



Impact Assessment of The Akshaya Patra Foundation (TAPF) Mid-Day Meal Program - 2010

An impact assessment study to assess the impact of TAPF Mid-day Meal program in enhancing the school enrolment, attendance, classroom performance and nutritional status of the students since 2006

PURI, NAYAGARH, BHILAI &
GUWAHATI

Brief note on findings: -

The Akshaya Patra Foundation (hereafter TAPF) a secular charitable organization based in Bangalore started school meal program since 2000 as a pilot project in Bangalore. This was an effort made in direction to expedient its vision that **“No child in India shall be deprived of education because of hunger”** for under privileged children to end hunger and facilitate education.

In order to see effectiveness of the program ORG Centre for Social Research (a division of ACNielsen ORG-MARG Pvt. Ltd.) has conducted an impact assessment study to assess the impact of TAPF Mid-day Meal program in enhancing the school enrolment, attendance, classroom performance and nutritional status of the students since 2006. In this series a study was conducted in 2008 and now in 2010. A brief note on the findings for the four locations is below.

I. PURI:

Study coverage: 20 schools were covered, 495 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 495 students, 75 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: A comparison was made on the impact on enrolment for three academic years i.e. 2006-07, 2007-08, and 2008-09. An overall growth of 15.3% was recorded in primary school (class 1 – 5). Across the gender; this growth was more within female students (18%) compared to male students (12.8%). In case of upper primary (class 6-7) the overall growth stands to be at 12.9%. In this case also the female students (15.5%) performed better compared to male students (10.3%). In case of secondary school (class – 8) the overall growth in the total enrolment rate was recorded to be 11%. The female students and the male students registered growth of 14% and 6% respectively.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The findings doesn't shows any significant improvements in the dropout rate as the figures stand 11.6% for boys, 11.3% for the girls in the academic year 2006 and the figures were 12.8% for boys, 15.5% for girls in the current academic year.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 5 academic years.

The attendance rate among the male student and female students was 71.8% and 73.3% respectively in the year 2005 which recorded improvement year by year and was 83.1% and 86.7% for male and female students in the academic year 2009.

Impact on Scholastic Performance: There wasn't significant improvement recorded on scholastic performance of the students compared to previous academic years. Repetition rate for the boys and girls was recorded 7.1% and 5.8% respectively for the academic year 2007 which was slightly on the higher side in the academic year 2009 as this percentage was reported to be 10.8% and 8.8% for boys and girls respectively. There wasn't much change recorded in the performance of the students in their annual examination in the last 2 years.

Impact on Nutritional status: Compared with the previous data of 2006 the nutritional status showed marginal improvement in 2010. There was slight decline (2%) in the number of underweight students. None of the surveyed schools were reported of providing De-worming tablets, Iron tablets, and Vitamin A supplements. Nutritional status remained almost similar (slight decline recorded) across the gender as the figures of underweight boys and girl student were 48.3% and 41.1% in the academic year 2006 which was reported to be 43.5% and 38.6% for boys and girls respectively in the academic year 2010. More specifically the number of students reported underweight were more in primary school (42%) than compared to secondary school (29%).

Teacher's Perception: "Impact of TAPF"

Around 85% of headmasters / headmistress / teachers perceived improvement in the attendance rate post TAPF mid-day meal program. Majority (80%) of these respondents opined of improvement in the enrolment rate. Close to 80% of the respondents believed that enrolment for the girl child has also improved due to MDM. Around 75 percent of teachers felt classroom performance has improved post mid-day meal and majority of teachers felt (80%) impact of TAPF on extracurricular activities too. Around 60 percent of these respondents reported positive impact of TAPF mid-day meal on the health of the students.

On the quality and quantity of the food being served almost all HM/ Teachers opined of adequate quantity of food being served and no instances of any shortage in the last six months. Majority (75%) of the respondents reported the MDM as always clean and hygienic food and around 85 percent reported the food as extremely nutritious. Close to 70 percent found the food as always tasty and all the respondents informed of food being hot at the time of being served.

Perception of students (Secondary and Upper Primary Schools)

All students reported of having MDM. At least 1 in four students do not have their breakfast before coming to school. Taste of MDM was reported to be an area of concern. Nearly 40% students reported skipping the meal once in few days because they do not like the taste. Many of these students opined that the current menu should be changed. Analysis on prompt question asked with reference to Midday meal, statements like enjoying eating with my friends (90.6%, 79.1%), save time for my parents (68.8%, 53.5%), and it is an added attraction (59.4%, 44.2%) were found to be the prominent response from the students. [% is in order of boys and girls respectively]

Demographic & Socio-economic Profile:

Close to 98 percent of all sample students were reported to be Hindus. Around 43 percent students were staying in *kachcha* houses. With reference to the literacy level of the parents around 9% father and around 18% mothers reported to be Illiterate. Around 26% father and 36% mother completed education only up to primary or lower than that. The Occupation profile of parents was reported to be as follows. Around 25% fathers were reported as non-agricultural wage labour, 22% were engaged as agriculture/farmer, 20% were engaged as Petty trader/ hawker / retail business. Majority (82%) of the mothers were reported as house wives. Around 58 percent of all sample households reported a monthly income less than Rs. 3,000/m. and close to 26 % was in between Rs. 3,000 – 4,999/m.

Perception of the parents on TAPF Mid-day meal program:

More than 80% of the parents were aware of TAPF Midday Meal program. About 73% of the respondents reported regular intake of TAPF Midday Meal by their ward, others reported irregular intake. Most of these parents (23%) reported that the taste of food is the major hindrance for regular intake of mid-day meal. Around 55% parents opined clean and hygienic food is being provided in school and around 57% felt adequate quantity of food being served in school. Only around 40% of the parents felt that MDM is an additional attraction for the children to go to school. More than 80% of the parents denied any impact of MDM on the child's appetite & health. Close to 70% parents did not feel that TAPF MDM has improved the performance of their child.

Conclusion:

TAPF mid-day meal has shown positive impact on school enrolment. Retention / dropout rate have not shown any significant improvement. The program has raised average school attendance significantly. Enrolment and attendance for the girl child has also improved. Impact of mid-day meal program was not significant on classroom performance and nutritional status of children. Instance of occasional skipping of the meal was also reported, mainly for secondary school students. HM / Teachers were found satisfied with the program. Awareness level across parents were found as low,

Menu planning considering local taste and culture etc. was reported as an area of concern by both students and teachers. Changes in menu and inclusion of milk (35.7% parents) were found as the major suggestions received across different quarters.

II. NAYAGARH:

Study coverage: 20 schools were covered, 412 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 412 students, 68 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: A comparison was made on the impact on enrolment for three academic years i.e. 2006-07, 2007-08, and 2008-09. No major impact was recorded in primary school (class 1 – 5). In case of upper primary (class 6-7) also there wasn't any significant change. In case of secondary school (class – 8) the overall growth in the total enrolment rate was recorded to be around 15%. Similar trend was reported across the gender too.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The findings show significant increase in the dropout rate as the figures stand 33.5% for boys, 30.3% for the girls in the current academic year.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 3 academic years. The attendance rate among the male student and female students was 51.1% and 55.6% respectively in the year 2007 which recorded improvement year by

year and was 58.9% and 67.3% for male and female students in the academic year 2009.

Impact on Scholastic Performance: There wasn't significant improvement recorded on scholastic performance of the students compared to previous academic years. Repetition rate for the boys and girls was recorded 3.4% and 2.4% respectively for the academic year 2007 which was slightly on the higher side in the academic year 2009 as this percentage was reported to be 4.7% and 4.3% for boys and girls respectively. There wasn't much change recorded in the performance of the students in their annual examination in the last 2 years.

Impact on Nutritional status: Only 1 of the surveyed schools was reported of providing De-worming tablets, Iron tablets, and Vitamin A supplements. Nutritional status remained poor as the figures of underweight was about 62%. More specifically; across the gender the figure stand 54.9% for the boys and 49% for the girl students.

Teacher's Perception: "Impact of TAPF"

Around 95% of headmasters / headmistress / teachers perceived improvement in the attendance rate post TAPF mid-day meal program. Majority (80%) of these respondents opined of improvement in the enrolment rate. Similar percentage of the respondents believed that enrolment for the girl child has also improved due to MDM. Around 90 percent of teachers felt classroom performance has improved post mid-day meal and majority of teachers felt (80%) impact of TAPF on extracurricular activities too. Around 75 percent of these respondents reported positive impact of TAPF mid-day meal on the health of the students.

On the quality and quantity of the food being served, 16 schools reported of adequate quantity of food being served, 3 schools reported inadequate and 1 reported of excess amount of food. All of the respondents reported the MDM as always clean and hygienic food and around 95 percent reported the food as extremely nutritious. Close to 95 percent found the food as always tasty and similar percentage of the respondents informed of food being hot at the time of being served.

Perception of students (Secondary and Upper Primary Schools)

About 91% students reported taking food on the date of survey; others did not have food on that day since the annual exam was going on. At least 71% students

reported that they never skip TAPF MDM, others reported occasional skipping. Around 13% of these students reported that they skip the meal only when they go back home to have lunch. About 7 percent students reported that they skip the meal only when they are not well and close to 3 percent students reported that skipped the meal when they did not like the taste of a particular item. About 30 percent students reported that did not have breakfast before coming to school. Taste of food was not reported as an issue in Nayagarh as almost all the students reported it to be tasty and had little concern with quality. Analysis on prompt question asked with reference to Midday meal, statements like enjoying eating with my friends (85.7%, 84.8%), Provides tasty food (97.1%, 93.9%), and it is an added attraction (60%, 51.5%) were found to be the prominent response from the students. [% is in order of boys and girls respectively]

Demographic & Socio-economic Profile:

Close to 56% of all sample households reported as nuclear family while others reported as extended / joint family. Around 36 percent students were staying in *kachcha* houses. With reference to the literacy level of the parents around 6% father and around 18% mothers reported to be Illiterate. Around 42% father and 44% mother completed education only up to primary or lower than that. The Occupation profile of parents was reported to be as follows. Around 30% fathers were reported as Petty trader/ hawker / retail business, 21% fathers were engaged as farmer and close to 17% were engaged as non-agricultural wage labour. About 88 percent of the mothers were reported as house wives. Around 35 percent of all sample households reported a monthly income less than Rs. 3000/m. and close to 38 % was in between Rs. 3,000 – 4,999/m.

Perception of the parents on TAPF Mid-day meal program:

More than 92% of the parents were aware of TAPF Midday Meal program. About 83% of the respondents reported regular intake of TAPF Midday Meal by their ward, others reported irregular intake. Only around 10% parents reported observing MDM.

Around 78% parents opined clean and hygienic food is being provided in school and around 69% felt adequate quantity of food being served in school. Around 75% of the parents felt that MDM is an additional attraction for the children to go to school. More than 32% of the parents denied any impact of MDM on the child's appetite & health. Close to 60% parents did not feel that TAPF MDM has improved the performance of their child.

Conclusion:

TAPF has started its operation in Nayagarh in June 2007. The program has run in a decentralized model. SHG members run the kitchen and distribute the food in school.

Impact of the program on enrolment, drop out and nutritional status remain minimal.

Attendance rate has improved marginally. Nayagarh data should be considered as baseline data for the study henceforth. Majority of Teachers and Parents were found satisfied with the food. Adequate quantity of food remained a concern in few schools.

Majority of students also reported taking the meal regularly. Observation of cooking, storage and distribution practices revealed few unhygienic practices (cooking in open area, not covering food item while storing, no proper place for distribution and eating etc.). Regular supervision and quality monitoring along with training of SHG members to maintain the hygiene practices are found as critical to run decentralized model of MDM program.

III. BHILAI

Study coverage: 20 schools were covered, 400 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 336 students, 64 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: A comparison was made on the impact on enrolment for three academic years i.e. 2006-07, 2007-08, and 2008-09. An overall growth of 8.4% was recorded in primary school (class 1 – 5). Across the gender; this growth was more within female students (11%) compared to male students (5.6%). In case of upper primary (class 6-7) the overall growth stands to be at 12.5%. In this case also the female students (18%) performed better compared to male students (6.2%). In case of secondary school (class – 8) the overall growth in the total enrolment rate was not that significant. The female students registered growth of 11.6% while there was a drop in case of the male students.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The findings show significant increase in the dropout rate as the figures stand 11.95% for boys, 14.29% for the girls in the current academic year.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 3 academic years. The attendance rate among the male student and female students was 69.5% and 71.9% respectively in the year 2007 which recorded improvement year by year and was 82.3% and 84.9% for male and female students in the academic year 2009.

Impact on Scholastic Performance: There was a marginal improvement recorded on scholastic performance of the students compared to previous academic years. Repetition rate for the boys and girls was recorded 11.8% and 10.7% respectively for the academic year 2007 which was slightly on the lower side in the academic year 2009 as this percentage was reported to be 7% and 7.8% for boys and girls respectively. There wasn't much change recorded in the performance of the students in their annual examination in the last 2 years.

Impact on Nutritional status: Only 1 of the surveyed schools was reported of providing De-worming tablets, and 4 schools reported of providing Iron tablets, and Vitamin A supplements. Nutritional status remained poor as the figures of underweight was about 46%. More specifically; across the gender the figure stand 53.4% for the boys and 40.4% for the girl students.

Teacher's Perception: "Impact of TAPF"

Around 50% of headmasters / headmistress / teachers perceived improvement in the attendance rate post TAPF mid-day meal program. Around 45 percent of these respondents opined of improvement in the enrolment rate. About 50 percent of the respondents believed that enrolment for the girl child has also improved due to MDM. Around 45 percent of teachers felt classroom performance has improved post mid-day meal and similar percentage felt impact of TAPF on extracurricular activities too. Around 60 percent of these respondents reported positive impact of TAPF mid-day meal on the health of the students.

Almost all school reported timely delivery of MDM. Around 70 percent of these respondents reported the food as always clean and hygienic. Around 55 percent HM/ Teachers found the MDM as always tasty, while other reported the MDM as sometimes tasty. Almost all HM/teachers informed of food being hot at the time of being served. All these respondents also opined of adequate quantity of food

being served and no instances of any shortage in the last six months. Almost all the respondents reported the MDM as always clean and hygienic food. More than 80 percent reported the food as extremely nutritious and similar proportion of teachers were also found satisfied with current menu.

Perception of students (Secondary and Upper Primary Schools)

Close to 90% students reported taking meal on the date of survey. Around 55% of all students reported taking mid-day meal regularly; others reported skipping the meal once in few days (1-5 days in a month). Around 23% of all students reported skipping the meal once in few days as they do not like the taste of few items. Many of these students opined that the current menu should be changed. Around 36% students reported coming to school without taking breakfast. Analysis on prompt question asked with reference to Midday meal, statements like enjoying eating with my friends (69%, 65.7%) and Provides tasty food (69%, 65.7%), were found to be the prominent response from the students. [% is in order of boys and girls respectively]

Demographic & Socio-economic Profile:

More than 90 % of all sample students were Hindus, around 7% students were found as Muslim. Close to 65 percent household reported to be a Nuclear family. With reference to the literacy level of the parents close to 20% father and around 42% mothers reported as Illiterate. Around 39% father and 37% mother completed education only up to primary or lower than that. The Occupation profile of parents was reported to be as follows. Around 61% fathers were reported as non-agricultural wage labour, 3% were engaged as agriculture/farmer, 7% were engaged as Petty trader/ hawker / retail business. Close to 77% of the mothers were reported as housewives. Around 58.2% of all sample households reported a monthly income less than Rs. 3000/m. Close to 26 percent was in between Rs. 3000 – 4999/m.

Perception of the parents on TAPF Mid-day meal program:

Around 95% of all parents were not aware of TAPF Midday Meal program (the name of the organization serving the meal). Close to 90% of the respondents reported regular intake of TAPF Midday Meal by their ward, others reported irregular intake.

Around 7% of these respondents reported the main reason for skipping the meal is, not liking the taste of the item. Around 34% parents opined clean and hygienic food is being provided in school and around 25% felt adequate quantity of food being served in school. Around 30% of the parents accepted impact of MDM on the child's appetite and around 42% also felt positive impact on health too. Around 56% of the parents felt that MDM is an additional attraction for the children to go to school. (Either always or sometimes) and similar proportion of parents also felt that TAPF MDM has improved the performance of their child in the school.

Conclusion:

TAPF has started its operation in Bhilai in December 2007. Program has already shown positive impact on enrolment in primary (8%) and upper primary section (12%). Impact of the program on enrolment of girl children was quite prominent. Impact of the program on attendance rate was around 12%. Nutritional status in Bhilai was found better in comparison to other locations. Almost 90% students reported regular intake of meal while few students also raised their concerns related to taste. Few students have also raised concern with the quality of food distributed.

Majority of Teachers and Parents were found satisfied with the food. Awareness among parents regarding Mid-day meal program was very low and majority of parents might have considered the mid-day meal program as a regular government initiative.

IV. GUWAHATI

Study coverage: 20 schools were covered, 375 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 400 students, 25 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: As the program has started recently hence no tangible impact can be assessed at this stage but this figure can be treated as a baseline for the future studies. In the lower primary school (class 1-4), reported slight increase (4.6%) in its overall enrolment rate compared to last academic session. Similar observations were recorded across the gender too. In case of upper primary (class 5-7), registered slight decline (7.7%) in its enrolment rate compared to last academic year. This drop was more in case of boys (11.62%)

compared to the girl student (5%). Effect on the enrolment is being governed by several factors and hence can't be explained much.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The findings show comparative increase in the dropout rate for the female students as the figures stand 7.6% for boys, 10.10% for the girls in the current academic year.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 2 academic years. The attendance rate among the male student and female students was 76.85% and 81.57% respectively in the year 2008 which recorded improvement in the year 2009 as the rate was reported to be 81.14% and 84.60% for male and female students. This can be taken a baseline to compare it with the future data.

Impact on Scholastic Performance: The data for year 2007-08 and 2008-09 gives an encouraging picture of the performance made by the students in their final exam. This data Majority of the students showed better performance as more than 75% of boys in both academic year scored more than 50% and above in their examination. Similar observations were made across the gender too as the female students were reported to with similar performance. This data can be treated as baseline for the future study.

Impact on Nutritional status: None of schools was reported of providing De-worming tablets, and 4 schools reported of providing Iron tablets, and Vitamin A supplements. The figures of underweight were reported to be about 30%. The percentage slightly higher in case of female student (62.6%) compared to male students (53.4%) in the category of the student with normal nutritional status.

Teacher's Perception: "Impact of TAPF"

About 45% of headmasters / headmistress / teachers perceived improvement in the attendance rate post TAPF mid-day meal program. Close to 30 percent of these respondents opined of improvement in the enrolment rate. Similar proportion of respondents also felt that attendance and enrolment for the girl child has also improved due to MDM. Near about 45 percent of teachers revealed positive impact of TAPF on classroom performance and extracurricular activities. Since the TAPF mid-day meal program in Guwahati has started only 4 months back many teachers were not sure about specific impact of the program.

Majority of HM/Teachers (85%) reported that TAPF MDM always reach the school in time. Close to 80 percent HM/ Teachers opined of adequate quantity of food being served and others reported some instances of shortage. More than

75% of the respondents reported the MDM as always clean and hygienic food. Around 65 percent of the respondent reported the food as extremely nutritious. Only around 40 percent respondents found the food as always tasty and around 50 percent HM/teachers informed of food being hot at the time of being served.

Perception of students (Secondary and Upper Primary Schools)

All most all the students were found happy and accepted the food wholeheartedly. Analysis on prompt question asked with reference to Midday meal, statements like enjoying eating with my friends (90.9%, 78.6%), Provides tasty food (81.8%, 71.4%), save time for my parents (81.8%, 71.4%) and helps to concentrate on studies (45.5%, 78.6%) were found to be the prominent response from the students. [% is in order of boys and girls respectively]

Demographic & Socio-economic Profile:

Majority of the sample students (69.3%) were reported to be Hindus. About 29 Percent of the sample students were Muslim. With reference to the literacy level of the parents close to 9 percent of the fathers and around 19 percent mothers were reported as Illiterate. Around 28 percent father and 24 percent mother completed education only up to primary or lower than that. The Occupation profile of parents was reported to be as follows. Around 30 percent fathers were reported as non-agricultural wage labour, another 13 percent were engaged as agriculture/farmer, close to 10 percent were engaged as petty trader/ hawker / retail business. Near about 76 percent of the mothers were reported as house wives. Around 16 percent of all sample households reported a monthly income less than Rs. 3000/m. close to 46 percent reported in between Rs. 3,000 – 4,999/m.

Perception of the parents on TAPF Mid-day meal program:

All most all the parents were reported to be aware of Midday Meal program. Awareness on TAPF involvement was reported to be low as only 10 percent parents were aware about TAPF mid-day meal program. Around 83 percent of the respondents reported regular intake of TAPF Midday Meal by their ward, others reported irregular intake. Most of these parents (15%) reported that the taste of food is the major hindrance for regular intake of mid-day meal. Around 87.4% parents opined clean and hygienic food is being provided in school and around 86.3% felt adequate quantity of food being served in school. Around 18

percent of the parents felt that MDM is an additional attraction for the children to go to school. More than 80 percent of the parents denied any impact of MDM on the child's appetite & health.

Conclusion:

The operation in Guwahati was started at the beginning of 2010. Program is still in its nascent stage. Students have accepted the meal enthusiastically but in few cases tastes reported as a concern. Teachers were still not sure about the impact of the program. Parents were completely unaware about TAPF and many of them considered this as Govt. sponsored mid-day meal program only. Close supervision is required to ensure proper storage of food, cleanliness of vessels, equal size of plates and safe disposal of left over etc.

AHMEDABAD, BANGALORE,
MANGALORE AND HYDERABAD

Brief note on findings: -

The Akshaya Patra Foundation (hereafter TAPF) a secular charitable organization based in Bangalore started school meal program since 2000 as a pilot project in Bangalore. This was an effort made in direction to expedient its vision that “**No child in India shall be deprived of education because of hunger**” for under privileged children to end hunger and facilitate education.

In order to see effectiveness of the program ORG Centre for Social Research (a division of ACNielsen ORG-MARG Pvt. Ltd.) has conducted an impact assessment study to assess the impact of TAPF Mid-day Meal program in enhancing the school enrolment, attendance, classroom performance and nutritional status of the students since 2006. In this series a study was conducted in 2008 and now in 2010. A brief note on the findings for the four locations is below.

I. Ahmedabad:

Study coverage: 20 schools were covered, 528 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 528 students, 78 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: A comparison was made on the impact on enrolment for three academic years i.e. 2006-07, 2007-08, and 2008-09. An overall growth of 14% was recorded in primary school (class 1 – 5) and across the gender; this growth was more within female students (28%). In case of upper primary (class 6-7) the overall growth stands to be at 22%.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The average dropout rate was reported as 4.7% while the dropout rate for girls was found as 5.9% and dropout rate for boys was reported as 2.7%. The dropout rate reported for sample schools was found as similar to latest DISE information.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 5 academic years. The analysis of data revealed that in 2006-2007 academic years when TAPF midday meal scheme was introduced in the schools of Ahmedabad, the average attendance was reported as 56.4 percent for boys and average attendance for girls was reported as 58 percent. There was an increase recorded in each year and the figure stands at 73 percent for the boys and 81 percent for the girls in recent year.

Impact on Scholastic Performance: Though the performance of the students is connected to various other factors like school environment, teachers' skill, teaching methods and tools used along with parents' education and other socio economic variables, but analysis of data shows that students' performance in the annual exam has improved marginally in recent year. Around 9 percent students have scored 'A+' grade in both the year. The proportion of students have scored Grade 'A' has gone up in recent year from 31 percent to 42 percent and the proportion of student received grade 'B' has gone down from 44 percent to 34 percent in last academic year. The proportion of student received grade 'C' has remained constant in both the year.

Impact on Nutritional status: Compared with the previous data of 2008 the nutritional status showed marginal improvement in 2010. There was slight decline (3%) in the number of underweight students. Nutritional status remained almost similar (slight decline recorded) across the gender as the figures of underweight boys and girl student were 50.5% and 50.6% respectively in the academic year 2010.

Teacher's Perception: "Impact of TAPF"

When enquired about the delivery timings of the Midday Meal, all the teachers reported it to be before lunch time. All the teachers also reported the food to be hot at the time of being served. All the respondents reported of an adequate supply of food and around 95 percent of the respondents opined of no instance of any shortage in last six months. All the respondents informed of supplying second serve of the meal if demanded by the students. Around 60 percent of the respondents accepted of staff members having meal regularly while 40 percent

of the respondents informed it to be sometimes along with students. There was a mixed response recorded on handling of the left over meal as majority (60%) informed of no left over food. Around 15 percent of the respondents reported of being distributed across the staff members; close to 20 percent informed of distributors collecting the left over and a small section of the respondents (5%) informed of distributing the left over among the students.

All most all the teachers reported of regular supervision and monitoring of Midday Meal by some or the other staff members as they consider it as their part of their duty at school. Majority of the teachers (85%) opined of the distribution being done by either by the teachers or by the school staff members. Around 15 percent of the teachers also informed of the involvement of the senior students in this activity.

Around 85 percent of the Head Masters / teachers see a direct impact of the Midday Meal on the enrolment of the students. In fact the same percent of the respondents opined of having specific impact on increasing enrolment rate in case of girl child. Around 90 percent of the Head masters /teachers reported that school attendance has improved after implementation of TAPF mid-day meal program.

Perception of students (Secondary and Upper Primary Schools)

By and large the overall opinion on the taste was highly satisfactory as around 86 percent of the respondents informed the food to be always tasty and around 14 percent claimed it to be a sometime affair. Overall response showed little concern with respect to the taste of the food. All most all the students (97%) informed of stomach full food in fact close to 95 percent informed of taking second serve as and when required. All the students reported of timely serving of the food and around 95 percent accepted regular change in the menu. Majority (88.6%) informed of no instance of any discomfort or illness reported after taking the meal.

Perception of the parents on TAPF Mid-day meal program:

Majority of the respondent households (87.1%) feels appetite has improved due to regular intake of midday meal being provided at the school. Around 87 percent of the respondents also felt a positive impact of the midday meal on the child's health.

Conclusion:

TAPF mid-day meal has shown positive impact on school enrolment. Retention / dropout rate have not shown any significant improvement. The program has raised average school attendance significantly. Enrolment and attendance for the girl child has also improved. Impact of mid-day meal program was not significant on classroom performance and nutritional status of children. The concerns related to menu etc. were reported as minimal in Ahmedabad and both teachers and parents reported their satisfaction related to quality and quantity of meal. Close supervision and regular inspection are essential to maintain the present quality and service delivery system of the program and also to achieve higher standards. It is equally important for teachers to continue to monitor the distribution of food and to ensure that all the children follow healthy and hygienic eating practices. In many instances the study team has observed unhygienic ways of storing food, children not washing hand before taking food and different sizes of plates used for distribution of food. A standardized distribution process and does and don'ts for distribution of meal should be designed by TAPF and shared with the school authority. Such initiative would help in improving the nutritional status of the children.

II. Bangalore:

Study coverage: 20 schools were covered, 457 household were interviewed, Anthropometrics measurements (class I- VIII) were taken of 300 students, 190 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program. The third round of impact study was

conducted in Bangalore in 2010;¹ the effort was made to cover the same sample schools in each round. But due to difficulties faced in field, few schools covered in earlier round were not covered in present survey. The comparative assessment was made based on the same schools covered in round I, round II and round III.

Impact on Enrolment: The enrolment was increased till 2002- 2003 academic year and post which the enrolment has settled down in last five years. This suggests that the Mid-day Meal Program has an initial impact on enrolment in the range of 10 – 20 percent which got stabilized in later year. The rise in enrolment could be an impact of different initiatives taken by Sarva Shiksha Abhiyan (SSA) since 2001 to achieve Universal Elementary Education (UEE) and other external factors. TAPF mid-day meal was also expanded slowly to cover almost all schools in Bangalore in 2005 / 2006. In many cases school authority reported that student who have joined the school in attraction of TAPF meal, have left the particular school to join other nearby TAPF schools. This suggests that the Program has marginal impact on school enrolment and enrolment is mostly determined by school infrastructure and other external factors.

Impact on enrolment in secondary schools also revealed similar phenomenon. TAPF Mid-day Meal Program was expanded to secondary schools during 2006-2007 academic year. Enrolment in class VIII increased by close to 15 percent during first year and increase in enrolment for girls (15.7%) was more in comparison to boys (13.5%). The overall enrolment in class VIII- class X also reported similar growth. Enrolment on secondary section is also affected by other extraneous factors, e.g. other Government schemes, scholarships etc. to promote higher education. But TAPF mid-day meal also has an impact towards improving overall enrolment in secondary section.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The dropout rate was reported as around 7.5% in 2008 and the situation has improved in 2010, the overall dropout rate was reported as 1.4% in 2010. The dropout rate for boys has gone down from 5.73% to 0.9% while dropout rate for girls has gone down from 9.26% to 1.9%. This decline in dropout rate might not be entirely linked to TAPF Mid-day Meal Program but TAPF Mid-day Meal Program certainly has an

¹ Round I was conducted in 2006 and round II was conducted in 2008,

indirect impact towards reducing the proportion of drop out and improving overall education scenario in the sample schools.

Impact on attendance rate: Average classroom attendance has improved from 71.5 percent in 2005-2006 to 89.4 percent in 2009-2010 academic year in TAPF primary & higher primary schools i.e. class I – VII, attendance for boys has improved from 70 percent in 2005 to 85 percent in 2009, similarly attendance for girls has improved from 72 percent to 93 percent. This remarkable improvement in classroom attendance would not have been possible if TAPF was not providing mid-day meal in these schools.

.Impact on Scholastic Performance: Proportion of students scored ‘Grade A+’ (80% and above) was raised to almost twice in recent years. There was a declining trend recorded of the students who earned less than 40% of the aggregate marks across the gender. [Boys 2008-09 (18%) 2009-10 (16%), Girls 2008-09 (19%) 2009-10 (13%)]. This suggests that majority of the students have improved their scholastic performance after initiation of TAPF Mid-day Meal Program.

Impact on Nutritional status: The present round of impact assessment study has revealed that the nutritional status in Bangalore schools has improved after around 10 years of Program implementation. The proportion of students reported as underweight in 2006 was around 23 percent, the proportion has gone down to 21 percent in 2008 and the current round has recorded the figure as 18 percent only. This has revealed the nutritional status as calculated with reference to BMI has certainly shown some improvement in recent years. Close to 20 percent boys and 22 percent girls reported as underweight in 2008 and the proportion was reported as 18.2 percent for boys and 17 percent for girls in 2010.

Teacher’s Perception: “Impact of TAPF”

Almost all Head Masters / teachers were found satisfied with the delivery timings of the Midday Meal, over 95 percent of them reported it to be on or before time. All most all these respondents reported the food to be hot at the time of being served. Around 87 percent of the respondents reported of an adequate supply of food and around 97 percent of the respondents opined of no instance of any shortage in last six months. Almost 81 percent of the

respondents informed of supplying second serve of the meal if demanded by the students rest opined that students don't ask for the second serve.

All most all respondents see a direct impact of the Midday Meal on the enrolment of the students. In fact all most all the respondents opined of having specific impact on increasing enrolment rate in case of girl child. All most all the Head masters /teachers reported that school attendance has improved after implementation of TAPF Mid-day Meal Program and also see specific improvement in the case of girl child.

Perception of students (Secondary and Upper Primary Schools)

All the students (97.9%) interviewed accepted of taking meal on the day of interview. Informing the regularity of taking meal, majority (70.5%) of the students informed of never skipping the meal. Overall around 95 percent of the students informed of taking breakfast before coming to the school which was more or less similar when analysed across the gender. By and large the overall opinion on the taste was highly satisfactory as all most all the respondents (99.5%) informed the food to be always tasty. Overall response showed little concern with respect to the taste of the food. All most all the students (99%) informed of stomach full food in fact close to 88 percent informed of taking second serve as and when required. All the students reported of timely serving of the food and around 92 percent reported regular change in the menu. Majority (76.8%) informed of no instance of any discomfort or illness reported after taking the meal.

Perception of the parents on TAPF Mid-day meal program:

More than 80 percent of the parents in Bangalore informed that the student have their meal in the school regularly and attends the full session. Majority of the parents (84%) also accepted improvement in the appetite of their ward after the introduction of the Midday Meal in their school. While around 83 percent of the parents also denied any tangible impact on the child's health from Midday Meal being served at the school.

About 56 percent of the parents believe that TAPF Midday Meal is an additional attraction for their child to attend the school. Around 39 percent of the respondents reported an average performance of their ward while around 48 percent reported it to be good. Around 93 percent accepted role of midday meal in improving performance of their child at school. Around 84 percent of the respondents reported participation of their children in extracurricular activity and 90 percent agreed of midday meal role in improving it.

Conclusion:

The study findings so far clearly show that mid-day meals have played a major role in school enrolment, attendance and nutritional status of these children in Bangalore. Average attendance rate has improved significantly for both primary schools and secondary schools; classroom performance has also improved along with the overall impact on the nutritional status of primary school students.

III. Mangalore

Study coverage: 20 schools were covered, 470 household were interviewed, Anthropometrics measurements were taken of 470 students, 190 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment:

Primary schools in Mangalore reported marginal growth in enrolment during 2007-2008, 2008-2009 and 2009-2010 academic years. The enrolment pattern in upper primary schools and secondary schools has not shown any significant improvement. Since Mangalore city and Dakshina Kannada district is well developed in terms of education, the enrolment rate was quite high even before initiation of TAPF mid-day meal programme.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The cohort analysis undertaken this time for TAPF schools in Mangalore city revealed a very low dropout rate around 1.6% for boys, 4.6% for girls and 2.8% overall.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 3 academic years. The attendance rate among the male student and female students was improved by around 10% in last three academic years.

Impact on Scholastic Performance: There was a marginal improvement recorded on scholastic performance of the students compared to previous academic years. There was a declining trend recorded of the students who earned less than 40% of the aggregate marks across the gender. [Boys 2008-09 (18%) 2009-10 (16%), Girls 2008-09 (19%) 2009-10 (13%)] Students have improved their scholastic performance after initiation of TAPF mid-day meal program. **There was a slight increase in the percentage of girls (around 4%) who performed outstandingly in recent years.**

Impact on Nutritional status: Over all around (42%) of the sample were discovered to be under weight. The current data also revealed the male child on a higher side compared to the girl child on defining their nutritional status. Around 43 percent of boys and 41 percent of girls were found to be underweight when compared with the set universally accepted benchmark.

Teacher's Perception: "Impact of TAPF"

Majority of the teachers opined the meal to be always satisfactory while 23 percent informed it to be a sometimes affair, with respect to the quality of the meal. Around 88 percent of the Head masters / teachers (primary and secondary) reported that the mid-day meal served in the school as extremely nutritious though very few of these teachers could mention the calorie content of the food being served.

Around 68 percent of the respondents see a direct impact of the Midday Meal on the enrolment of the students. In fact about 65 percent of the respondents opined of having specific impact on increasing enrolment rate in case of girl child.

Perception of students (Secondary and Upper Primary Schools)

Majority of the students (90%) interviewed accepted of taking meal on the day of interview. Informing the regularity of taking meal, around 78 percent of the students informed of never skipping the meal. Around 22 percent of the respondents who informed of skipping their midday meal, majority informed of skipping it for 1-2 days in a month. Around 17 percent informed it to be 3-5 times in a month and close to 5 percent said it to be more than 5 times a month for various reasons. Prime reason for occasional skipping of the meal reported by majority of the students (43.9%) was not being well. Around one fourth of the students informed sighted “taste” to be the chief reason for skipping the meal and same number of the respondents informed of bringing home made food for their lunch.

By and large the overall opinion on the taste was satisfactory as almost all the students showed little concern with respect to the taste of the food. All most all the respondents informed of stomach full food in fact close to 83 percent informed of taking second serve as and when required. All the students reported of timely serving of the food and around 95 percent accepted a regular change in the menu. Around 91 percent opined of no instance of any discomfort or illness reported after taking the meal. A general perception on Midday Meal was recorded from the students by asking some prompt statement and recoding their opinion on it. Their response on statements like; I don't have to bring food from home / save time for my parents; I enjoy eating same food with all my friends; TAPF midday meal is an added attraction in school, received an overwhelming response from the students.

Perception of the parents on TAPF Mid-day meal program:

Around 96 percent of the parents informed that the student have their meal in the school itself and attends the full session. Opinion of the parents on change in the appetite of their ward after the introduction of the Midday Meal in their school, majority (66.3%) denied any such change. Majority (68.9%) of the respondents also denied any tangible impact on the child's health from Midday Meal being served at the school.

Conclusion:

The Akshaya Patra Mid-day meal programme has started in March 2006 in Mangalore, The Akshaya Patra Mid-day meal programme has created considerable impact on school attendance and average attendance has improved by more than 10% for both girls in last three years. Classroom performance has also improved since more students have scored higher grades. The impact of the programme was not so prominent on school enrolment but the dropout rate was reported towards the lower side. Since this is only the round I survey in Mangalore the impact of the programme on nutritional status can't be measured and close to 50% children reported as underweight. The nutritional status of these children has to be considered in light of socio-economic status of the households. A large proportion of parents reported as daily wage workers (40% fathers and 17% mothers). Many of these children do not get adequate food at home which also affects the nutrition status of these children.

IV. Hyderabad

Study coverage: 20 schools were covered, 400 households were interviewed, Anthropometrics measurements (class I- VIII) were taken of 400 students, 200 Student's interviewed (Class VII – X), and 20 in depth interview was done with sample school Head master/ Head mistress other senior teachers to document their perception on this program.

Impact on Enrolment: TAPF mid-day meal has not shown any significant improvement in terms of enrolment in last three academic years. The overall enrolment growth registered for upper primary schools was close to 14 percent. The programme didn't have and significant impact on enrolment for secondary schools.

Impact on Dropout rate: A cohort analysis for the last 5 academic years was undertaken to study the dropout rate among the students. The impact study shows an overall dropout rate of 3.9% for the sample schools in Hyderabad, while dropout rate for girls was around 6.7% and dropout rate for boys was around 5.1%.

Impact on attendance rate: A visible impact on attendance rate was seen among the students class I- VII when compared for the last 2 academic years. The attendance rate among the male student and female students was 71.7% and 75.0% respectively in the year 2007 which recorded improvement in the year 2009 as the rate was reported to be 79.9% and 83.3% for male and female students. This suggests that TAPF mid-day meal program remained successful in improving classroom attendance and it can be also ascribed that the mid-day meals were instrumental in drawing parent's attention to send their daughters to school regularly.

Impact on Nutritional status: Over all slightly more than half (52%) of the sample were discovered to be under weight. Around 43 percent of boys and 50 percent of girls were found to be having normal nutrition status when compared with the set universally accepted benchmark.

Teacher's Perception: "Impact of TAPF"

When enquired about the delivery timings of the Midday Meal, over 95 percent of the teachers / Head masters reported it to be on time. This percentage was high in case of Primary School as the entire respondent reported it to be always before time. Around 92 percent of the respondents reported the food to be hot at the time of being served. Around 82 percent of the respondents reported of an adequate supply of food and around 70 percent of the respondents opined of no instance of any shortage in last six months. Almost 93 percent of the respondents informed of supplying second serve of the meal if demanded by the students. There was a mixed response recorded on handling of the left over meal as majority (45%) of the respondents informed of no left over; around 15 percent accepted of distributed across the staff members; around 10 percent informed of distributors collecting the left over and few informed of giving the left over to the animals. Very few respondents informed of distributing the left over among the students.

More than half of the teachers / head masters opined the meal to be always satisfactory while 43 percent informed it to be a sometimes affair, with respect to the quality of the meal. Close to 5 percent of the respondents were dissatisfied with the quality of the midday meal being supplied. Close to three-fourth of the

Head masters / teachers (primary and upper primary & secondary schools) reported that the mid-day meal served in the school as extremely nutritious though very few of these teachers could mention the calorie content of the food being served.

Around 73 percent of these respondents see a direct impact of the Midday Meal on the enrolment of the students. In fact about 63 percent of the respondents opined of having specific impact on increasing enrolment rate in case of girl child. Around 83 percent of the Head masters /teachers reported that school attendance has improved after implementation of TAPF mid-day meal program. Around two third of the respondents reported specific improvement in the case of girl child

Perception of students (Secondary and Upper Primary Schools)

Informing the regularity of the meal, around 87 percent of the students informed of never skipping the meal. Around 13 percent respondents who informed of skipping their midday meal, around 19 percent informed of skipping the meal 3-5 times in a month while 60 percent informed it to be less than three days in a month. By and large the overall opinion on the taste was highly satisfactory as around 86 percent of the respondents informed the food to be always tasty and around 14 percent claimed it to be a sometime affair. Overall response showed little concern with respect to the taste of the food. All most all the students (99%) informed of stomach full food in fact close to 92 percent informed of taking second serve as and when required. All the students reported of timely serving of the food and regular change in the menu. Majority (97%) informed of no instance of any discomfort or illness reported after taking the meal.

A general perception on Midday Meal was recorded from the students by asking some prompt statement and recoding their opinion on it. Their response on statements like; TAPF midday meal program provide tasty food in school; I don't have to bring food from home / save time for my parents; I enjoy eating same food with all my friends; TAPE Mid-day meal helps us to concentrate on studies better after lunch; TAPE Mid-day meal help us to participate in sports more enthusiastically; TAPE Mid-day meal helps us to grow stronger; TAPF midday meal is an added attraction in school, received an overwhelming response from the students.

Perception of the parents on TAPF Mid-day meal program:

About 57 percent of the parents believe that TAPF Midday Meal is an additional attraction for their child to attend the school. Around 33 percent of the respondents reported an average performance of their ward while around 54 percent reported it to be good. Majority (47.3%) accepted role of midday meal in improving performance of their child to a great extent at school while 43 percent felt it has affected to some extent.

Conclusion:

The Akshaya Patra Mid-day meal programme was initiated in Hyderabad in October 2008, prior to this Govt. / Other NGO sponsored mid-day meal was available in almost all schools. So initial impact of the programme on school enrolment and school retention was not visible in Hyderabad, but the programme has raised the average attendance in the school and attendance rate for both boys and girls has improved in last academic year.