UNDERSTANDING THE IMPACT OF THE MID DAY MEAL PROGRAMME
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OVERVIEW OF THE RESEARCH

The Mid Day Meal Scheme covers all school children studying in Classes 1st to 8th in government and government aided schools, Special Training Centers and Madrasas and maqtabas supported under the Sarva Shiksha Abhiyaan (SSA). It addresses two of the pressing problems for majority of children in India, namely hunger and education.

This report titled ‘Understanding the Impact of the Mid-Day Meal Program’ takes a look at the impact of the program on educational outcomes and health of children and measure the level of satisfaction of different stakeholders (students, parents and teachers) in 5 cities that are being served mid-day meals by the Akshaya Patra Foundation- Jaipur, Vrindavan, Guwahati, Bhubaneshwar & Nayagarh.
STUDY OBJECTIVES

- To measure the nutritional status of students covered under the program by measuring their height, weight and BMI
- To assess the extent to which the Mid-Day meal (MDM) program has succeeded in achieving its objective of making a positive impact on the students in terms of enrolment and retention rate
- To gauge perception of teachers towards the food and services provided by The Akshaya Patra Foundation vis-a-vis Non TAPF schools
- To understand the satisfaction of children’s parents towards the program

METHODOLOGY

The study has deployed experimental control study design and covered both TAPF Schools (i.e. schools receiving midday meal from the centralized/decentralized kitchens of The Akshaya Patra Foundation) and Non-TAPF Schools (schools receiving mid-day meal from other NGOs/schools having own kitchen) across five locations – Jaipur, Vrindavan, Guwahati, Nayagarh and Bhubaneshwar. A comparative assessment of the key indicators has been done under the study. Student sample of control module and test module is weighted to keep the profile variables similar across the schools.

SAMPLE COVERED

<table>
<thead>
<tr>
<th>NO. OF SCHOOLS COVERED</th>
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<tr>
<td>Jaipur: 36</td>
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<tr>
<td>Vrindavan: 40</td>
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<td>Guwahati: 39</td>
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<td>Nayagarh: 40</td>
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<td>Bhubaneshwar: 37</td>
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<table>
<thead>
<tr>
<th>NO. OF STUDENTS COVERED</th>
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<tr>
<td>Jaipur: 247</td>
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<tr>
<td>Vrindavan: 601</td>
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<td>Guwahati: 537</td>
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<td>Nayagarh: 597</td>
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<td>Bhubaneshwar: 627</td>
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<th>NO. OF TEACHERS COVERED</th>
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<tr>
<td>Jaipur: 36</td>
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<td>Bhubaneshwar: 39</td>
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<table>
<thead>
<tr>
<th>NO. OF PARENTS COVERED</th>
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<tbody>
<tr>
<td>Jaipur: 81</td>
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<td>Vrindavan: 81</td>
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<td>Guwahati: 76</td>
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<td>Nayagarh: 80</td>
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<tr>
<td>Bhubaneshwar: 81</td>
</tr>
</tbody>
</table>
STUDY FINDINGS:
JAIPUR
FACILITIES IN THE SCHOOLS: JAIPUR

The TAPF schools in Jaipur had all the basic facilities like dedicated drinking water area, clean drinking water, hand washing area and dustbins. The schools had proper buildings with an average of 2 floors and most classrooms had furniture including a table and a desk. The campus was clean and most students were wearing school uniforms. Most classrooms had school supplies and the school had clean and separate toilets for boys and girls.

PROFILE OF PARENTS: JAIPUR

The study covered 40 parents from TAPF schools and 41 parents from non TAPF schools. Analysis of education level of the parents revealed low level of education among parents and mothers were mostly illiterate. In most households, these students are the first generation of school goers from their families.
PARTICIPANT DEMOGRAPHICS

The study collected data from 19 schools served by TAPF in Vrindavan and 17 schools served by ISKCON (the only other NGO providing mid-day meals in Jaipur). All the participating children had meals in the school at least 3 times a week. In TAPF schools, all students were consuming the meal provided by the NGO.

KEY OUTCOMES & FINDINGS

1. IMPACT OF MID DAY MEAL ON STRENGTH AND ENROLMENTS IN THE SCHOOLS

   Figure 1. Represents the strength of schools in the last 2 academic years

   School strength in the schools benefitted by TAPF demonstrated an increase in the past 2 academic years. Compared to the previous year, the enrolments have also increased substantially in the TAPF schools in the current year (Figure 1).
2. IMPACT OF MID DAY MEAL ON ACADEMIC PERFORMANCE

Figure 2 Represents the share of students who received the respective grades in the previous academic year

![Circle charts showing grades distribution](chart1.png)

Higher proportion of students have received grade A in the previous academic year in the schools served by the Akshaya Patra Foundation when compared with the schools not served by the Akshaya Patra Foundation. (Figure 2)

3. IMPACT OF MID DAY MEAL ON HEALTH OF THE STUDENTS

Figure 3 represents the BMI of the students in the past academic year

![Circle charts showing BMI distribution](chart2.png)

Higher proportion of students in the schools benefitted by TAPF are in the normal weight band (derived through the BMI scores) compared to the other set of schools. About 15% of the students in the schools benefitted by TAPF had normal weight (Figure 3)
4. FEEDBACK ON THE MID DAY MEAL

Higher proportion of students in the schools benefitted by TAPF have liked the meal at an overall level and also liked the aspects like nutrition levels of the meal and the daily menu.

The students from both set of schools were happy with the aspects like the quantity of the meal served, on time delivery, taste/flavor and second serving. Higher proportion of parents of students studying in the schools benefitted by TAPF liked the meal and considered the food to be nutritious (Table 1).

<table>
<thead>
<tr>
<th>FEEDBACK ON THE MID DAY MEAL</th>
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</thead>
<tbody>
<tr>
<td>Satisfaction from (all figures in %)</td>
</tr>
<tr>
<td>Quantity of the meal</td>
</tr>
<tr>
<td>On time delivery</td>
</tr>
<tr>
<td>Taste/ Flavor of the Meal</td>
</tr>
<tr>
<td>Second serving given</td>
</tr>
</tbody>
</table>

Table 1 represents the Feedback on the meal parameters
5. SUGGESTION FOR TAPF FROM PARENTS, TEACHERS & PRINCIPALS

The meal provided by the TAPF kitchens is liked by all the stakeholders but they also gave suggestions to fill the gaps in the current offering. (Image 1)

- **Dry Items:**
  - Puffed Rice
  - Fried channa
  - Sweet soyabean mix
  - Vitamin/calcium rich biscuits
  - Amla candies

- **Fruits:**
  - Seasonal fruits should be provided to students for nutritional value and vitamins

- **Liquid Items:**
  - Milk which does not have to be boiled
  - Curd
  - Fruit Juices

CONCLUSION & RECOMMENDATIONS

While the results indicate an overall positive impact from the TAPF meals with positive feedback on most aspects of the meals and daily menu the study also illuminates certain improvement areas for TAPF.

Since most students in the schools are underweight especially the younger students, one meal is not enough to provide adequate nutrition to these children at this growing age.

Below are the recommendations:

- Include special items at least once a week to keep the students interested in the meal
- Provide variety in the meal by adding variety to the vegetables, including parathas, puri, Dal Bati, Pulav, desserts like kheer, Halwa, pickles, fruits
- We can also look at engaging the students for a longer time to improve their health by increasing the number of meals in a day, probably by adding evening snacks like fruits, milk, cereal, cheese, yogurt, peanut butter sandwich etc.
STUDY FINDINGS:

VRINDAVAN
FACILITIES IN THE SCHOOLS: VRINDAVAN

The TAPF and the non TAPF schools have similar school facilities. The schools had decent infrastructure with facilities like dedicated drinking water area, dustbins, well-built toilets, school uniform. Majority of the schools in Agra and Vrindavan had clean drinking water facilities. The water storage and hand washing area were mostly clean. The children were wearing clean uniforms.

PROFILE OF PARENTS: VRINDAVAN

The study covered 40 parents from TAPF schools and 41 parents from Non-TAPF schools in Vrindavan and Agra. There was low level of education among parents in all schools. More fathers from the households served by TAPF have higher education compared to the parents in the non TAPF schools. In a considerable number of households, these students are the first generation of school goers from their families.
PARTICIPANT DEMOGRAPHICS

The study collected data from 19 schools served by TAPF in Vrindavan and 21 schools served by schools’ own kitchens funded by the government in the nearby city of Agra. All the participating children had meals in the school at least 3 times a week. In TAPF schools, all students were consuming the meal provided by the NGO.

KEY OUTCOMES & FINDINGS

1. IMPACT OF MID DAY MEAL ON STRENGTH AND ENROLMENTS IN THE SCHOOLS

Figure 1. Represents the strength of schools in the last 3 academic years

School strength in the schools benefitted by TAPF demonstrated a consistent increase in the past 3 academic years. Compared to the previous year, the enrolments have also increased substantially in the TAPF schools in the current year (Figure 1)
2. IMPACT OF MID DAY MEAL ON ACADEMIC PERFORMANCE

*Figure 2 Represents the share of students who received the respective grades in the previous academic year*

Higher proportion of students have received grades O (outstanding) and A in the previous academic year in the schools benefitted by TAPF when compared with the other set of schools in the region. (Figure 2)

3. IMPACT OF MID DAY MEAL ON HEALTH OF THE STUDENTS

*Figure 3 represents the BMI of the students in the past academic year*

Higher proportion of students in the schools benefitted by TAPF are in the normal weight band (derived through the BMI scores) compared to the other set of schools. About 50% of the students in the schools benefitted by TAPF had normal weight (Figure 3)
4. FEEDBACK ON THE MID DAY MEAL

Higher proportion of students in the schools benefitted by TAPF have liked the aspects like nutrition levels of the meal, the daily menu and the quantity served.

The students from both set of schools were happy with the aspects like the temperature of the meal and the quality of the meal. Higher proportion of students from the schools benefitted by TAPF attended all classes and did not feel hungry in the evening showing that the TAPF meals were more fulfilling (Table 1)

<table>
<thead>
<tr>
<th>FEEDBACK ON THE MID DAY MEAL</th>
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<tbody>
<tr>
<td>Satisfication from (all figures in %)</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Overall feedback on the Meal</td>
</tr>
<tr>
<td>Temperature of the Meal</td>
</tr>
<tr>
<td>Taste/ Flavor of the Meal</td>
</tr>
<tr>
<td>Quality/ Hygiene of the Meal</td>
</tr>
</tbody>
</table>

Table 1 represents the feedback on other parameters of the Meal
5. THE AKSHAYA PATRA KITCHENS IN VRINDAVAN

The Akshaya Patra centralized kitchens in Vrindavan are equipped with cauldrons, trolleys, rice chutes, dal/sambar tanks, cutting boards, knives and other similar equipment that are sanitized before usage. The semi-automated kitchens have the capacity to undertake large scale feeding, typically up to 100,000 mid-day meals a day and they also adhere to Food Safety Management Systems (FSMS) to ensure safe handling, preparation and delivery of the food (Image 1)

Image 1 The centralized Akshaya Patra kitchen in Vrindavan

CONCLUSION & RECOMMENDATIONS

While the results indicate an overall positive impact from the TAPF meals with positive feedback on most aspects like sufficient quantity, good nutrition value of the meals and daily menu the study also illuminates certain improvement areas for TAPF.

Since the students come from deprived households and mostly don’t have breakfast in the morning, they feel hungry immediately when they come to school, TAPF can thus look at adding another meal in the morning to cater to this early morning hunger of the children.

Apart from additions to the breakfast, the menu can be further upgraded by improving the variety. The food should include nutritional and filling items like green leafy vegetables, pulses and curd. Special items should be there at least once a week to keep the students interested in the meal. We can also look at engaging the students for a longer time to improve their health by increasing the number of meals in a day, probably by adding evening snacks like fruits, milk, cereal, cheese, yogurt, peanut butter sandwich etc.
STUDY FINDINGS:

GUWAHATI
FACILITIES IN THE SCHOOLS: GUWAHATI

The study was conducted across 39 schools served by TAPF and 37 schools served by school’s own kitchens. The schools have decent infrastructure with clean drinking water facility, separate toilets for girls, dustbins and soap to wash hands. TAPF schools have indicatively higher basic facilities like a dedicated drinking water area and dustbins.

PROFILE OF PARENTS: GUWAHATI

The study covered 39 parents from TAPF schools and 37 parents from Non-TAPF schools in Guwahati. Analysis of education level of the parents revealed low level of education among parents in all schools. The households of the children had the basic facilities like drinking water and toilets. Lesser number of households had a permanent roof.
PARTICIPANT DEMOGRAPHICS

The study collected data from 19 schools served by TAPF and 20 schools served by school’s own kitchens in Guwahati. All the participating children had meals in the school at least 3 times a week. In TAPF schools, all students were consuming the meal provided by the NGO’s centralized kitchens.

KEY OUTCOMES & FINDINGS

1. IMPACT OF MID DAY MEAL ON STRENGTH AND ENROLMENTS IN THE SCHOOLS

*Figure 1. Represents the strength of schools in the last 3 academic years*

School strength in the schools benefitted by TAPF demonstrated a consistent increase in the past 3 academic years. (Figure 1).
2. IMPACT OF MID DAY MEAL ON HEALTH OF THE STUDENTS

Figure 2 represents the BMI of the students in the past academic year.

Almost 80% of students are underweight in both TAPF and non TAPF schools. While there is no difference in the BMI at an overall between the TAPF and non TAPF students, slightly higher No. of Non TAPF boys seem to be of normal weight than TAPF boys (Figure 2)

3. IMPACT OF MID DAY MEAL ON ACADEMIC PERFORMANCE OF THE STUDENTS

Figure 3 Represents the share of students who received the respective grades in the previous academic year.

Higher proportion of students have received grades O and A in the previous academic year in the schools served by the Akshaya Patra Foundation when compared with the schools not served by the Akshaya Patra Foundation. (Figure 2)
4. FEEDBACK ON THE MID DAY MEAL

Figure 4 Represents the feedback on the key aspects of the Meal in the respective schools

Higher proportion of students in the schools benefitted by TAPF liked the taste/flavor and the nutrition level of the meal.

The students from both set of schools were happy with the aspects like the quantity, quality/hygiene, temperature of the meal and the feedback on the daily menu. (Table 1)

| FEEDBACK ON THE MID DAY MEAL |
|-------------------------------|----------------|----------------|
| **Satisfaction from (all figures in %)** | **TAPF Schools** | **Non TAPF Schools** |
| Overall feedback on the Meal | 95 | 98 |
| Quantity of the Meal | 95 | 99 |
| Temperature/Freshness of the Meal | 91 | 100 |
| Quality/Hygiene of the Meal | 100 | 99 |
| Feedback on Daily Menu | 97 | 99 |

Table 1 represents the feedback on other aspects of the meal
CONCLUSION & RECOMMENDATIONS

While the results indicate an overall positive impact from the TAPF meals with positive feedback on most aspects like taste flavor and nutrition level of the meal, the study also illuminates certain improvement areas for TAPF.

Given below are the key recommendations:

- **Increase frequency of meals**: Students studying in Government schools from Guwahati come from a difficult terrain and are from poor households, most students are malnourished. Also, about 1/3rd of them feel hungry in the morning and many feel hungry in the evening. Hence, increasing frequency of meals would help in improving the overall health of the students.

- **Including variety in Daily Menu**: Satisfaction with daily menu is low among TAPF students, hence following can be done to improve the same:
  - Inclusion of protein rich diet (supplement for non-vegetarian meals provided in other schools).
  - Include items which appeal to local palette like paneer, soybean/chickpeas, lentils which will also be nutritional and filling for the students.
  - Include special items at least once a week to keep the students interested in the meal.
STUDY FINDINGS:

NAYAGARH
FACILITIES IN THE SCHOOLS: NAYAGARH

The study was conducted across 39 schools in Nayagarh, out of these sample schools 19 schools were covered under TAPF Mid-day meal program and remaining 20 schools were covered under Non-TAPF Mid-day meal / other NGO running kitchens in the school. The schools in the region were small and lacked basic infrastructure like furniture and electricity connections. Some schools also faced water shortage and there was no clean drinking water available in the schools. Most schools had just 1 tap that was used for washing utensils as well as for drinking water.

PROFILE OF PARENTS: NAYAGARH

The study covered 42 parents from TAPF schools and 38 parents from Non-TAPF schools in Nayagarh. Analysis of education level of the parents revealed majority of the patents were illiterate for all schools. Majority of the parents were unskilled wage labour, higher among the mothers.
PARTICIPANT DEMOGRAPHICS

The study collected data from 20 schools served by the TAPF and 21 schools served by school’s own kitchens funded by government/ NGOs other than TAPF in Nayagarh, Orrisa. All the participating children had meals in the school at least 3 times a week. In TAPF schools, all students were consuming the meal provided by the TAPF decentralized kitchens.

KEY OUTCOMES & FINDINGS

1. IMPACT OF MID DAY MEAL ON STRENGTH AND ENROLMENTS IN THE SCHOOLS

   Figure 1. Represents the strength of schools in the last 3 academic years

   School strength in the schools benefitted by TAPF demonstrated an increase in the past 3 academic years. (Figure 1)
2. IMPACT OF MID DAY MEAL ON ACADEMIC PERFORMANCE

Figure 2 Represents the share of students who received the respective grades in the previous academic year

![Circle charts showing academic performance comparison between TAPF and Non TAPF schools.](image)

Higher proportion of students have received grade A in the previous academic year in the schools benefitted by TAPF when compared with the other set of schools. (Figure 2)

3. IMPACT OF MID DAY MEAL ON HEALTH OF THE STUDENTS

Figure 3 represents the BMI of the students in the past academic year

![Circle charts showing BMI comparison between TAPF and Non TAPF schools.](image)

Higher proportion of students in the schools benefitted by TAPF are in the normal weight band (derived through the BMI scores) compared to the other set of schools. Majority of students in both set of schools were underweight (Figure 3)
4. FEEDBACK ON THE MID DAY MEAL

Higher proportion of students in the schools benefitted by TAPF have liked the meal at an overall level and also liked the aspects like temperature and nutrition levels of the meal.

The students from TAPF schools were also happy with the aspects like the taste/ flavor, quality, quantity, on time delivery and the daily menu of the meal served by TAPF. (Table 1)

<table>
<thead>
<tr>
<th>Feedback on the Meal Parameters</th>
<th>TAPF Schools</th>
<th>Non TAPF Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Feedback on Meal</td>
<td>97</td>
<td>99</td>
</tr>
<tr>
<td>Quality (hygiene + cleanliness) of the meal</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Quantity of food is adequate</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Taste/ Flavor of the meal</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Second serving given</td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 represents the Feedback on the meal parameters.
5. APPRECIATION OF THE TAPF MENU

Most students in the region were happy with the good taste and the on time delivery of food from TAPF kitchens.

- Variety of the MDM is appreciated by all -
- Kids are happy to get Kheer / Pickle / Khatta(a sour chutney-like side dish) by the school.
- On-time, hot food is given to students at 1:20 approximately, which is a good time – early afternoon.
- Food is also given to siblings of the students who will enroll the next year and the schools adjust quantity.

5. TAPF DECENTRALISED KITCHENS

For the Food grains are sent to the school in small packages. These well-sealed pouches retain freshness and prevent spoilage.

The principal/teachers recalled that the members of TAPF are quite professional and visit the schools every day to take stock of the ingredients (This could be quite frequent – and can be reduced). The TAPF members do not wait until the groceries are exhausted.

6. CHALLENGES IN THE REGION

Water scarcity is a major problem in Nayagarh. Most schools have only one tap which is used for drinking, cleaning and washing vessels.

Students forego hand wash before meals as the tap gets crowded

In one school, there was no water even in the taps – kids would bring water from homes every day for drinking and for washing their plates while the cooks would stock water in buckets for cooking and cleaning.
CONCLUSION & RECOMMENDATIONS

The results indicate an overall positive impact from the TAPF meals with positive feedback on most aspects of the meals and daily menu. But the poor infrastructure and water shortage in the region are a concern.

Below are the recommendations:

- **Increase nutritious items in the meal and increase frequency of meals**: Since about 40% students are underweight and many students feel hungry in the evening, we can think of increasing frequency of meals which would help in improving the overall health of the students.

- **Including variety in daily menu**: Satisfaction with daily menu is low, hence following can be done to improve the same:
  - More money should be provided to the TAPF schools so that they can add more vegetables especially in items like Dalma.
  - They can look at healthy substitutes for Soya curry as the students do not like this item.
  - On Saturdays, dry snack items can be given to students as school begins very early in the morning.
  - Fruits can be included in the menu – this will provide more nutritional value to the students.
  - Invest in the infrastructure of the kitchens in the school to ensure cleaner and healthier cooking in the schools.
STUDY FINDINGS: BHUBANESHWAR
FACILITIES IN THE SCHOOLS: BHUBANESHWAR

Study was conducted across 37 schools in Bhubaneshwar, out of these sample schools 18 schools were covered under TAPF Mid-day meal program and remaining 19 schools were covered under Non-TAPF Mid-day meal. The schools had basic infrastructure like furniture and toilets. The school premises were clean and well maintained.

PROFILE OF PARENTS: BHUBANESHWAR

The study covered 39 parents from TAPF schools and 42 parents from Non-TAPF schools in Bhubaneshwar. The parents were mostly illiterate especially the mothers or had basic school education.
PARTICIPANT DEMOGRAPHICS

The study collected data from 18 schools served by TAPF and 19 schools served by school’s own kitchens funded by government/ NGOs other than TAPF in Bhubaneshwar. All the participating children had meals in the school at least 3 times a week. In TAPF schools, all students were consuming the meal provided by the TAPF centralized kitchens.

KEY OUTCOMES & FINDINGS

1. IMPACT OF MID DAY MEAL ON STRENGTH AND ENROLMENTS IN THE SCHOOLS

Figure 1. Represents the strength of schools in the last 3 academic years

School strength in the schools benefitted by TAPF demonstrated an increase in the past 2 academic years. (Figure 1)
2. **IMPACT OF MID DAY MEAL ON ACADEMIC PERFORMANCE**

*Figure 2 Represents the share of students who received the respective grades in the previous academic year*

![Circle graphs showing the distribution of grades for TAPF and Non TAPF schools.](image)

Higher proportion of students have received grade A in the previous academic year in the schools served by the Akshaya Patra Foundation when compared with the schools not served by the Akshaya Patra Foundation. (Figure 2)

3. **IMPACT OF MID DAY MEAL ON HEALTH OF THE STUDENTS**

*Figure 3 represents the BMI of the students in the past academic year*

![Bar graphs showing the BMI distribution for TAPF and Non TAPF schools.](image)

Higher proportion of students in the schools benefitted by TAPF are in the normal weight band (derived through the BMI scores) compared to the other set of schools. Majority of students in both set of schools were underweight (Figure 3)
4. FEEDBACK ON THE MID DAY MEAL

Higher proportion of students in the schools benefitted by TAPF have liked the meal at an overall level and also liked the aspects like temperature and nutrition levels of the meal.

The students from TAPF schools were also happy with the aspects like the taste/flavor, quality, quantity, on time delivery and the daily menu of the meal served by TAPF. (Table 1)

<table>
<thead>
<tr>
<th>FEEDBACK ON THE MID DAY MEAL</th>
<th>TAPF Schools</th>
<th>Non TAPF Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taste/ Flavor of the Meal</td>
<td>94</td>
<td>84</td>
</tr>
<tr>
<td>Quality (hygiene+ cleanliness) of the meal</td>
<td>94</td>
<td>87</td>
</tr>
<tr>
<td>Quantity of food is adequate</td>
<td>99</td>
<td>96</td>
</tr>
<tr>
<td>Second serving given</td>
<td>95</td>
<td>84</td>
</tr>
<tr>
<td>On time delivery</td>
<td>97</td>
<td>86</td>
</tr>
<tr>
<td>Feedback on Daily Menu</td>
<td>83</td>
<td>66</td>
</tr>
</tbody>
</table>

Table 1 represents the Feedback on the meal parameters.
5. SUGGESTION FOR TAPF FROM TEACHERS

As most students in the region were underweight, the teachers in the TAPF schools suggested some additions in the daily meal to improve the health of the students.

<table>
<thead>
<tr>
<th>Additions in the Menu (TAPF School Teachers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweets</td>
</tr>
<tr>
<td>Fruits</td>
</tr>
<tr>
<td>Kheer</td>
</tr>
<tr>
<td>Egg</td>
</tr>
<tr>
<td>Paneer/ Paneer Curry</td>
</tr>
<tr>
<td>Fish</td>
</tr>
<tr>
<td>Soya bean</td>
</tr>
<tr>
<td>Fruit Juice</td>
</tr>
</tbody>
</table>

Most teachers in the TAPF schools pointed out that the students should get high protein diet like paneer/ soya bean with fruits and some sweet in their daily meal.

CONCLUSION & RECOMMENDATIONS

The results indicate an overall positive impact from the TAPF meals with positive feedback on most aspects of the meals and daily menu. But the higher proportion of underweight students in the region still remain a point of concern.

Below are some of our recommendations:

- **Increase frequency of meals**: Students studying in Government schools from Guwahati come from a difficult terrain and are from poor households. Most students are malnourished. Also, about 1/3rd of them feel hungry in the morning and many feel hungry in the evening. Hence, increasing frequency of meals would help in improving the overall health of the students.

- **Including variety in daily menu**: Satisfaction with daily menu is low among TAPF students, hence following can be done to improve the same:
  - Inclusion of protein rich diet (supplement for non-vegetarian meals provided in other schools).
  - Include items which appeal to local palette like paneer, soybean/ chickpeas, lentils which will also be nutritional and filling for the students.
  - Include special items at least once a week to keep the students interested in the meal.
EXECUTIVE SUMMARY

Government of India has done commendable work through the Sarva Shiksha Abhiyaan (SSA) scheme that supports States/ UTs in their efforts to implement the Right to Education Act under which they have started the Mid-Day Meal program. But in spite of these efforts, a large percentage of children in India are malnourished. The Akshaya Patra Foundation (hereafter TAPF), a not-for-profit organization headquartered in Bengaluru; has been helping the Government of India and the state governments in implementing the Mid-Day Meal Scheme in these schools. Hansa Research Group Private Limited, a premier market research agency undertook a research to understand the impact of the Mid-Day Meal on health, enrolments and academic performance for the students studying in schools that are served by the foundation. The study undertook a comparative assessment between the TAPF and non TAPF schools.

KEY FINDINGS: JAIPUR

- The nutritious meal served by the foundation has helped in improving the strength and the enrolments of the TAPF students.
- It is evident that hot nutritious meal received in school is creating a difference in nutritional status of the children
- Around 89% of the TAPF children found the meal to be nutritious and also liked the daily menu served in the school

KEY FINDINGS: VRINDAVAN

- The academic performance in the schools benefitted by TAPF is better in comparison to the non TAPF schools.
- 50% of the children served by TAPF have normal BMI and the nutritious school meal is creating a difference in nutritional status of the children
- Around 80% of the TAPF children liked the daily menu and 97% of the children found the quantity of the meal to be sufficient
KEY FINDINGS: GUWAHATI

- The nutritious meal served by the foundation has helped in improving the strength and the enrolments of the TAPF students.
- The academic performance in the schools benefitted by TAPF is better in comparison to the non TAPF schools.
- 100% of the TAPF children liked the taste/flavor of the TAPF meal and 99% of the children found the food to be nutritious.

KEY FINDINGS: NAYAGARH

- 50% of the children served by TAPF have normal BMI and the nutritious school meal is creating a difference in nutritional status of the children.
- 97% of the TAPF children found the meal to be hot and fresh and 98% of the children said the food was served on time.

KEY FINDINGS: BHUBANESHWAR

- The meal served by the foundation has helped in improving the strength and the enrolments of the TAPF students and on an average.
- The children in the TAPF schools were happy with the Mid-Day meal at an overall level.
- 99% of the TAPF children found the meal to be hot and fresh and 98% of them said the food was nutritious.