



IMPACT ASSESSMENT AND A SATISFACTION SURVEY: THE AKSHAYA PATRA FOUNDATION MID-DAY MEAL PROGRAMME BENGALURU & TELANGANA



EXECUTIVE SUMMARY

India has done commendable work in universalizing primary education since independence; however the country has large number of children still out of school and one of the world's highest demographics of children suffering from malnutrition. The Akshaya Patra Foundation (a not-for-profit organisation) began the journey at the turn of the century; today the foundation is serving wholesome school lunch to over 1.6 million children in 13,839 schools across 12 states in India. Nielsen (India) Private Limited, a global Information and Media Company, undertook an impact and a satisfaction study to assess the long term impact of the Mid-Day Meal scheme run by the foundation. The study adopted a comparative assessment design and covered both types of schools, schools with TAPF Mid-day Meal programme and schools receiving Mid-day Meal from other NGOs.

KEY FINDINGS: BENGALURU

- The nutritious meal served by the foundation has helped in improving the attention span in classroom and TAPF students have performed better in their annual exam in comparison to Non-TAPF students.
- It is evident that hot nutritious meal received in school is creating a difference in nutritional status of the children
- Around 30% students reported that the meal served in the school was the first complete meal they receive in a day.

KEY FINDINGS FOR TELANGANA

- The study revealed that average academic performance in school is much better in TAPF schools in comparison to Non-TAPF schools in Telangana.
- Impact of TAPF Mid-day meal was visible on nutritional status of children across gender. In case of TAPF schools 72% girl students reported having normal BMI for age; the proportion was around 64% for Non TAPF schools. Nutritional status of TAPF boys was also better in comparison to nutritional status of Non TAPF boys.

RECOMMENDATIONS

- Close monitoring of distribution of meal at school is important to ensure that no diversion is happening at school level and students are getting adequate quantity of food and required hygiene standards are being maintained during distribution.
- Adding a third item / curd in the menu, adding chapatti and dry / fried vegetables etc. are key suggestions across stakeholders and TAPF should consider these suggestions for larger impact of the nutritious meal.

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REPORT OVERVIEW

“The world’s largest NGO-run Mid-Day Meal programme serving wholesome school lunch to over 1.6 million children in 13,839 schools across 12 states in India”. This report titled ‘**Impact Assessment and a Satisfaction Survey**’ takes a closer look at long term impact of the programme on educational outcomes and nutrition levels of children and gauge the level of satisfaction of different stakeholders (students, parents and teachers) in Bengaluru and Telangana.

THE AKSHAYA PATRA FOUNDATION (TAPF) VISION: NO CHILD IN INDIA SHALL BE DEPRIVED OF EDUCATION BECAUSE OF HUNGER

MISSION: TO FEED 5 MILLION CHILDREN BY 2020

WHAT IS THE LONG TERM IMPACT OF THE PROGRAMME? ARE THE KEY STAKEHOLDERS SATISFIED WITH THE PROGRAMME?



PROLOGUE

Education plays a vital role in the development of human potential. Free and compulsory education up to the age of 14 years is the constitutional commitment in India. India has made significant progress in universalising primary education. However the goal of 100 percent universalization of elementary education appears to be far and elusive due to inherent socio-economic factors present in Indian society. Census 2011 revealed that 8.4 crore school age children in India don't go to school at all. On the other hand, World Bank data indicates that India has one of the world's highest demographics of children suffering from malnutrition (3 out of every 10 stunted children are Indian). Malnutrition affects the child's physical and cognitive growth while having an adverse impact on economic growth of the country indirectly.

MID-DAY MEAL SCHEME

With a view to enhancing enrollment, retention and attendance and simultaneously improving nutritional levels among children, Government of India launched the national programme of Nutritional Support to Primary Education (NP-NSPE) popularly known as Mid-Day Meal programme on 1995. Mid-day Meal programme exists in India for the last 22 years, around 9.78 crore children received hot cooked nutritious meals across 11.5 Lakh Government and Government aided schools during 2016 – 17.

Table below shows the required dietary norms

Components	Primary	Upper Primary
Calories	450 Cal	700 Cal
Protein	12 grams	20 grams
Micro-nutrients	Adequate quantities of micro nutrients like Iron, Folic acid, Vitamin A etc.	

FACTS ABOUT EDUCATION AND NUTRITION IN INDIA

THE GROSS ENROLLMENT RATIO (GER) IN ELEMENTARY EDUCATION INCREASED FROM 81.6% IN 2000-01 TO **96.9%** IN 2014-15

AROUND **8.4** CRORE CHILDREN IN THE AGE GROUP OF 5-17 YEARS DON'T GO TO SCHOOL AT ALL

INDIA IS HOME TO **A QUARTER** OF THE WORLD'S UNDERNOURISHED HUNGRY PEOPLE

OVER **ONE THIRD** OF CHILDREN (38.7%) UNDER FIVE YEARS ARE STUNTED (CHRONICALLY MALNOURISHED)

Source: Census of India 2011, Annual report from MHRD GOI and World Food Programme (WFP)



BACKGROUND AND SIGNIFICANCE

The journey of **Akshaya Patra Foundation** began back in 2000 with feeding 1,500 children from five Government schools in Bengaluru. The initiative was to ensure that no child would be deprived of education because of hunger. In 2003, **The Akshaya Patra Foundation (TAPF)** became the first organisation to forge a public-private partnership with the Government. The organisation aims at achieving the two most critical UN Sustainable Development Goals: Zero Hunger and Quality Education.



In order to feed huge number of children, Akshaya Patra depends on its centralised and decentralised kitchen units, which, with the advanced technology they use, can prepare meals to feed 100,000 children in just over four hours. An innovative delivery system with specially designed vehicles ensures that fresh food reaches the schools on time. Hygiene and cleanliness are of utmost importance in each of the Akshaya Patra kitchens. The success of this Public-Private Partnership has been appreciated widely and is also being considered as a model partnership worthy of adoption.



NIelsen (INDIA) PRIVATE LIMITED, THE LARGEST MULTIDISCIPLINARY RESEARCH ORGANIZATION IN THE COUNTRY WAS INVITED TO UNDERTAKE THE STUDY TO ASSESS THE IMPACT OF THE MID-DAY MEAL SCHEME RUN BY THE FOUNDATION

IT WAS ENVISAGED THAT THE STUDY FINDINGS WOULD HELP TAPF TO ASSESS THE IMPACT AND ALSO TO GAUGE THE PERCEPTION OF THE STAKEHOLDERS AND IDENTIFY THE IMPROVEMENT OPPORTUNITIES.

STUDY OBJECTIVES AND SCOPE

The objective of the study was twofold,

- a. To assess the impact of TAPF Mid-day Meal programme on educational outcomes and nutrition levels of children and
- b. To gauge the level of satisfaction of different stakeholders (students, teachers and parents) towards Mid-day Meal Programme

To achieve the study objectives as mentioned above, Nielsen undertook a mix of quantitative and qualitative study including collation of information from school records, in-depth interviews with school teachers, parents and students and observation of distribution of meal in the study schools.

METHODOLOGY

The current round of study has deployed experimental control study design and covered both TAPF Schools (i.e. schools receiving mid-day meal from The Akshaya Patra Foundation kitchen) and Non-TAPF Schools (schools receiving mid-day meal from other NGOs / schools having own kitchen) across two locations –Bengaluru and Telangana.

Comparison of study findings across TAPF and non-TAPF schools revealed the impact of the Akshaya Patra Mid-day Meal programme on school children. Following indicators were measured as a part of the study:

STUDY COVERAGE

NO. OF SCHOOLS COVERED - SCHOOL DATA COLLECTED

40 41

NO. OF ANTHROPOMETRIC SURVEY

847 793

NO. OF TEACHERS INTERVIEWED

76 81

NO. OF STUDENTS INTERVIEWED

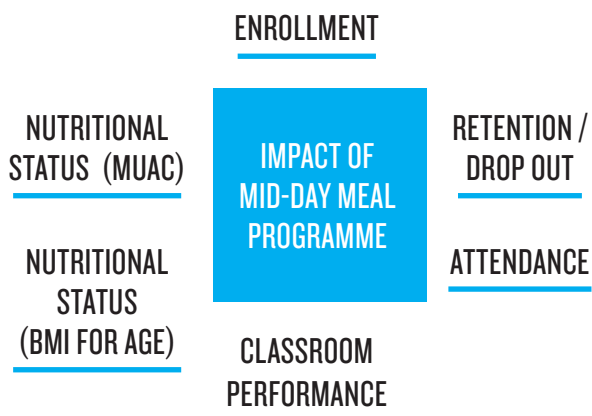
798 819

NO. OF PARENTS INTERVIEWED

400 409

■ BENGALURU COVERAGE
■ TELANGANA COVERAGE

IMPACT ASSESSMENT: INDICATORS



SATISFACTION SURVEY: INDICATORS





STUDY FINDINGS: **BENGALURU**

PROFILE OF SCHOOLS: BENGALURU

Study was conducted across 40 schools in Bengaluru, Out of these sample schools 25 schools were intervention schools i.e. covered under TAPF Mid-day meal programme and remaining 15 schools were covered under Non-TAPF Mid-day meal / other NGO run Mid-day meal programme. Out of 25 TAPF schools 21 schools were Upper Primary Schools (schools having class I – VII) and remaining schools were Lower Primary Schools (schools having class I – V). In case of non-TAPF schools 11 Upper Primary Schools and 4 Lower Primary Schools were covered. All schools covered in Bengaluru were co-education schools.

PROFILE OF PARENTS: BENGALURU

The study covered 250 parents from TAPF schools and 150 parents from Non-TAPF schools in Bengaluru.

Analysis of education level of the parents revealed around one fourth of the fathers and close to one third of the mothers reported as illiterate for all schools. Majority of the parents reported their primary occupation as unskilled wage labour or construction worker and average monthly income was reported as below Rs.10000/-. Public tap/stand posts were reported as main source of drinking water for the family.



PROFILE OF SCHOOLS IN BENGALURU

TAPF Schools

- Average No. of students = 209
- PTR (Pupil Teacher Ratio) = 28
- SCR (Student Classroom Ratio) = 27
- 1 school don't have drinking water connection,
- All schools have toilet facilities
- 2 schools don't have separate toilet for boys and girls
- No playground in 9 schools

Non-TAPF Schools

- Average No. of students = 149
- PTR (Pupil Teacher Ratio) = 18
- SCR (Student Classroom Ratio) = 20
- All schools reported having drinking water connection and toilet facility
- All schools have toilet facilities
- All schools reported having separate toilet for boys and girls
- No playground in 6 schools

Base – 25 TAPF schools, 15 Non TAPF schools

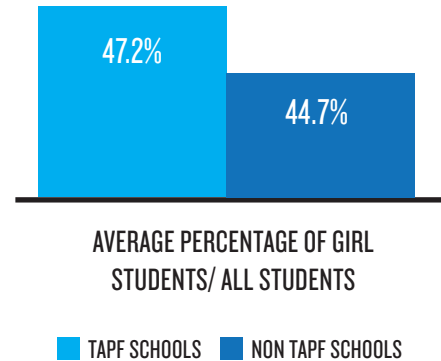
IMPACT ON ENROLLMENT: BENGALURU

Majority of teachers for TAPF and Non TAPF schools reported that MDM has a positive impact on enrollment.

Overall enrollment figure for all classes (Class 1st to 7th) reported marginal increase for TAPF schools in Bengaluru. No significant change in enrollment reported for non-TAPF schools during this period.

Enrollment of girls in TAPF schools (47.2%) is better in comparison to Non TAPF schools (44.7%).

ENROLLMENT OF GIRL STUDENTS

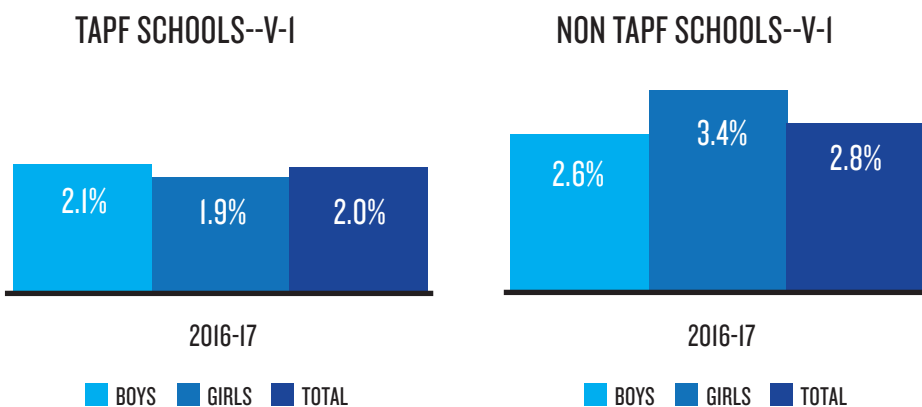


IMPACT ON DROP-OUT RATE: BENGALURU

Overall dropout rate across Bengaluru schools is much lower than national average. Among study group schools, TAPF schools reported a better situation in comparison to Non TAPF schools as dropout rate reported for TAPF schools is less in comparison to Non-TAPF schools. Moreover, TAPF schools have reported a steady decline in dropout rate for girls, in contrary the control schools reported ups and downs in drop-out trend.

“MID-DAY MEAL PROGRAMME HELPED TO BRING MORE NUMBER OF SC, ST AND MINORITY STUDENTS TO SCHOOL”

DROP OUT RATE – CLASS I TO V¹



¹2016-17 Drop out data is provisional figure only

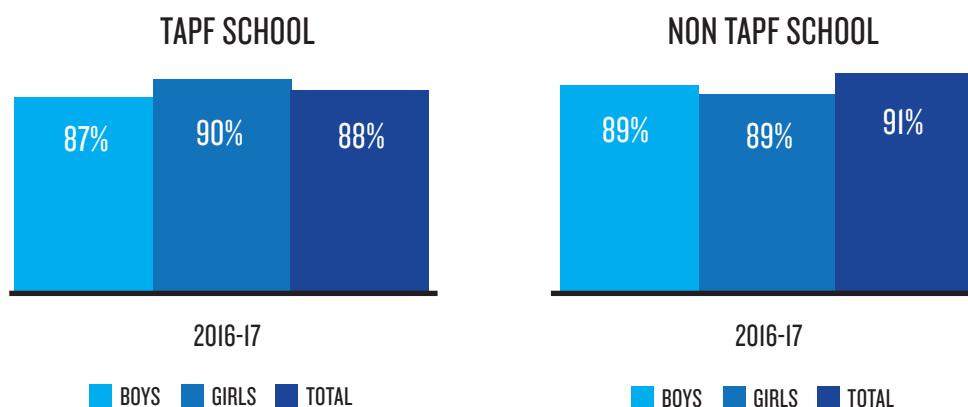
IMPACT ON ATTENDANCE: BENGALURU

Impact study revealed 88% attendance rate of the students for TAPF schools in the last academic year. Attendance for both boys and girls was similar, average attendance for girls (90%) was marginally better in comparison to boys (87%) for TAPF schools. Average attendance on the day of field visit was around 90% only.

All most all teachers reported that MDM programme does have a positive impact on school attendance. Even many of these teachers also felt the same for SC / ST and minority students. More than half of the selected parents and students reported that many children come to school every day because of midday meal programme. Parents and students from both TAPF and Non TAPF schools reported similarly.

“MID-DAY MEAL PROGRAM ITSELF IS AN INCENTIVE FOR BRINGING 9 OUT OF 10 CHILDREN IN SCHOOL EVERY SCHOOL DAY”

ATTENDANCE RATE – ALL CLASSES



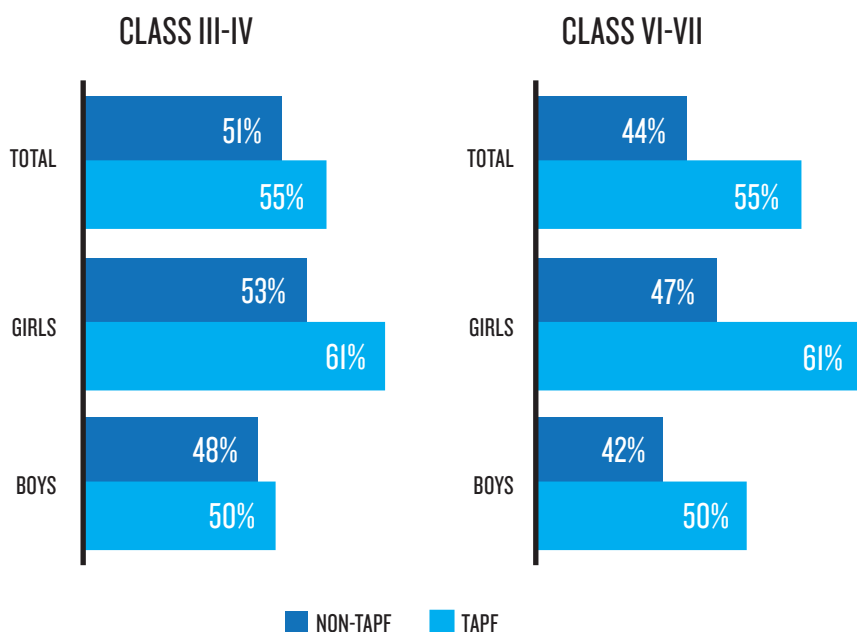
IMPACT ON CLASSROOM PERFORMANCE : BENGALURU

For analysing the performance of students in their exams, information was collected on proportion of students scored more than 80percent in their annual exams and the analysis was segregated among primary (Class III to IV) and upper primary levels (Class VI to VII) for all schools. TAPF schools represented an overall better situation regarding average performance of the students in their annual exams. Proportion of students scoring more than 80percent marks was more in TAPF schools for both the classes. This suggests that nutritious meal served by the foundation has helped in improving the attention span in classroom and TAPF students have performed better in their annual exam in comparison to Non-TAPF students.



“TAPF MID-DAY MEAL HAS HELPED THE STUDENTS TO PERFORM BETTER IN THEIR ANNUAL EXAM IN COMPARISON TO NON TAPF MEALS”

BENGALURU PERFORMANCE IN ANNUAL EXAMS -2015-16



PROPORTION OF STUDENTS SCORED MORE THAN 80PERCENT MARKS

IMPACT ON NUTRITIONAL STATUS (BODY MASS INDEX) BENGALURU

The current study has measured height, weight for 847 students in the age group of 5-14 years across primary and upper primary schools (537 TAPF school students and 310 Non-TAPF school students).

BMI for Age

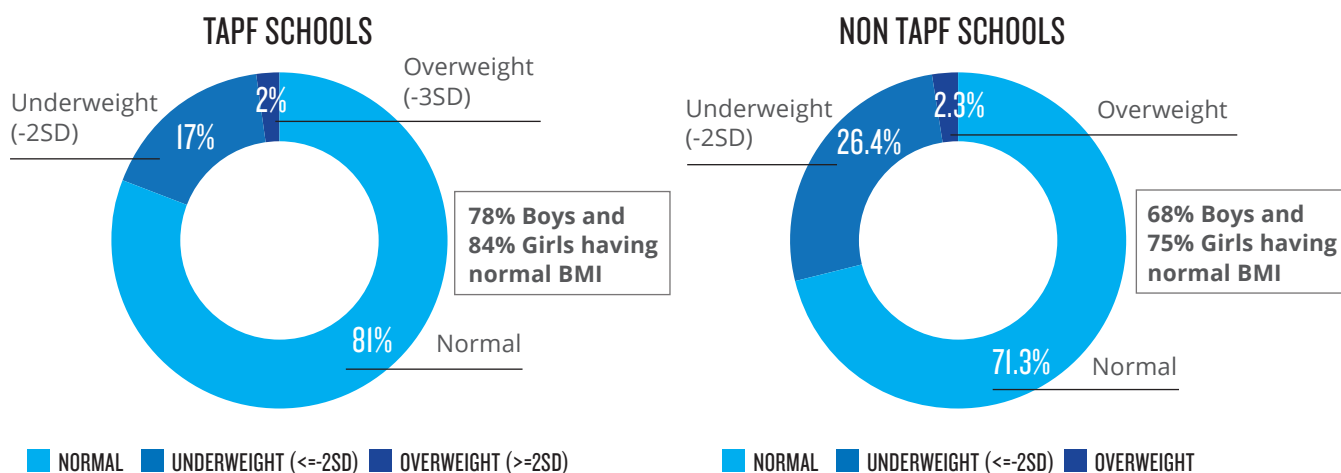
The collected data was further analysed with the help of World Health Organisation (WHO) anthropometric software.

“IT IS EVIDENT THAT HOT NUTRITIOUS MEAL RECEIVED IN SCHOOL IS CREATING A DIFFERENCE IN NUTRITIONAL STATUS OF THE CHILDREN. CLOSE TO 17% OF THE STUDENTS FROM TAPF SCHOOL WERE IN THE UNDERWEIGHT CATEGORY (-2SD) WHILE AROUND 26% STUDENTS FROM NON TAPF SCHOOLS WERE FOUND IN THE SAME GROUP”

Impact of TAPF Mid-day meal was visible on nutritional status children across gender. In case of TAPF schools, around 78% boys and 84% girls (in the age group of 5-14 years) were found having normal range of BMI for age which was found as 68% and 75% respectively in case of Non-TAPF schools.

BODY MASS INDEX (BMI) IS A PERSON'S WEIGHT IN KILOGRAMS DIVIDED BY THE SQUARE OF HEIGHT IN METERS. FOR CHILDREN AND TEENS, BMI IS AGE- AND SEX-SPECIFIC AND IS OFTEN REFERRED TO AS BMI-FOR-AGE. INTERPRETATION OF CUT-OFFS (WHO)
OVERWEIGHT: >+ 1SD (EQUIVALENT TO BMI 25 KG/M2 AT 19 YEARS)
OBESITY: >+2SD (EQUIVALENT TO BMI 30 KG/M2 AT 19 YEARS)
THINNESS: <-2SD
SEVERE THINNESS: <-3SD

BENGALURU - BODY MASS INDEX (BMI) FOR AGE

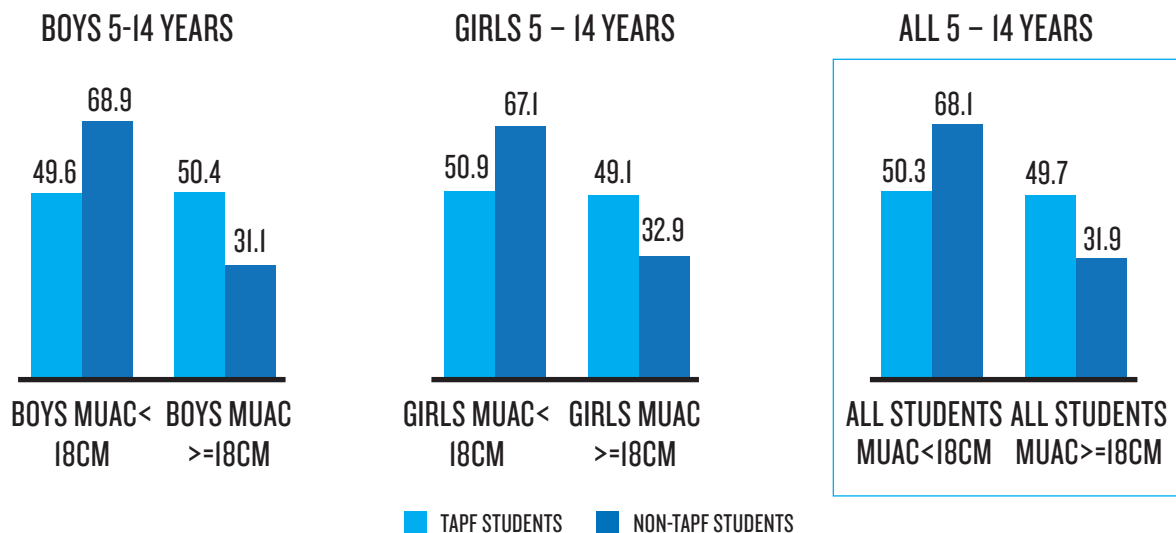


IMPACT ON NUTRITIONAL STATUS – (MID-UPPER ARM CIRCUMFERENCE) BENGALURU

MUAC IS THE CIRCUMFERENCE OF THE LEFT UPPER ARM, MEASURED AT THE MID-POINT BETWEEN THE TIP OF THE SHOULDER AND THE TIP OF THE ELBOW. IN CHILDREN, MUAC IS USEFUL FOR THE ASSESSMENT OF NUTRITIONAL STATUS. INCREASINGLY, MUAC IS ALSO BEING USED TO ASSESS NUTRITIONAL STATUS FOR ADOLESCENTS; HOWEVER, GLOBALLY RECOGNIZED MUAC CUT-OFFS HAVE NOT BEEN ESTABLISHED TO CLASSIFY MALNUTRITION AMONG ADOLESCENTS. NIELSEN TEAM HAS REFERRED FEW SIMILAR STUDIES TAKEN UP IN INDIA AND CONSIDERED 18 CM AS A CUT-OFF POINTS FOR ANALYSING NUTRITIONAL STATUS OF SCHOOL GOING CHILDREN IN THE AGE GROUP OF 5-14 YEARS

Comparison of MUAC data for TAPF and Non-TAPF students also revealed that significantly higher percentage of Non-TAPF students of Bengaluru reported in the category of MUAC < 18cm; nearly half of the TAPF students and more than two third of Non-TAPF students reported the same. Similar variation in MUAC is reported for both boys and girls. Analysis of MUAC clearly revealed that overall nutritional status of TAPF students is much better in comparison to the nutritional status of Non TAPF students.

BENGALURU – MUAC STATUS OF ALL CHILDREN



ADDRESS CLASSROOM HUNGER: BENGALURU

It was found that almost one third of students came to school on the day of survey without having any breakfast. Around 30% students reported the same for both types of schools. Since students often come to school without any breakfast, they find it difficult to concentrate on an empty stomach. Mid-day meal seems to have resolved this problem partially and for most of these students the meal served in the school was the first complete meal they received in a day.

OPINION OF TEACHERS, PARENTS AND STUDENTS: BENGALURU

Almost all teachers from both TAPF and Non TAPF schools opined that clean and hygienic food is being served in school. However while revealing their opinion on taste of Mid-day Meal only around 30% TAPF teachers felt that taste of food is excellent or very good and 17% Non TAPF teachers felt the same. In case of TAPF schools, Bisibelebath and Pullav are found as most favourite items and consumption of food increases on the days when these items are served. By and large teachers were satisfied with the menu served in school; most of the TAPF teachers suggested adding chapati, dry vegetables, rasam, curd and fruits in the menu.

In-depth interviews with parents also revealed a similar opinion around 92% TAPF parents felt that nutritious and healthy meal is being provided in school, while around 10% TAPF parents also reported that their children complained about taste of food occasionally. Most of the parents requested for inclusion of fresh fruits, curd and chapatis in Mid-day Meal.

The study revealed that almost all students take mid-day meal in school every day in both types of schools.



SHANTAMMA, MOTHER OF GANGOTRI (CLASS 7) GHPS-SATHANUR (TAPF SCHOOL): "MY DAUGHTER LIKES SCHOOL FOOD VERY MUCH, SHE PREFERS TO HAVE LUNCH WITH HER FRIENDS IN SCHOOL,"

Name of the respondents and name of the schools are changed to maintain confidentiality of the respondents

MAYADEVI, HEADMISTRESS OF GLPS METRIPALYA (TAPF PROGRAM SCHOOL): "BISIBELEBATH AND PULLAV ARE MOST FAVOURITE AMONG CHILDREN".

Name of the respondents and name of the schools are changed to maintain confidentiality of the respondents

MANAGEMENT OF DISTRIBUTION OF MEAL - BENGALURU

The study revealed that Mid-day meal gets distributed under the direct supervision of teachers for both TAPF / Non TAPF schools. In general cooked meal reaches school at least 1-2 hours before distribution starts and it is stored in principal / teacher's room or inside the covered corridor.

It was observed that almost all students washed hands before and after taking meal. However in case of around three-fourth of the schools, students washed hands with soap. For rest of the schools only water was used for hand washing.

Distribution of meal was managed by teachers, other support staffs and volunteers appointed by Govt. Students stand in queue before taking meal and majority of students reported eating meal sitting in the open playground.

Standard size plates were not available and close to one third of all schools students used different sizes of plates and boxes for having meal. It was found that rest of the schools where plates were provided by the Govt. / TAPF management those were being used. None of the schools distribution staffs wear any apron / Gloves etc. while distributing the food.

“ONLY IN CASE OF AROUND 75% SCHOOLS STUDENTS WERE WASHING HANDS WITH SOAP AND WATER BEFORE TAKING FOOD”





STUDY FINDINGS:
TELANGANA

PROFILE OF SCHOOLS: TELANGANA

Total 41 schools were covered at Telangana, the sample was further distributed across TAPF schools (26 Schools) and Non-TAPF schools (15 Schools). Under TAPF schools 10 schools were Upper Primary Schools whereas remaining 16 schools were Lower Primary Schools. In case of Non-TAPF schools the study covered 6 Upper Primary Schools and 9 Lower Primary Schools.

PROFILE OF PARENTS: TELANGANA

In case of Telangana total 409 parents (TAPF School Parents: 259, Non-TAPF School parents: 150) were interviewed.

Education status of the parents revealed that the majority of parents were illiterate. More than half of the fathers and more than two third of the mothers were illiterate across both categories of schools.

Almost every second parents of TAPF schools were engaged as agricultural wage labour for earning their livelihood. Majority of the fathers for non TAPF schools were engaged as rural artisans. A large proportion of the TAPF parents (87%) and Non TAPF parents (70%) reported their average monthly income under Rs.5000/-. For drinking water majority of households from both the categories reported dependence on public tap/stand post. Further, Incident of open defecation reported high among TAPF respondents in comparison to Non-TAPF.

PROFILE OF SCHOOLS IN TELANGANA

TAPF Schools

- Average No. of students = 100
- Average number of SC students = 34
- PTR (Pupil Teacher Ratio) = 23
- SCR (Student Classroom Ratio) = 22
- 3 schools don't have drinking water connection, 1 school don't have toilet facility
- 7 schools don't have separate toilet for boys and girls

Non- TAPF Schools

- Average No. of students = 100
- Average number of SC students = 23
- PTR (Pupil Teacher Ratio) = 27
- SCR (Student Classroom Ratio) = 27
- All 15 schools reported having drinking water connection and toilet facility
- All 15 schools reported having separate toilet for boys and girls

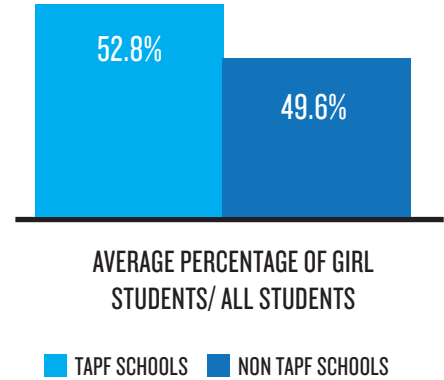
Base – 26 TAPF schools, 15 Non TAPF schools



IMPACT ON ENROLLMENT: TELANGANA

Majority of teachers reported that MDM has a positive impact on enrollment. More than three fourth of the teachers for TAPF and Non TAPF schools reported the same. A large proportion of teachers also felt the MDM programme helped to bring more number of SC, ST and Minority students to school. Participation of girls across different social categories is better in TAPF schools compared to Non TAPF schools.

ENROLLMENT OF GIRL STUDENTS

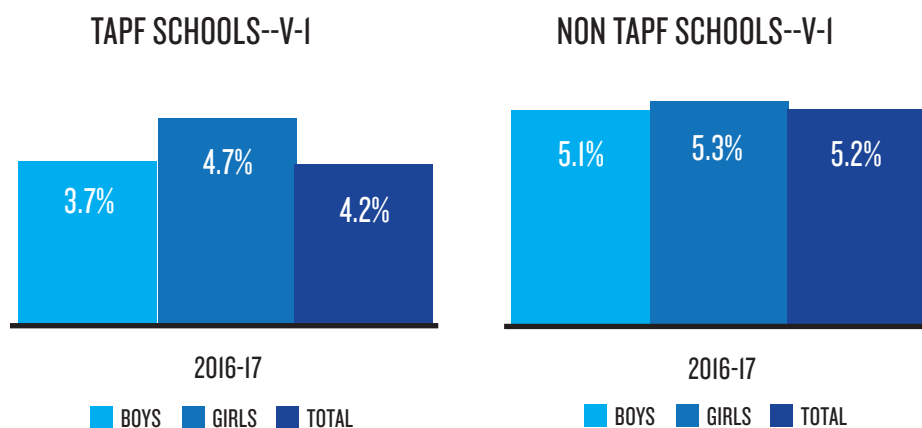


IMPACT ON DROP-OUT RATE: TELANGANA

The dropout rate for TAPF schools at primary level was found as 4.2% in Telangana in the academic year of 2016-17. In case of Non TAPF schools, dropout rate was reported as 5.2% during the same period. Non TAPF schools also reported a higher dropout rate for girls in comparison to TAPF schools.

“MID-DAY MEAL PROGRAMME HELPED TO BRING MORE NUMBER OF SC, ST AND MINORITY STUDENTS TO SCHOOL”

DROP OUT RATE – CLASS I TO V²



²2016-17 Drop out data is provisional figure only

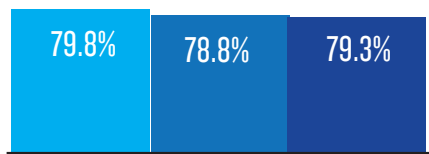
IMPACT ON ATTENDANCE: TELANGANA

In case of Telangana average attendance rate varies in the range of 79.0% - 83.0%. Attendance rate for both boys and girls was similar. Average attendance on date of field visit was around 85%.

Majority of the teachers reported that MDM programme does have a positive impact on school attendance. Even many of these teachers also felt the same for SC / ST and minority students. More than 80% of parents and students also reported that many children come to school every day because of midday meal programme.

ATTENDANCE RATE – ALL CLASSES

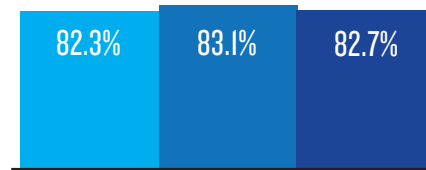
TAPF SCHOOLS



2016-17

BOYS GIRLS TOTAL

NON TAPF SCHOOLS



2016-17

BOYS GIRLS TOTAL

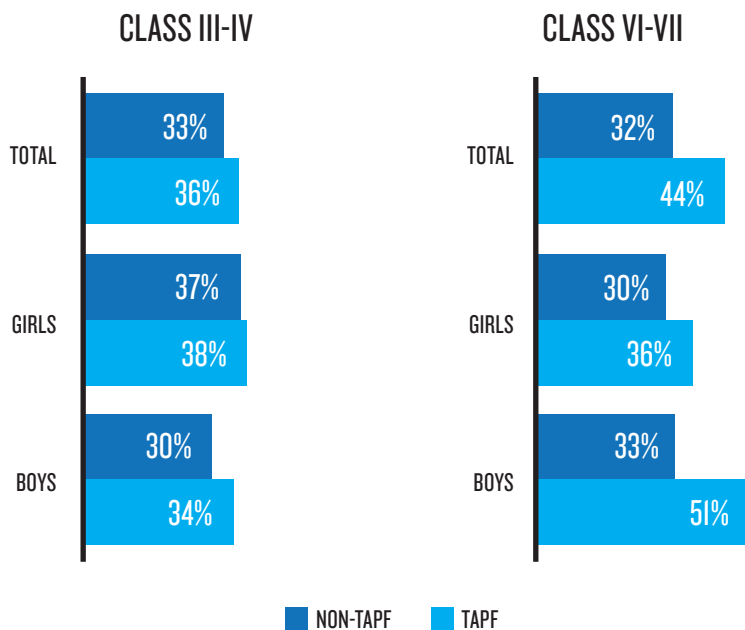


IMPACT ON CLASSROOM PERFORMANCE : TELANGANA

The study revealed that average classroom / academic performance in school is much better in TAPF schools in comparison to Non-TAPF schools in Telangana. Performance of the students in the annual examination (from class 3 to 4) for the year of 2015-16, revealed that 36.0% of the total students scored more than 80percent marks for TAPF schools however 32% Non TAPF students reported the same. Study also analysed the performance for the annual examination from class 6 to class 7, this revealed that 44% students scored more than 80percent marks; the proportion was much lower in Non-TAPF (32%) schools. Analysis of data for previous years also revealed that TAPF Mid-day meal has a definite impact on academic performance and across the years students have scored better in their annual examination in comparison to Non-TAPF schools.

“STRONG CORRELATION BETWEEN NUTRITIOUS MEAL AND ACADEMIC PERFORMANCE (CLASS GRADES) IS EVIDENT FROM THIS STUDY”

TELANGANA PERFORMANCE IN ANNUAL EXAMS -2015-16



PROPORTION OF STUDENTS SCORED MORE THAN 80PERCENT MARKS

IMPACT ON NUTRITIONAL STATUS (BODY MASS INDEX) TELANGANA

The current study has measured height, weight and Mid-upper Arm Circumference (MUAC) for 793 students in the age group of 5-14 years across primary and upper primary schools (519 TAPF school students and 274 Non-TAPF school students).

BMI for Age

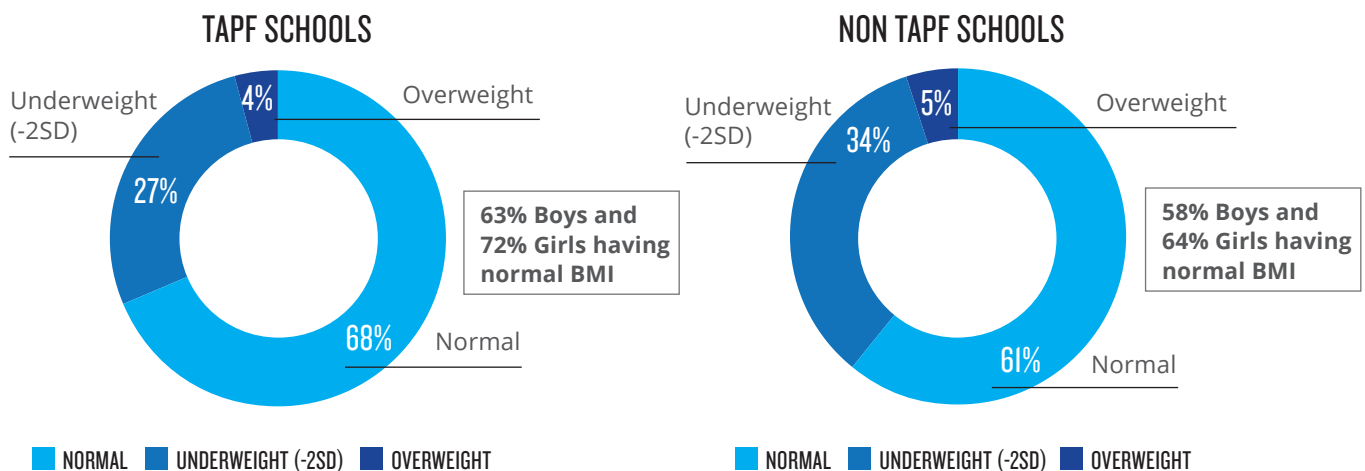
The collected data was further analysed with the help of World Health Organisation (WHO) anthropometric software.

“IT IS EVIDENT THAT HOT NUTRITIOUS MEAL RECEIVED IN SCHOOL IS CREATING A DIFFERENCE IN NUTRITIONAL STATUS OF THE CHILDREN. LITTLE MORE THAN ONE FOURTH OF STUDENTS (27%) FROM TAPF SCHOOLS WERE FOUND IN THE UNDERWEIGHT CATEGORY (-2SD) BASED ON WHO BMI FOR AGE STANDARD. THIS PROPORTION WAS MUCH HIGHER IN CASE OF NON TAPF SCHOOLS (34%)”

BODY MASS INDEX (BMI) IS A PERSON’S WEIGHT IN KILOGRAMS DIVIDED BY THE SQUARE OF HEIGHT IN METERS. FOR CHILDREN AND TEENS, BMI IS AGE- AND SEX-SPECIFIC AND IS OFTEN REFERRED TO AS BMI-FOR-AGE. INTERPRETATION OF CUT-OFFS (WHO) OVERWEIGHT: >+1 SD (EQUIVALENT TO BMI 25 KG/M2 AT 19 YEARS) OBESITY: >+2SD (EQUIVALENT TO BMI 30 KG/M2 AT 19 YEARS) THINNESS: <-2SD SEVERE THINNESS: <-3SD

Impact of TAPF Mid-day meal was visible on nutritional status children across gender. In case of TAPF schools 72% girl students reported having normal BMI for age; the proportion was around 64% for Non TAPF schools. Nutritional status of TAPF boys was also better in comparison to nutritional status of Non TAPF boys.

TELANGANA - BODY MASS INDEX (BMI) FOR AGE

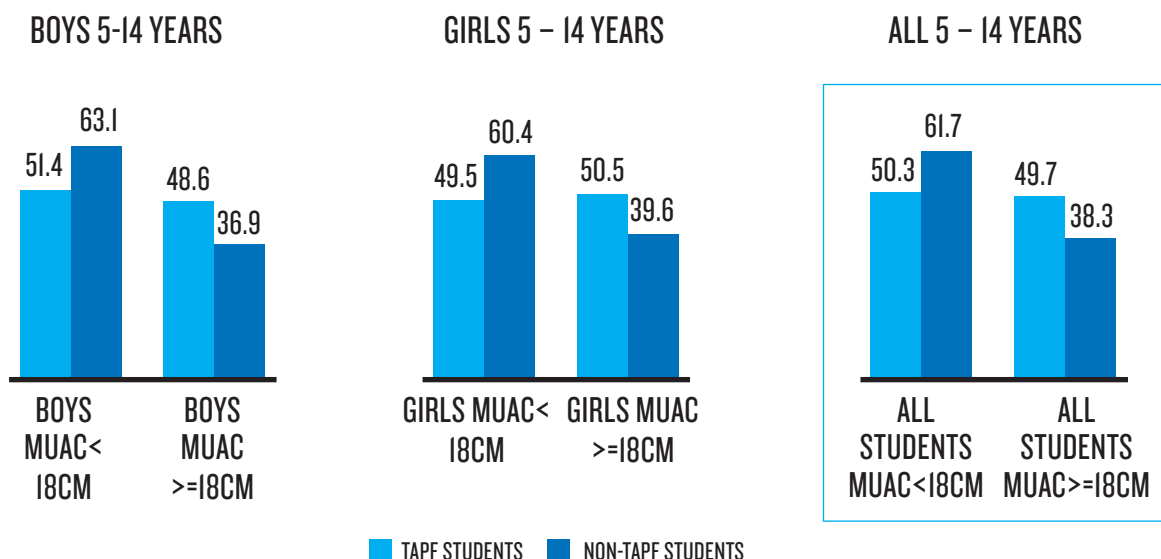


IMPACT ON NUTRITIONAL STATUS – (MID-UPPER ARM CIRCUMFERENCE) TELANGANA

MUAC IS THE CIRCUMFERENCE OF THE LEFT UPPER ARM, MEASURED AT THE MID-POINT BETWEEN THE TIP OF THE SHOULDER AND THE TIP OF THE ELBOW. IN CHILDREN, MUAC IS USEFUL FOR THE ASSESSMENT OF NUTRITIONAL STATUS. INCREASINGLY, MUAC IS ALSO BEING USED TO ASSESS NUTRITIONAL STATUS FOR ADOLESCENTS; HOWEVER, GLOBALLY RECOGNIZED MUAC CUT-OFFS HAVE NOT BEEN ESTABLISHED TO CLASSIFY MALNUTRITION AMONG ADOLESCENTS. NIELSEN TEAM HAS REFERRED FEW SIMILAR STUDIES TAKEN UP IN INDIA AND CONSIDERED 18 CM AS A CUT-OFF POINTS FOR ANALYSING NUTRITIONAL STATUS OF SCHOOL GOING CHILDREN IN THE AGE GROUP OF 5-14 YEARS

About 50% of total TAPF schools students of Telangana were reported under normal category (MUCA for age ≥ 18 cm), whereas, around 38% Non TAPF students reported the same. Average MUAC for both boys and girls reported as better in TAPF schools in comparison to Non TAPF schools.

TELANGANA – MUAC STATUS OF ALL CHILDREN



ADDRESS CLASSROOM HUNGER: TELANGANA

It was found that almost two third of TAPF students came to school on the day of survey without having any breakfast and for all these students the meal served in the school was the first complete meal they received in a day.

OPINION OF TEACHERS, PARENTS AND STUDENTS: TELANGANA

Almost all teachers from both TAPF and Almost all teachers from TAPF schools opined that they receive very good quality food at their school every day. It was reported that the food received in school is always hot and have adequate quantity. By and large the schools received food on time, the major reasons for disruption / delay was bad weather / bad condition of the roads.

Majority of parents from TAPF schools also felt that Mid-day meal served in the school is nutritious and hygienic however only two third of these parents felt that meal is tasty Dal Rice, Lemon Rice/Rice bath and Veg Biryani were reported as most favourite items in Mid-day Meal menu.

KRUPALINI, SENIOR TEACHER FROM UPS MANTHOR: "TAPF FOOD PREPARATION AND DISTRIBUTION IS REALLY A MODEL TO BE FOLLOWED, THEY GIVE LOT OF IMPORTANCE TO HYGIENE."

Name of the respondents and name of the schools are changed to maintain confidentiality of the respondents



MANAGEMENT OF DISTRIBUTION OF MEAL - TELANGANA

The study revealed that Mid-day meal gets distributed by the teachers and support staffs. It was observed that almost all students washed hands before and after taking meal but almost all of them washed hands only with water. Distribution of meal is handled by teachers, other support staffs and volunteers appointed by Govt. Students stand in queue before taking meal and majority of students reported eating meal sitting in the open playground. None of the schools reported availability of standard size plates and students used different sizes of plates and boxes for having meal. None of the schools distribution staffs wear any apron / Gloves etc. while distributing the food.





CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The study findings so far have clearly shown following:

- Teachers, students and parents felt that Mid-day Meal has a positive impact on school attendance and helps to bring children from marginalised community to school every day.
- Performance of students depicts a positive outcome for TAPF students in comparison to Non TAPF students which suggests better attention span for TAPF students.
- Overall Nutritional status of TAPF students is better in comparison to Non TAPF students. TAPF mid-day meal programme was able to meet the classroom hunger as most of the students reported getting stomach full of meal every day.
- Both teachers and parents reported that clean healthy and hygienic food has been served through TAPF Mid-day Meal programme however taste of the meal was reported as a concern and students and the teachers felt the taste of food and variation in menu is not completely satisfactory.
- Hand washing before taking meal was practiced; however it was mostly done only with water.
- Availability of standard plates was found as a major concern in case of Telangana.

PROGRAMME RECOMMENDATIONS

- It is understood that due to the centralised kitchen model, boiler based cooking enormous scale etc.; TAPF has its limitation towards changing menu / taste of the food. However considering this as one of the key demand across stakeholders TAPF should consider bringing some more variation in menu. Adding a third item / curd in the menu is a good suggestion considering that curd has enormous health benefit. Adding dry nutritious items like peanuts should be considered for few days.
- Similarly if chapatti and dry fried vegetables can be started in few schools on pilot basis and based on acceptance of the students can be extended for one day in a fortnight / month in all other schools.
- Engagement of TAPF management with Teachers, parents and students needs to be improved. Teachers and parents should be involved in menu planning / designing the recipe through innovative activities.
- Engagement with the renowned chef and sharing awareness of the nutritional value of various food items would improve the ownership of the stakeholders.
- Monitoring distribution of meal, adding an additional resource / school volunteers / monitors from TAPF would help in ensuring that no diversion is happening at school level and students are getting adequate quantity of food. Same person can also monitor the required hygiene during distribution of meal.
- TAPF should take up few educationally backward block to expand its operation for better outcome of its endeavour.

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