by Kabugao with 238 or 13.88% and 166 or 13.82% in Calanasan respectively. The SFP coverage was calculated from the under five population and the number of beneficiaries who availed the Supplementary Feeding Program (SFP).

Municipality	Calanasan			Kabugao			Santa Marcela		
Gender	Male	Female	Total	Male	Female	Total	Male	Female	Total
Number of beneficiaries	91	75	166	150	88	238	162	138	300
%	54.81	45.18	100%	63.02	36.98	100%	54%	46%	100%

Table 3: Gender Profile of the Supplementary Feeding Program Beneficiaries

The table shows the gender of children beneficiaries who availed of the SFP in the three municipalities. The table shows that majority of the beneficiaries are male where 162 or 54% are from Santa Marcela, 150 or 63.02% are from Kabugao and 91 or 54.81% are from Calanasan respectively.

5.2. The Supplementary Feeding Program (SFP)

Republic Act No. 11037 otherwise known as the 'Masustansyang Pagkain para sa Batang Pilipino Act' of 2018 institutionalized the National Feeding Program for undernourished children in Public Day Care, Kindergarten and Elementary Schools to combat hunger and undernutrition. The law further mandates the Department of Social Welfare and Development (DSWD) to implement the Supplementary Feeding Program (SFP) to address undernutrition among Filipino children.

In 2018, the United Nations Development Programme (UNDP), released a notice inviting CSOs/NGOs to submit a proposal to implement the 'Supplemental Feeding Program' in Apayao Province under the Accelerating Bottom-Up Budgeting (BUB) through Inclusive and Effective Governance. The project under the partnership between UNDP and the Department of Social Welfare and Development (DSWD), required CSOs/NGOs to implement the 'Supplemental Feeding Program'.

In November 2018, the SPUP President and Board Chair of the SPUP-CDCFI, and the Deputy Country Director of UNDP Philippines, entered into agreement to implement the Supplemental Feeding Program in Apayao Province for children enrolled at Child Development Centers (CDC) and Supervised Neighborhood Play Centers (SNP) in the Province of Apayao. The project was implemented in 58 feeding sites in the Municipalities of Calanasan, Kabugao and Sta. Marcela, Province of Apayao, The SPUPCDCFI was able to serve a total of seven hundred four (704) children which was carried-out from 102 to 120 days in Child Development Centers (CDC) and Supervised Neighbourhood Play Centers (SNP) in the three municipalities.

The SFP is aimed at providing food in addition to the regular meals serve to the identified undernourished children coming from 58 barangays in the three municipalities. Further, it also aimed at bettering the existing undernutrition and the prevention of undernutrition among the indigenous children in the covered municipalities. The target beneficiaries in the municipality of Calanasan consists of 166 children coming from 16 barangays and was carried out within 102 days. For the municipality of Kabugao, the SFP was conducted in 29 barangays consisting of 238 malnourished children in 120 days, while the SFP in the municipality of Sta. Marcela covered a total of 300 children in 13 barangays. It was noted that there was a delay in the start of the SFP implementation in Sta. Marcela due to existing SFP Project funded by the provincial government.

5.3. Extent of Implementation of SFP

The key activities carried out during the SFP implementation period are Social Preparation which consist of Coordination meetings with UNDP Staff and with key officers of the local government units in the three municipalities, Training and orientation of MEAL Volunteers, Identification and assessment of baseline data of children beneficiaries, Food distribution, Conduct of feeding and Parent Development Sessions, Monitoring of attendance of children and MEAL Volunteers, Consolidation of reports and Conduct of FGD and exit meetings.

It took some time for the project team to gather and consolidate baseline data of malnourished children for there is no updated and available data per municipality. Fortunately, the MSWD and the MNAO was generous enough to lend a

hand which facilitated the preparation and submission of baseline data. Contributory to the success of the implementation of the SFP is the funding support provided by UNDP and St. Paul University Philippines Counterpart Fund.

Table 4 illustrates the summary of the extent of the accomplished activities within the eight (8) months SFP to ensure the efficient implementation of the SFP.

Accomplished Activities	Person/s Involved/Position	Venue/ Place/ Municipality
Courtesy Call, Coordination and Project Orientation with Key Officials and Project partners in the 3 LGU's to discuss the SFP Implementation, target beneficiaries and outcomes in their respective municipalities	Mrs. Maria Baldecanas, Municipal Social Welfare Officer (MSWDO) Kabugao	Municipal Hall, Kabugao, Apayao, CAR
	Mrs. Ignacia Aman, Municipal Social Welfare Officer (MSWDO) of Santa Marcela	Municipal Hall, Santa Marcela, Apayao, CAR
	Mr. Raymundo G. Dangan, Municipal Social Welfare Officer (MSWDO) of Calanasan	Municipal Hall, Calanasan, Apayao, CAR
Meeting with the Rural Health Unit/Municipal Health Center Officials to discuss the registration and identification of SFP beneficiaries	Dr. Ferdinand Nicolas Mrs. Edna Calvan, CHN/MNAO	Rural Health Unit, Santa Marcela, Apayao, CAR
Conduct of house to house visit and interview to gather baseline data (weight and height) of the target children beneficiaries	Barangay Health Workers (BHW), Barangay Nutrition Scholars (BNS) Child Development Workers (CDWs)	Calanasan, Apayao, CAR
		Kabugao, Apayao, CAR
		Santa Marcela, Apayao, CAR
Conduct of Feeding	BHW, BNS, CDWs, MEAL Volunteers	20 barangays in the Municipality of Calanasan
Conduct of Feeding	BHW, BNS, CDWs, MEAL Volunteers	12 barangays in the Municipality of Kabugao
Conduct of Feeding	BHW, BNS, CDWs, MEAL Volunteers	13 barangays of Sta. Marcela
Monitoring Visit and Meeting to monitor attendance, status of the feeding program and discuss issues/constraints and means to facilitate implementation of the SFP	BHW, BNS, CDWs, MEAL Volunteers	Calanasan, Apayao, CAR Kabugao, Apayao, CAR Santa Marcela, Apayao, CAR
Collaboration Meeting to conduct Parent Development Sessions	Mrs. Mary Jane Rebiajos, Municipal Midwife	Municipal Health Center, Santa Marcela, Apayao
Project Closure and Exit Meeting	Local Chief Executive of Santa Marcela	Santa Marcela, Apayao, CAR
	Municipal Administrator of Kabugao	Kabugao, Apayao, CAR
	Municipal Social Welfare Officer (MSWDO) of Calanasan, Apayao	Calanasan, Apayao, CAR

Table 4: Summary of the Implemented and Accomplished Activities

5.4. Enablers and Barriers for Program Implementation

The main enabler of the Supplemental Feeding Program, together with key stakeholders is St. Paul University Philippines. It is noteworthy to mention that SPUP provides opportunities for employees and staff to involve themselves in community service and to carry out the mission of Jesus Christ in proclaiming the gospel to the depressed, deprived and underserved communities through community engagement and service. This mission is intended to empower the partner communities and have the following objectives (SPUP-CDCFI Brochure):

- To promote the integral human development of people who are poor and marginalized, especially the indigenous peoples through trainings, education and formation programs.
- To provide opportunities for people in need to improve the quality of their lives through efficient and effective management of resources.
- To conduct livelihood training activities, non-formal education projects and scholarship assistance.

- To provide scholarships and opportunities to poor farmers and their children, indigenous people and survivors of calamities.

UNDP is another enabler of the SFP. It provided financial support and monitoring officer for the efficient implementation of the SFP Activities. Likewise, the Municipal Social Welfare and Development (MSWD), the Rural Health Units (RHU), and the Municipal Health Officers of the three municipalities who are greatly involved and have extended invaluable assistance.

The challenges and barriers encountered by the program personnel include the following: a) food preparation is challenging as not all MEAL Volunteers and parents are equipped with proper food handling and meal preparation; b) difficulty in monitoring and data gathering due to the distance of one municipality to the other and distance of the far flung barangays as most roadways or terrains going to these communities are still underdeveloped; c) as the feeding is done in day care/barangay centers, children who lives in GIDA areas cannot access and avail the program especially during rainy and unfavorable weather conditions; and d) Conflicting schedules of the LGU and postponement of the feeding programs funded by the province caused the delay in the start day of the SFP implementation in one municipality.

The SFP was successfully implemented in the 3 municipalities with the concerted efforts of the Staff-in-charge, UNDP Project Coordinator, the MSWD and MNAO officers who provided technical assistance, the Barangay Nutrition Scholars, Day Care Workers and the MEAL Volunteers who helped, co-facilitated in the procurement, preparation and the monitoring of the height and weight of children. Coordination, feedbacking and reporting of SFP activities with the Provincial Social Welfare and Development (PSWD), Provincial Nutrition Council (PNC) and Municipal Nutrition Action Officer (MNAO) was likewise undertaken to ensure awareness and recognition of the program by the LGU.

5.5. Benefits of the SFP on the Nutritional Status of Children

Result of the 4 months Supplemental Feeding Program in the three (3) municipalities showed minimal improvements but significant positive effects on the weight and height of the children beneficiaries as seen in their physical appearance and as reflected in the succeeding tables.

In assessing the growth status of the children beneficiaries, SPUPCDCFI and the Municipal Nutrition Action Officers (MNAO) utilized the World Health Organization's indices for children which are weight for age, height for age and weight for height.

Weight gain and linear growth are the 2 measures specifically used to judge the impact of the feeding program because it is simple, easy, and inexpensive to obtain. Aware that for the program to affect a child's health, the food provided must meet the physiological needs of the child in terms of energy and micronutrients. The CDC Staff, MHO, and MEAL volunteers ensured that the meals served is nutritionally adequate and that it fills the gap between the energy a child receives from usual meals at home and his/her energy requirements.

Municipality	# of feeding days	# of children	Weight for Age (Baseline Data)						Weight for Age (After SFP - Endline Data)					
			Normal		Underweight		Severely Underweight		Normal		Underweight		Severely Underweight	
			#	%	#	%	#	%	#	%	#	%	#	%
Calanasan	102	166	5	3	138	83	23	14	143	86.0	22	13.0	1	1.0
Kabugao	120	238	141	59	81	34	16	7	182	76.4	53	22.2	3	1.3
Sta.Marcela	109	300	246	82	43	14	11	4	259	86.0	37	12.0	4	1.0

Table 5: Baseline and Endline Weight for Age Status of Beneficiaries

The table shows the difference between weight for age of the beneficiaries before the feeding and after the feeding, there was a marked decrease in the severely underweight in Calanasan from 23 (14%) to 1(1.0%); in Kabugao from 16 (7%) to 3 (1.3%), while 11 (4%) to 4 (1.0% in Santa Marcela respectively.

Municipality	# of feeding days	# of children	Height for Age (Baseline Data)						Height for Age (After SFP - Endline Data)					
			Normal		Stunted		Severely Stunted		Normal		Stunted		Severely Stunted	
			#	%	#	%	#	%	#	%	#	%	#	%
Calanasan	102	166	8	5	142	86	16	9	106	64	54	32	6	4
Kabugao	120	238	139	58.4	63	26.4	36	15.1	177	74	42	18	19	8
Santa Marcela	109	300	256	85	35	12	9	3	256	85	36	12	8	3

Table 6: Baseline and Endline Height for Age Status of Beneficiaries

The table shows the difference between height for age of the beneficiaries before the feeding and after the feeding, there was a significant decrease in the severely stunted in Kabugao from 36 (15.1%) to 19 (8%); and a minimal decrease in severely stunted in Calanasan from 16 (9%) to 6 (4%) and 9 (3%) to 8 (3% in Santa Marcela.

Municipality	# of feeding days	# of children	Weight Height/Length (Baseline Data)						Weight Height/Length (After SFP - Endline Data)					
			Normal		Wasted		Severely Wasted		Normal		Wasted		Severely Wasted	
			#	%	#	%	#	%	#	%	#	%	#	%
Calanasan	102	166	29	18	113	68	24	14	152	92	13	7	1	1
Kabugao	120	238	144	61	87	36	7	3	190	80	48	20	0	0
Santa Marcela	109	300	243	81	28	9	9	3	249	83	27	9	4	1

Table 7: Nutritional Status Assessment before Feeding (Baseline) and after Feeding (Endline) Assessment

Table 7 shows the difference between the nutritional status of the beneficiaries before the feeding and after the 102, 109 and 120 days feeding. As shown in the table, the SFP is successful in alleviating the nutritional status of children beneficiaries most especially in the municipality of Kabugao for it graduated its 7 (3%) severely wasted children to zero (0), while there was a significant decrease in the severely wasted in Calanasan from 24 (14%) to remaining 1 (1%); and a minimal 4(1%) remaining severely wasted in Santa Marcela.

Although there are still minimal number of children who are identified as malnourished, the implementors are still hopeful that the remaining number of children will be given proper attention by their care-givers and the LGU's and be provided with interventions so they may be able to meet their desired nutritional status. SPUPCDCFI Staff will conduct monitoring visits to the LGU's as to the status the identified remaining children and will assist should there be a need for further intervention.

According to the participants of the study, the successful implementation of the SFP in the three municipalities was attributed to the collaborative efforts of the SFP implementors, SPUPCDC and its partners. Contributory to this, is the proper coordination with the officers of the LGU's (MNAO, MSWDO, LCEs) and social preparation which ensured support and active involvement of the BNS, BHW and MEAL volunteers for they were able to utilize efficiently the funds allocated to them. Another is the active involvement and cooperation of the parents/caregivers which facilitated the recording, updating and reporting of the nutritional growth of children.

The perceived impact of the SFP for Indigenous Children to the participants and beneficiaries is outstanding. The participants are appreciative for the Supplemental Feeding Program and for the Parent Development Sessions conducted which they claim has increased the participants awareness and understanding about maternal health, child-rearing, proper food preparation, nutrition, and hygiene. Moreover, the participants conveyed their profound joy and salutations to St. Paul University Philippines, especially the staff for they were able to reach them despite the fact that their location is far from Cagayan and are also belong to separate regions.

The implementers, on the other hand, have regarded their monitoring experiences as extraordinary and challenging, it strengthened their commitment to serve above the call of duty. Despite the difficulties and obstacles in program implementation, SPUP-CDCFI have duly managed and guided the staff which led to the success of the supplementary feeding program.

As mentioned by the participants, the supplementary feeding program was a great help in improving the nutritional status of the indigenous children in the municipalities of Calanasan, Kabugao and Santa Marcela, in the province of Apayao.

6. Conclusions and Recommendations

The supplementary feeding program was efficiently implemented and its impact to children and their parents has been positive. The parent development sessions conducted was beneficial as it increased the participants awareness and understanding about maternal health, child-rearing, proper food preparation, nutrition, and hygiene.

The supplementary feeding program was able to meet its goal of rehabilitating at least 90% of the malnourished children at the end of the 102, 109 and 120 days program cycle and in bettering the existing undernutrition and the prevention of undernutrition among the indigenous children in the three municipalities in the province of Apayao, although there are still minimal number of children who are identified as malnourished.

Therefore, it is highly recommended that SPUP-CDCFI to continue to reach-out to the three LGU's particularly in lobbying for SFP, crafting of sustainability plan for children, conduct of parent development sessions, and in monitoring the nutritional status of the remaining malnourished children. Moreover, support and partnership for the conduct of supplementary feeding program by the LGUs is highly recommended to guarantee continuity of the program.

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