School-based Supplementary Feeding: Are we gaining?

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Project title:
Improving Food and Nutrition Security in the Philippines through School Interventions

Project Implementation:
2016-2018
School-based Supplementary Feeding: Are we Gaining?

Methodology

- A total of 7,180 students (ages 5 to 10 years) in three sentinel research schools were weighed and their height measured. Five hundred and forty-one (541) or 7.53% of the students were identified as severely wasted and wasted. These children were the beneficiaries of the School-based Feeding Program (SBFP) in SY 2015–2016.

- To determine the effects of SBFP, these children were monitored by trained research assistants. Monthly weighing and quarterly height measurements were conducted. Only 277 (51%) students had complete data on weight and height for the 120 feeding days. Forty-nine percent of the children had dropped out from the feeding (1.7%), transferred out (2.2%), and were absent during data collection (44.9%).

Benefits gained from the 120 feeding days

- There was a significant increase in the mean weight (p value=0.000) and height (p value=0.000) of children, both males and females.

- The increment in mean height of the male students ages 5 to 10 from baseline to midline (after 60 feeding days) was 1.99 cm, whereas that for females was 2.05 cm. These increments are lower than the normal increase of 2.21 cm for males and 2.48 cm for females of the same age group. However, the increment from midline to endpoint (after another 60 feeding days) was 1.51 cm (males) and 1.70 cm (females), which was higher compared with the normal increase of 1.32 cm and 1.51 cm, respectively. The same result was observed among female students, ages 10.1-19 years. However, the increment in mean height of the male
students from midline to endpoint was similar (1.68 cm) to the normal increase of 1.69 cm.

- There was a significant decrease in the proportion of undernourished students aged 5.1 to 10 and 10.1 to 19 y.o. from baseline (100%) to endpoint (64.71%).

- To determine if there exist further additional benefits for extending the feeding period for another 80 days during the 2 ½-month school break, schools have continued feeding in school. Each school had different strategies to convene the children in the school.

- There were 195 out of 277 students who participated in the additional 80 feeding days after the regular 120 feeding days in the sentinel schools.

**Results of additional 80 feeding days in sentinel schools**

- There was a further significant increase in the mean weight and height of students at the end of the 80 feeding days in both age groups and gender. The same result was also observed in the mean height of students in the older age groups and gender.
- High compliance of daily feeding in school was between 50 and 60 days and only 12% had completed the 80 days.

**Enabling factors**

- Closer coordination between the feeding and agri-coordinators and active participation of core groups led by the initiatives of the school heads.
- Increased supply of vegetables and root crops from the school gardens for supplementary feeding through a well-planned cropping calendar.
- Different nutrition education modalities had improved the knowledge of children and parents, which had resulted in no plate waste among schoolchildren, thereby increasing vegetable consumption.
- The nutrition education activities have also built a sense of cooperation among parents to help in the feeding activities and in maintaining the vegetable gardens.
- The complementation of funds from the school canteens, school-driven fund-raising activities, and the government funds facilitated the purchase of other implements and covered the operational cost of the SBFP.

**Opportunities for improvement**

- Delayed implementation of SBFP due to late release of SBFP funds. Canteen funds were used to start up the feeding program to cover the 120 feeding days during the school year. However, when funds are available, these are given in full to cover the 120 days. This has resulted in either double feeding just to exhaust the funds or targeting more beneficiaries but oftentimes not within the set criteria. Also, the late release of funds, from the region to the schools was a problem. Feeding is usually done from September to January or March where there are a lot of no-school days due to holidays and school breaks resulting in interrupted feeding periods.
- In densely populated schools, the feeding coordinator is over burdened by the day-to-day feeding activities because of the large number of beneficiaries. This could negatively affect the physical and quality of life of the coordinator, the quality of scholastic performance, and the overall implementation of the SBFP.
• Smaller rice servings were given to older children, while bigger servings were given to younger children.
• Recordkeeping is considered time-consuming by the feeding and school garden coordinators.

**Conclusions**

• The SBFP implemented through the integrated model (GarNESup) resulted in a significant increase in mean weight and height among schoolchildren.
• Further improvement in mean weight and height was observed even with an additional 60?80?-day feeding period.
• The implementation of different nutrition modalities have mended the disconnect between SBFP and GPP, resulting in improved implementation of the SBSP with improved nutritional status of children as visible outcome.

**Recommendations**

• The SBFP should be implemented for at least 180 feeding days as evidenced by the significant increase in mean weight and height after the additional 80 feeding days.
• There should be timely release of funds to implement the program within the 180 feeding days under the school year.
• A memorandum on the implementation of nutrition education in schools should be issued as the study proved that nutrition education bridges the gap between gardening and feeding programs and helps achieve sustainability of the programs.
• Focused targeting resulting in obtaining standard weight and height measurement tools is necessary. This may result in lower number of
beneficiaries. Extra funds could be requested by the regions from national officials to increase the meal cost/per/child/day from P 18.00 to P 20.00 so that proper serving portions per child per day is observed.

- Strategies such as regular meetings and organized feedback mechanisms or other creative school-based approaches should be installed to sustain funding support from external sources or partners.
- Regular capability building of the feeding, agricultural, and other SBFP members of the core group should be conducted to equip them with skills on proper documentation and to update them with state-of-the-art information.

*Complete research report is accessible at https://schoolnutritionphils.wordpress.com/*