

Giao Diem Humanitarian Foundation (GDHF)
Pediatric Nutrition Supplement Program (PNSP)
9/15/2019 – 8/15/2020

Final Report

Submitted August, 2020

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Organization Name:	<i>Giao Diem Humanitarian Foundation (GDHF)</i>
Project Title:	<i>Pediatric Nutrition Supplement Program (PNSP)</i>
Project Start/End Date:	<i>9/15/2019 – 8/15/2020</i>
Approved Grant Amount:	<i>\$135,000</i>
Quarterly or Final?	<i>Final Report</i>
Reporting Period Date:	<i>4/30/2020 – 8/17/2020</i>

A. Project Overview/Summary:

1. *Background context to highlight importance of this program:*

According to the World Health Organization (WHO), “malnutrition is the single most important risk factor for disease. When poverty is added to the picture, it results in a downward spiral that may end in death.”¹ Underweight, wasting, and stunting continue to plague ethnic minority children in the mountainous areas of Vietnam. According to the Vietnamese National Institute of Nutrition in 2010², the Central Highlands and Mountain regions had the highest percentage of households that experienced food shortage (15.6%). Among the poorest households in those regions, food shortage was three times higher than the national average (21.5%). Among children in those areas, the prevalence of iron deficiency anemia was 52% and vitamin A deficiency was 20.9%.

Our school-based **Pediatric Nutrition Supplement Program (PNSP)** strives to reduce malnutrition through nutrition-specific programming, namely food and micronutrient supplements, to children in two provinces across rural Central Vietnam, along with nutrition education for caregivers. This program continues to focus on the ethnic minority communities in the highlands of central Vietnam and in some central coastal communities whose malnutrition rate is above government benchmarks. Malnutrition is difficult to solve in these communities, where families remain vulnerable to poor health and living conditions resulting from ongoing financial insecurity. Sadly, these needy communities have largely been excluded from economic development occurring elsewhere in Vietnam. Lack of access to nutritious food, combined with insufficient understanding of good nutritional practices available to caregivers, present additional challenges to improving the nutritional status and health of young highland children.

PNSP's intervention at schools can reach children ages 3-6 attending preschool to kindergarten, but the program is also seeking ways to reach children under 36 months of age. Reaching this age group is especially critical as under-nutrition in the first years of life, especially the “first 1,000 days” (from conception to 2 years old), can cause poor cognitive and physical development later in life. Unfortunately, lack of government subsidies for this age group prevent the poorest families from sending children under 3 years to school where they could benefit from this and similar programs. The PNSP, through the **Nutrition**

¹ Turning the tide of malnutrition: Responding to the challenge of the 21st century, World Health Organization, *available at:*

https://apps.who.int/iris/bitstream/handle/10665/66505/WHO_NHD_00.7.pdf?sequence=1&isAllowed=y

² National Review Vietnam’s Sustainable Development Goals with a Child Focus, Hanoi, Sep. 2019 – UNICEF and Vietnam Ministry of Planning and Investment, Dept. of Science, Education, Natural Resources and Environment

Education via Cooking Program (NEC) component launched last year, aims to complement the school-based program intervention with a deep engagement with mothers and caregivers at home in their communities so that the youngest children (and those about to be born) will be reached.

2. Project description:

For the 2019-2020 school year, GDHF's **Pediatric Nutrition Supplement Project (PNSP)** operates in two provinces: Quảng Trị and Thừa Thiên (Huế). The program focuses on underweight ethnic minority children under 6 years of age and their caregivers.

GDHF's goal is to contribute to the reduction of malnutrition among children in participating schools. This is achieved by the continuation of the nutrition supplement program, whose main component includes providing one cup of daily-made peanut-enriched soymilk, nutrient dense early-afternoon congee, and micronutrient supplementation for each child. We support 2,275 students from 12 schools throughout the 2019-2020 school year.

LOCATION	DISTRICT	SCHOOL	Number of Students	
			9.2019	7.2020
Quảng Trị	Gio Linh	Linh Thượng	182	181
		Vĩnh Trường	123	121
	Đa Krong	Hoa Lan	106	105
	TOTAL Quảng Trị		411	407
Thừa Thiên/ Huế	A Lưới	Hồng Vân	276	274
		Hồng Trung	138	138
		A Ngo	274	271
		Bắc Sơn	141	140
	TOTAL Huế/A Lưới		829	823
Thừa Thiên/ Huế	Hương Thủy	Hoa Nghiêm	152	148
	Quảng Điền	Đông Phú	236	236
		Quảng Công	221	218
	Phong Điền	Điền Lộc	235	228
		Điền Hải	191	187
TOTAL Huế/Lowland		1,035	1,017	
GRAND-TOTAL			2,275	2,247

Services and Provisions (2019-2020):

With limited resources and personnel, PNSP tries to strike a balance between the needs of each school and their chances of success through their willingness and ability to cooperate with PNSP.

Thus, working with affiliated local NGOs, PNSP selects schools to offer its full or partial services and provisions ("Full Support" or "Partial Support") depending on a variety of factors. These factors include, but are not limited to, the students' degree of malnutrition, the surrounding community's general poverty level, the local government's level of support, the school administrators' and teachers' degree of commitment, and the parents'

degree of involvement. No less important are the availability of pertinent infrastructure (kitchen, water, electricity, etc.) and the accessibility of the affiliated local NGO to the school. The services and provisions for each participating school this year are summarized below:

School (Campus)	Ht&Wt Measurementt	Soymilk 200ml/d	Mid-day meal 1 bowl/d	Anemia Screen	VitC,Zn,Fe 1/d, <3: liquid Zn & Fe, Anemic: Extra Fe	Pediasure 1 cup/d	NEC Nut. Ed. Via Cooking	Nut. Ed. For Staff
QUẢNG TRỊ Full Support								
Linh Thượng	Yes	Yes Except children less than 18 mos 100ml/d	Yes	Yes	Yes	Yes	Yes	Yes
Vĩnh Trường	Yes	Yes Except children less than 18 mos 100ml/d	Yes	Yes	Yes	Yes	Yes	Yes
Hoa Lan	Yes	Yes Except children less than 18 mos 100ml/d	Yes	Yes	Yes	Yes	Yes	Yes
HUẾ Full Support								
Hoa Nghiêm	Yes	Yes	Yes	Yes	-	Yes Only maln.	Yes	Yes
Hồng Vân	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
Hồng Trung	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
A Ngo	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
Bắc Sơn	Yes	Yes	Yes	Yes	Yes	-	Yes	Yes
HUẾ Partial Support								
Đông Phú	Yes	Yes	-	Yes	-	-	Yes	Yes
Quảng Công	Yes	Yes	-	Yes	-	-	Yes	Yes
Điền Lộ	Yes	Yes	-	Yes	-	-	Yes	Yes
Điền Hải	Yes	Yes	-	Yes	-	-	Yes	Yes

In addition, we conducted a modified version of the Nutrition Education and Rehabilitation Program (NERP) model, now renamed **Nutrition Education via Cooking Program (NEC)**, that aims to improve the mothers’ and other caregivers’ nutrition knowledge and to encourage them to apply that knowledge in their daily life at home. The goal of NEC is to improve the nutritional status of their children, including the youngest who have not yet begun attending school.

At the beginning of the four-session series, a pre-test is administered to measure participating parents’ initial knowledge of health and nutrition. Over the course of program, NEC’s leading teachers teach parents the nutrition and health education lesson plans received from PNSP staff. During NEC’s hands-on cooking portion, teachers also teach new nutritious dishes to parents based on the weekly menu provided by PNSP staff.

At the end of each session, PNSP staff provides parents a food package that contains the main cooking ingredients such as beans, oil, and others . . . that reflect those needed in the lesson of the day so they can cook at home for their family what they learned. The additional supplies of food are intended to help the undernourished children retain their weight gain instead of losing it over the weekend, when nutritious meals are normally unavailable at home. We also strongly believe that repeating a hands-on, concrete practice is an effective way to not only help the mothers remember the lesson—it also empowers them with the “can do” spirit in their effort to improve the health and nutrition of their children.

A post-test is given at the end of the fourth session to measure the parents’ knowledge and how much is retained. Please note that for locations in their first year of NEC, the program manager in Vietnam, Dr. Hong Nga, personally leads the sessions and aids the local teacher.

B. Activity Implementation Progress:

Key Achievements Brief Narrative

Project Outcome 1	Reduced rate of underweight targeted Vietnamese school children by 25%
Project Outcome 2	Reduced rate of iron-deficiency anemia among the targeted Vietnamese school children by 20%
Project Outcome 3	Uptake of nutritional practices learned during NEC sessions by participating caregivers

Steps taken to achieve the above 3 project outcomes.

1. Outcome 1: Reducing malnutrition rates by 25%.

In general, during weekdays at school, children receive one glass of freshly made peanut-enhanced soymilk. They also receive supplements such as iron, zinc, and vitamin C, as well as a congee or noodle dish early in the afternoon. This early afternoon meal is provided with the intention of supplementing the children’s dinner, as many do not eat dinner, or eat inadequate nutrition at dinner time. The meal supplement, in addition to the government-provided lunch program, ensures the children receive at least two full meals a day as well as a fresh glass of fortified soymilk.

During the rainy months when cooking soymilk becomes a greater challenge for the school cook and school attendance is low, Pediasure is generally provided twice a day in lieu of one glass of soymilk.

For this reporting period, the malnutrition rates based on the last measurement of height and weight in July 2020 are summarized below:

- For the Full Support schools in Quảng Trị, PNSP helped reduce their average malnutrition rates by only 5%. While the malnutrition rates in Linh Thượng and Hoa Lan increased by 5% and 3%, respectively, the malnutrition rates in Vĩnh Trường dropped by 32%.
- In A Lưới, the average malnutrition rate dropped by 26%. Of the four Full Support schools in that district, malnutrition rates in Hồng Vân dropped by only 10% but those in A Ngo, Hồng Trung and Bắc Sơn dropped more, by 26% and 40%, respectively.
- Another Full Support school in the south suburb of Huế, Hoa Nghiê, had its malnutrition rate reduced by 50%.
- In regard to the four Partial Support schools north of Huế, Đông Phú and Quảng Công (Quảng Điền district) had the most reduction of their malnutrition rates, by 67% and 57% respectively. The other two schools (Phong Điền district), Điền Lộ and Điền Hải, had their malnutrition rates reduced by 43% and 14%. On the average, the four Partial Support schools' malnutrition rate was reduced by 50%.

Thus, at the end of the year—aside from the four schools (Linh Thượng, Hoa Lan, Hồng Vân, and Điền Hải) that had either small reduction, or even increasing, malnutrition rates—the remaining eight schools had their malnutrition rate reduced by 25% or more, achieving Project Outcome 1. Most schools achieved at least a 25% reduction in the malnutrition rate from the Q1 to Q2 period and they were able to maintain their malnutrition rate reduction from Q2 period to the end of the school year, despite being off the program for almost four months due to the COVID-19 pandemic.

Quảng Trị (Full Support Schools):

% CHANGE MALNUTRITION RATE: Quảng Trị Full-support				
SCHOOL	MALNUTRITION RATES			% CHANGE (Q3 - Q1) / Q1
	Q1 (9.2019)	Q2 (1.2020)	Q3 (7/2020)	
Linh Thượng	41%	28%	43%	+5%
Vĩnh Trường	31%	21%	21%	-32%
Hoa Lan	35%	35%	36%	+3%
Average Quảng Trị Full-support	37%	28%	35%	-5%

Huế: (Full and Partial Support Schools):

% CHANGE MALNUTRITION RATE: Huế Full-support and Partial-support				
SCHOOL	MALNUTRITION RATES			% CHANGE (Q3 - Q1) / Q1
	Q1 (9.2019)	Q2 (1.2020)	Q3 (7.2019)	
Hồng Vân	21%	20%	19%	-10%
Hồng Trung	23%	14%	14%	-40%
A Ngo	23%	18%	17%	-26%
Bắc Sơn	25%	16%	15%	-40%
AVERAGE	23%	18%	17%	-26%
Hoa Nghiêm	10%	5%	5%	-50%
AVERAGE	10%	5%	5%	-50%
Average Huế Full Support	21%	16%	15%	-29%
Đông Phú	9%	3%	3%	-67%
Quảng Công	7%	3%	3%	-57%
AVERAGE	8%	3%	3%	-63%
Điền Lộc	7%	4%	4%	-43%
Điền Hải	7%	6%	6%	-14%
AVERAGE	7%	5%	5%	-29%
Average Huế Partial Support	8%	4%	4%	-50%

2. Outcome 2: Reducing anemia rates by 20%.

All students in Full Support schools were screened for anemia in September 2019. Those who were found to be anemic were provided 2 doses of iron tablets instead of one (every child in full support program receive one tablet of iron routinely as their daily recommended maintenance dose and anti-parasitic medication where local government does not provide). All students who got initial hemoglobin screening for anemia in September also received follow up hemoglobin check again in July 2020. Their results are listed in the table below.

Note: Due to the high “% Unknown” (representing those who were absent during either screening), the results of “% Anemia Change” reflect changes from students who were present in both screenings.

- Overall, Quảng Trị had an average reduction of anemia rate of only 9%. Only Hoa Lan had a reduction in anemia rate of 30%, higher than the 20% of Project Outcome 2. But Vĩnh Trường had -6% anemia rate change. And Linh Thượng even had an increase in anemia rate of 6%.
- Over all, A Lưới had an average reduction of anemia rate of 29%. A Ngo and Bắc Sơn had their anemia rate reduced at 36% and 81% (respectively), far higher than the

20% of the Project Outcome 2. But Hồng Trung had an increase in anemia rate of 10% while Hồng Vân had 0% change.

- Thus, of the seven schools that had anemia screening for their children, only three had their % Anemia Rate change reduced by more than 20% as stated in Project Outcome 2.

% CHANGE ANEMIA RATE ALL STUDENTS: Quảng Trị Full-support											
SCHOOL	Anemia 9.2019			Anemia 7.2020			Students w/ Screening & Follow-up		% Anemic		% Anemia Change
	# Yes	% Yes	% Unk.	# Yes	% Yes	% Unk.	#	%	Sep.	Jul.	
QUẢNG TRỊ											
Linh Thượng	77	43%	2%	79	44%	5%	171	94%	44%	46%	4%
Vĩnh Trường	63	52%	2%	59	49%	6%	113	93%	55%	51%	-6%
Hoa Lan	59	56%	2%	41	39%	5%	98	93%	58%	41%	-30%
Total QT	199	49%	2%	179	44%	5%	382	94%	51%	46%	-9%

% CHANGE ANEMIA RATE ALL STUDENTS: Huế Full-support (not include Hoa Nghiêm)											
SCHOOL	Anemia 9.2019			Anemia 7.2020			Students w/ Screening & Follow-up		% Anemic		% Anemia Change
	# Yes	% Yes	% Unk.	# Yes	% Yes	% Unk.	#	%	Sep.	Jul.	
A LƯỚI											
Hồng Vân	38	14%	19%	30	11%	31%	184	67%	16%	16%	0%
Hồng Trung	23	17%	5%	22	16%	14%	118	86%	17%	19%	10%
A Ngo	34	13%	6%	21	8%	8%	248	92%	13%	8%	-36%
Bắc Sơn	27	19%	1%	5	4%	1%	139	99%	19%	4%	-81%
Total Huế/A Lưới	122	15%	9%	78	9%	15%	689	84%	16%	11%	-29%

3. Outcome 3: Uptake of nutritional practices learned during NEC sessions.

To better communicate with not only parents but also personnel of participating schools and even our affiliated NGOs, we decided to change the NERP model to **NEC (Nutrition Education via Cooking)**. The change allows a more concrete and direct description of the purpose and organization of the model. The changed title has been effective to an audience with a language barrier and cultural differences.

As in previous years, NEC has increasingly become the preferred approach of PNSP's Health and Nutrition Education component due to its unique characteristics:

- This model allows a format where information delivery includes less verbal instructions and more hands-on, practical presentation.
- The model requires concrete and committed involvement on the part of participating parents. Direct involvement through actual performance, rather than passive listening, helps parents to learn more effectively and retain the information longer.
- It also empowers them to believe in themselves, and enables them to modify their beliefs and behaviors toward better health and nutrition practices (be it handwashing or cooking with more nutritious but uncommon food like pork skin, pork liver – both inexpensive and locally available ingredients).
- Finally, the model helps foster a sense of community. Participants spend time together, not only developing awareness of the common threat of malnutrition, but also working together against such threat by learning the same information, sharing the same cooking strategies, using the same ingredients, and witnessing the same enjoyment from their children (who heartily consume what their mothers cook at the end of each NEC session).

Despite the lack of solid empirical data, there is plenty of anecdotal evidence from the mothers' narratives regarding whether they like the recipes or cook the nutritious dishes at home. The success of the program is also evident from the progressively healthier and livelier appearance of the children as the NEC sessions progress week after week.

Furthermore, as NEC has increasingly become PNSP's primary mode of health and nutrition education, it was encouraging to look at the pre- and post-test results, in which participating mothers demonstrated their understanding and recollection of basic health/hygiene and nutrition knowledge pertaining to the care of their children. This year, however, the operation and scheduling of NEC encountered many challenges:

- There were five schools who participate in NEC for the first time. And of those five, four only recently joined PNSP this year.
- Because of the number of first-time schools, PNSP staff have to rely more on local NGO staff and written instructions to supplement their training of school personnel about NEC procedure. This "indirect" transmission of instructions between PNSP staff and school personnel unfortunately reduced the effectiveness of the training and affected the quality of the school personnel's performance while conducting NEC.
- Furthermore, per the model's procedure, PNSP staff must depend on those newly trained school personnel to explain and recruit parents to join NEC through its registration process.
- To be able to better monitor/support NEC activities at different schools and different times, we have had to shorten NEC from 7 to 4 sessions.
- Aside the above, designing a weekend-only calendar for NEC that addresses the unique preference/need of each school (and its parents) poses a challenge that also

includes geographical distances and the amount of time PNSP staff must travel from one place to another.

Despite the above, NEC went well during the first half of the school year, prior to the school break for the new year. Then the pandemic hit and the resulting school closures following the new year jeopardized our original calendar. Not until the reopening of schools in mid-May were we able to scramble to implement a new calendar. Consequently, some locations could only implement a 3-session NEC. Also, overwhelmed with reorganizing its normal functions for reopening, Điền Hải school had to pull out of NEC.

The table below summarizes the registration and attendance of NEC this year.

NEC 2019-2020 POPULATION							
Nov,2019 – Jan,2020				May,2020 – July,2020			
Mother	Student	Non-Student	TOTAL	Mother	Student	Non-Student	TOTAL
145	148	0	293	159	93	0	252

NEC ATTENDANCE Period Nov, 2019 – Jan, 2020						
MOTHER ATTENDANCE: 4-meeting NEC				MOTHER ATTENDANCE: 3-meeting NEC		
4 times (100%)	3 times (75%)	2 times (50%)	1 time (25%)	3 times (100%)	2 times (67%)	1 time (33%)
78%	16%	5%	1%	88%	12%	0%
NEC ATTENDANCE Period May, 2020 – July, 2020						
MOTHER ATTENDANCE: 4-meeting NEC				MOTHER ATTENDANCE: 3-meeting NEC		
4 times (100%)	3 times (75%)	2 times (50%)	1 time (25%)	3 times (100%)	2 times (67%)	1 time (33%)
80%	5%	14%	1%	82%	16%	2%

Note:

1. A few mothers have more than one child.
2. During the May-July 2020 sessions, because of travel time constraints of PNSP staff during the COVID-19 pandemic, some schools needed to get 2 sessions for 2 different groups of mothers back to back and had only the mothers to attend NEC. They were then allowed to take the food home to their children after cooking sessions were over.

Implementation Status/Challenges:

For PNSP:

- Overall, almost all participating schools demonstrated a reduction of malnutrition rates from Q1 through Q2. However, a majority of them showed either an increase or no change in their malnutrition rate in Q3. There is no doubt that the COVID-19 pandemic had negatively impacted the most vulnerable, poor and economically disadvantaged families in the areas we serve. This is most likely a direct result of the two-week school break during the Lunar New Year celebration followed by the long, nearly four-month stretch of school closures due to the pandemic. Without being able to attend school, which usually provides their only nutritious meal of the day, many malnourished children in our PNSP are adversely affected. In particular, the children in the highland of Quảng Trị were severely impacted.

A case in point is Linh Thượng. This pre-school has been with PNSP for several years and it usually does well, despite being situated in the middle of one of the poorest communes in Gio Linh district. Linh Thuong did very well during the first three months, from Sep. to Dec. 2019. This period witnessed the malnutrition rate decreasing from 41% to 28% – a significant reduction of 27% (Q2-Q1/Q1). Due to the pandemic and school closures spanning more than three months, the children lost their only nutritious meals at school. Their initial weight gain was lost, and more kids became malnourished as a result. What happened with Linh Thượng illustrates the critical need of having a good nutritious meal at school.

- Due to the pandemic, which resulted in school closures for more than three months and restricted mobility within the country, as well as international travel, our PNSP's monitoring activities and in-service training for local staff and those of our affiliated NGOs had to be curtailed.
- To minimize the weight loss of the children in the program during the pandemic, we distributed food packages which included rice, mung bean, oil, sugar, and salt to all children in the Full Support schools in March and April 2020.

For NEC:

- Again, the pandemic and its severe consequences on NEC's scheduling has affected the schools' preparation, parents' availability, and the length of NEC. One of the key components that determines the success of NEC has always been the registration and participation of the parents. Because of the economic impact created by the pandemic, the second part of NEC (after schools had reopened) presented great challenges to school personnel who are responsible for registering parents.
- Certain issues of NEC remained, including: (a) a few parents who signed up for each of the groups changed their mind about attending, since they have to work; (b) the frequency of attendance can vary widely; and (c) the administration of pre- and post-testing among various schools has been inconsistent, due to time constraints.

Because of the logistic change in schedule due to the pandemic, PNSP and NGO staff were unable to work with schools to address/alleviate these issues.

C. Financial & Budget Narrative:

At the time of this writing, financial data is still being collected for accounting purposes and will be submitted shortly afterwards. However, we foresee that there will be leftover funds from this year's grant as many of the program's activities were halted due to the COVID-19 pandemic and resulting from nearly four-month school closures. We would like to use the leftover funds of this grant toward next year's program, if you agree. We will send the next school year 2020-2021 grant proposal to you shortly.

Success Story:

In early August, we did a survey of the principals whose schools participated in PNSP this year to obtain their input and assessment of the PNSP. Most of their responses regarding our PNSP and its NEC component are very positive. Below is a summary of some of their comments (translated from Vietnamese):

- With the exception of one or two dishes, the majority of dishes from the mid-day meal menu created by GDHF are enjoyed greatly by the students. Some schools made suggestions to further improve the menu, which we are reviewing.
- Training by PNSP staff about the cooking portion of the early-afternoon meal is regarded as effective. However, schools request for more training sessions for cooks to improve further their nutrition knowledge and cooking skills.
- The improvement on the student's health and nutrition is remarkable and noticeable as shown in their daily, physical activities.
- The principals of two schools that did not participate in NEC this year (Bắc Sơn and Quảng Công) expressed their desire to have their schools join NEC next year.
- Even one school receiving only partial support (Quảng Công) expressed its appreciation of not only material help (soymlk production) from PNSP, but also the concern and support PNSP staff has shown to their students, parents, and school staff.
- Another new school this year (Đông Phú) mentioned the positive effects on school personnel and parents receiving nutrition education.
- The principal of Vĩnh Trường reported that parents now understand more about the need to vary home cooked meals as a way to improve their children's nutrition. They realize that having nutritious food does not necessarily mean an increase in expense. And they also learned about personal hygiene, basic practices to care for their children's health, and proper ways to prevent common illnesses.
- A couple of schools in Quảng Trị (Hoa Lan and Linh Thượng) noticed the improvement in the student's daily attendance thanks to the PNSP, particularly by those whose families are classified as poor.
- The food packages given to children in the Full Support schools in March and April 2020 are much needed and greatly appreciated by parents.

Summary of the program

Overall, the majority of schools in our program have made good progress in achieving our three highlighted project outcomes, despite the recent unexpected COVID-19 pandemic that has affected all aspects of our lives. The resulting challenges from the pandemic have laid bare the socioeconomic inequalities in child nutrition in many of the communities we serve in Quang Tri and Hue. There are significant differences in the malnutrition rate among our schools—those who are less socioeconomically disadvantaged fared better in their malnutrition rate reduction. As stated in a decade-long study on this issue, “the impact of socioeconomic inequalities in child malnutrition has increased over time. Most of the inequality in malnutrition was due to ethnicity and socioeconomic status. Socioeconomic status was the largest contributor to inequalities in stunting.”³

This year’s results clearly demonstrate that our school-based nutrition program is vital to this group of children who require assistance from multifaceted approaches for their health and survival. We also believe that our nutrition education via cooking program serves an important role in helping these communities reduce their malnutrition rate for children under five years old. We hope getting mothers and caregivers involved in this program helps their children not only survive, but thrive. Behavior change takes time. We believe that by giving this underserved population proper tools and knowledge, they can in turn help their children grow and develop their potential.

Due to the current second wave of COVID-19 cases in Vietnam, restrictions in mobility and social gatherings, uncertainty of when schools will reopen, we face even more challenges ahead. Our next school year proposal will include plans for school-based and home-based nutrition programming. We hope you continue supporting these vulnerable children at home during the pandemic, when school is no longer a place where they can rely on getting nutritious meals for their survival.

³ Vu, Duy Kien et al. “Trends in socioeconomic inequalities in child malnutrition in Vietnam: findings from the Multiple Indicator Cluster Survey, 2000-2011.” *Glob Health Action*. 2016 Feb 29; 9; 29263.

Monitoring & Evaluation

Key Performance Indicator (KPI) Reporting:

KPIs Selected on Application	Target	Results Achieved to Date
Total number of Direct Participants *Reminder to include both students as well as parents participating in NEC*	2,280	<p><u>For PNSP:</u> . The initial number of participants was 2,275 with 1,392 in the Full-support category and 883 in the Partial-support categories. . In the end, the number is reduced to 2,247 with 1,378 in the Full-support category and 869 in the Partial-support categories.</p> <p><u>For NEC:</u> . The total of NEC participants in the first period (11.2019 to 1.2020) was 293 that included 145 mothers and 148 children . For the second period (5.2020 to 7.2020), there were 252 participants that included 159 mothers and 93 children.</p>
Total number of Workshops conducted	5	For this reporting period, there was 1 workshop for teachers and 40 small-group NEC workshops for parents.

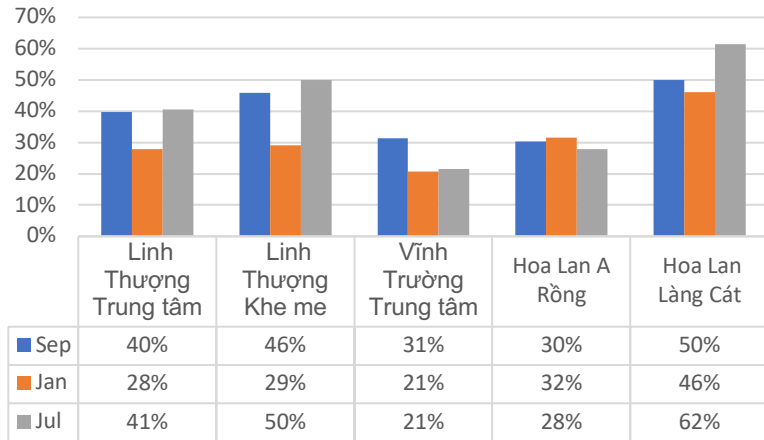
Table 1: Number of students participating in the Pediatric Nutrition Supplement Program (PNSP)

PNSP 2019-2020 POPULATION					
SCHOOL		Category	9.2019	1.2020	7.2020
Quảng Trị	Linh Thượng (Trung Tâm & Khe Me campuses)	Full-support	182	182	181
	Vĩnh Trường		123	122	121
	Hoa Lan (A Ròng & Làng Cát campuses)		106	106	105
	Sub-Total			411	410
Huế - A Lưới	Hồng Vân (Trung Tâm & Điểm Phụ campuses)	Full-support	276	276	274
	Hồng Trung		138	138	138
	A Ngo		274	274	271
	Bắc Sơn		141	141	140
	Sub-Total			829	829
Huế - Lowland	Hoa Nghiêm	Full-support	152	152	148
	Đông Phú	Partial-support	236	235	236
	Quảng Công		221	221	218
	Điền Lộc		235	234	228
	Điền Hải		191	186	187
	Sub-Total			1,035	1,028
Grand Total			2,275	2,267	2,247

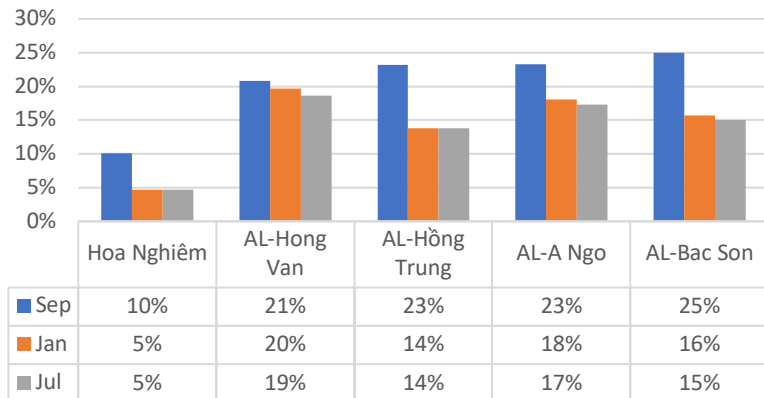
Table 2: Change in Weight-for-Age by Area

(a) Weight-for-Age Data - Full-support					
AREA	School	Number of students (9.2019)	Children w/ a Z-score less than -2SD		
			Baseline # (%)	Midpoint # (%)	Endpoint # (%)
Quảng Trị	Linh Thượng	182	75 (41%)	51 (28%)	78 (43%)
	Vĩnh Trường	123	38 (31%)	25 (21%)	26 (21%)
	Hoa Lan	106	37 (35%)	37 (35%)	38 (36%)
	TOTAL	411	150 (37%)	113 (28%)	142 (35%)
Huế - A Lưới (+ Hoa Nghiê	Hoa Nghiê	152	15 (10%)	7 (5%)	7 (5%)
	Hồng Vân	276	57 (21%)	54 (20%)	51 (19%)
	Hồng Trung	138	32 (23%)	19 (14%)	19 (14%)
	Bắc Sơn	274	63 (23%)	49 (18%)	47 (17%)
	A Ngo	141	35 (25%)	22 (16%)	21 (15%)
	TOTAL	981	202 (21%)	151 (16%)	145 (15%)
(b) Weight-for-Age Data - Partial-support					
AREA	School	Number of students (9.2019)	Children with a Z-score less than -2SD		
			Baseline # (%)	Midpoint # (%)	Endpoint # (%)
Huế - Lowland	Đông Phú	236	21 (9%)	8 (3%)	8 (3%)
	Quảng Công	221	16 (7%)	7 (3%)	7 (3%)
	Điền Lộc	235	17 (7%)	9 (4%)	8 (4%)
	Điền Hải	191	14 (7%)	12 (6%)	11 (6%)
	TOTAL	883	68 (8%)	36 (4%)	34 (4%)

Sep-Jul Malnutrition Rate - QT Full Support



Sep-Jul Malnutrition Rate: Hue-Full Support



Sep-Jul Malnutrition Rate: Hue-Partial Support

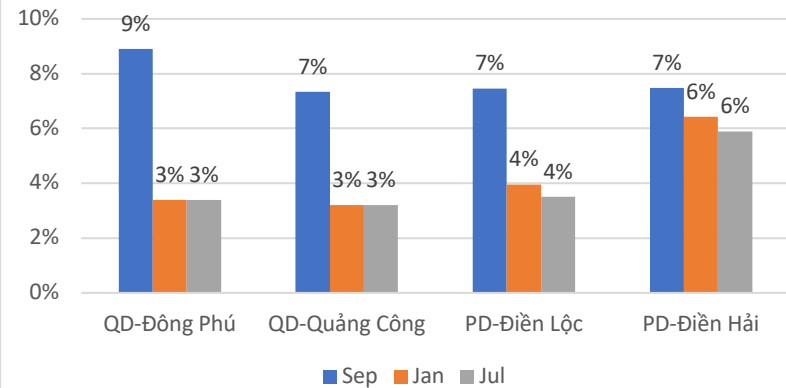


Table 3: Degree of Malnutrition

(a) Degree of Malnutrition – Full-support						
AREA	9.2019 Malnutrition Degree # (%) of Malnourished			7.2020 Malnutrition Degree # and % of Malnourished		
	Mild	Moderate	Severe	Mild	Moderate	Severe
Quảng Trị						
Linh Thượng	54 (72%)	20 (27%)	1 (1%)	60 (77%)	17 (22%)	1 (1%)
Vĩnh Trường	27 (71%)	10 (26%)	1 (3%)	17 (65%)	8 (31%)	1 (4%)
Hoa Lan	27 (71%)	9 (24%)	2 (5%)	29 (76%)	7 (18%)	2 (5%)
TOTAL	108 (72%)	39 (26%)	3 (2%)	106 (75%)	32 (23%)	4 (3%)
Huế - A Lưới (+ Hoa Nghiêm)						
Hoa Nghiêm	13 (87%)	2 (13%)	0 (0%)	4 (57%)	2 (29%)	1 (14%)
Hồng Vân	46 (81%)	9 (16%)	2 (4%)	38 (75%)	12 (24%)	1 (2%)
Hồng Trung	23 (72%)	8 (25%)	1 (3%)	13 (68%)	6 (32%)	0 (0%)
Bắc Sơn	29 (83%)	6 (17%)	0 (0%)	19 (90%)	2 (10%)	0 (0%)
A Ngo	52 (83%)	10 (16%)	1 (2%)	41 (87%)	5 (11%)	1 (2%)
TOTAL	163 (81%)	35 (17%)	4 (2%)	115 (79%)	25 (19%)	3 (2%)
(b) Degree of Malnutrition – Partial-support						
AREA	9.2019 Malnutrition Degree # (%) of Malnourished			7.2020 Malnutrition Degree # and % of Malnourished		
	Mild	Moderate	Severe	Mild	Moderate	Severe
Huế - Lowland						
Đông Phú	17 (81%)	4 (19%)	0 (0%)	8 (100%)	0 (0%)	0 (0%)
Quảng Công	14 (88%)	2 (13%)	0 (0%)	6 (86%)	1 (14%)	0 (0%)
Điền Lộc	13 (76%)	4 (24%)	0 (0%)	6 (75%)	2 (25%)	0 (0%)
Điền Hải	10 (71%)	4 (29%)	0 (0%)	8 (73%)	3 (27%)	0 (0%)
TOTAL	54 (79%)	14 (21%)	0 (0%)	28 (82%)	6 (18%)	0 (0%)

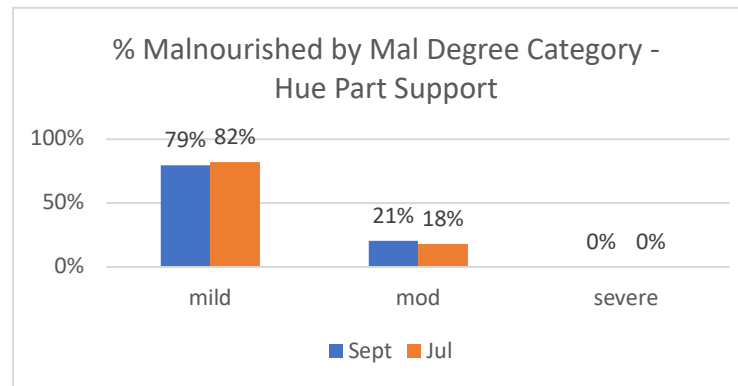
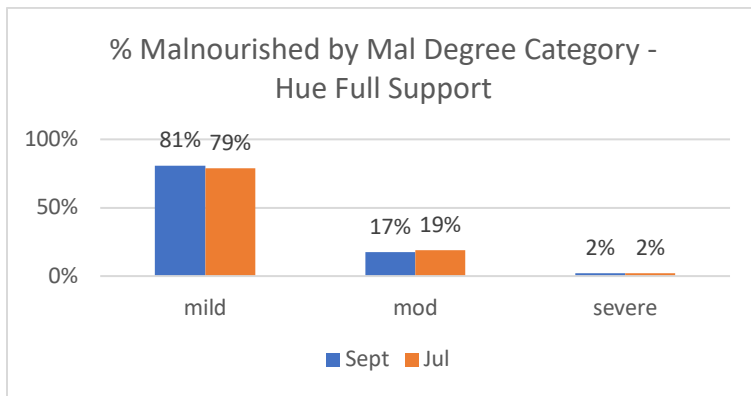
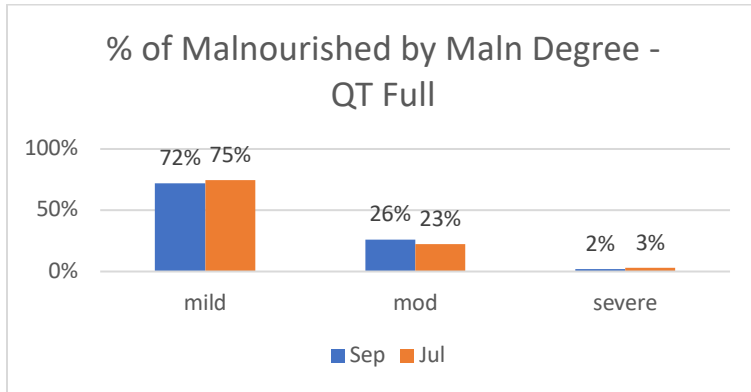


Table 4: Weight-for-Age by Age Group

(a) # Students by Age - Full-support												
AREA	Age Group (Sep. Age)				9.2019 Malnutrition Rate (Sep. Age)				7.2020 Malnutrition Rate (Sep. Age)			
	≤ 36	37-48	49-60	> 60	≤ 36	37-48	49-60	> 60	≤ 36	37-48	49-60	> 60
Quảng Trị												
Linh Thượng	35	51	60	35	37%	41%	38%	51%	40%	37%	40%	60%
Vĩnh Trường	41	27	32	21	27%	33%	34%	33%	15%	26%	28%	19%
Hoa Lan	0	12	55	38	-	33%	31%	42%	-	33%	35%	39%
TOTAL	76	90	147	94	32%	38%	35%	44%	26%	33%	35%	43%
Huế - A Lưới (+ Hoa Nghiê												
Hoa Nghiê	34	44	46	24	0%	16%	9%	17%	0%	7%	2%	13%
Hồng Vân	92	73	75	34	17%	22%	24%	21%	18%	16%	17%	26%
Hồng Trung	42	37	39	20	33%	16%	21%	20%	14%	8%	15%	20%
Bắc Sơn	57	33	30	20	25%	24%	33%	15%	19%	9%	20%	5%
A Ngo	84	75	67	45	18%	27%	19%	33%	14%	17%	16%	24%
TOTAL	309	262	257	143	19%	22%	21%	23%	15%	13%	14%	20%
(b) # Students by Age - Partial-support												
AREA	Age Group (Sep. Age)				9.2019 Malnutrition Rate (Sep. Age)				7.2020 Malnutrition Rate (Sep. Age)			
	≤ 36	37-48	49-60	> 60	≤ 36	37-48	49-60	> 60	≤ 36	37-48	49-60	> 60
Huế - Lowland												
Đông Phú	64	66	69	37	8%	8%	9%	14%	2%	2%	4%	8%
Quảng Công	43	60	72	43	9%	7%	8%	5%	5%	2%	4%	2%
Điền Lộc	60	52	71	45	5%	10%	10%	4%	0%	6%	6%	2%
Điền Hải	38	39	66	44	11%	0%	9%	9%	8%	0%	6%	9%
TOTAL	205	217	278	169	8%	6%	9%	8%	3%	2%	5%	5%

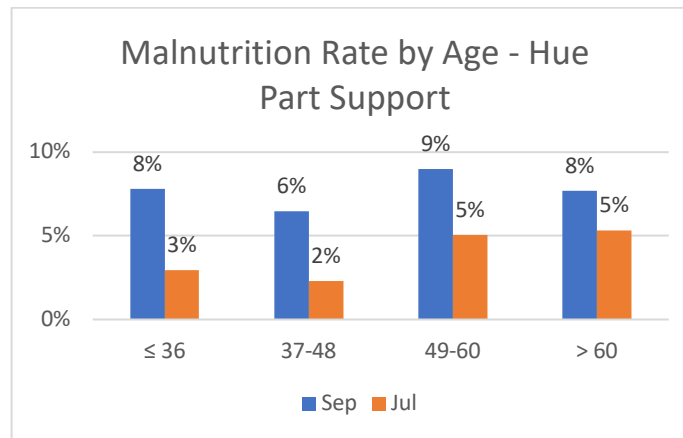
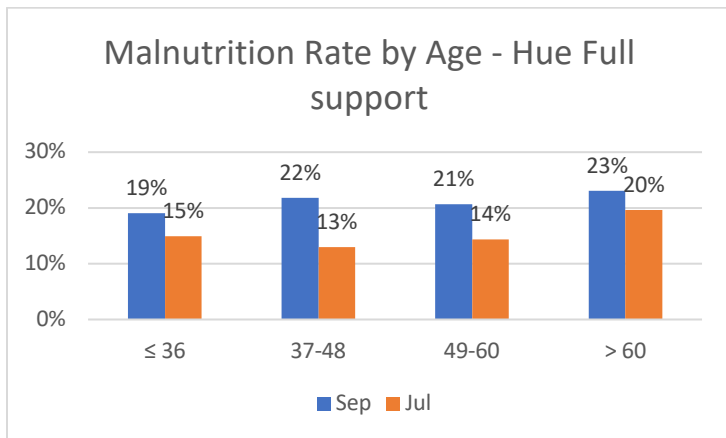
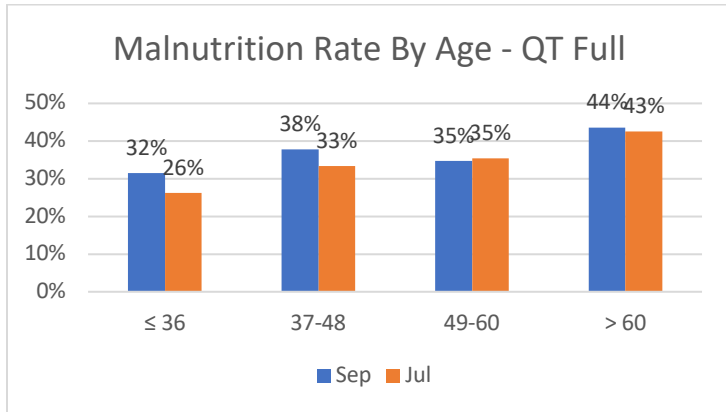


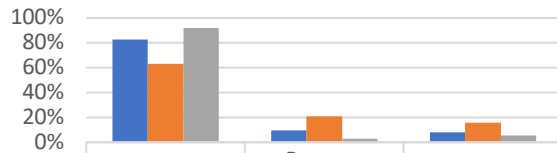
Table 5: Population Change in Malnutrition Status Sep – July

(a) Population Status Change – Full-support					
AREA	Remain Malnourished	Became Nourished	Remained Nourished	Became Malnourished	Not Known
Quảng Trị					
Linh Thượng	34%	4%	48%	9%	5%
Vĩnh Trường	20%	7%	50%	2%	22%
Hoa Lan	32%	1%	59%	4%	4%
TOTAL	29%	4%	51%	5%	10%
Huế - A Lưới (+ Hoa Nghiêm)					
Hoa Nghiêm	5%	5%	90%	0%	0%
Hồng Vân	16%	5%	76%	3%	1%
Hồng Trung	13%	10%	76%	1%	0%
Bắc Sơn	13%	12%	73%	2%	0%
A Ngo	14%	9%	74%	3%	0%
TOTAL	13%	8%	77%	2%	0%
(b) Population Status Change – Partial-support					
AREA	Remain Malnourished	Became Nourished	Remained Nourished	Became Malnourished	Not Known
Huế - Lowland					
Đông Phú	2%	7%	89%	1%	1%
Quảng Công	3%	5%	92%	0%	0%
Điền Lộc	3%	4%	92%	0%	0%
Điền Hải	5%	2%	91%	1%	1%
TOTAL	3%	5%	91%	1%	0%

Table 6: September Malnourished Change in Malnutrition Status Sep – July

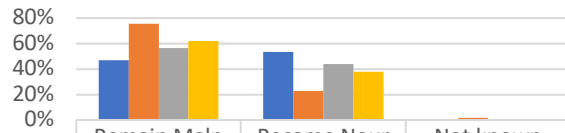
(a) Malnourished Status Change – Full-support			
AREA	Remain Malnourished	Became Nourished	Not Known
Quảng Trị			
Linh Thượng	83%	9%	8%
Vĩnh Trường	63%	21%	16%
Hoa Lan	92%	3%	5%
TOTAL	80%	11%	9%
Huế - A Lưới (+ Hoa Nghiêm)			
Hoa Nghiêm	47%	53%	0%
Hồng Vân	75%	23%	2%
Hồng Trung	56%	44%	0%
Bắc Sơn	51%	49%	0%
A Ngo	62%	38%	0%
TOTAL	62%	38%	1%
(b) Malnourished Status Change – Partial-support			
AREA	Remain Malnourished	Became Nourished	Not Known
Huế - Lowland			
Đông Phú	24%	76%	0%
Quảng Công	38%	63%	0%
Điền Lộc	41%	59%	0%
Điền Hải	71%	29%	0%
TOTAL	41%	59%	0%

Malnourished Sep-Jul Status Change - QT Full



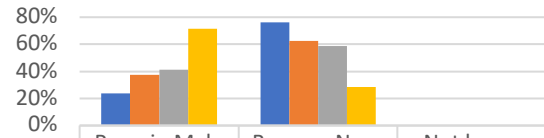
	Remain Maln	Became Nour	Not known
■ Linh Thượng	83%	9%	8%
■ Vĩnh Trường	63%	21%	16%
■ Hoa Lan	92%	3%	5%

Malnourished Sep-Jul Status Change Hue Full Support



	Remain Maln	Became Nour	Not known
■ Hoa Nghiêm	47%	53%	0%
■ Hong Van	75%	23%	2%
■ Hồng Trung	56%	44%	0%
■ A Ngo	62%	38%	0%

Malnourished Sep-Jul Status Change Hue Part Support



	Remain Maln	Became Nour	Not known
■ Đông Phú	24%	76%	0%
■ Quảng Công	38%	63%	0%
■ Điền Lộ	41%	59%	0%
■ Điền Hải	71%	29%	0%

Table 7: Anemia Rates by Area

MALNOURISHED STUDENTS ANEMIA % RATE CHANGE – Quảng Trị Full-support											
SCHOOL	Anemia Maln. Students 9.2019			Anemia Maln. Students 7.2020			Maln. students w/ Scening & Follow-up		% Anemic		% Anemia Change
	# Yes	% Yes	% Unk.	# Yes	% Yes	% Unk.	#	%	Sep.	Jul.	
QUẢNG TRỊ											
Linh Thượng	39	52%	1%	37	47%	3%	71	95%	54%	44%	-18%
Vĩnh Trường	22	58%	0%	15	58%	0%	38	100%	58%	55%	-5%
Hoa Lan	25	68%	0%	18	47%	3%	36	97%	67%	44%	-33%
Total QT	86	57%	1%	70	49%	2%	145	97%	58%	57%	-19%

MALNOURISHED STUDENTS ANEMIA % RATE CHANGE – A Lưới Full-support											
SCHOOL	Anemia Maln. Students 9.2019			Anemia Maln. Students 7.2020			Maln. students w/ Screening & Follow-up		% Anemic		% Anemia Change
	# Yes	% Yes	% Unk.	# Yes	% Yes	% Unk.	#	%	Sep.	Jul.	
A LƯỚI											
Hồng Vân	11	19%	25%	6	12%	47%	32	56%	22%	16%	-29%
Hồng Trung	6	19%	3%	6	31%	16%	29	91%	17%	24%	40%
A Ngo	7	11%	5%	3	6%	4%	59	94%	12%	10%	-14%
Bắc Sơn	7	20%	0%	1	5%	0%	35	100%	20%	3%	-86%
Total Huế/A Lưới	31	17%	10%	16	12%	21%	155	83%	17%	12%	-27%

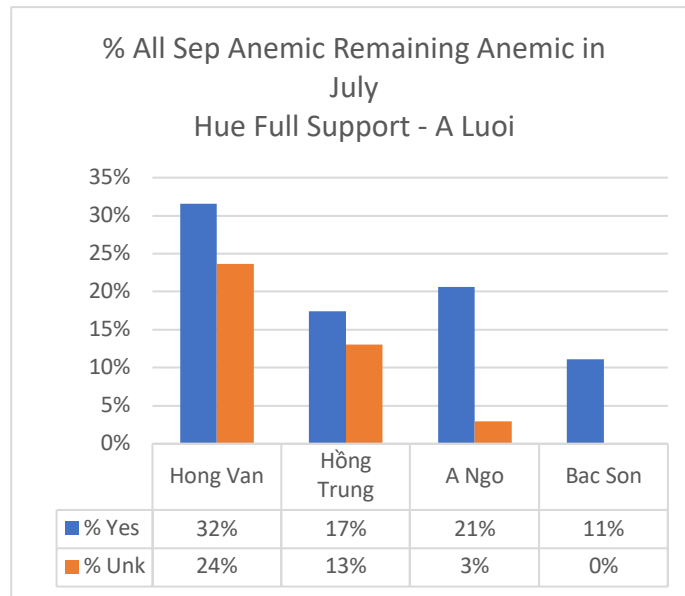
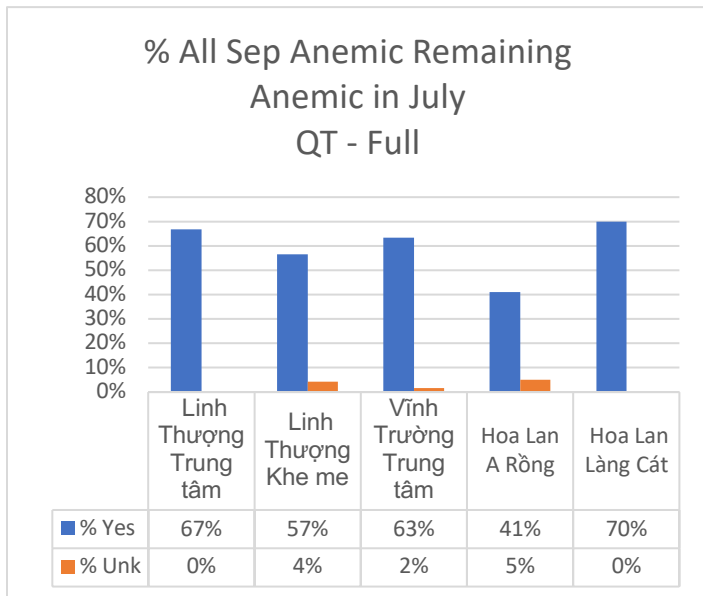
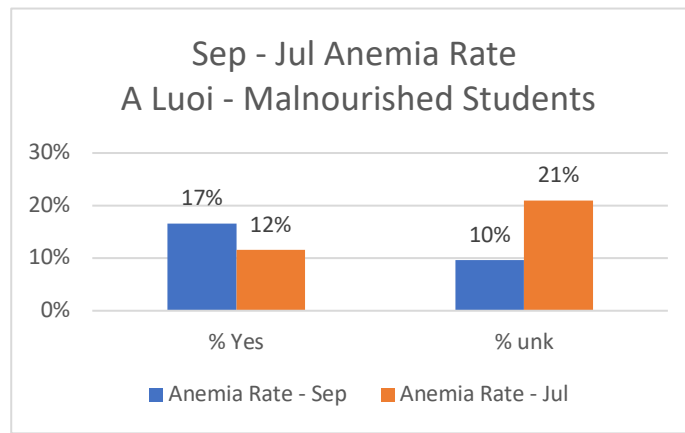
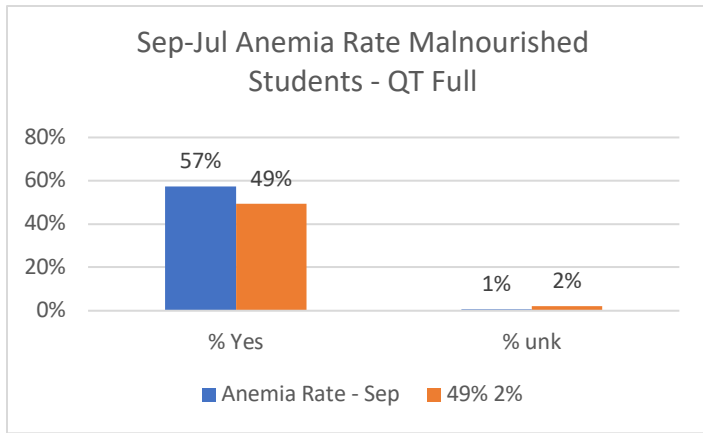


Table 8: Four-Weekend rotation NEC Sessions:

Please include some details on the recipes taught and behaviors promoted within the groups – including the number of times each was taught.

Recipes include local seasonal availability of fruits and vegetables and roots, plant protein (beans, peanuts, tofu) and animal protein combination (i.e. pork skin, eggs) as ways to incorporate affordable protein in the children diet, substitute rice and beans for meat protein when animal meat is out of reach, how to use pork liver, pork blood and dried wood ear mushroom instead of beef as affordable source of high iron food.

NEC Sites	School Year 2019-2020			
	# of Participants		Average % Attendance (3)	Results in knowledge/promoted practices among participating parents via a 17-question test (4)
School/ Province	Planned (1)	Actual (2)		
LT: Linh Thượng / QT	120-180	131	88%	(See POST-TEST table below)
VT: Vĩnh Trường / QT	40-60	55	86%	(See POST-TEST table below)
HL: Hoa Lan / QT	40-60	32	85%	(See POST-TEST table below)
HV: Hồng Vân / Huế A Lưới	60-90	114	90%	(See POST-TEST table below)
HT: Hồng Trung / Huế A Lưới	40-60	64	97%	(See POST-TEST table below)
AN: A Ngo / Huế A Lưới	80-120	98	84%	(See POST-TEST table below)
HN: Hoa Nghiêm / Huế	40-60	25	78%	(See POST-TEST table below)
ĐH: Điền Hải / Huế Lowland	40-60	N/A	N/A	Điền Hải's principal opted not to do NEC due to the pandemic
ĐL: Điền Lộc / Huế Lowland	40-60	11	92%	(See POST-TEST table below)
ĐP: Đông Phú / Huế Lowland	40-60	17	82%	(See POST-TEST table below)
TOTAL	540-810	547⁽⁵⁾	87%	

(1) Number of Participants Planned: The plan included a group of 10-15 parents per location per 4-week session. This plus a similar number of accompanying children resulted in 20-30 planned participants.

- (2) Number of Participants Actual: Groups of both parents and children who actually registered their names at each location with the intention to attend the sessions.
- (3) Average % Attendance: Percentage of mothers who attended >70% of the time (i.e. 3 out of 4 sessions).
- (4) Percentage of parents with correct answers to the 17-question test from 7 lesson plans.
- (5) Due to the pandemic as well as difficulties facing the first-time participation of some new schools such as Đông Phú, Hoa Nghiêm, Điền Hải and Điền Lộc, the number of participating parents could not be as high as planned.

Results of the Pre-test and the Post-test are listed below: (Blank is 100% Correct, otherwise it is the Percentage of Incorrect)

EVALUATION: NEC Session Nov. 9/10 2019 → Nov. 30 and Dec. 1 2019								
QUESTIONS And Topics	LT		VT		A Ngo		HV	
	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-
1. Anemia prevention								
2. Hygiene/Sanitation								
3. Hand-washing								
4. Hand-washing								
5. Breastfeeding							10%	
6. Iodized salt								
7. Food supplement								
8. Feeding frequency								
9. Feeding when sick	13%					100%		
10. Feeding when sick								
11. Source of Iron					21%			
12. Why Vit. A?								
13. Food with Vit. A							10%	
14. Constipation prevention						89%		
15. Fat in food								
16. Source of high Protein food								
17. Alternate source of Protein								

EVALUATION: NEC session Dec. 14/15 2019 → Jan. 4,5 2020												
QUESTIONS And Topics	LT		VT		HL		A Ngo		HV		HT	
	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-
1. Anemia prevention	14%											
2. Hygiene/Sanitation											37%	
3. Hand-washing												
4. Hand-washing	100%						100%					
5. Breastfeeding												
6. Iodized salt use												
7. Food supplement											73%	
8. Feeding frequency												
9. Feeding when sick												
10. Feeding when sick												
11. Source of Iron	64%		77%				100%					
12. Why Vit. A?												
13. Food with Vit. A											19%	
14. Constipation prevention												
15. Fat in food												
16. Sources of high Protein food	7%		92%									
17. Alternate source of Protein												

EVALUATION: NEC session May. 23/24 2020 → Jul. 4,5 2020						
QUESTIONS And Topics	LT		VT		HL	
	Pre-	Post-	Pre-	Post-	Pre-	Post-
1. Anemia prevention					67%	
2. Hygiene/Sanitation						
3. Hand-washing						
4. Hand-washing					100%	
5. Breastfeeding						
6. Iodized salt use					5%	

7. Food supplement			13%			
8. Feeding frequency					100%	
9. Feeding when sick						
10. Feeding when sick						
11. Source of Iron			53%		14%	
12. Why Vit. A?						
13. Food with Vit. A						
14. Constipation prevention						
15. Fat in food						
16. Source of hi Protein food			33%		100%	100%
17. Alternate source of Protein						

EVALUATION: NEC session May. 23/24 2020 → Jul. 4,5 2020												
QUESTIONS And Topics	AN		HT		HV		DL		DP		HN	
	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-
1. Anemia prevention			13%	13%					25%		Not done	
2. Hygiene/Sanitation											Not done	
3. Hand-washing											Not done	
4. Hand-washing				100%							Not done	
5. Breastfeeding							42%				Not done	
6. Iodized salt use											Not done	
7. Food supplement											Not done	6%
8. Feeding frequency			56%								Not done	
9. Feeding when sick											Not done	
10. Feeding when sick											Not	

										done	
11. Source of Iron			19%				17%		17%	Not done	
12. Why Vit. A?										Not done	
13. Food with Vit. A				100%						Not done	
14. Constipation prevention										Not done	
15. Fat in food										Not done	
16. Source of Protein			19%				8%		50%	Not done	
17. Alternate source of Protein										Not done	

Note: In Hoa Nghiem (HN), the pre-test was missed due to time constraints.