

EVALUATION OF NUTRITIONAL INTERVENTION ON CHILDREN LIVING IN ESTATES



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EVALUATION OF IMMEDIATE EFFECTS OF NUTRITIONAL INTERVENTION AMONG CHILDREN LIVING IN ESTATES.

Introduction:

A high protein supplementary meal named Tikiri Shakthi was given to children between 3-5 years of age as it was evident high prevalence of under nutrition among this community.

Objective:

To evaluate the immediate effectiveness of nutritional intervention carried out among plantation children supplemented with High Protein Meal Bar (Tikiri Shakthi)

Method:

All plantation children between 2-5 years of age was fed with the Protein Bar for on a given schedule for one year. Monthly growth monitoring was done measuring the weight, using the same equipment used at child development centers by the Public Health Midwife, data was copied by the Child Development Officer at the Child Development Center.

Individual growth pattern was tabulated and categorized according the growth monitoring charts, such data was used for the evaluation. Data collected in previous years are tabulated to study the change.

Data collected using the Monthly Social Welfare Report, the data collection format of PHDT.

Quantitative data collected through is analyzed in simple form to calculate percentage of children less than -2 SD of the growth chart as it is the national policy adopted by the Ministry of Health.

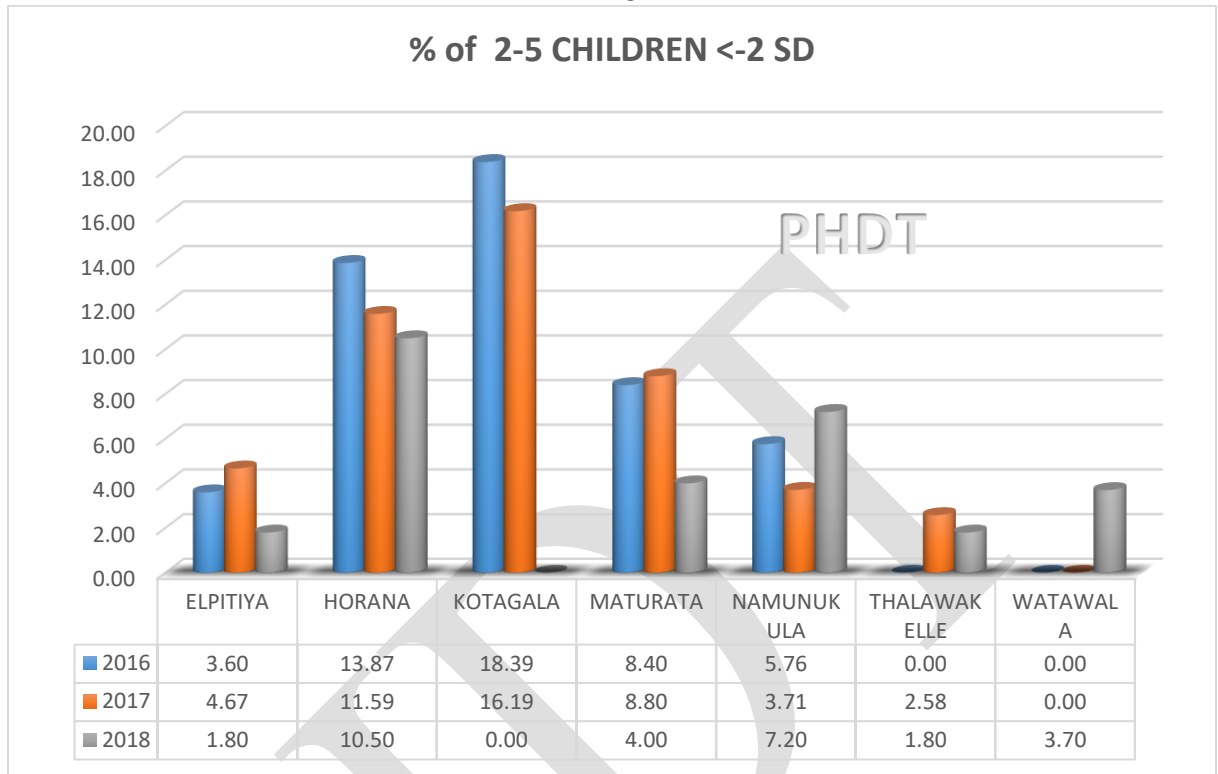
Though parents and Child Development Officers observations were not collected it was informed by them that, there is an immediate response of improvement in child behavior and activeness of children increased fluid intake, increased hunger and demand for foods by the children. Child Development Officers revealed children attendance is high and active participation and playfulness improved to a great extend with the implementation of High Protein Supplement.

It was also revealed parental participation for nutrition promotion activities too improved as a result of the implementation of Tikiri Shakthi. CDOs further revealed that mothers were motivated to send the children to CDC and involve in other programs organized by CDC

Results:

1. GALLE REGION

CHART 1. Malnutrition status of children in Galle Region RPCs



Elpitiya Regional Plantation Company(RPC), Horana RPC, Mathurata RPC , and Kotagala RPC reveals a very positive response with decline in the percentage of malnutrition status, while Namunukula and Watatwala PLCs shows and increase in the status of malnutrition percentage.

2. RATNAPURA REGION

CHART 2. Malnutrition status of children in Ratnapura Region RPCs

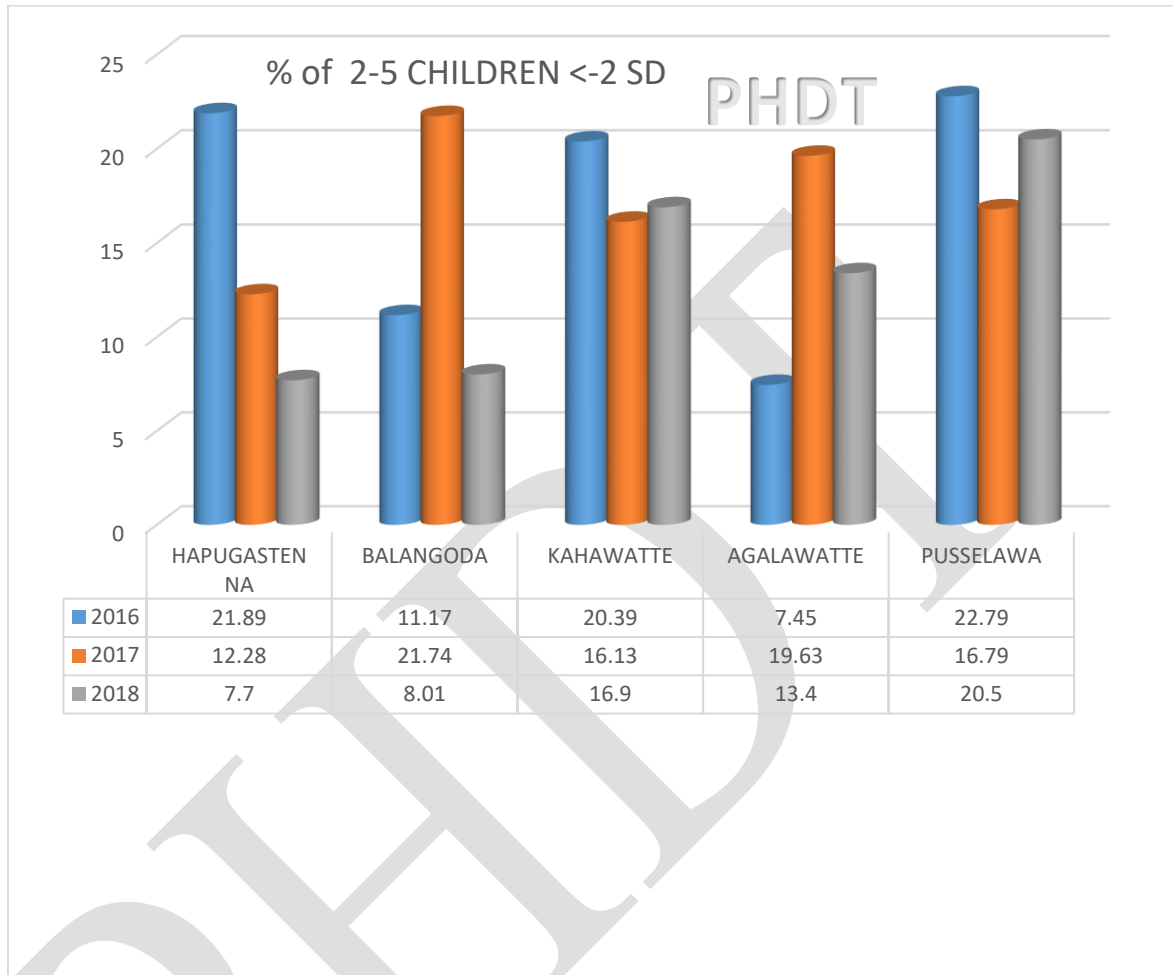
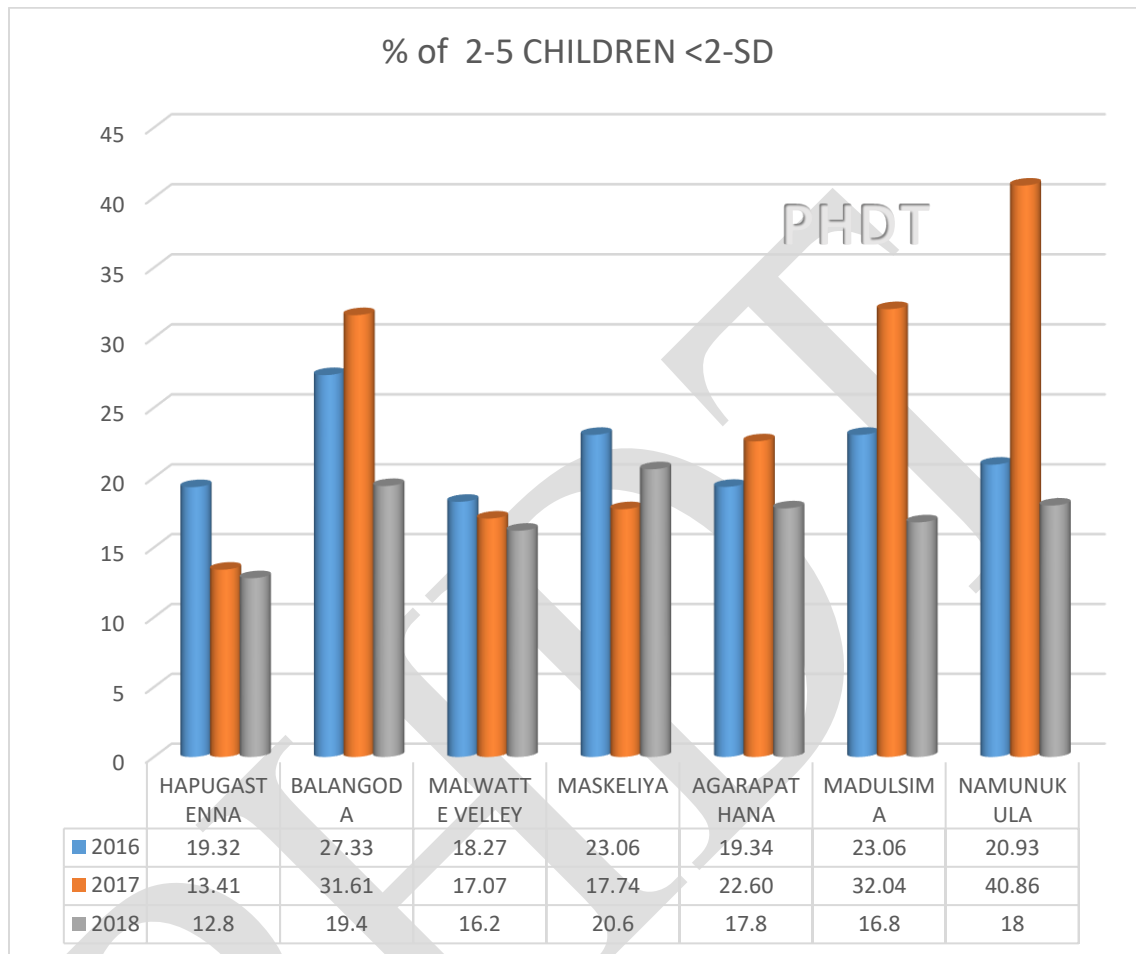


Table 2 shows the response in respective RPCs , where Hapugastenna, Balangoda and Agalawatte shows a significant lowering of the malnutrition status, where Kahawattee RPC estates shows a decline compared to 2016 but slight increase compared to 2017. Pussellawa RPC estates shows a similar pattern where lower than 2016 but significant increase compared to 2017.

3. BADULLA REGION

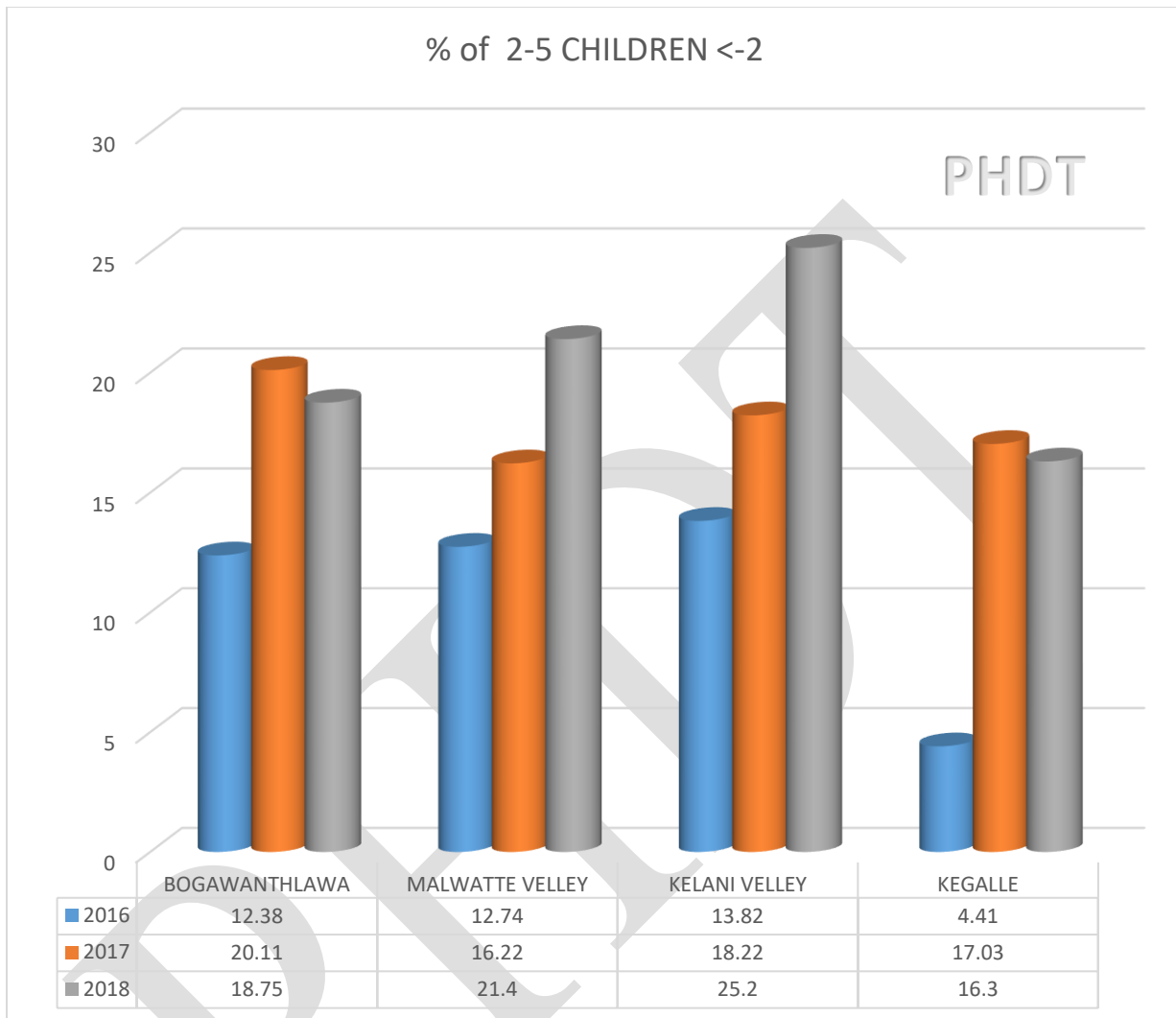
CHART 3. Malnutrition status of children in BADULLA REGION RPCs



Compared values depicts a very positive response in all RPCs in the region except for Maskeliya RPC, Namunukula RPC shows a very good response compared to 2017 where percentage of malnutrition has come down from 40.86 to 18.00 in 3rd quarter of 2018.

4. KEGALLE REGION

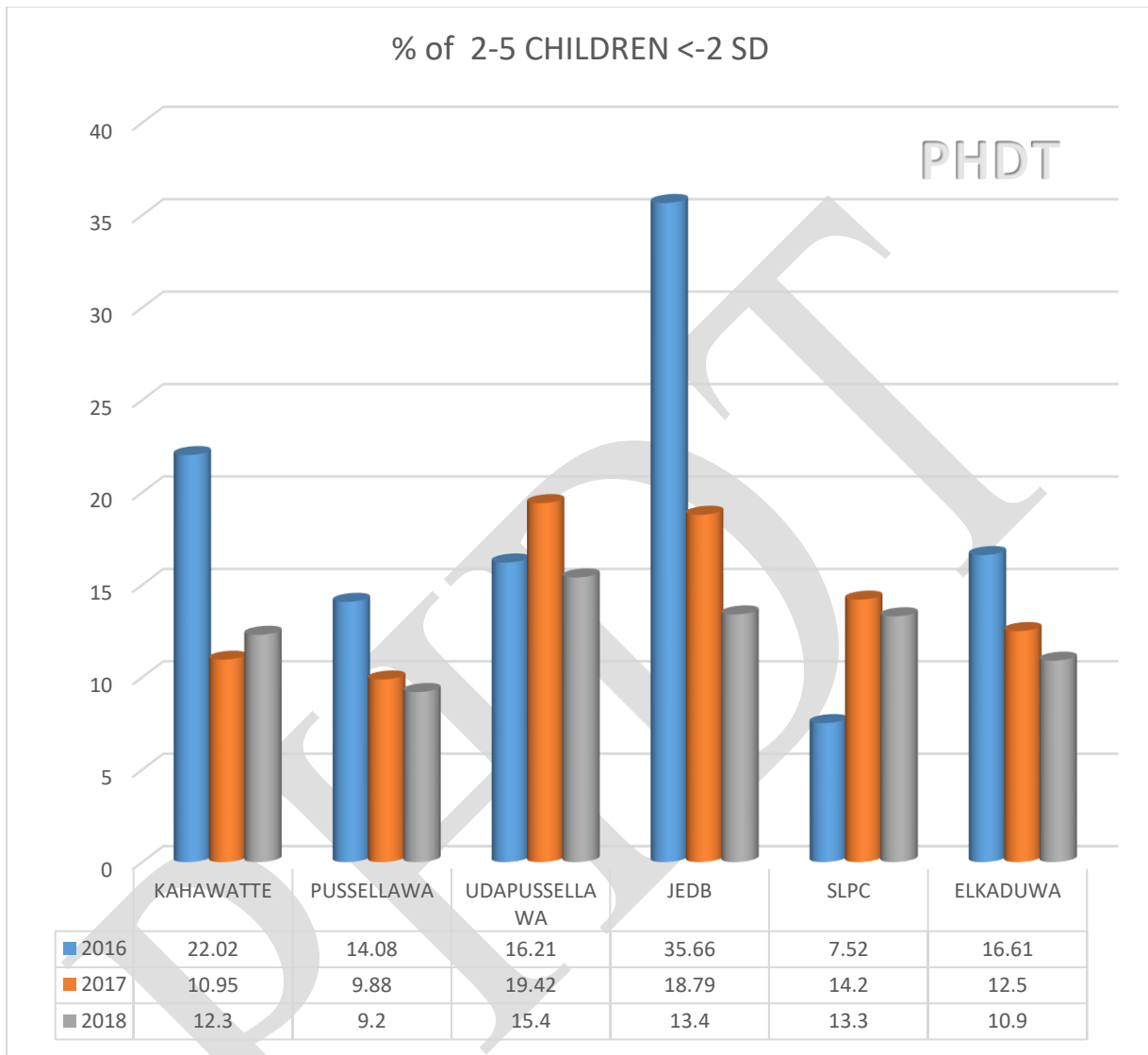
CHART 4. Malnutrition status of children in Kegalle Region RPCs



We notice in spite of nutritional intervention in Kegalle Region Estates, all RPCs child nutritional status has deteriorated compared to 2016. Estates of Bogawanthlawa RPC and Kegalle RPC, have shown a slight improvement of the situation compared to 2017.

5. KANDY REGION

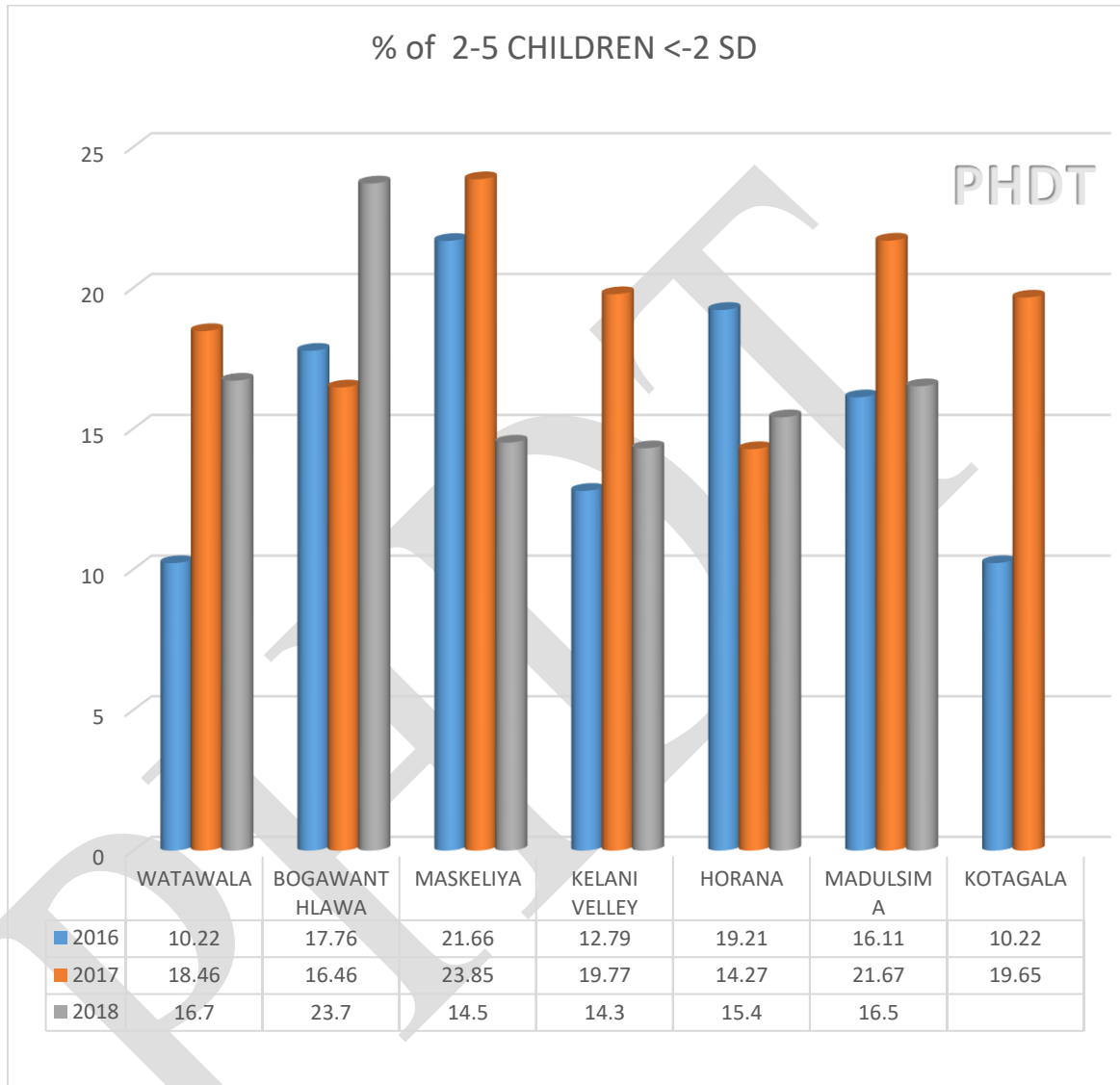
CHART 5. Malnutrition status of children in Kandy Region RPCs



In Kandy Region of PHDT, estates of all RPCs shows a improvement in malnutrition status compared to 2016, but status comparison varies in all RPCs compared to 2017 to 2018.

6. HATTON REGION

CHART 6. Malnutrition status of children in Hatton Region RPCs



Data depicts in the decrease in the malnutrition status of most of the RPCs compared to 2017 except for Bogawantalawa RPC. Since Kotagala PLC amalgamated to Horana PLC, those estates will reflect under Horana PLC.

7. NUWARA ELIYA REGION

CHART 7. Malnutrition status of children in Nuwara Eliya RPCs

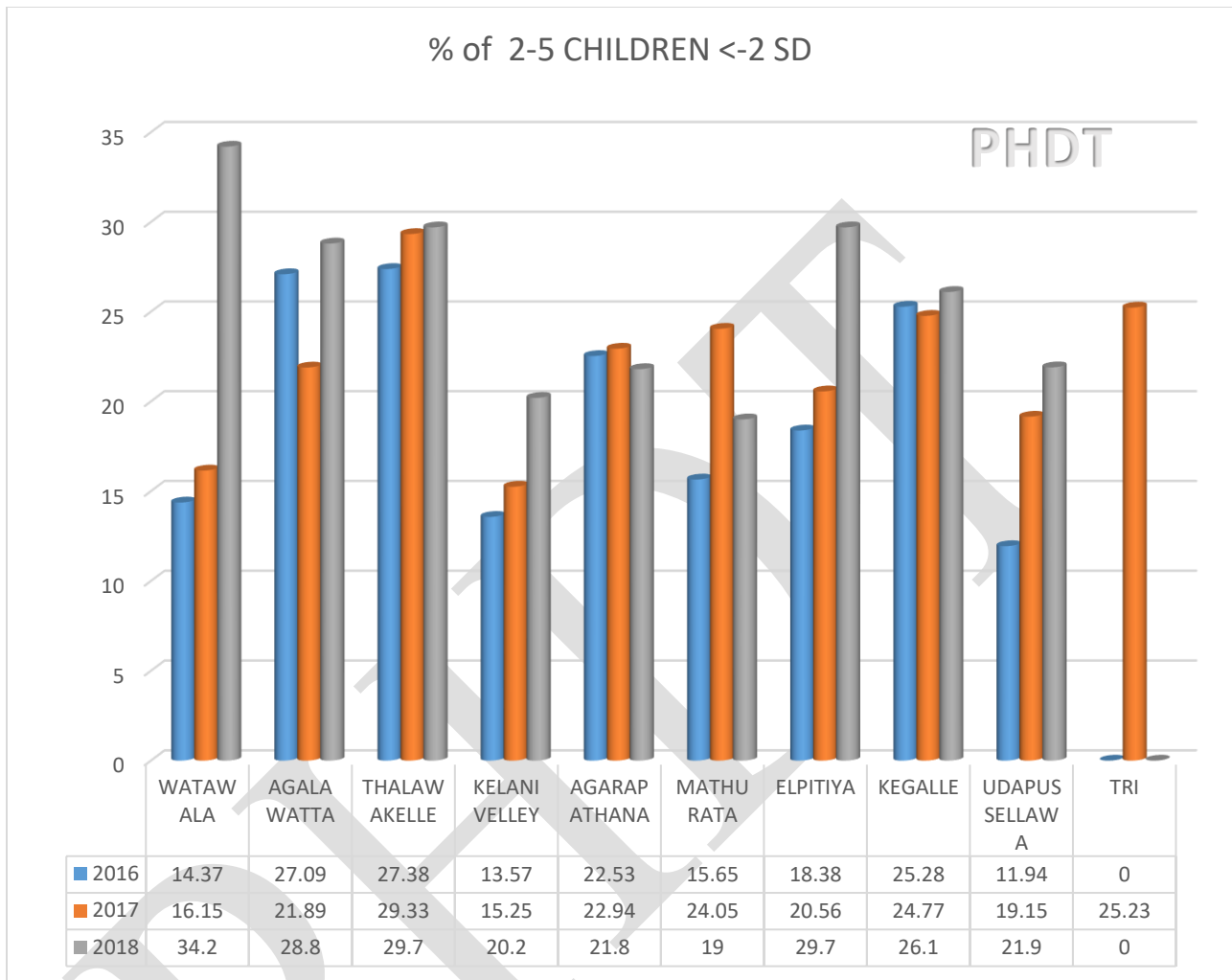
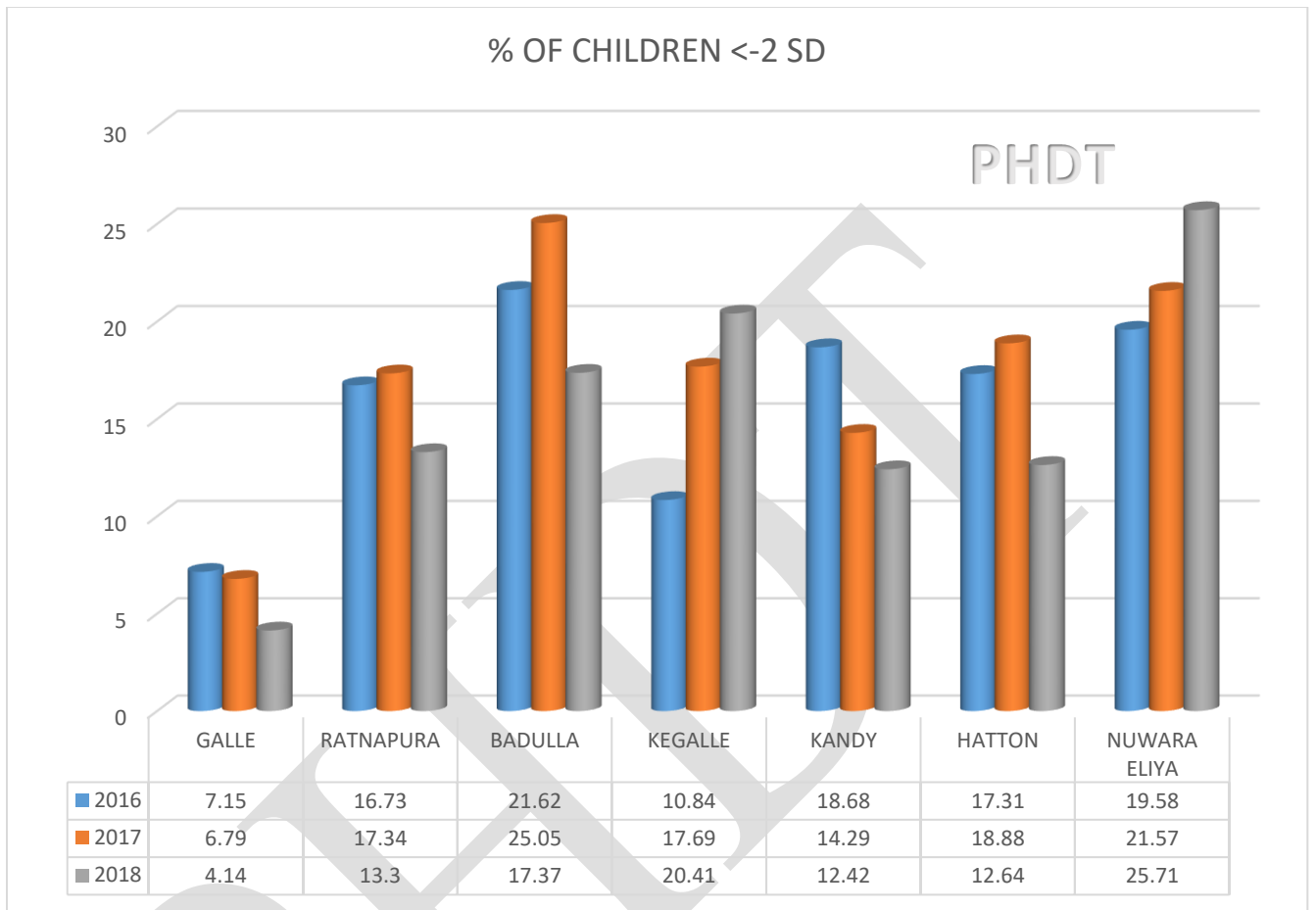


Chart reveals a mix pattern of the status where an increase in the malnutrition is evident in most of the estates belong to all RPCs.

8. CHANGE OF MALNUTRITION STATUS IN PHDT REGIONS

CHART 8; DEGREE OF MALNUTRITION STATUS IN PHDT REGIONS



When data analyzed presented visualize the regional pattern of malnutrition status, it is evident that the nutritional status of Galle, Ratnapura, Badulla, Kandy and Hatton Regions current status has improved compared to 2016 and 2017, while Kegalle and Nuwara Eliya shows a deterioration of current status compared to 2016 and 2017.

DISCUSSION.

1. The project was designed on the national surveys and research findings found in literature and the information available at PHDT. Project objective was to address the malnutrition of the estate children with an emphasis on the need of provision of daily protein requirement of children below 5 years as brain development is highest during first three years of life.
2. We have observed the highest prevalence of acute malnutrition is in the 3rd year of life, as weaning and supplementary food intake is poor. Nutritional intervention tool High Protein Meal was NOT a weight gainer per se, but expected weight to improved and was the basic tool to measure the change of growth.
3. Comparison was done using the 3rd quarter data of 2018, therefore there would have been a difference in the results as implementation of the intervention was not simultaneous, due to delivery pattern of high protein meal. In order to minimize the difference it is recommended to compare at the end of the intervention.
4. Initial plan was to enroll all the children in the plantation who are less than -2 SD to feed 5 days of the week, due to practical difficulties in Intervene only to selected category*, time duration has to shrink to 3 days per week.
5. Four cycles of supply of High Protein meal was carried out in all seven regions starting on International children's day 2017, this is depicted in the charts where 2017 malnutrition status is high compared to 2016, but less in 3rd quarter 2018 compared to 2016 and 2017 in most of the regions.
6. Supply of Tikiri Shakthi to regions/estates was interrupted on many occasions due to administrative and financial constraints, if the supply was in a continuum, would have expected a better result.
7. Some regions were not provided the actual quantity of Tikiri Shakthi needed as the supply was limited due to the financial allocation and some regions given priority.
8. Certain estates from Hatton and Nuwara Eliya refused the acceptance of Tikiri Shakthi due to the influence some of other government officers.
9. It was reported some parents and some of the private owned Child Development Centers failed to collect the quantities allocated to them.
10. Distribution to all estates were not instantaneous, stage wise distribution to regions and estates may be a cause for poor results in certain regions and estates, in which results may appear later.

RECOMMENDATIONS.

As an organization committed, to the industry promotion as well as the social and welfare of the community living in the plantation, with an emphasis on child nutrition, early child education.

We identified the need of intervention for the child malnutrition as it has been very high for many decades.

1. We strongly recommend to continue the program at least for 3 years continuously in order to achieve the best to the child population.
2. In order to achieve the best results of Early Childcare Development Project, Protein supplementation during first five years for the estate children is essential as they are deprived of daily requirement of good quality protein in their meals.