

Mid Day Meal Scheme



11th Joint Review Mission Maharashtra

(3rd to 10th December, 2018)

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Government of India

Ministry of Human Resource Development

Department of School Education & Literacy



मध्याह्न भोजन योजना
Mid Day Meal Scheme

Report of 10th Joint Review Mission on
Mid-Day Meal Scheme - Maharashtra

(3rd to 10th December, 2018)

Acknowledgment

The JRM team is grateful to the ministry of HRD, Government of India for constituting this Joint Review Mission and giving us the opportunity to undertake this task in the state of Maharashtra. We thank the Department of Education, Government of Maharashtra for hosting the Joint Review Mission (JRM) in Maharashtra.

We are thankful to the State officials for co-operation during the entire period of JRM. Special thanks to the teachers, particularly the MDM in-charges and the non-teaching staff of various schools visited by the mission for their co-operative interaction and providing the relevant information regarding the status of MDM in their respective schools.

Since nutrition is important component of the current JRM, we thank the school children for the patient co-operation in the entire process of data collection particularly the data on anthropometry.

Despite the various field level constraints, the team's constant, tireless dedication brought out an insight of the present on-going MDM scheme at various schools. Jointly, it tried to cover various aspects relating to MDM which included infrastructure, fund allocation, monitoring, evaluation, Rashtriya Bal Swasthya Karyakram, meal service and delivery as well as anthropometric measurements of the school children which were indicated in the Terms of Reference of the JRM.

We hope that through our observations and data collection, we have been able to capture the entire array of discussions with the officials/stake holders at various levels and that the concerned recommendations put forth by the mission in this report would be helpful to the Government of Maharashtra in strengthening the existing Mid-Day Meal Scheme in a more systematic and effective manner which will go a long way in promoting health and nutritional status of the children of this state.

**JRM TEAM,
Maharashtra: 3rd to 10th December, 2018**

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ABBREVIATIONS

AWP&B	Annual Work Plan & Budget
BAS	Baseline Achievement Survey
BMI	Body Mass Index
BPL	Below Poverty Line
BRC	Block Resource Centre
CEO	Chief Executive Officer
CRC	Cluster Resource Centre
CWSN	Children with Special Needs
DEO	Deputy Education Officer
DIET	District Institute of Education and Training
DISE	District Information System for Education
DC	District Coordinator
EO	Education Officer
GOI	Government of India
GP	Gram Panchayat
ICDS	Integrated Child Development Services
JRM	Joint Review Mission
KGBV	Kasturba Gandhi Balika Vidyalaya
MDM	Mid-day Meal
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHRD	Ministry of Human Resource Development
MIS	Management Information System
MLA	Member of Legislative Assembly
MP	Member of Parliament
MME	Management Monitoring and Evaluation
MTA	Mother Teacher Association
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
OBC	Other Backward Community
PAB	Programme Approval Board
PRI	Panchayati Raj Institution
PTA	Parent Teacher Association
RBSK	Rashtriya Bal Swasthya Karyakram
SMC	School Management Committee
SE&L	School Education & Literacy
SFD	Special Focus District
ZP	Zila Parishad

Executive Summary

The JRM Team visited 40 schools in two districts viz. Jalgaon and Satara. During the visits the team collected information as per the Term of References, held discussions with all stakeholders i.e. students, teachers, cook-cum-helpers, community members, parents and officials at Block, District and State level.

The team also carried out nutritional assessment for 1110 children (505 in district Jalgaon and 605 in Satara).

1. Good Practices observed

- i. Buffer stock of foodgrains was maintained in all the visited schools.
- ii. E-transfer of cooking cost to schools directly from State.
- iii. Sneh Bhojan – Local people offer sweets, fruits, meals etc. on special occasions like marriage, birthdays etc. to the school children.
- iv. Constitution of Mid Day Meal committee consisting of parents and teachers in Satara district.
- v. Eating plates were available to all students in Government schools.
- vi. Kitchen gardens are maintained in some of the visited schools.
- vii. R.O. plants were available in some schools, these are donated through CSR / community.
- viii. Cooking competition organised in a school in Satara district.
- ix. LPG is being used as mode of fuel in almost all schools in Satara district.
- x. Mandatory health checkup of cook-cum-helpers, twice a year.
- xi. Mobile App is in use for furnishing information related to implementation of MDM.
- xii. All the children were washing hands before and after eating the mid day meal.

2. Areas of Concern

- i. About 40 % (out of a sample of 1110) children were malnourished.
- ii. Officials are not even aware about the information to be entered through MDM-MIS, which is an area of deep concern.

- iii. Entitlement of children under MDM was not displayed in any of the visited schools.
- iv. Kitchen-cum-stores not constructed in many schools.
- v. Storage bins are not available in some of the visited schools.
- vi. BMI cut off for adults is being used for school children.
- vii. No follow-up action for children identified as malnourished.
Inadequate monitoring of scheme by State level officials.

3. Recommendations

- i) Construction of kitchen-cum-stores in all eligible schools to be completed expeditiously.
- ii) Provision of storage bins in schools.
- iii) Provision of eating plates in Govt. aided schools.
- iv) Use of BMI cut off for children and adolescent.
- v) The children identified as malnourished may be provided additional servings.
- vi) Training of officials at Block and District level, especially on MDM-MIS.
- vii) Replacement of worn out kitchen devices.
- viii) Display of Entitlement, Menu and Logo of Mid Day Meal Scheme at a prominent place, where it is easily visible to community.
- ix) Training and sensitization of cook-cum-helpers and officials at different level.

CHAPTER 1

Introduction

Malnutrition is one of the most important constraints in achieving the SDGs. Improving nutrition is essential to reduce extreme poverty. Chronic hunger and undernutrition is the worst tribulation of the poverty that still plagues millions of households in India and the plight of children is of special concern. India ranks 2nd in child malnutrition, which is an alarming fact as child malnutrition has a long-term negative impact on country's economic growth.

Development activities that target children are tools for eradicating chronic hunger and lifting developing countries out of the poverty trap. By investing in the health and nutrition of school-age children, a country can increase the human capital of its younger generations and achieve sustainable economic growth and human development.

Primary school age is a dynamic period of physical growth and mental development of the child. The Mid-Day Meal Programme is the world's biggest school lunch programme and is being implemented all over India for primary and upper primary school children, emerging to address the multiple challenges of poverty, hunger, and access to education. Apart from mid day meal programme which is run by the Government of India in government run schools, there are no other efforts for children in age group 5-14 years.

With a view to enhance enrolment, attendance and retention and simultaneously to improve the nutritional status of children, a Centrally Sponsored Scheme 'National Programme of Nutritional Support to Primary Education (NP-NSPE)' was launched on the 15th August 1995. The scheme was extended in 2008-09, to cover children of upper primary classes and the Scheme was renamed as 'National Programme of Mid-Day Meal in Schools' popularly known as Mid-Day Meal Scheme (MDMS). The MDMS covers all school children studying in I-VIII classes in *Government and Government-aided schools, Special Training Centres (STCs) and Madrasas & Maqtabas supported under Samagra Shiksha.*

The Mid-Day Meal (MDM) Scheme is a flagship programme of the Government of India, having the distinction of being the largest school feeding programme in the world, reaching out to about 9.51 crore children in 11.34 lakh primary and upper primary Government, Government Aided and Local Body schools, Special Training Centres (STC) and Madarsa and Maqtabs supported under Samgra Shiksha. Mid day meal is also served during the summer vacations in drought-affected areas. Cooked mid-day meal consists of 100 grams of wheat/rice, 20 grams of pulses, 50 grams of vegetables and 5 grams of oil/fat and provides 450 calories of energy and 12 grams of protein at primary stage. For upper primary stage children, it consists of 150 grams of wheat/rice, 30 grams of pulses, 75 grams of vegetables and 7.5 grams of oil/fat and to provide 700 calories of energy and 20 grams of proteins

1. Objectives of MDM

The objectives of the Mid-Day Meal Scheme are to address two of the pressing problems for majority of children in India, viz. hunger and education by:

- i. Improving the nutritional status of children studying in classes I – VIII in Government and Government-aided schools, Special Training Centers (STCs) and madrasas & maqtabs supported under Samagra Shiksha.
- ii. Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
- iii. Providing nutritional support to children of elementary stage in drought-affected areas during summer vacations.

A programme of scale and magnitude of Mid Day Meal requires close monitoring and evaluation at all levels. In 2010, the Ministry of Human Resource Development, Govt. of India, decided to review implementation of the programme in all its aspects through the Review Missions, which are also to provide suggestions for improvement.

1.1 Composition of Joint Review Mission

- i. Prof. Uma Iyer, Professor, Dept. of Food & Nutrition, The M S University of Baroda, Vadodara, Gujarat – Team Leader

- ii. Shri G. Vijaya Bhaskar Director (MDM), MHRD, Govt. of India – Member
- iii. Shri Sunil Chauhan, Director, MDM, Govt. of Maharashtra – Member
- iv. Dr. Swati Dhruv, Assistant Professor (F&N), The M S University of Baroda, Vadodara, Gujarat - Member
- v. Shri Bhupendra Kumar, Chief Consultant, Mid Day Meal Scheme, New Delhi - Member
- vi. Shri Dinesh Pradhan, Senior Consultant, Mid Day Meal Scheme, New Delhi - Member

Dr. Shruti Kantawala, Ms Shweta Patel, Ms Divya Patel and Ms Mayuri Rana assisted the Joint Review Mission as Research Assistants.

The 11thJRM visited 19 schools in Jalgaon and 21 schools in Satara for monitoring the implementation of Mid Day Meal Scheme as per the defined terms of reference.

1.2 The Terms of Reference for the Joint Review Mission:

- i. Review the fund flow from State to Schools/implementing agencies.
- ii. Review the coverage of the Scheme
- iii. Review the availability of Management Structure at State, District, Block level
- iv. Review the delivery mechanism of food grains from State to Schools
- v. Review the smooth implementation of the Scheme with particular reference to Interruptions.
- vi. Review the Creation of Capital Assets
- vii. Construction of Kitchen-cum-stores
- viii. Procurement/Replacement of Kitchen Devices
- ix. Review the involvement of NGO's/Trust/Centralized kitchens in the Scheme
- x. Review the payment of Cost of Food grains to Food Corporation of India
- xi. Review the convening the meetings of District Level Committee under Chairpersonship of senior most Member of Parliament(LokSabha).

- xii. Review the Management Information System (MIS)
- xiii. Review the implementation of Automated Monitoring System
- xiv. Convergence with RastriyaBaISwasthyaKaryakram for health check-up, supplementation of micronutrients under WIFS & deworming medicine under National deworming day and health checkups and supply of spectacles to children suffering from refractive errors.

xv. **Review the following**

- a. Operationalization of Mid-Day Meal Rules, 2015
- b. Dissemination of Food Safety Guidelines up to District, Block and School
- c. Enrolment of children and Cook-cum-Helpers under Aadhaar
- d. Payment of Honorarium to Cook-cum-Helpers
- e. System of Storage food grains and other ingredients
- f. Role of Teachers in Mid-Day Meal Scheme.
- g. Tasting of MDM by Teacher, Parents and Community.
- h. Testing of meals
- i. Involvement of Community
- j. Bank Account of Cook-cum-helpers
- k. Awareness of the Scheme
- l. Contingency Plan

1.3 Terms of Reference for Nutritional aspects:

- a. To assess the anthropometric measurements of a sample of children availing MDM
- b. Height ii. Weight iii. Mid arm Circumference
- c. To Calculate the Body Mass Index (BMI) on the basis of measurement of height and weight.

- d. To identify the children who are undernourished and over nourished.
- e. To review the quality and quantity of the served MDM.
- f. To review the satisfaction of the children parents and community on the served meal under MDM in respect of quality and quantity.
- g. To suggest some nutritionally balanced region specific recipes.

1.4 Food and Calorific norms under MDM

Initially the MDM Scheme envisaged the provision of free of cost 100g of wheat /rice for children studying in classes' I-V in all Government, local body and Government aided primary schools. The central government provided wheat /rice to the States/UTs; 3 kg of cereals were to be distributed free of cost to children who had over 80% attendance in the previous month. Most of the states distributed food grains to children but some states who were earlier providing cooked mid day meal or ready to eat food to school children, continued to do so.

In 2001 Hon'ble Supreme Court of India directed that hot cooked mid day meal containing 300kcal energy and 12 g of protein/day for 200 days to all children studying in classes I- V in all government, local body and government aided primary schools should be provided under Mid Day Meal Scheme.

Table 1: Food Norms

Nutritional content	Norm as per NP-NSPE,2004	Revised norm as per NP- NSPE,2006
Calories	300	450
Protein	8-12 g	120
Micro – nutrients	Not prescribed	Adequate quantities of Micro nutrients like Iron, folic Acid and Vitamin A

The above food norms were revised w.e.f. 1stDecember, 2009 as indicated below:

- a) 450 kcal and 12g of protein which is derived from 100 g of food grains (rice/wheat), 20g of pulses , 50g of vegetables and 5g of oil for children studying in primary classes and
- b) 700 kcal and 20g of protein, which is derived from 150g of food grains (rice/wheat), 30g of pulses, 75g of vegetables and 7.5g of oil in upper primary classes.

Table 2: Revised Food Norms

S. No.	Items	Quantity per Child per Day	
		Primary	Upper Primary
1.	Food grains	100 g	150 g
2.	Pulse	20 g	30 g
3.	Vegetables (leafy also)	50 g	75 g
4.	Oil & fat	5.0 g	7.5 g
5.	Salt & Condiments	As per need	As per need

CHAPTER 2

Profile of State and Selected Districts

2.1 Maharashtra: An Introduction

Maharashtra is second-most populous state and 3rd largest state by area in the country. Its area is spread over 307,713 km² (118,809 sq mi), it is bordered by the Arabian Sea to the west and the Indian states of Karnataka, Telangana, Goa, Gujarat, Chhattisgarh, and Madhya Pradesh and the Union territory of Dadra and Nagar Haveli.

Maharashtra occupies the western and central part of the country and has a long coastline stretching 720 kilometres along the Arabian Sea. One of the more prominent physical features of Maharashtra is the Deccan plateau, which is separated from the Konkan



coastline by 'Ghats'.

Maharashtra is divided into five geographic regions viz. Konkan, Khandesh, Marathwada, Vidarbha and Sahyadri range.

Maharashtra has typical monsoon climate, with hot, rainy and cold weather seasons. Rainfall in Maharashtra differs from region to region. Thane, Raigad, Ratnagiri and Sindhudurg districts, receive heavy rains of an average of 200 centimetres annually. But the districts of Nashik, Pune, Ahmednagar, Dhule, Jalgaon, Satara, Sangli, Solapur and parts of Kolhapur get rainfall less than 50 centimetres.

According to the 2011 census,

2.1.1 Population

Maharashtra is the richest state in India and second most populous state in India with a population of 11,23,74,333 (9.28% of India's population) of which male and female are 5,82,43,056 and 5,41,31,277 respectively. The total population growth in 2011 was 15.99 percent while in the previous decade it was 22.57 percent. Since independence, the decadal growth rate of population has remained higher (except in the year 1971) than the national average. For the first time, in the year 2011, it was found to be lower than the national average. The 2011 census for the state found 55% of the population to be rural with 45% being urban based.



2.2 District - Jalgaon

Jalgaon district, also known as East Khandesh district prior to 21-Oct-1960, was earlier a part of "Khandesh". Jalgaon is nicknamed "Banana City" as the region contributes approximately two thirds of Maharashtra's banana production.

2.2.1 Population

According to the 2011 census, Jalgaon had population of 42,29,917 of which male and female were 21,97,365 and 20,32,552 respectively. In 2001 census, Jalgaon had a population of 36,82,690 of which males were 19,05,493 and remaining 17,77,197 were females. Jalgaon District population constituted 3.76 percent of total Maharashtra population. In 2001 census, this figure for Jalgaon District was at 3.80 percent of Maharashtra population.

There was change of 14.86 percent in the population compared to population as per 2001. In the previous census of India 2001, Jalgaon District recorded increase of 15.53 percent to its population compared to 1991.

Table 3: Information on vital parameters – District Jalgaon

Description	2011	2001
Actual Population	4,229,917	3,682,690
Male	2,197,365	1,905,493
Female	2,032,552	1,777,197
Population Growth	14.86%	15.53%
Area Sq. Km	11,765	11,765
Density/km2	360	313
Proportion to Maharashtra Population	3.76%	3.80%
Sex Ratio (Per 1000)	925	933
Child Sex Ratio (0-6 Age)	842	880
Average Literacy	78.20	75.43
Male Literacy	85.36	85.91
Female Literacy	70.56	64.30
Total Child Population (0-6 Age)	532,005	525,668
Male Population (0-6 Age)	288,827	279,551
Female Population (0-6 Age)	243,178	246,117
Literates	2,891,882	2,381,376
Male Literates	1,629,223	1,396,860
Female Literates	1,262,659	984,516

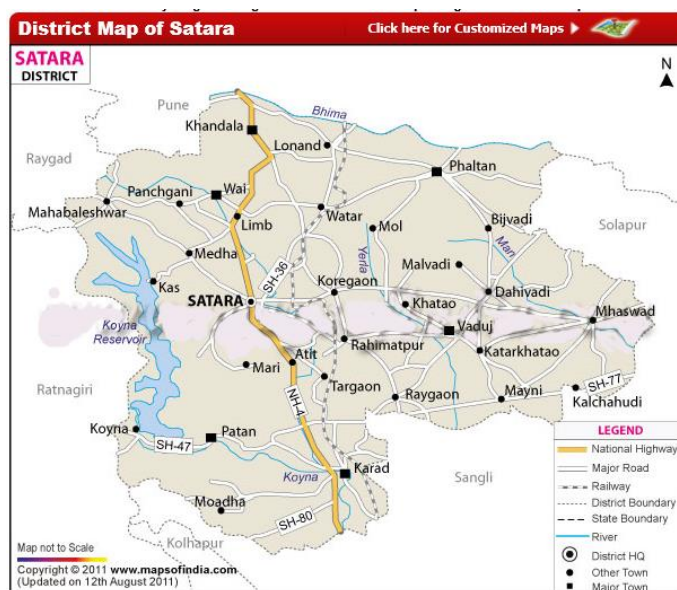
Child Proportion (0-6 Age)	12.58%	14.27%
Boys Proportion (0-6 Age)	13.14%	14.67%

2.3 District - Satara

Satara District has an area of 10,480 km². This district comes under Pune Administrative Division along with Pune, Sangli, Solapur and Kolhapur. The district of Pune bounds it to the north, Raigad bounds it to the North-West, Solapur the east, Sangli to the south, and Ratnagiri to the west. The Sahyadri range, or main range of the Western Ghats, runs north and south along the western edge of the district, separating it from Ratnagiri District. The Mahadeo range starts about 10 m. north of Mahabaleshwar and stretches east and south-east across the whole of the district.

Satara district consists of four subdivisions namely Satara, Wai, Karad and Phaltan, divided into eleven talukas viz. Satara, Karad, Wai, Mahabaleshwar, Phaltan, Man, Khatav, Koregaon, Patan, Jaoli and Khandala.

2.3.1 Population In 2011, Satara had population of 30,03,741 of which male and female were 15,10,842 and 14,92,899 respectively. In 2001 census, Satara had a population of 28,08,994 of which males were 14,08,326 and remaining 14,00,668 were females. Satara District population constituted 2.67 percent of total Maharashtra population. In 2001 census, this figure for Satara District was at 2.90 percent of Maharashtra population.



There was change of 6.93 percent in the population compared to population as per 2001. In the previous census of India 2001, Satara District recorded

increase of 14.59 percent to its population compared to 1991.

Table 4: Information on vital parameters – District Satara

Description	2011	2001
Actual Population	3,003,741	2,808,994
Male	1,510,842	1,408,326
Female	1,492,899	1,400,668
Population Growth	6.93%	14.59%
Area Sq. Km	10,480	10,480
Density/km ²	287	268
Proportion to Maharashtra Population	2.67%	2.90%
Sex Ratio (Per 1000)	988	995
Child Sex Ratio (0-6 Age)	895	878
Average Literacy	82.87	78.22
Male Literacy	89.42	88.20
Female Literacy	76.31	68.38
Total Child Population (0-6 Age)	317,885	368,531
Male Population (0-6 Age)	167,729	196,241
Female Population (0-6 Age)	150,156	172,290
Literates	2,225,694	1,908,947
Male Literates	1,201,034	1,069,029
Female Literates	1,024,660	839,918
Child Proportion (0-6 Age)	10.58%	13.12%
Boys Proportion (0-6 Age)	11.10%	13.93%
Girls Proportion (0-6 Age)	10.06%	12.30%

CHAPTER 3

METHODOLOGY

Mid-Day Meal is a flagship programme of Government of India providing meals in schools which can help in alleviating short-term hunger and improving nutritional status of children along with bringing an improvement in enrolment rates.

Mid-Day Meal in schools has had a long history in India. In 1925, Mid-Day Meal Programme was introduced for disadvantaged children in Madras Municipal Corporation. By the mid-1980s three States viz. Gujarat, Kerala and Tamil Nadu and the UT of Pondicherry had universalized a cooked Mid-Day Meal Programme with their own resources for children studying at the primary stage and by 1990-91 the number of States implementing the mid-day meal programme with their own resources on a universal or a large scale had increased to twelve states.

The MDM programme covers all children studying in Government, Local Body and government aided primary and upper primary schools and the EGS/AIE centre including Madarasa and Maktabs supported under SSA of all areas across the state. In all there are 47,364 primary schools and 39,416 upper primary schools in Maharashtra catering to around 1.1 crore children.

The monitoring of the mid-day meal scheme is carried out by the ministry of human resource development through desk monitoring and field monitoring. The joint review mission carries out the field monitoring of the mid-day meal program in each state. As a part of the monitoring the 11th Joint review mission in the state of Maharashtra was planned from 3rd December to 10th December, 2018. The experimental plan for the 11th Joint Review Mission is discussed below:

3.1. Selection of the districts:

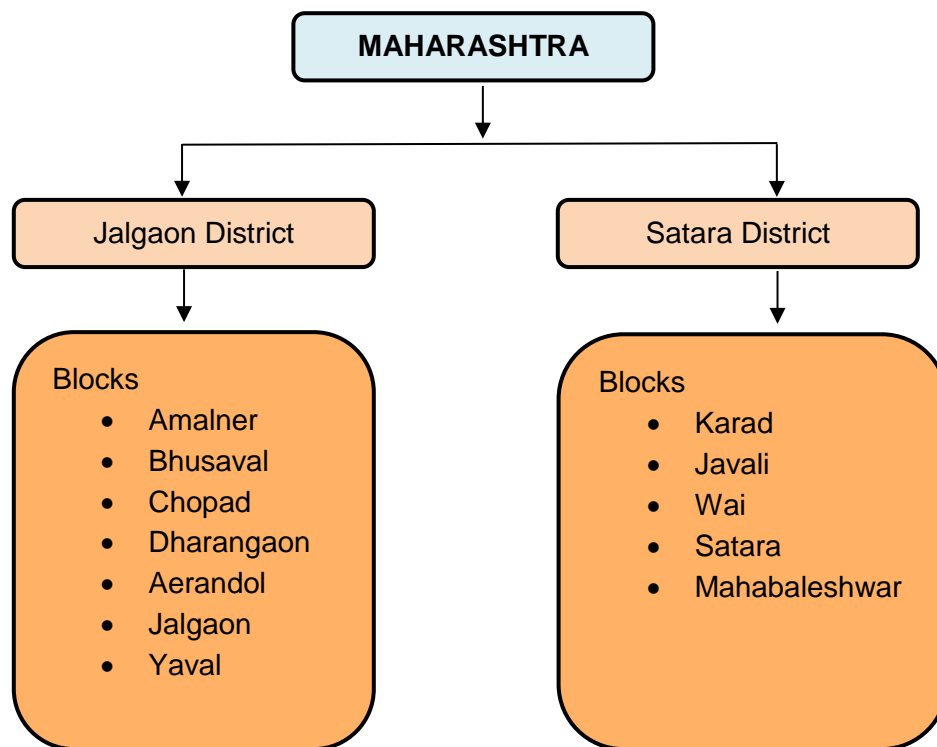
The study was conducted in the primary and upper primary government run schools who were availing mid day meal. The selection of two districts for the 11th Joint review mission for the state of Maharashtra (one district selected by the Ministry of MHRD and the second one by the State Government) were Jalgaon and Satara respectively.

In the district of Jalgaon seven blocks were surveyed viz. Amalner, Bhusaval, Chopad, Dharangaon, Aerandol, Jalgaon and Yaval. In Satara district six blocks namely Karad, Javali, Satara, Mahabaleshwar, Panchgini and Wai were covered.

3.2. Sample Size:

The total sample size covered from 7 blocks of Jalgaon and 5 blocks of Satara was 1110 children (Jalgaon n=505, Satara n=605) (Table 5 to Table 8). Out of the 1110 children enrolled from 40 schools (Satara 21, Jalgaon 19) 552 were boys and 558 were girls (Figure 2.1). Different aspects of the implementation of the MDM program was studied from the children who were enrolled for the survey from class I-VIII as well as their parents, teachers, members of SMC etc.

Fig. 2.1. EXPERIMENTAL PLAN



List of blocks Covered under JRM

DISTRICT	BLOCK
Jalgaon (n=19)	1. Amalner
	2. Bhusaval
	3. Chopad
	4. Dharangaon
	5. Erandol
	6. Jalgaon
	7. Yaval
Satara (n=21)	1. Satara
	2. Karad
	3. Javali
	4. Mahabaleshwar
	5. Wai

Table 5: Sample size for Anthropometry (Height/Weight)

District	Boys	Girls	Total
Jalgaon	253	252	505
Satara	299	306	605
Maharashtra	552	558	1110

Table 6: Sample size for Anthropometry (MUAC)

District	Boys	Girls	Total
Jalgaon	72	57	129
Satara	55	69	124
Maharashtra	127	126	253

Data pertaining to the following aspects was collected:

Nutritional Status Assessment:

Assessment of nutritional status was done using anthropometry and dietary assessment. Measurement of Weight, height and MUAC (Mid Upper Arm Circumference) was carried out on the selected children. Weight for age, height for age and BMI for age were used as indices for assessing nutritional status using WHO growth standards 2007.

Weight: Bathroom weighing scales were used for measuring the weight of children. The balances were calibrated and standardised before using. Children were asked to remove their shoes and stand straight on the weighing balance while looking straight. Weight was measured to nearest 50 gm.

Height: Height was measured using a flexible, non- stretchable fiber glass tape. It was fixed vertically on a smooth wall of the school, perpendicular to the ground, ensuring that the floor was smooth. The children were asked to remove their shoes and headgear (if they were wearing any). They were asked to stand erect with the shoulder, hips and heels touching the wall and looking straight ahead. The head was held comfortable erect, arms hanging loosely by the sides. A thin smooth scale was held on the top of the child's head in the centre, crushing the hair at the right angles to the tape and the height of the subject was read from the lower edge of the ruler to the nearest 0.5 cms.

BMI: Body Mass Index (BMI) was calculated using the following formula:

$$\text{BMI} = \text{Weight (Kg)} / \text{Height}^2 (\text{m}^2)$$

MUAC: Mid Upper Arms Circumference(MUAC) was measured on left arm using a non-stretchable MUAC tape. The child was asked to keep the arm relaxed. Mid point between acromian process of the scapula and the olecranon process of the ulna was marked with the help of a flexible non-stretchable fibre glass tape. The MUAC tape was then placed on that point gently but firmly to avoid compression of tissue. The measurement was taken to nearest 0.1 cm.

Age: It is important to know the child's age in complete months for calculating the indices in order to assess their nutritional status using anthropometry. This information was collected as secondary data from the school registers.

3.3. Anthropometric Indices:

Weight for age: Low weight for age is an indicator for underweight. This indicator shows chronic as well as acute undernutrition. However, it cannot distinguish between the two. As per WHO 2007 Growth Reference, Weight for age can be used for 5-10 years age group.

Height for age: Height for age reflects long term nutritional status. Low height for age is known as stunting. Thus, stunting indicates chronic undernutrition. It cannot measure short-term changes in malnutrition.

BMI for age: Low BMI for age is known as thinness. Thinness serves as an indicator of short-term undernutrition.

Table 7: Anthropometric Indicators for Nutritional Status Assessment

Weight for Age (Upto 10 years of age)	<-3SD- Severe Underweight
	<-2SD- Underweight
Height for Age	<-3SD- Severe Stunting
	-3SD to -2SD- Stunting
BMI for Age	<-3 SD- Severe Thinness
	-3SD to -2SD- Thinness
	-2SD to +1SD- Normal
	+1SD to +2SD- Over Weight
	>+2SD Obese
	>+3SD Morbidly Obese

Source: WHO 2007 Growth Standards

3.4. Dietary Pattern & Frequency of Meals:

The data pertaining to the number of meals consumed and the dietary pattern was collected from the children i.e. 611 children. The details are given in Table -

Table 8: Sample size for Dietary data

District	Boys	Girls	Total
Jalgaon	105	114	219
Satara	191	201	392
Maharashtra	296	315	611

3.5. Information on MDM: The following information was elicited regarding MDM

- The children's perceptions regarding the MDM program and their preferences of different foods served in the MDM was collected through a detailed questionnaire.

- A Semi structured proforma was used for obtaining information regarding the menu, quality as well as quantity of Mid Day Meal served in the schools.
- The parents (who came on request) as well as the teachers perceptions of the MDM scheme was assessed using a structured pretested questionnaire
- The cooks and helpers were also interviewed about the quality and quantity of ingredients used for the preparation as well as serving of food on a daily basis.
- The teachers and the principals views on the implementation of the MDM was collected.
- Data pertaining to the number of children enrolled and the attendance of the students in the school along with the number of beneficiaries of MDM was collected.
- Information was also collected about the tasting of the meals by the teachers, maintenance of the tasting and other registers, kitchen facilities, storage of the grains and quantity of food cooked on the day of the visit.
- A proforma was used for obtaining information on various aspects of implementation of Mid Day Meal. Information was collected from head teachers, cook-cum-helpers and from the records maintained at schools. Spot observations were also made regarding the aspects related to safety, hygiene, cleanliness etc.

Data Analysis: Data analysis was done using Microsoft Excel and SPSS Version 22. WHO Anthro Plus software used for analysis of anthropometric data.

CHAPTER 4

Review of implementation of Mid-Day Meal in Maharashtra on Physical and financial parameters during last four years (2014-15 to 2017-18)

The Mid-Day Meal is an on-going Centrally-Sponsored Scheme which covers all school children studying in Classes I-VIII of Government, Government-Aided, Special Training Centres including Madarsas and Maqtabas supported under Samagra Shiksha.

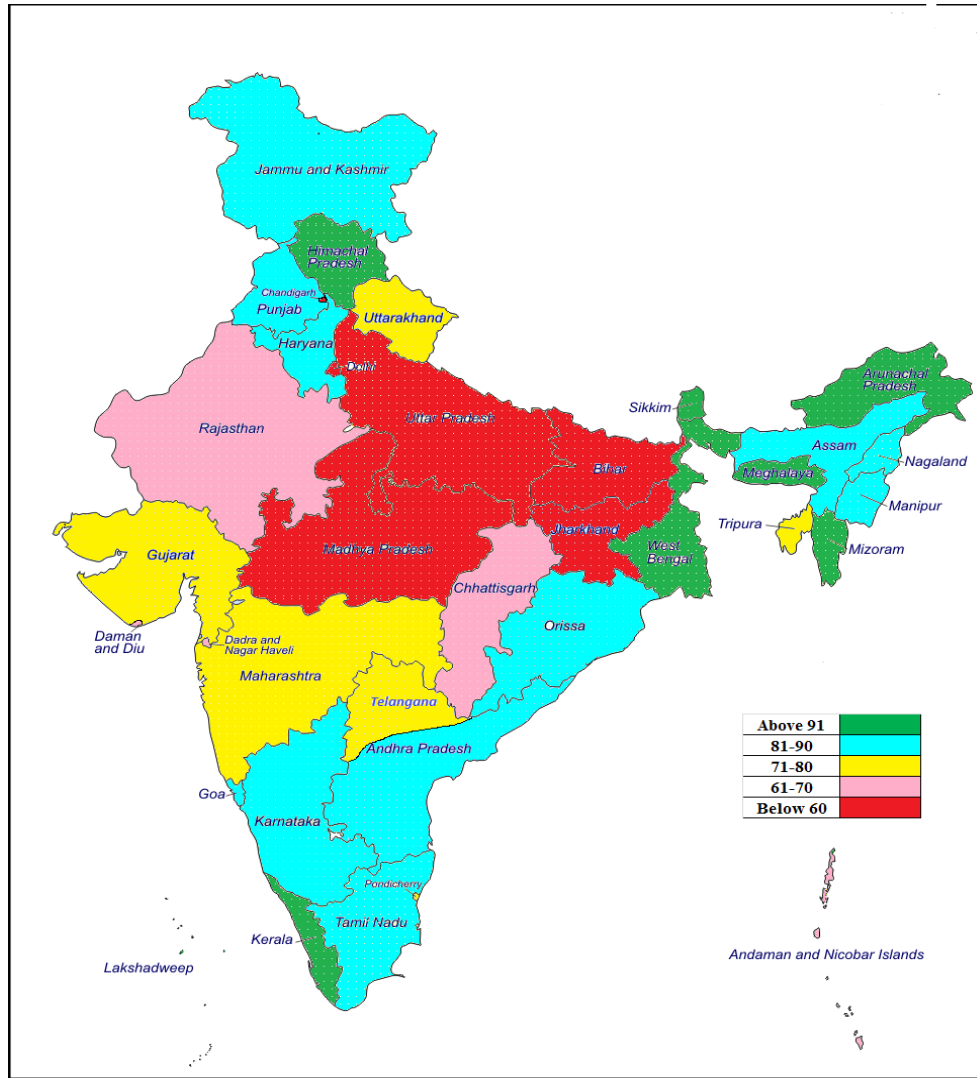
The objectives of the MDM Scheme are to improve nutritional status of children studying in classes I – VIII eligible schools, to encourage poor children belonging to disadvantaged sections to attend school more regularly and to provide nutritional support to children of elementary stage in drought-affected areas even during summer vacation.

4.1 Norms of Central assistance under Mid-Day Meal Scheme

At present, 100% recurring cost Central assistance is provided for cost of food grains, transportation of food grains from FCI depot to Schools and Management, Monitoring and Evaluation charges. 100% non-recurring Central assistance is provided for procurement/replacement of kitchen devices in schools. The Centre also provides assistance for cooking cost, payment of honorarium to cook-cum-helpers and construction of kitchen-cum-stores as per States Schedule of rates on sharing basis between Centre and State Government in the ratio of 60:40 for Non-NER States and 90:10 for NER States including 3 Himalayan States and 100% for Union Territories.

4.2 National Scenario of coverage of children under MDM

During 2017-18, 9.51 crore children studying in elementary classes in schools covered under MDM, have availed MDM on an average basis against the total enrolment of 12.38 crore. Thus about 76% of the enrolled children have availed MDM on each school day.



4.3 Basic information on implementation of MDM during 2018-19

Table 9: Important indicators in implementation of MDM – Maharashtra

S. N.	Indicator	PAB Approval / Total	Coverage / Utilisation
1	No. of Institutions	86707	86414
2	Enrolment (pry)	6657790	6532090
3	Enrolment (Up. pry)	4354358	4409544
4	Children (Pry): PAB Approval	5900000	6532090
5	Children (U Pry): PAB Approval	3950000	4409544
6	Working Days	240	143
7	No. of cook-cum-helpers	175336	171131

8	Food Grain Lifted (in MTs)	108037.49 (upto Sep)	108037.49 (upto Sep)
9	Food Grain utilised (in MTs)	-	99370.55 (upto Sep)
10	Payment to FCI (Rs in lakh)	85.14 cr (for 2018-19)	25.81cr (upto oct 2018)
11	Cooking Cost utilized (Rs in lakh)	70286.60	55725.45 (upto Sep)
12	Hon. to CCH (Rs in lakh)	10520.16	6845.24
13	MME (Rs in lakh)	1689.59	729.06
14	TA (Rs in lakh)	2128.5	
15	Implementation of RBSK	86707	86707
15.1	Institutes covered under RBSK	86707	86707
15.2	Health checkup (no. of children)	11012148	6097953
15.3	IFA administered (no. of children)	3834718	2689572
15.4	De-worming tablets (no. of children)	1509629	4689152
15.5	Spectacles (no. of children)	731015	13728
16	Infrastructure facility available	86707	68626
16.1	LPG facility	86414	43081
16.2	Drinking Water	86707	86414
16.3	Toilets	86707	86414
17	No. of Institution Inspected	86414	86414
18	Schools having LPG facility	86414	43081
19	Annual Data Entry into MIS portal	86414	86414
20	Monthly Data Entry into MIS portal	86414	Upto sept 2018
21	Number of schools uploading data through AMS	86414	86414
22	Number of children having Aadhaar	11012184	9124464
23	Cook-cum-helpers having bank a/c	175336	169684
24	CCH receiving hon. through bank a/c	169684	156670

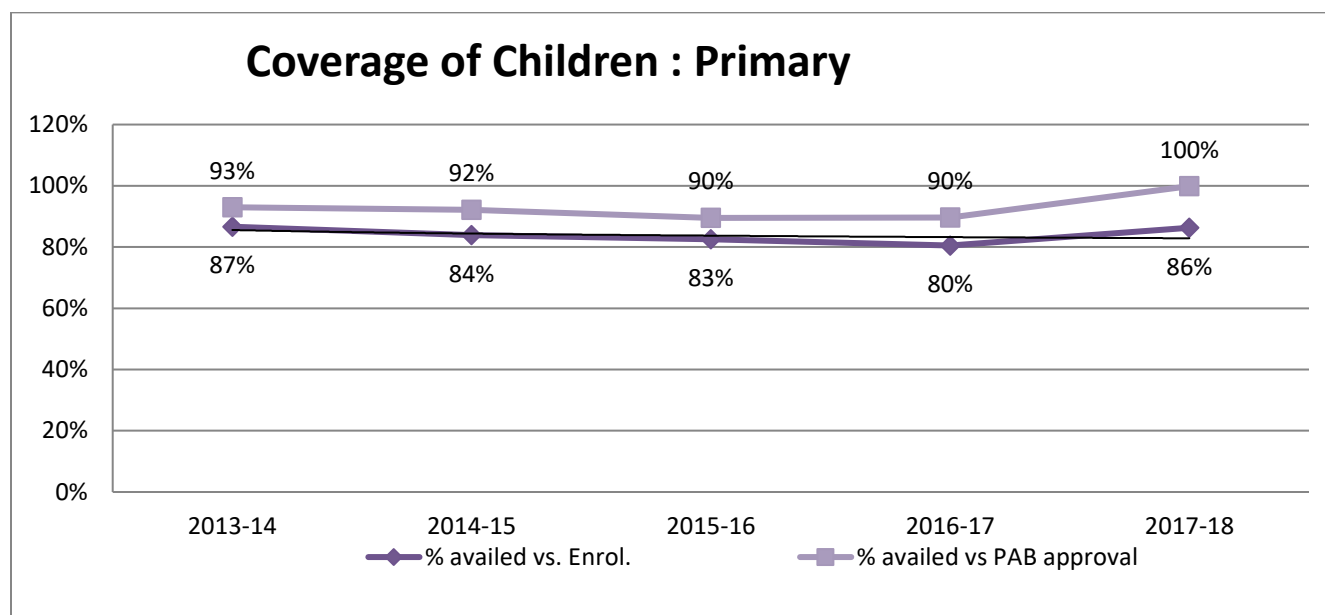
4.4 Review the coverage of children under MDM in Maharashtra - Primary

The enrolment of the children in primary has been decline by 10% in Primary state from 2013-14 to 2017-18. The coverage of children in terms of percentage is 1% declined from the base year at primary stage under Mid Day Meal scheme.

Table 10: Enrolment, PAB Approval, and children availed MDM – Primary

Year	Enrolment	PAB approval	Avg. availed MDM	% availed vs. Enrol.	% availed vs PAB approval
2013-14	7405477	6900000	6416005	87%	93%
2014-15	7144768	6500000	5990562	84%	92%
2015-16	6961016	6418252	5745364	83%	90%
2016-17	7145070	6418252	5751369	80%	90%
2017-18	6657790	5751369	5744119	86%	100%

Graph 1:Trends of Enrolment and Average number of children availing MDM: Primary



4.5 Enrolment, PAB Approval, and children availed MDM – Primary – Upper Primary

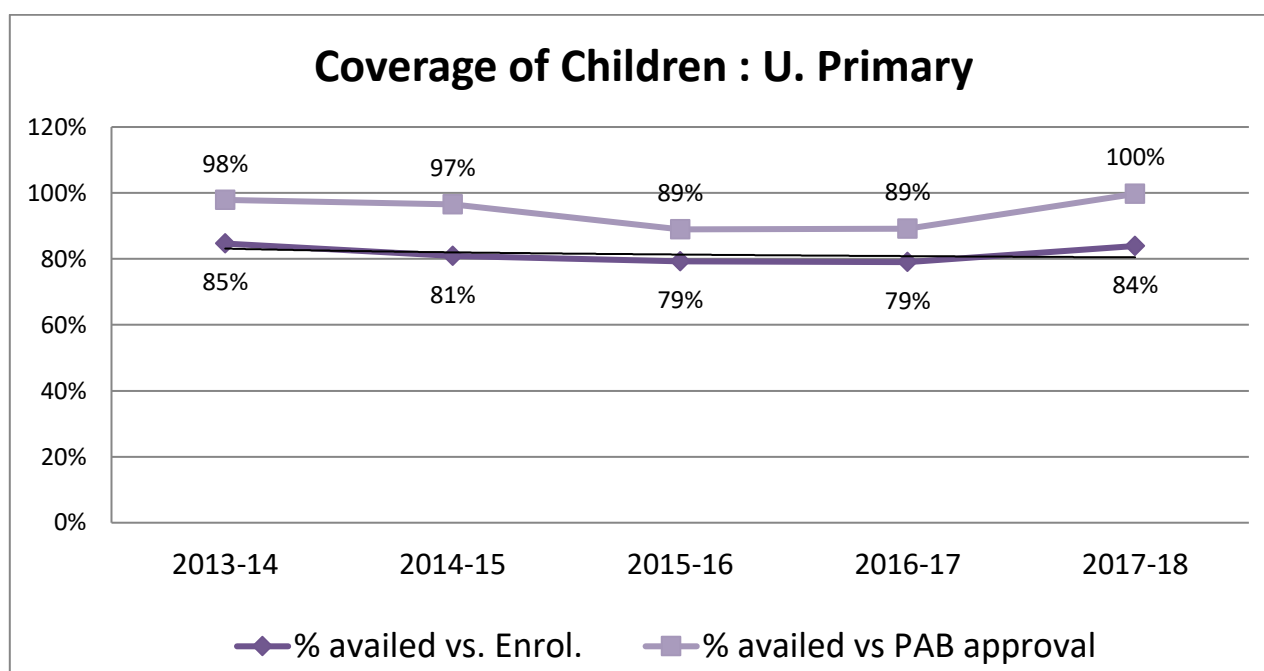
The 3% decline in enrolment is observed in upper primary stage since 2013-14 to 2017-18. The coverage of the children is 84% in 2017-18 quite below the primary stage. Five years trend of coverage is given as under:

Table 11: Enrolment, PAB Approval, and children availed MDM – Upper Primary

Year	Enrolment	PAB approval	Avg. availed MDM	% availed vs. Enrol.	% availed vs PAB approval
2013-14	4623929	4000000	3914209	85%	98%
2014-15	4661258	3908469	3772288	81%	97%
2015-16	4604231	4102156	3649060	79%	89%
2016-17	4630249	4102156	3658842	79%	89%
2017-18	4354358	3664756	3653954	84%	100%

Graph 2: Trends of enrolment and Average number of children availing MDM:

Upper Primary



4.6 Engagement of Cook-cum-helpers

98% cook-cum-helpers have been engaged for cooking and serving hot meal at school level. 1,71,131 cooks engaged against the 1,75,336 cooks approved by the Programme approval board during 2017-18.

Table 12: Engagement of Cook-cum-Helpers vis-à-vis PAB Approval

Year	PAB approval	Engaged	% Cook-cum-helpers Engaged
2013-14	230184	163389	71%
2014-15	174000	164479	95%
2015-16	174000	163523	94%
2016-17	174000	167909	96%
2017-18	175336	171131	98%

Graph 3: Engagement of Cook-cum-Helpers vis-à-vis PAB Approval

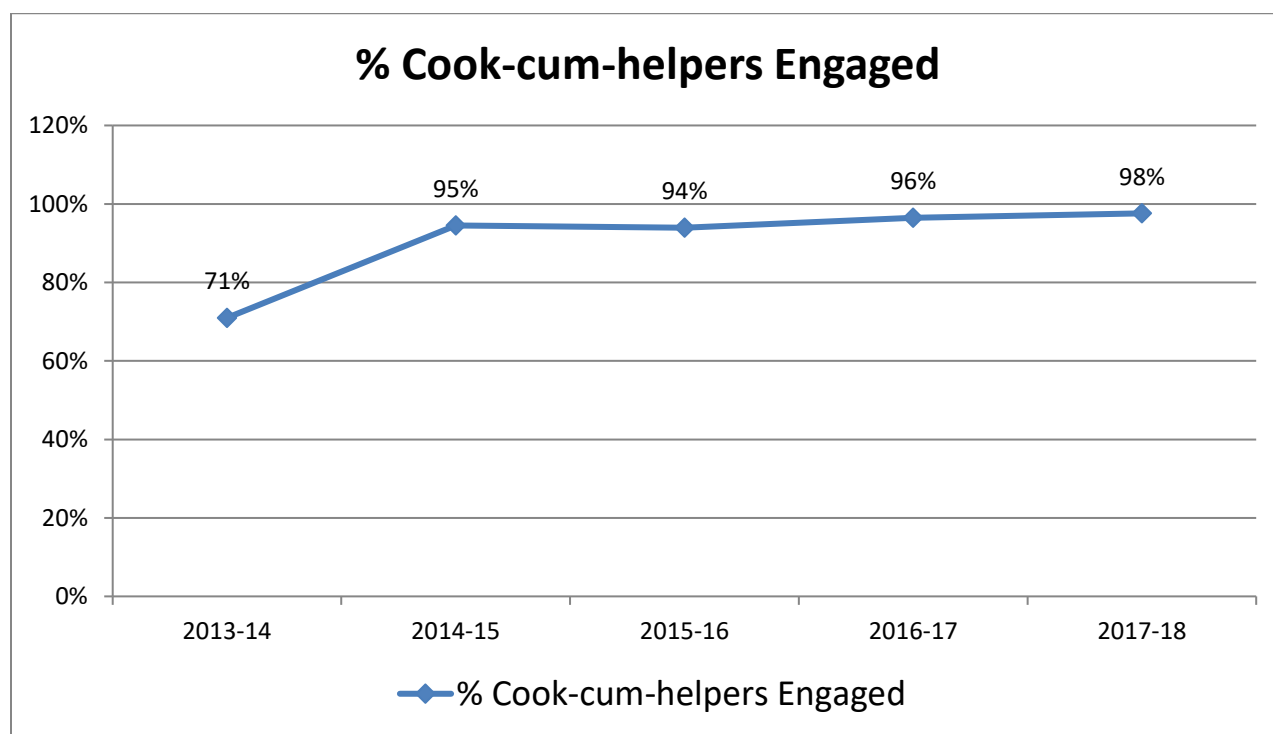


Table 13: Details of Allocation of funds and Expenditure against Central Assistance

(Rs. in Lakh)

Year	Cooking cost*		TA		Hon. to CCH		MME	
	Allocation	Utilization	Allocation	Util.	Allocation	Util.	Allocation	Util.
2013-14	94769.17	85208.08	2149.28	1938.68	17263.80	12837.50	1919.63	1906.40
2014-15	97638.93	88932.40	2059.25	1887.85	13050.00	12327.21	1870.63	1841.28
2015-16	106874.64	46366.45	2202.39	2073.12	10440.00	12375.73	1835.29	904.73
2016-17	103694.89	101428.31	1899.25	1217.01	10440.00	7018.26	10440.00	7018.26
2017-18	103044.25	102038.76	1873.48	2017.58	10520.16	10267.86	1471.61	1363.19

*Central as well as State Share.

4.7: Component wise Details of Allocation and Expenditure

Table 14: Utilization of Cooking Cost (Central as well as State Share)

(Rs in lakh)

Year	Cooking cost		
	Allocation	Utilization	% Utilization
2013-14	94769.17	85208.08	90%
2014-15	97638.93	88932.40	91%
2015-16	106874.64	95504.28	89%
2016-17	103694.89	101428.31	98%
2017-18	103044.25	102038.76	99%

Graph 4: Utilization of Cooking Cost (Central as well as State Share)

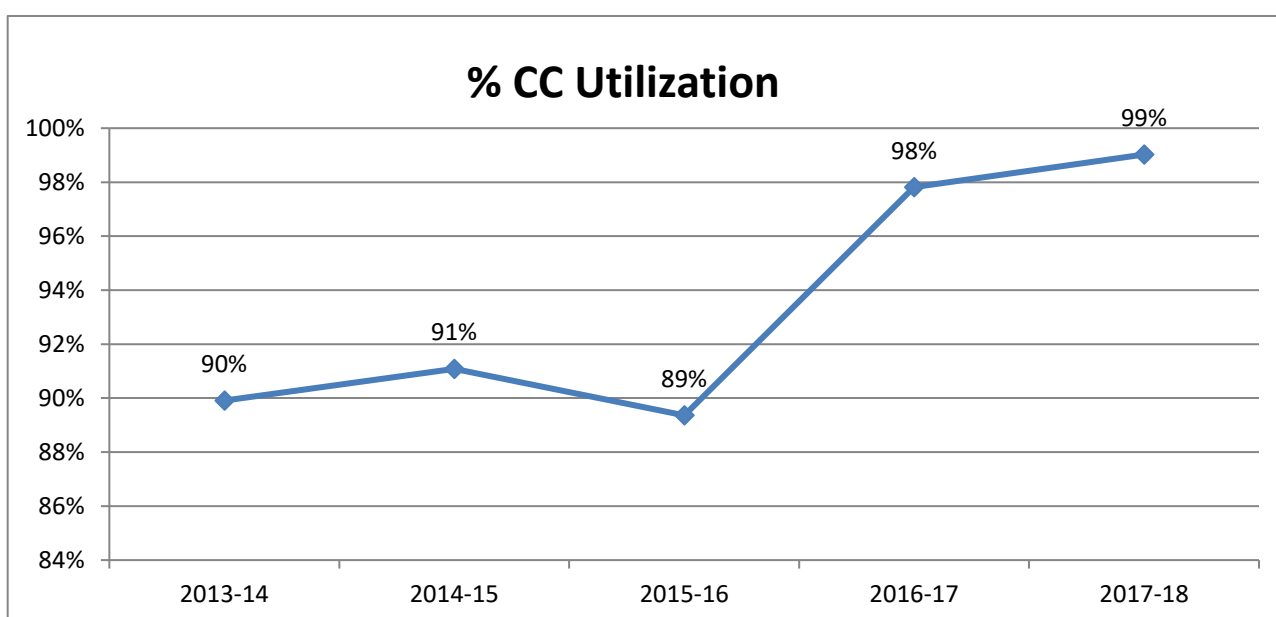


Table 15: Utilization of Honorarium to Cook-cum-helpers

(Rs in lakh)

Year	Hon. to CCH		
	Allocation	Util.	% Utilization
2013-14	17263.80	12837.50	74%
2014-15	13050.00	12327.21	94%
2015-16	10440.00	12375.73	119%
2016-17	10440.00	7018.26	67%
2017-18	10520.16	10267.86	98%

Graph 5: Utilization of Honorarium to Cook-cum-helpers

% Utilization

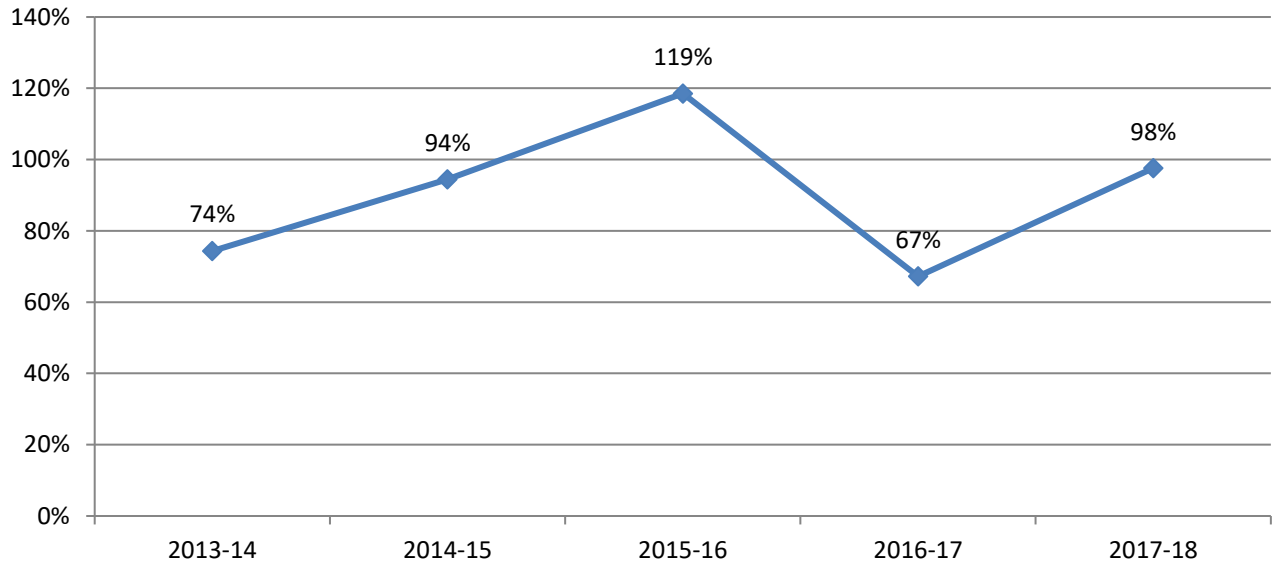


Table 16: Utilisation of Transportation Assistance

(Rs. in lakh)

Year	Transport Assistance		
	Allocation	Util.	% Utilization
2013-14	2149.28	1938.68	90%
2014-15	2059.25	1887.85	92%
2015-16	2202.39	2073.12	94%
2016-17	1899.25	1217.01	64%
2017-18	1873.48	2017.58	108%

Graph 6: Utilization of Transportation Assistance

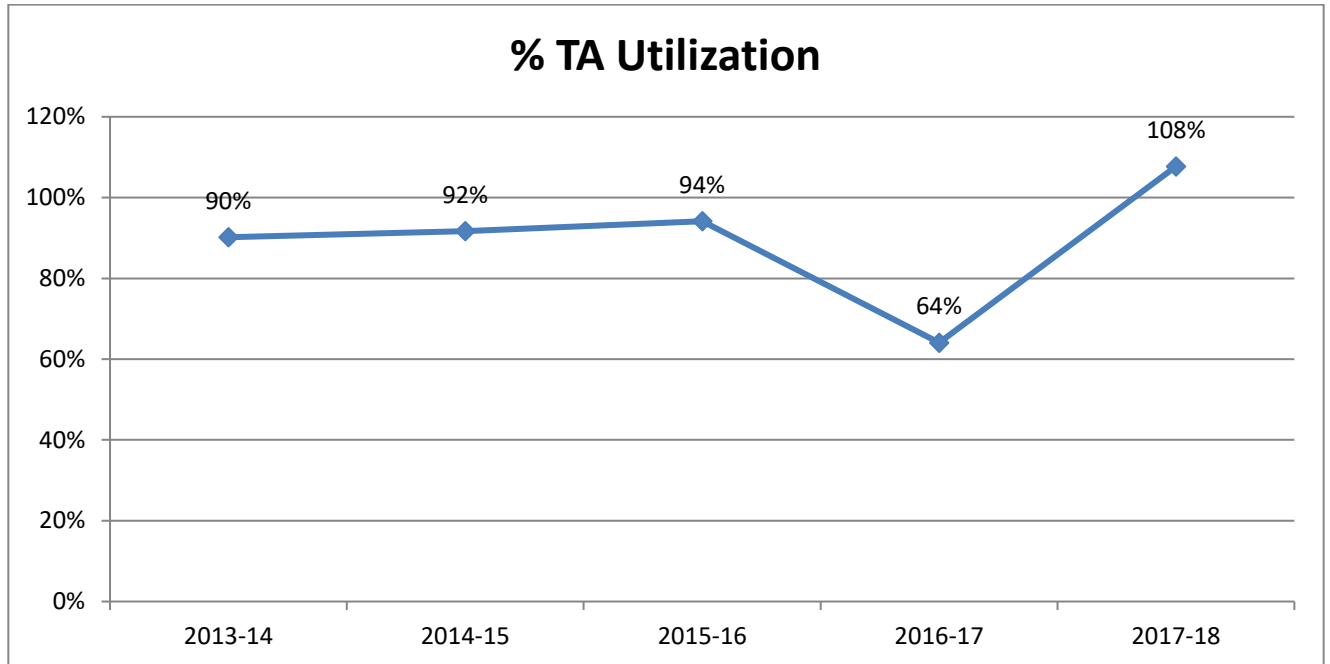
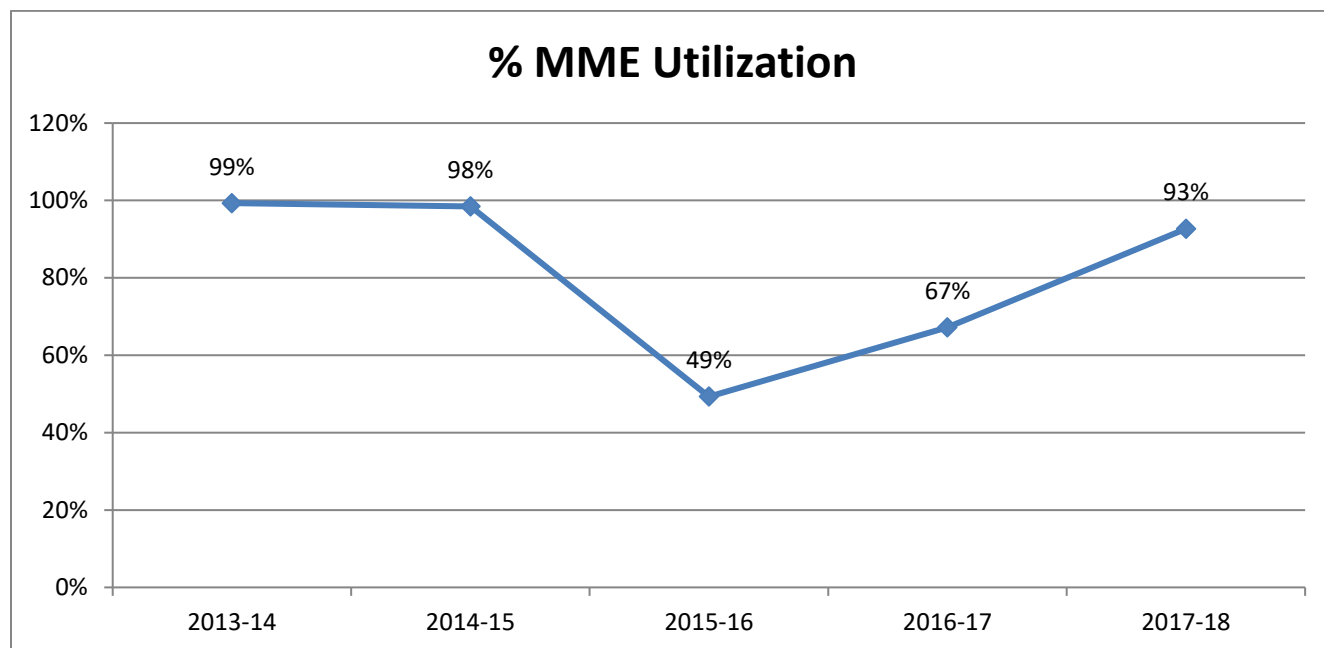


Table 17: Utilization of Management Monitoring and Evaluation (MME)

(Rs. in lakh)

Year	MME		
	Allocation	Util.	% Utilization
2013-14	1919.63	1906.40	99%
2014-15	1870.63	1841.28	98%
2015-16	1835.29	904.73	49%
2016-17	10440.00	7018.26	67%
2017-18	1471.61	1363.19	93%

Graph 7: Utilization of Management Monitoring and Evaluation (MME)



4.8 Basic Information on implementation of MDM in District Jalgaon

As per the information provided by the District Authorities the basic information on implementation of MDM in district Visakhapatnam is given below

S. N.	Indicator	PAB Approval / Total	Coverage / Utilization
1	No. of Institutions	3289	2770
2	Enrolment (pry)	392057	291823
3	Enrolment (Up. pry)	247678	186896
4	Children (Pry): PAB Approval	244894	243047
5	Children (U Pry): PAB Approval	142312	141787
6	Working Days	222	222
7	No. of cook-cum-helpers	6144	6144
8	Food Grain Lifted (in MTs)	7727.25	7317.91552
9	Food Grain utilized (in MTs)	7317.91552	7324.61398
10	Payment to FCI (Rs. in lakh)	161.7061	161.7061
11	Cooking Cost utilized (Rs. in lakh)	885.67	755.82
12	Hon. to CCH (Rs. in lakh)	406.44	368.64
13	MME (Rs in lakh) Honorarium to the Dt.EO	4.78	4.18

14	TA (Rs in lakh)	5.8625	5.8625
15	Implementation of RBSK		66
15.1	Institutes covered under RBSK	2770	1689
15.2	Health checkup (no. of children)	478719	277885
15.3	IFA administered (no. of children)	478719	
15.4	De-worming tablets (no. of children)	478719	467400
15.5	Spectacles (no. of children)	478719	459
16	Infrastructure facility available		2515
16.1	LPG facility	2770	198
16.2	Drinking Water	2770	2692
16.3	Toilets	2770	2656
17	No. of Institution Inspected	2770	2770
18	Schools having LPG facility	2770	431
19	Annual Data Entry into MIS portal	2770	2738
20	Monthly Data Entry into MIS portal	2770	Oct.2018
21	Number of schools uploading data through AMS	2770	2738
22	Number of children having Aadhaar	478719	478719
23	Cook-cum-helpers having bank a/c	6144	6144//6106
24	CCH receiving hon. through bank a/c	6144	Oct. 2018

4.9 Basic Information on implementation of MDM in District - Satara

As per the information provided by the District Authorities the basic information on implementation of MDM in district Satara is given below

Sl	Indicator	PAB approval	Coverage/Utilization
1.	No. of Institutions	3435	3435
2.	Enrolment Primary	165465	165465
3.	Enrolment Upper Primary	107419	107419
4.	Children Primary – PAB approval	165027	166101

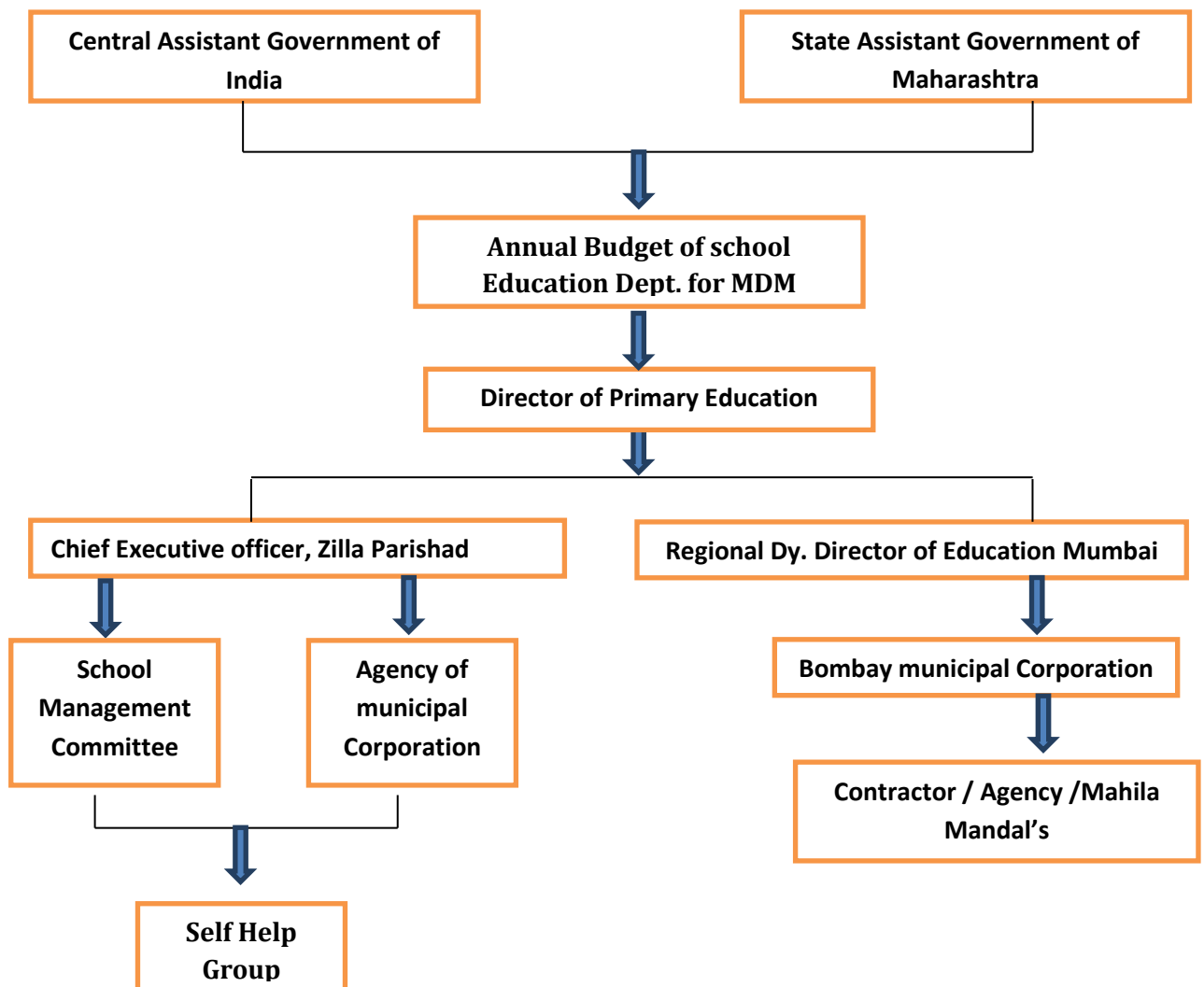
5.	Children Upper Primary – PAB approval	111899	108522
6.	Working Days	222	222
7.	No. of Cook-cum-helpers	6224	5643
8.	Food grains lifted (in MTs)	-	3079.180
9.	Food grains utilized (in MTs)	-	2851.540
10.	Payment to FCI (Rs. In Lakh)	-	-
11.	Cooking cost utilization (Rs.in Lakh)	706.03	498.73
12.	Hon. to CCH (Rs. In Lakh)	373.43	240.97
13.	MME (Rs in Lakh)	-	-
14.	TA (Rs in Lakh)	-	-
15.	Implementation of RBSK	-	3465
16.	Institutions covered under RBSK	-	3465
17.	Health check-up (no. of children)		371838
18.	IFA administered (No. of children)		-
19.	Deworming tebles (no. of children)		662434
20.	Spectacles (no. of children)		509
21.	Infrastructure facilities available		-
22.	LPG facility	3435	3371
23.	Drinking Water	3435	3435
24.	Toilets	3435	3435
25.	No. of institutions inspected	3435	2641 (upto Sept 2018)
26.	School having LPG Facility	3435	3371
27.	Annual Data Entry into MIS web portal	3435	3414
28.	Monthly data entry into MIS web portal	3435	3414 (upto sept. 18)
29.	No. of schools uploading data through AMS		
30.	No. of children having aadhaar	271884	271074
31.	Cookc-cum-helpers having bank A/c	5643	5643
32.	Cook-cum-helpers receiving honorarium through back a/c	5643	5643

CHAPTER: 5

Observations from the Field as per theToR

5.1 Review of the fund flow mechanism

At district level separate agencies have been engaged by way of open tendering process for transportation of rice from FCI godowns to schools and also for supply of cooking ingredients viz. pulses, salt, condiments and oil. These agencies purchased these agencies and supplied them to schools. Procurement of vegetables and fuel is done at school level by the cooking agencies. Thus, funds meant for cooking cost are released to both these agencies and schools. The existing mechanism for release of funds under MDM is shown as under:



The flow of funds released under Mid Day Meal Scheme during 2018-19 is given below:

State Level

Sr.No	Component	Fund received				Funds released		
		Date	Central share	State share	Total Amount	District		
						Date	Central share Amount	State share Amount
1	Cost of FG	27/04/2018	1733.9	0	1733.9	14/06/2018	1664.23	737.39
		26/09/2018	3148.07	0	3148.07	17/10/2018	2679.59	1999.00
		26/09/2018	526.02	0	526.02	3/11/2018	498.82	309.03
						5/11/2018	292.59	155.64
		Total				5407.99	Total	5135.23
2	Cooking cost	27/04/2018	14314.7	9543.15	23857.87	30/10/2018	3547.67	2365.11
		26/09/2018	4342.69	2895.13	7237.82	03/11/2018	3584.33	2389.55
		26/09/2018	25672.7	17115.1	42787.77	06/11/2018	451.91	301.27
		Total				73883.5	Total	7583.91
3	Hon. to CCH	27/04/2018	2436.79	1624.53	4061.32	13/08/2018	263.78	157.24
		26/09/2018	381.37	254.25	635.62	13/08/2018	105.00	66.03
		26/09/2018	3623.00	2415.33	6038.33	12/9/2018	298.66	183.18
						17/06/2018	298.66	199.11
		Total				10735.3	Total	966.12
4	Transportation Asst.	27/04/2018	433.47	0	433.47	26/11/2018	552.73	287.87
		26/09/2018	131.50	0	131.5			
		26/09/2018	787.03	0	787.03			
		Total				1352	Total	552.73
5	MME	27/04/2018	340.55	0	340.55	14/06/2018	173.94	0
		26/09/2018	96.87	0	96.87	17/10/2018	114.46	0
		26/09/2018	508.72	0	508.72		0	0
		Total				946.14	Total	288.40

State is releasing cooking cost in two parts, i) to agency at district level for supplying pulses, oil and other condiments to schools and ii) to schools for procuring vegetables and expenditure on fuel.

Funds towards honorarium to cook-cum-helpers are released to districts which in-turn release them to cook-cum-helpers through e-transfer.

The Joint Review Mission observed during its visit to the schools that funds towards cooking cost were released in time and adequate funds were available with all the schools. However, there is a delay of 2-3 months in releasing of honorarium to cook-cum-helpers. It is therefore recommended to release the honorarium to cook-cum-helpers also directly from the State level through e-transfer to avoid any delay.

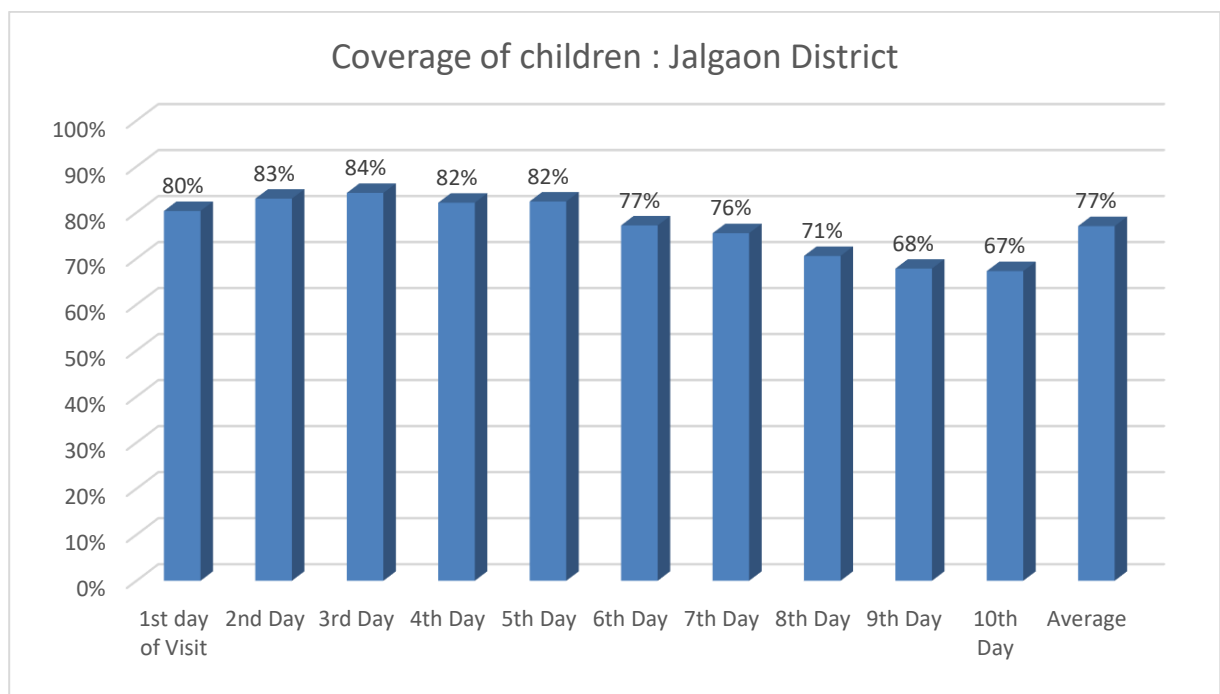
5.2. Review of the coverage of the scheme

The cumulative enrolment in these schools was 6511 against which 5556 Children (85%) availed MDM on average basis during the last 10 days. All the children, who are attending school were availing MDM.

District Jalgaon

In the 19 visited schools in Jalgaon, 3924 were enrolled. Out of these 3024 children have availed MDM on an average basis during the last ten days of the day of visit.

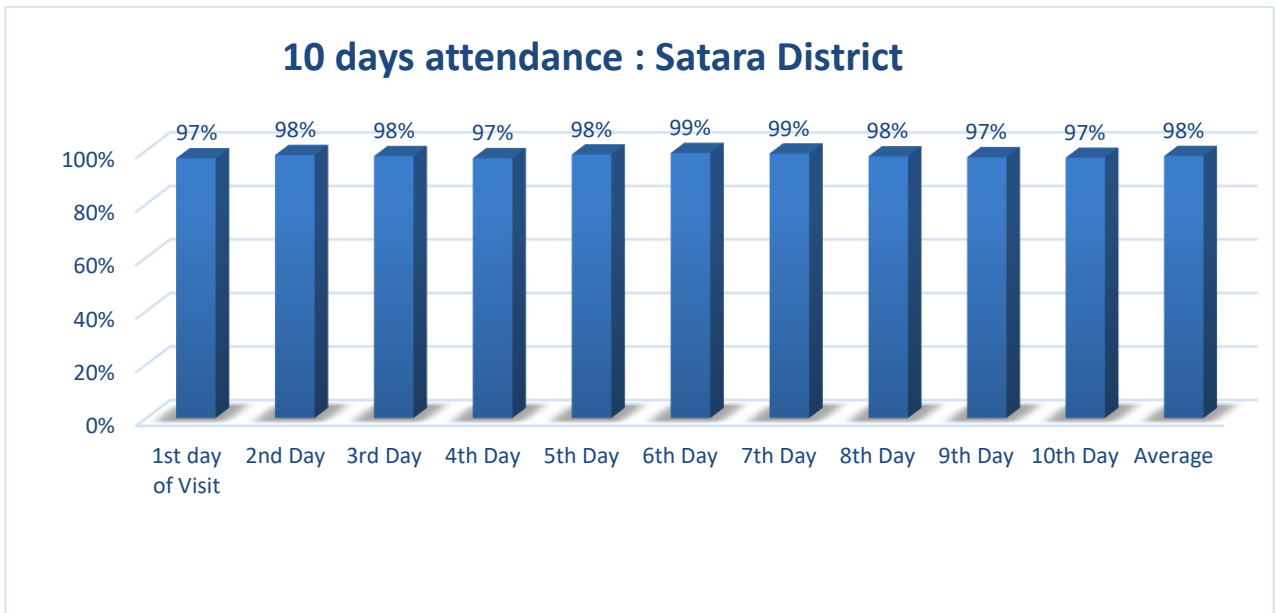
Graph 8: Day wise average students availing MDM in the visited schools in district – Jalgaon



District – Satara

In the 21 visited schools in Satara district 2587 children were enrolled. Out of these 2532 children (98%) have availed MDM on an average basis during the last ten days from the day of visit.

Graph 8: Day wise average students availing MDM in the visited schools in district – Satara



The coverage of children under MDM in the visited schools in Satara district is remarkable, almost 98% of the enrolled children have availed mid day meal on the last 10 days. It was also observed that the attendance remains almost 98% in these schools every day. It is evident that there is a difference on almost 20% in the coverage of children in both districts.

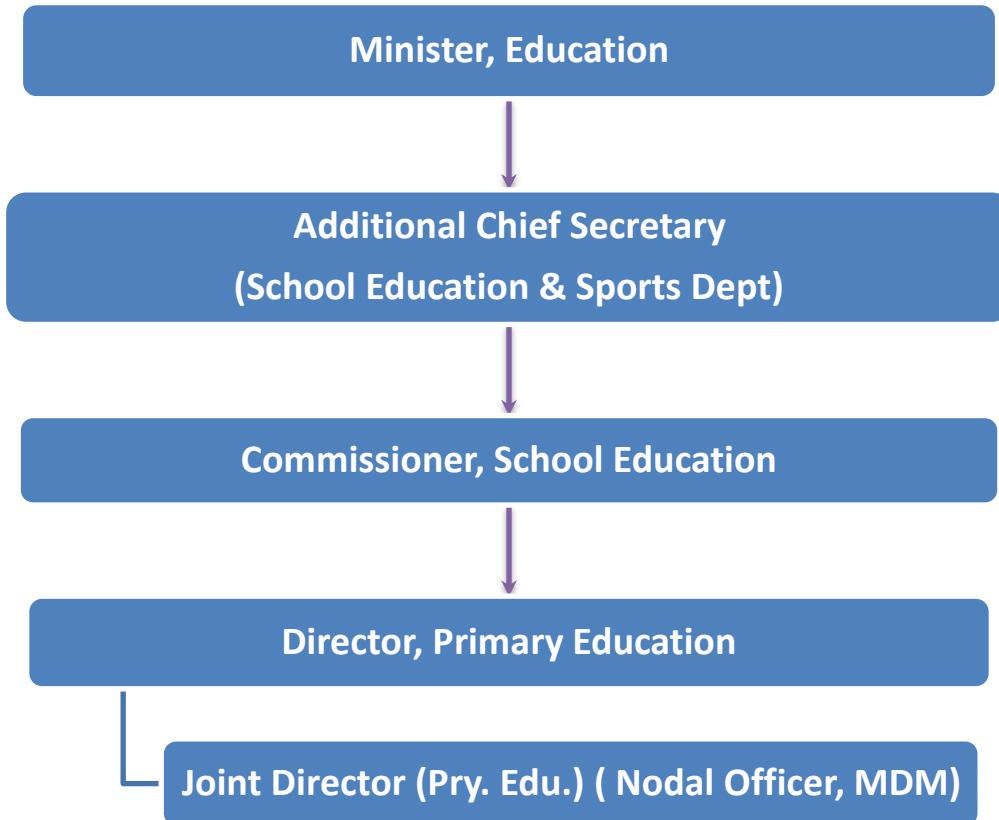
5.3 Review of the Management structure

Education Department is nodal department for implementation of Mid-Day Meal Scheme, which coordinates with different departments like Food Department, Food Corporation of India, Panchayati Raj Department, Health and other Departments for smooth implementation of Mid-Day Meal Scheme in the State. State Steering-cum-monitoring Committee has been constituted under the

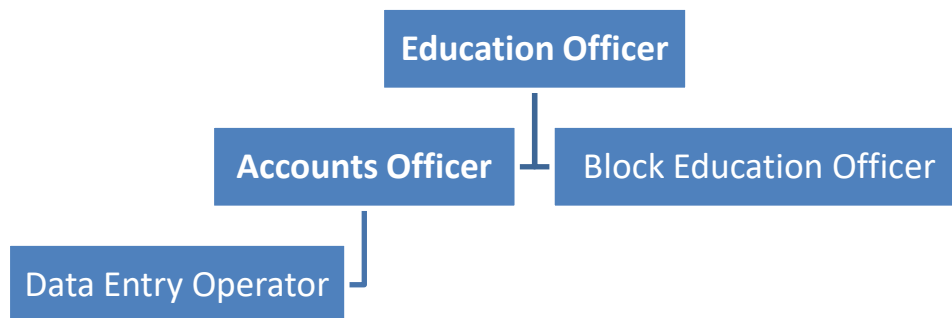
chairmanship of Chief Secretary, Govt. of Maharashtra to oversee the implementation and performance of the Scheme.

Management Structure for implementation of the Mid Day Meal Scheme at State, District, Block and School level is as follows :

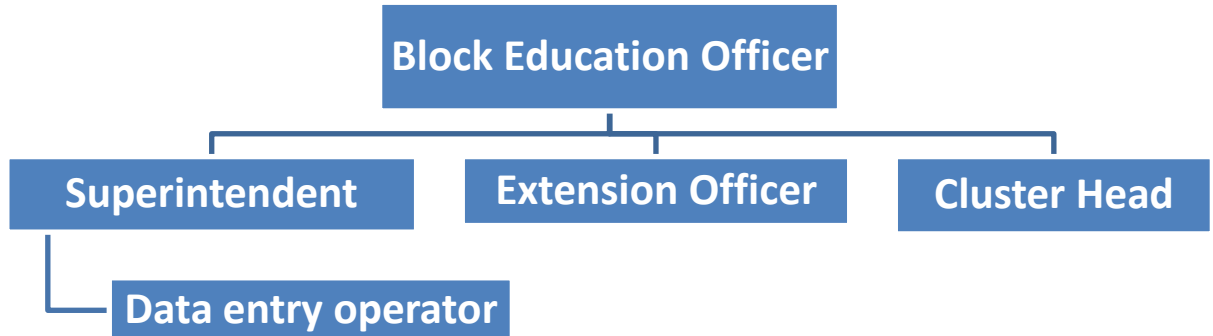
Management Structure - State Level



Management Structure - District Level



Management Structure - Block Level



In rural areas School Management Committee has been given the responsibility to engage Self Help Groups for cooking MDM in schools. In every school cook cum helper cooked the food and served to students. Teacher, SMC members, Cluster Head, Education Extension Officer , Superintendent (MDM), Block Education Officer are supervising the scheme while made visit to schools. In every school one teacher taste the meal on rotation basis before serving to the students.

As per the information provided by the State the requirement and deployment of manpower under MDM is as under:

Level	No. of regular personnel		No. of contractual personnel	
	Required	Deployed	Required	Engaged.
State	17	3	24	5
District	35	17	35	18
Block	357	154	357	173

It is evident from the data that there is acute shortage of manpower at different levels. It is therefore recommended to fill up the vacant posts / engage personals for more effective implementation of the scheme.

The Joint Review Mission observed that schools were being inspected regularly on monthly basis by the cluster heads, superintendent and Extension officers. However, it was also observed that the inspection needs to be more focused as most of the times inspecting officials are not providing adequate attention to vital parameters in implementation of MDM. It was also noticed that schools were

using different formats for recording information on implementation of MDM in district Jalgaon.

The inspections from State level are almost nil. Officers posted in Director office should also visit districts to oversee the implementation of scheme. State Government may also constitute State level Review Missions to oversee the implementation of the scheme.

5.4 Review the delivery mechanism of food grains from State to Schools

The Food Corporation of India (FCI) supplies Fair Average Quality (FAQ) food grains under Mid Day Meal Scheme. At district level separate agencies have been engaged by way of open tendering process for transportation of rice from FCI godowns to doorstep of schools. Register is maintained at the school level showing details about the quantity of rice received and consumed every day. The storage of food grains is made at schools only. There is a system of sending messages to the cluster head and concerned teachers about the delivery of foodgrains at a particular school. The JRM team appreciated that buffer stock of foodgrains was maintained at every school.

5.5 Review the smooth implementation of the Scheme with particular reference to Interruptions.

JRM team did not observe any interruption in the mid day meal.

5.6 Review the Creation of Capital Assets

Kitchen-cum-stores were available in 37 out of 41 visited schools. Kitchen devices were available in all the visited schools. Eating plates were also available for all children in the visited Government schools. R.O. machines were also donated by the community and through CSR in some schools. Kitchen gardens have also been maintained in some of the visited schools. It is recommended to provide eating plates in the Government aided schools also.

5.7 Construction of Kitchen-cum-stores

Availability of kitchen-cum-store is essential for ensuring that meals are cooked in a safe and hygienic environment. There are 86347 schools in the State, out of which about 86000 are eligible for construction of kitchen-cum-stores. Central assistance of Rs. 51448.01 Lakh has been released for construction of 71783 Kitchen-cum-Stores. Construction has been completed for 58636 Kitchen-cum-stores.

It was observed during the field visit that the MDM is cooked in classrooms or in open area in 4 schools due to non-availability of kitchen-cum-store. The JRM recommended for construction of kitchen-cum-stores in all eligible schools in quick time.

5.8 Procurement/Replacement of Kitchen Devices

As per MDM guidelines, non recurring central assistance is admissible to all the schools for procuring cooking utensils, serving devices and storage bins under Mid Day Meal Scheme. As per the information provided by State all the sanctioned units of kitchen devices have been procured.

The JRM found that all the visited schools had adequate number of cooking and serving utensils. It is also appreciated that eating plates were also available for all the children in all visited schools. However, adequate number of storage bins for foodgrains and other cooking ingredients were not available in most of the visited schools. It is recommended to provide storage bins for safe storage of foodgrains and other ingredients.

5.9 Review the convening the meetings of District Level Committee under Chairpersonship of senior most Member of Parliament (LS)

The MDM guidelines provides for monitoring structures at various levels for monitoring and supervision of the scheme. The MHRD has constituted a District level committee under the chairpersonship of the senior most Member of Parliament (Lok Sabha) in the district. The committee is supposed to meet

atleast once in a quarter. As per the information provided by the district authorities no meeting of this committee has taken place in both the visited districts.

5.10. Review the Management Information System (MIS)

Web-enabled Management Information System for Mid Day Meal (MIS-MDM) was launched in June, 2012 for monitoring of the scheme. The States are required to make monthly as well as annual data entries in the MIS-MDM. The State has made 90 % monthly data entries upto November, 2018. However, 100% annual data entries have been made in the said portal.

The JRM team observed that although the information is being submitted by the schools through MIS and AMS, but this information is not fully utilized for monitoring purposes. It is recommended that proper analysis being done of the data submitted through AMS and MIS and the same may then be used for focused inspections.

Maharashtra Govt. has developed mobile app and SMS base application in which teachers send meal served data at the end of schools on daily basis. On 7th December, 2018, 66% meals served where as in Jalgaon 61% meals served and in Satara 71% meals serve. The district wise meals served details is placed in Annexure-XI.

5.12 Convergence with Rastriya Bal Swasthya Karyakram for health check-up, supplementation of micronutrients under WIFS & de-worming medicine under National de-worming day and health checkups and supply of spectacles to children suffering from refractive errors.

Mid Day Meal Guidelines envisage health check up of the students through Rashtriya Bal Swasthya Karyakaram (RBSK) under National Health Mission of the Ministry of Health & Family Welfare. The medical teams have been conducting the health check up of the children in all the schools. Iron Folic Acid capsules and de-worming tablets were also distributed to the children. However, School Health Cards (SHC) of the students were not kept by the schools The

Headmasters/Principals of the schools informed that Health authorities had taken the SHCs with them. State Government has initiated calculating BMI of children studying in schools. It was informed that teachers in the visited schools also calculating and maintaining the record regarding BMI of children.

5.13 Operationalization of Mid-Day Meal Rules, 2015

The State Government has issued instructions to all the field functionaries for implementation of the MDM Rules'2015 scrupulously duly communicating a copy of the Gazette Publication issued by the Government of India.

5.14 Enrolment of children and Cook-cum-Helpers under Aadhaar

Department of School Education & Literacy has advised all States/UTs in February, 2017 for enrolment of the school children under Aadhaar. As per the information provided more than 89% of the enrolled children and 100% cook-cum-helpers are having Aadhaar card. It is advised to ensure that all enrolled children are registered for Aadhaar.

5.15 Payment of Honorarium to Cook-cum-Helpers

The JRM observed that in most of visited schools honorarium to cook-cum-helpers is being paid up to the month of September in both the districts. Since the CCHs belong to socio-economically challenged segment of the society, the payment of honorarium should be made regularly on monthly basis.

The JRM team recommends that like cooking cost, payment of honorarium to CCH may also be made through e-transfer directly from the State level.

It was also noticed that less number of cook-cum-helpers have been engaged in the schools located in urban areas. It was informed that State has devised its own norms for engagement of cook-cum-helpers in the urban areas. It is recommended to have a relook in this policy regarding engagement of less cook-cum-helpers in schools located in urban area.

5.16 System of Storage food grains and other ingredients

Buffer stock of food grains was available in all the visited schools. However, storage bins are not provided to most of the visited schools. The JRM team also observed that sacks of foodgrains are placed on the floor. It is recommended to provide storage bins to schools for safe and hygienic storage of foodgrains and other ingredients. The storage bins and sacks of foodgrains should be placed on raised platforms.

5.17 Role of Teachers in Mid-Day Meal Scheme.

As per the MDM guidelines, the role of the teacher is to organize, supervise and ensure that the mid day meal is served in an orderly manner. The JRM interacted with the teachers in the visited schools. Almost all the teachers informed that they are able to keep the MDM record easily because Self Help Groups and Cook-cum-Helpers are responsible for cooking and serving the mid day meal. This has relieved them for attending to their teaching and learning activities.

5.18 Testing of meals

The Mid Day Meal Rules, 2015 envisage that randomly selected food samples by the State Food & Drugs Department would be sent for testing of quality as well as quantity of meals. As per the information provided 4605 samples of cooked food were collected for lab testing out of which 4603 were tested. Reports have been received for 4603 samples and all these 4603 sample were found to be meeting the specified norms.

The JRM also find the testing report in 2 of the visited schools. However, the testing was done only for colour, appearance, presence of chromates in spices and rancidity in extracted fat. It is recommended to carry out the testing for microbial parameters in accordance to the guidelines issued under MDM Scheme.

5.19 Awareness of the Scheme

Menu of MDM and MDM logo were displayed in majority of the visited schools. However, Entitlement of children under MDM was not displayed in any of the visited schools. In some schools during interaction with the community some people informed that they at times visit schools for seeing the implementation of MDM. However, they could not comment about the quantity of meals being served as they were not sure about the norms. It is recommended to display the MDM logo, menu and entitlement of children under MDM at a visible place, preferably on the outer walls of the school, so that these are visible to all.

5.20 Involvement of NGOs

As per the information provided the status of involvement of NGOs for serving MDM in schools through their centralised kitchen is as under:

Sr.No	District	Centralised Kitchens	Children covered	Institutions covered
1	Aurangabad	1	40439	163
2	Palghar	2	69898	778
3	Mumbai	1	79116	288
4	Pune	1	29732	109

CHAPTER 6

NUTRITIONAL AND ANTHROPOMETRIC ASSESSMENT

Terms of reference for nutritional aspects

1. To assess the anthropometric measurements of a sample of children availing MDM (Height, Weight, MUAC)
2. To calculate the Body Mass Index on the basis of measurement of height and weight
3. To identify children who are undernourished and over nourished
4. To review the Quality and Quantity of the served MDM
5. To review the satisfaction of the children parents and community on the served meal under MDM in respect of quality and quantity
6. To suggest some nutritionally balanced region specific recipes

In order to fulfill the above objectives, the results are depicted in 3 sections

SECTION I: Nutritional assessment of School children using anthropometric indices (TOR 1, 2 & 3)

SECTION II: Evaluation of MDM, diet pattern & satisfaction levels of children, parents, teachers (TOR 4, 5)

SECTION III: Nutritionally balanced region specific recipes (TOR 6)

SECTION 1- ANTHROPOMETRIC MEASUREMENTS

The anthropometric measurements height and weight were taken on 1110 school children from the 2 districts namely Jalgaon & Satara. Of these 552 were boys & 558 girls. Mid upper arm circumference (MUAC) was taken on a sample of 253 children (Excluding children of standard 8). The sample size distribution is given below

District	Boys	Girls	Total
Jalgaon	253	252	505
Satara	299	306	605
Total	552	558	1110

The Mean height, weight, MUAC of the children was calculated based on age, gender and the class that they were studying. As seen from the Tables (Table 18 to 24) the height, weight and MUAC increased with increasing age and the class that they were studying which is expected during the growth phase.

Table 18: Nutritional Anthropometry Cross Tabulated by Age and Gender of Children (Mean±SD)

Age (Years)	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
5.0	15.6±1.6	16.0±1.3	15.7±1.5	109.5±3.8	108.4±3.1	109.2±3.5	13.0±0.8	13.6±1.4	13.2±1.0
6.0	17.8±3.4	16.9±2.5	17.4±3.1	114.1±5.2	112.9±5.1	113.6±5.1	13.6±1.8	13.2±1.3	13.4±1.6
7.0	19.3±2.9	19.4±3.5	19.3±3.2	119.7±5.6	119.0±5.9	119.3±5.7	13.4±1.3	13.6±1.5	13.5±1.4
8.0	20.5±3.5	21.1±3.1	20.8±3.3	122.9±6.1	124.6±5.3	123.7±5.8	13.5±1.5	13.6±1.7	13.6±1.6
9.0	24.9±4.5	24.2±4.6	24.6±4.5	131.2±5.2	129.2±5.5	130.2±5.4	14.4±2.0	14.4±2.0	14.4±2.0
10.0	29.4±6.9	28.3±5.8	28.9±6.4	137.1±6.5	136.8±7.5	136.9±7.0	15.5±2.6	15.0±2.3	15.3±2.4
11.0	31.1±7.1	31.1±7.4	31.1±7.2	140.7±7.3	140.8±6.9	140.8±7.0	15.6±2.5	15.5±2.7	15.6±2.6
12.0	33.3±7.4	34.9±6.9	34.2±7.2	145.1±8.0	147.3±7.6	146.3±7.8	15.7±2.3	16.0±2.4	15.8±2.4
13.0	40.0±9.3	40.3±6.8	40.1±8.2	153.3±8.1	151.7±6.9	152.6±7.6	16.9±2.8	17.5±2.5	17.1±2.7
14.0	43.8±7.9	37.3±6.8	40.9±8.0	157.7±5.1	148.5±11.2	153.6±9.4	17.6±2.8	16.9±3.1	17.3±2.9
15.0	.	43.9±0.0	43.9±0.0	.	156.0±0.0	156.0±0.0	.	18.0±0.0	18.0±0.0
Total	27.7±9.5	27.8±9.0	27.7±9.3	134.0±14.3	134.4±13.8	134.2±14.0	14.9±2.5	15.0±2.5	15.0±2.5

Table 19: Nutritional Anthropometry Cross Tabulated by Age and Gender of Children of Jalgaon (Mean±SD)

Age (Years)	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
5.0	15.6±1.5	16.0±1.3	15.8±1.4	110.2±3.2	108.4±3.1	109.5±3.1	12.8±0.8	13.6±1.4	13.1±1.1
6.0	17.0±2.7	16.1±2.0	16.6±2.4	113.4±4.6	112.1±4.3	112.8±4.5	13.2±1.7	12.8±1.2	13.0±1.5
7.0	18.7±2.7	18.0±2.2	18.3±2.4	118.5±4.7	116.8±4.6	117.6±4.7	13.2±1.2	13.2±1.1	13.2±1.1
8.0	20.0±3.5	20.5±3.0	20.2±3.3	122.4±5.3	123.8±5.2	123.1±5.2	13.3±1.6	13.4±1.7	13.3±1.7
9.0	23.4±3.8	23.0±3.3	23.2±3.5	130.2±4.5	128.7±5.0	129.4±4.8	13.7±1.6	13.8±1.4	13.8±1.5
10.0	29.0±7.3	27.3±6.0	28.1±6.7	136.3±7.9	134.3±8.1	135.3±8.0	15.4±2.5	15.0±2.0	15.2±2.2
11.0	31.7±6.5	30.1±5.9	30.8±6.2	140.3±6.4	141.0±6.5	140.7±6.4	16.0±2.0	15.0±2.4	15.5±2.3
12.0	34.6±7.5	34.8±6.6	34.7±7.0	146.1±8.1	147.0±7.8	146.6±7.9	16.1±2.6	16.0±2.5	16.1±2.5
13.0	42.8±10.5	41.1±6.7	41.9±8.8	154.2±9.1	153.2±6.1	153.7±7.7	17.7±2.7	17.5±2.8	17.6±2.7
14.0	46.5±8.1	43.3±6.0	45.2±6.7	161.3±4.2	146.0±5.7	155.2±9.3	18.0±3.8	20.5±4.5	19.0±3.7
Total	25.4±9.7	25.0±8.7	25.2±9.2	129.9±14.5	129.8±14.1	129.8±14.3	14.5±2.5	14.4±2.3	14.4±2.4

Table 20: Nutritional Anthropometry Cross Tabulated by Age and Gender of Children of Satara (Mean±SD)

Age (Years)	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
5.0	15.6±1.9	.	15.6±1.9	108.1±5.0	.	108.1±5.0	13.4±0.9	.	13.4±0.9
6.0	19.0±4.2	18.4±2.8	18.8±3.7	115.1±6.0	114.8±6.3	115.0±6.0	14.2±1.9	13.9±1.1	14.1±1.6
7.0	20.5±3.2	21.3±4.1	21.0±3.7	122.0±6.5	122.2±6.1	122.1±6.2	13.7±1.6	14.2±1.7	14.0±1.7
8.0	21.4±3.3	22.3±3.1	21.8±3.2	123.7±7.1	126.2±5.3	124.8±6.4	13.9±1.3	14.0±1.7	13.9±1.5
9.0	27.2±4.5	26.1±5.6	26.6±5.1	132.8±5.8	130.1±6.1	131.4±6.1	15.4±2.3	15.3±2.5	15.3±2.3
10.0	29.7±6.7	28.9±5.6	29.3±6.2	137.6±5.4	138.3±6.6	138.0±6.0	15.6±2.7	15.1±2.5	15.3±2.6
11.0	30.9±7.4	31.6±8.0	31.2±7.7	140.9±7.6	140.7±7.1	140.8±7.3	15.4±2.6	15.8±2.8	15.6±2.7
12.0	32.8±7.4	34.9±7.0	33.9±7.3	144.7±7.9	147.4±7.6	146.1±7.8	15.5±2.2	16.0±2.4	15.7±2.3
13.0	38.7±8.5	39.9±7.0	39.2±7.8	152.9±7.6	150.8±7.2	152.0±7.5	16.4±2.8	17.4±2.4	16.9±2.7
14.0	42.6±8.3	35.4±6.4	39.3±8.1	156.1±4.9	149.4±12.9	153.0±9.7	17.4±2.7	15.8±1.6	16.6±2.3
15.0	.	43.9±0.0	43.9±0.0	.	156.0±0.0	156.0±0.0	.	18.0±0.0	18.0±0.0
Total	29.5±9.0	30.2±8.6	29.9±8.8	137.4±13.2	138.3±12.2	137.8±12.7	15.3±2.5	15.5±2.5	15.4±2.5

Table 21: Mean MUAC cross tabulated by Age and Gender (Mean±SD)

	Jalgaon			Satara			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
5	15.6±1.7	17.7±0.0	16.2±1.7	16.1±1.2	.	16.1±1.2	15.9±1.3	17.7±0.0	16.1±1.4
6	17.7±1.3	17.3±1.2	17.5±1.2	15.9±1.5	17.2±3.2	16.3±2.0	17.0±1.6	17.3±1.7	17.1±1.6
7	18.1±2.8	17.9±1.6	18.0±2.1	15.0±0.7	18.4±1.2	16.3±1.9	17.0±2.7	18.0±1.5	17.5±2.2
8	17.9±1.4	18.6±1.9	18.2±1.7	16.9±1.6	17.3±1.2	17.1±1.4	17.4±1.5	18.0±1.8	17.7±1.7
9	19.2±2.1	19.7±1.4	19.5±1.8	17.7±2.0	18.7±2.1	18.2±2.0	18.6±2.1	19.3±1.8	19.0±1.9
10	21.5±2.1	21.9±2.1	21.7±2.0	19.2±3.1	19.3±2.2	19.2±2.7	19.5±3.0	19.8±2.4	19.6±2.7
11	21.6±1.4	21.5±2.7	21.5±2.0	18.7±2.2	19.8±2.9	19.2±2.6	19.2±2.4	20.0±2.9	19.6±2.7
12	22.5±0.0	20.8±1.8	21.3±1.6	19.2±2.1	19.7±2.3	19.5±2.2	19.3±2.2	19.7±2.3	19.6±2.2
13	.	25.3±1.2	25.3±1.2	19.9±2.4	18.9±2.1	19.5±2.2	19.9±2.4	21.6±3.8	20.8±3.2
Total	18.7±2.4	19.2±2.5	19.0±2.5	18.3±2.6	19.2±2.5	18.7±2.6	18.5±2.5	19.2±2.5	18.8±2.5

Table 22: Standard wise Nutritional Anthropometry Cross Tabulated by Gender of Children (Mean±SD)

Standard	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I	17.3±3.4	17.1±2.6	17.2±3.1	112.9±5.3	112.6±5.2	112.8±5.2	13.5±1.8	13.4±1.3	13.4±1.6
II	18.6±2.4	19.4±3.8	19.0±3.2	117.9±4.3	118.7±6.3	118.3±5.4	13.4±1.3	13.6±1.5	13.5±1.4
III	21.1±3.9	20.9±3.1	21.0±3.6	123.6±6.2	124.4±5.6	124.0±5.9	13.7±1.6	13.5±1.5	13.6±1.6
IV	24.2±4.3	24.0±5.4	24.1±4.8	130.3±4.8	128.7±5.3	129.5±5.1	14.2±1.9	14.4±2.5	14.3±2.2
V	29.6±7.3	28.2±5.7	28.9±6.5	136.9±6.4	136.5±7.6	136.7±7.1	15.6±2.8	15.0±2.2	15.3±2.5
VI	30.6±6.7	30.9±7.0	30.8±6.8	140.7±6.9	141.2±7.0	141.0±6.9	15.4±2.3	15.4±2.6	15.4±2.4
VII	33.3±7.2	35.6±7.0	34.5±7.2	145.1±7.8	147.4±7.2	146.2±7.6	15.7±2.2	16.3±2.5	16.0±2.4
VIII	41.1±9.2	39.2±6.9	40.2±8.1	154.9±7.6	151.1±7.2	153.0±7.6	17.0±2.8	17.1±2.6	17.1±2.7

Table 23: Standard wise Nutritional Anthropometry Cross Tabulated by Gender of Children of Jalgaon district (Mean±SD)

Standard	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I	16.6±2.5	16.2±2.0	16.4±2.3	112.4±4.1	111.6±4.4	112.0±4.2	13.1±1.6	13.0±1.2	13.1±1.4
II	18.1±2.3	18.2±2.8	18.2±2.6	117.1±4.1	116.8±5.5	116.9±4.9	13.2±1.2	13.3±1.2	13.3±1.2
III	20.2±3.6	20.0±2.7	20.1±3.2	122.4±5.3	123.1±5.5	122.7±5.3	13.4±1.6	13.2±1.5	13.3±1.5
IV	22.6±3.5	22.2±3.4	22.4±3.4	129.2±4.9	127.3±4.6	128.3±4.8	13.4±1.4	13.7±1.6	13.5±1.5
V	28.9±6.6	27.1±5.7	28.0±6.1	135.7±6.5	134.4±8.1	135.0±7.4	15.5±2.4	14.9±1.9	15.2±2.1
VI	31.6±7.5	29.8±6.2	30.7±6.8	140.3±6.6	140.2±6.6	140.3±6.6	15.9±2.5	15.1±2.4	15.5±2.5
VII	34.1±7.2	36.0±6.1	35.1±6.6	146.0±7.9	147.2±6.7	146.6±7.2	15.9±2.2	16.6±2.2	16.2±2.2
VIII	43.7±9.9	39.7±7.3	41.7±8.8	156.0±9.3	152.5±6.0	154.2±7.9	17.8±2.8	17.1±3.3	17.5±3.0

Table 24: Standard wise Nutritional Anthropometry Cross Tabulated by Gender of Children of Satara district (Mean±SD)

Standard	Weight (kg)			Height (cm)			BMI (kg/m ²)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
I	18.6±4.5	18.7±2.9	18.6±3.8	113.7±7.0	114.8±6.0	114.2±6.5	14.2±1.9	14.1±1.3	14.2±1.7
II	19.3±2.3	21.5±4.5	20.4±3.6	119.0±4.5	122.3±6.0	120.6±5.5	13.6±1.3	14.3±1.9	13.9±1.6
III	22.6±4.1	22.4±3.3	22.5±3.7	125.6±7.2	126.7±5.2	126.1±6.3	14.2±1.6	13.9±1.5	14.1±1.5
IV	27.3±4.1	26.3±6.6	26.7±5.6	132.3±4.0	130.6±5.7	131.3±5.0	15.5±2.0	15.3±3.1	15.4±2.7
V	30.0±7.7	28.8±5.7	29.4±6.7	137.6±6.3	137.7±7.1	137.7±6.7	15.7±3.0	15.1±2.3	15.4±2.7
VI	30.1±6.3	31.6±7.4	30.8±6.9	140.9±7.1	141.8±7.2	141.4±7.1	15.1±2.2	15.6±2.6	15.3±2.4
VII	33.0±7.2	35.4±7.5	34.2±7.4	144.7±7.8	147.5±7.5	146.1±7.7	15.6±2.2	16.2±2.6	15.9±2.4
VIII	39.8±8.7	39.0±6.7	39.4±7.7	154.3±6.7	150.4±7.7	152.4±7.4	16.6±2.8	17.1±2.2	16.9±2.5

Prevalence of Undernutrition & Overnutrition using anthropometric indices:

- a) Prevalence of Thinness:** The prevalence of thinness is given in Table 25. The prevalence of severe thinness was found to be 11.3% with higher prevalence in boys (13.6%) as compared to girls (8.9%). The prevalence of severe thinness was found to be higher in Jalgaon (14.1%) than Satara (8.9%) for both boys and girls. The prevalence of moderate thinness was 24.4%. The graph-9 clearly projects the high prevalence of thinness in the population studied.
- b) Prevalence of Overweight and Obesity:** The prevalence of overweight and obesity in children was found to be 4.8% and 0.5% respectively. The prevalence of overweight in school children was 3.4% in Jalgaon and 6% in Satara. (Table 26, Graph-10)
- c) Prevalence of Stunting:** The prevalence of severe stunting amongst the children was found to be 1% in Jalgaon and 1.3% in Satara. The prevalence of moderate stunting was 12.2%. The prevalence of moderate stunting was higher in girls (13.4%) than boys (10.9%) (Table 27, Graph-11)
- d) Prevalence of Underweight:** The overall prevalence of severe underweight was 10.3% in the children. The prevalence of severe underweight was higher in Jalgaon (14.4%) than Satara (3.3%) (Graph-12). The prevalence of moderate underweight was 30.1% amongst the children. It was 35.9% in Jalgaon and 20.6% in Satara (Table 28)
- e) Trends of undernutrition among primary & upper primary school children:**
- The prevalence of underweight was higher amongst the primary school children of Jalgaon as compared to Satara (50.3% versus 23.9%) (Table 29)
 - The prevalence of stunting was higher in upper primary (16%) than primary school children (11.4%). (Table 30).
 - The prevalence of Thinness was higher in primary(36.8%) as compared to upper primary children (31.8%) of the 2 districts.(Table 31)
 - The prevalence of overweight was higher in upper primary school children (5.7%) than lower primary school children (4.1%). The prevalence of overweight was 6% in Satara and 3.4% in Jalgaon. (Table 32)
 - Age wise prevalence of underweight, stunting, thinness and overweight and obesity is shown in Table 33 to Table 36 respectively.
 - Maximum prevalence of stunting and thinness was seen at the age of 12 years with the prevalence of overweight peaking at 10 & 11 years

Thus the anthropometric indices clearly indicate that there is a need to improve the nutritional status of the children who are thin, underweight and stunted to tackle the problem of under nutrition. However prevalence of obesity had not reached a magnitude of concern. Emphasis should be laid on growth monitoring along with regular consumption of MDM during the peak growth spurt period of school children aged between 10-12 years to reduce the dual burden of malnutrition among the school children. The children need to be sensitized on healthy diets for healthy living.

Table 25: Prevalence of Thinness among children (N, %)

District	Variable	Boys		Girls		Total	
		N	%	N	%	N	%
Jalgaon	Normal	65	25.8	76	30.0	141	27.9
	Mild	65	25.8	74	29.2	139	27.5
	Moderate	66	26.2	70	27.7	136	26.9
	Severe	44	17.5	27	10.7	71	14.1
Satara	Normal	86	28.1	113	37.8	199	32.9
	Mild	94	30.7	83	27.8	177	29.3
	Moderate	70	22.9	65	21.7	135	22.3
	Severe	32	10.5	22	7.4	54	8.9
Total	Normal	151	27.1	189	34.2	340	30.6
	Mild	159	28.5	157	28.4	316	28.5
	Moderate	136	24.4	135	24.5	271	24.4
	Severe	76	13.6	49	8.9	125	11.3

Table 26: Prevalence of Overweight and Obesity among children (N,%)

District	Variable	Boys		Girls		Total	
		N	%	N	%	N	%
Jalgaon	Overweight	11	4.4	6	2.4	17	3.4
	Obese	1	0.4	0	0.0	1	0.2
Satara	Overweight	21	6.9	15	5.0	36	6.0
	Obese	2	0.7	1	0.3	3	0.5
	Morbid Obese	1	0.3	0	0.0	1	0.2
Total	Overweight	32	5.7	21	3.8	53	4.8
	Obese	3	0.5	1	0.2	4	0.4
	Morbid Obese	1	0.2	0	0.0	1	0.1

Table 27: Prevalence of Stunting among children (N,%)

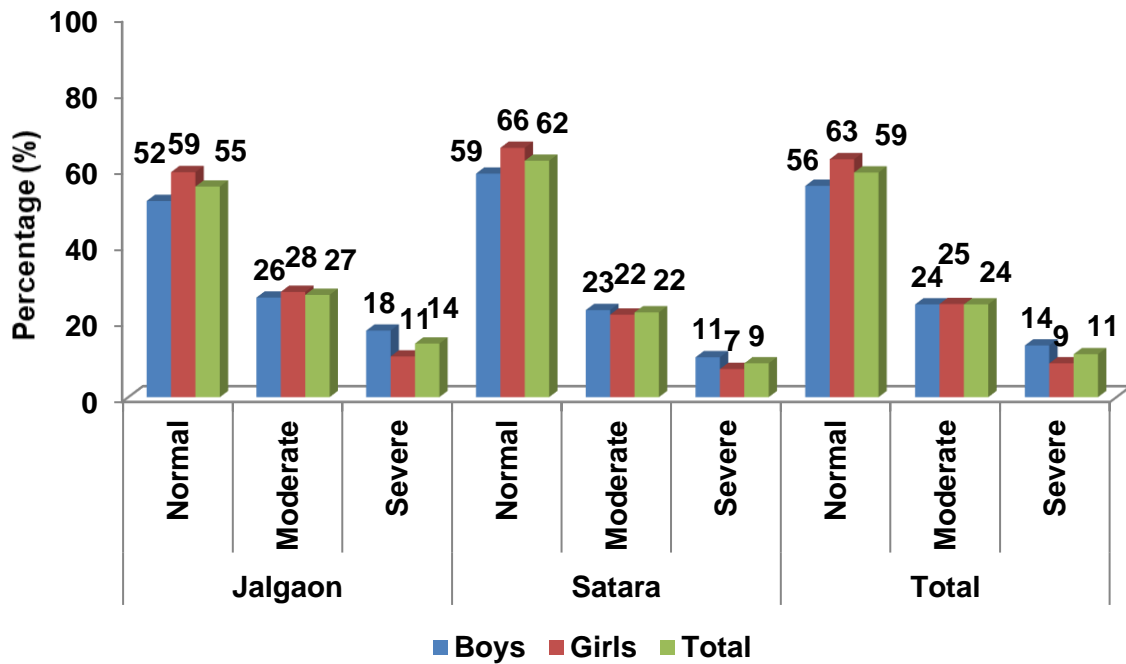
		Boys		Girls		Total	
		N	%	N	%	N	%
Jalgaon	Normal	122	48.2	134	53.2	256	50.7
	Mild	92	36.4	87	34.5	179	35.4
	Moderate	36	14.2	29	11.5	65	12.9
	Severe	3	1.2	2	0.8	5	1.0
Satara	Normal	168	56.2	174	56.9	342	56.5
	Mild	90	30.1	95	31.0	185	30.6
	Moderate	38	12.7	32	10.5	70	11.6
	Severe	3	1.0	5	1.6	8	1.3
Total	Normal	290	52.5	308	55.2	598	53.9
	Mild	182	33.0	182	32.6	364	32.8
	Moderate	74	13.4	61	10.9	135	12.2
	Severe	6	1.1	7	1.3	13	1.2

Table 28: Prevalence of Underweight among children (N,%)

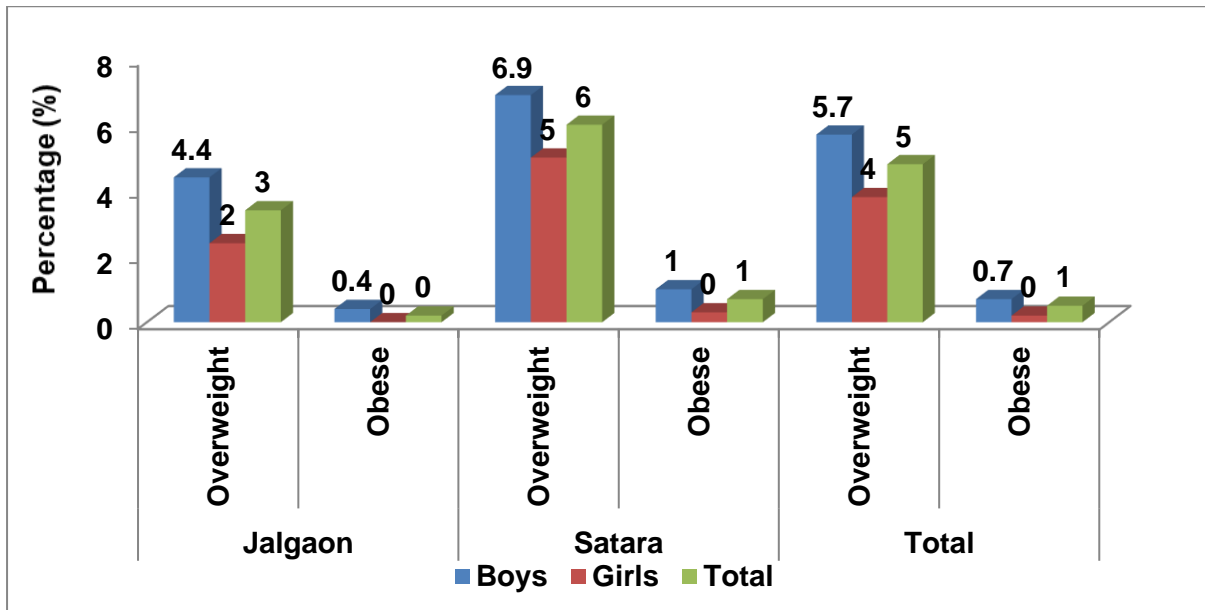
	Jalgaon			Satara			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Normal	23 (14.9)	30 (20.8)	53 (17.8)	34 (37)	39 (44.3)	73 (40.6)	57 (23.2)	69 (29.7)	126 (26.4)
Mild	50 (32.5)	45 (31.3)	95 (31.9)	33 (35.9)	31 (35.2)	64 (35.6)	83 (33.7)	76 (32.8)	159 (33.3)
Moderate	51 (33.1)	56 (38.9)	107 (35.9)	19 (20.7)	18 (20.5)	37 (20.6)	70 (28.5)	74 (31.9)	144 (30.1)
Severe	30 (19.5)	13 (9.0)	43 (14.4)	6 (6.5)	0 (0)	6 (3.3)	36 (14.6)	13 (5.6)	49 (10.3)

Value in parenthesis indicate percentage

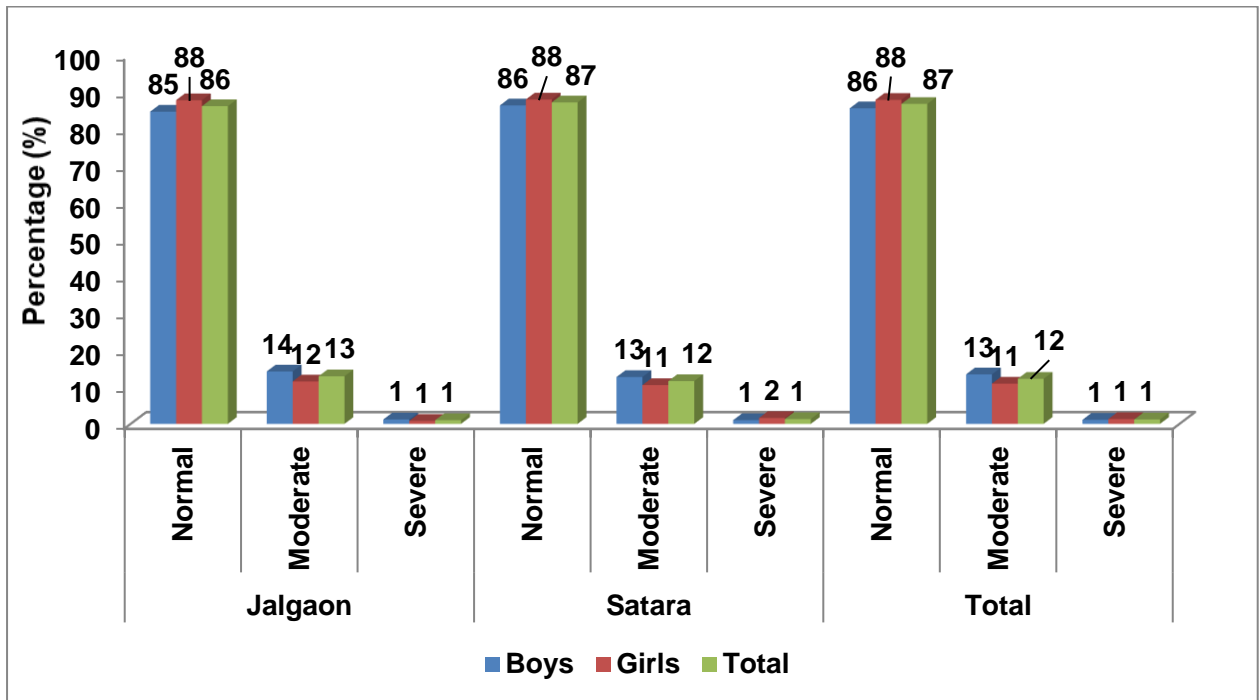
Graph-9: Prevalence of Thinness among children (N, %)



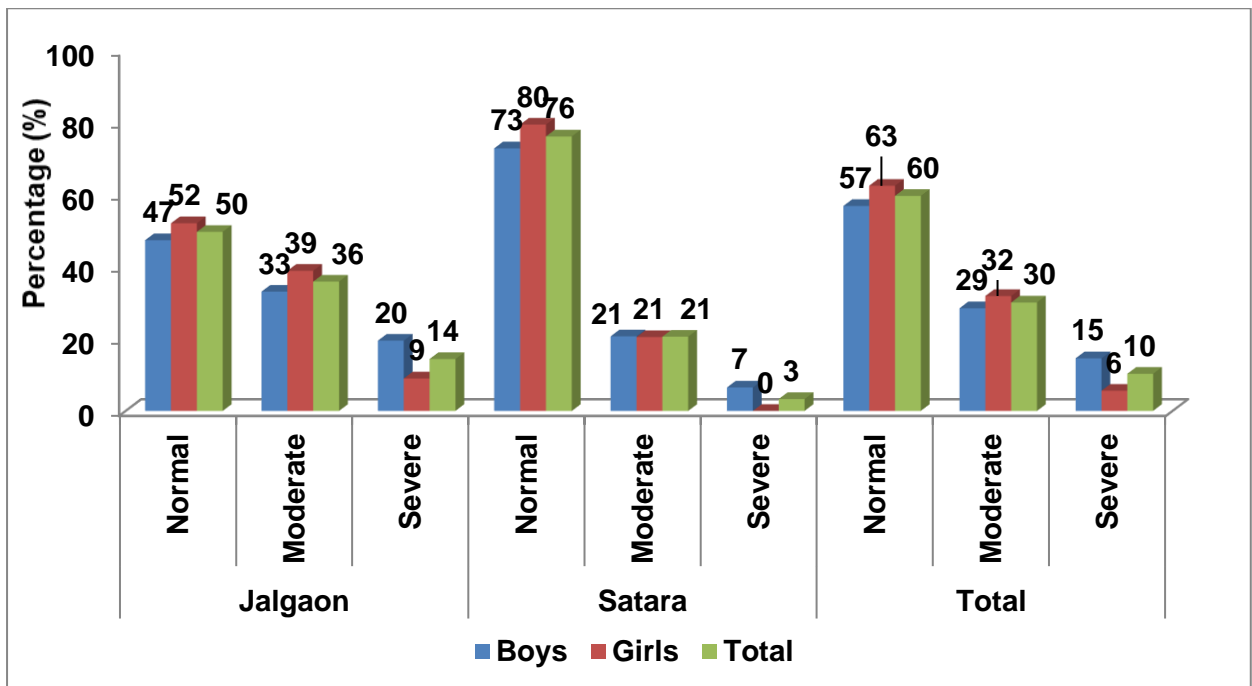
Graph-10: Prevalence of Overweight and Obesity among children (N,%)



Graph-11: Prevalence of Stunting among children (N,%)



Graph-12: Prevalence of Underweight among Children (N,%)



**Table 29: Prevalence of Underweight among Primary School Children
(upto 10 years of age) (N,%)**

		Jalgaon		Satara		Total	
		N	%	N	%	N	%
Girls	Normal	30	20.8	39	44.3	69	29.7
	Mild	45	31.3	31	35.2	76	32.8
	Mod	56	38.9	18	20.5	74	31.9
	Sev	13	9.0	0	0.0	13	5.6
Boys	Normal	23	14.9	34	37.0	57	23.2
	Mild	50	32.5	33	35.9	83	33.7
	Mod	51	33.1	19	20.7	70	28.5
	Sev	30	19.5	6	6.5	36	14.6
Total	Normal	53	17.8	73	40.6	126	26.4
	Mild	95	31.9	64	35.6	159	33.3
	Mod	107	35.9	37	20.6	144	30.1
	Sev	43	14.4	6	3.3	49	10.3

Mod – Moderate, Sev – Severe

Table 30: Prevalence of Stunting among Children (N,%)

Gender	Variable	Jalgaon						Satara						Total					
		Primary		Upper Primary		Total		Primary		Upper Primary		Total		Primary		Upper Primary		Total	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Girls	Normal	81	46.0	41	53.2	122	48.2	90	60.0	78	52.3	168	56.2	171	52.5	119	52.7	290	52.5
	Mild	67	38.1	25	32.5	92	36.4	48	32.0	42	28.2	90	30.1	115	35.3	67	29.6	182	33.0
	Mod	25	14.2	11	14.3	36	14.2	12	8.0	26	17.4	38	12.7	37	11.3	37	16.4	74	13.4
	Sev	3	1.7	0	0.0	3	1.2	0	0.0	3	2.0	3	1.0	3	0.9	3	1.3	6	1.1
Boys	Normal	93	51.7	41	56.9	134	53.2	92	60.9	82	52.9	174	56.9	185	55.9	123	54.2	308	55.2
	Mild	66	36.7	21	29.2	87	34.5	45	29.8	50	32.3	95	31.0	111	33.5	71	31.3	182	32.6
	Mod	20	11.1	9	12.5	29	11.5	12	7.9	20	12.9	32	10.5	32	9.7	29	12.8	61	10.9
	Sev	1	0.6	1	1.4	2	0.8	2	1.3	3	1.9	5	1.6	3	0.9	4	1.8	7	1.3
Total	Normal	174	48.9	82	55.0	256	50.7	182	60.5	160	52.6	342	56.5	356	54.2	242	53.4	598	53.9
	Mild	133	37.4	46	30.9	179	35.4	93	30.9	92	30.3	185	30.6	226	34.4	138	30.5	364	32.8
	Mod	45	12.6	20	13.4	65	12.9	24	8.0	46	15.1	70	11.6	69	10.5	66	14.6	135	12.2
	Sev	4	1.1	1	0.7	5	1.0	2	0.7	6	2.0	8	1.3	6	0.9	7	1.5	13	1.2

Mod – Moderate, Sev – Sever

Table 31: Prevalence of Thinness among Children (N,%)

Gender	Variable	Jalgaon						Satara						Total					
		Primary		Upper Primary		Total		Primary		Upper Primary		Total		Primary		Upper Primary		Total	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Girls	Normal	45	25.6	31	40.3	76	30.0	56	37.3	57	38.3	113	37.8	101	31.0	88	38.9	189	34.2
	Mild	57	32.4	17	22.1	74	29.2	43	28.7	40	26.8	83	27.8	100	30.7	57	25.2	157	28.4
	Mod	54	30.7	16	20.8	70	27.7	39	26.0	26	17.4	65	21.7	93	28.5	42	18.6	135	24.5
	Sev	18	10.2	9	11.7	27	10.7	4	2.7	18	12.1	22	7.4	22	6.7	27	11.9	49	8.9
Boys	Normal	36	20.0	29	40.3	65	25.8	45	29.8	41	26.5	86	28.1	81	24.5	70	30.8	151	27.1
	Mild	46	25.6	19	26.4	65	25.8	45	29.8	49	31.6	94	30.7	91	27.5	68	30.0	159	28.5
	Mod	51	28.3	15	20.8	66	26.2	37	24.5	33	21.3	70	22.9	88	26.6	48	21.1	136	24.4
	Sev	41	22.8	3	4.2	44	17.5	8	5.3	24	15.5	32	10.5	49	14.8	27	11.9	76	13.6
Total	Normal	81	22.8	60	40.3	141	27.9	101	33.6	98	32.2	199	32.9	182	27.7	158	34.9	340	30.6
	Mild	103	28.9	36	24.2	139	27.5	88	29.2	89	29.3	177	29.3	191	29.1	125	27.6	316	28.5
	Mod	105	29.5	31	20.8	136	26.9	76	25.2	59	19.4	135	22.3	181	27.5	90	19.9	271	24.4
	Sev	59	16.6	12	8.1	71	14.1	12	4.0	42	13.8	54	8.9	71	10.8	54	11.9	125	11.3

Mod – Moderate, Sev – Severe

Table 32: Prevalence of Overweight and Obesity among Children (N,%)

		Jalgaon						Satara						Total					
		Primary		Upper Primary		Total		Primary		Upper Primary		Total		Primary		Upper Primary		Total	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Girls	Ow	2	1.1	4	5.2	6	2.4	7	4.7	8	5.4	15	5.0	9	2.8	12	5.3	21	3.8
	Ob	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	1	0.3	1	0.3	0	0.0	1	0.2
Boys	Ow	5	2.8	6	8.3	11	4.4	13	8.6	8	5.2	21	6.9	18	5.4	14	6.2	32	5.7
	Ob	1	0.6	0	0.0	1	0.4	2	1.3	0	0.0	2	0.7	3	0.9	0	0.0	3	0.5
	M.Ob	0	0.0	0	0.0	0	0.0	1	0.7	0	0.0	1	0.3	1	0.3	0	0.0	1	0.2
Total	Ow	7	2.0	10	6.7	17	3.4	20	6.6	16	5.3	36	6.0	27	4.1	26	5.7	53	4.8
	Ob	1	0.3	0	0.0	1	0.2	3	1.0	0	0.0	3	0.5	4	0.6	0	0.0	4	0.4
	M.Ob	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0	1	0.2	1	0.2	0	0.0	1	0.1

Ow – Overweight, Ob – Obese, M.Ob – Morbid Obese

Table 33: Age wise Prevalence of Underweight (N,%)

Age	Boys		Girls		Total	
	Moderate	Severe	Moderate	Severe	Moderate	Severe
5	6 (8.6)	1 (2.8)	1 (1.4)	0 (0)	7 (4.9)	1 (2.0)
6	17 (24.3)	8 (22.2)	18 (24.3)	4 (30.8)	35 (24.3)	12 (24.5)
7	20 (28.6)	6 (16.7)	22 (29.7)	1 (7.7)	42 (29.2)	7 (14.3)
8	16 (22.9)	15 (41.7)	13 (17.6)	5 (38.5)	29 (20.1)	20 (40.8)
9	10 (14.3)	6 (16.7)	20 (27.0)	3 (23.1)	30 (20.8)	9 (18.4)
10	1 (1.4)	0 (0)	0 (0)	0 (0)	1 (0.7)	0 (0)
Total	70	36	74	13	144	49

Table 34: Age wise Prevalence of Stunting (N,%)

Age	Girls				Boys				Total			
	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe
5	1	1.4	0	0.0	1	1.6	0	0.0	2	1.5	0	0.0
6	5	6.8	0	0.0	7	11.5	1	14.3	12	8.9	1	7.7
7	6	8.1	0	0.0	6	9.8	0	0.0	12	8.9	0	0.0
8	4	5.4	0	0.0	12	19.7	2	28.6	16	11.9	2	15.4
9	9	12.2	0	0.0	1	1.6	0	0.0	10	7.4	0	0.0
10	9	12.2	2	33.3	3	4.9	0	0.0	12	8.9	2	15.4
11	15	20.3	1	16.7	10	16.4	0	0.0	25	18.5	1	7.7
12	17	23.0	2	33.3	14	23.0	3	42.9	31	23.0	5	38.5
13	7	9.5	0	0.0	7	11.5	1	14.3	14	10.4	1	7.7
14	1	1.4	1	16.7	0	0.0	0	0.0	1	0.7	1	7.7
15	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	74	100.0	6	100.0	61	100.0	7	100.0	135	100.0	13	100.0

Table 35: Age wise Prevalence of Thinness (N,%)

Age	Girls				Boys				Total			
	Mod		Sev		Mod		Sev		Mod		Sev	
5	1	0.7	0	0.0	6	4.4	1	1.3	7	2.6	1	0.8
6	17	12.6	4	8.2	19	14.0	7	9.2	36	13.3	11	8.8
7	14	10.4	3	6.1	16	11.8	9	11.8	30	11.1	12	9.6
8	18	13.3	6	12.2	16	11.8	15	19.7	34	12.5	21	16.8
9	17	12.6	3	6.1	14	10.3	11	14.5	31	11.4	14	11.2
10	19	14.1	6	12.2	15	11.0	8	10.5	34	12.5	14	11.2
11	27	20.0	10	20.4	23	16.9	6	7.9	50	18.5	16	12.8
12	15	11.1	14	28.6	20	14.7	9	11.8	35	12.9	23	18.4
13	4	3.0	3	6.1	7	5.1	9	11.8	11	4.1	12	9.6
14	3	2.2	0	0.0	0	0.0	1	1.3	3	1.1	1	0.8
15	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	135	100.0	49	100.0	136	100.0	76	100.0	271	100.0	125	100.0

Table 36: Age wise Prevalence of Overweight and Obesity(N,%)

Age	Female				Male				Total							
	Ow		Ob		Ow		Ob		MOb		Ow		Ob		MOb	
5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6	0	0.0	0	0.0	1	3.1	1	33.3	1	100.0	1	1.9	1	25.0	1	100.0
7	2	9.5	0	0.0	0	0.0	0	0.0	0	0.0	2	3.8	0	0.0	0	0.0
8	2	9.5	0	0.0	1	3.1	0	0.0	0	0.0	3	5.7	0	0.0	0	0.0
9	2	9.5	0	0.0	5	15.6	0	0.0	0	0.0	7	13.2	0	0.0	0	0.0
10	2	9.5	1	100.0	11	34.4	1	33.3	0	0.0	13	24.5	2	50.0	0	0.0
11	7	33.3	0	0.0	5	15.6	1	33.3	0	0.0	12	22.6	1	25.0	0	0.0
12	4	19.0	0	0.0	3	9.4	0	0.0	0	0.0	7	13.2	0	0.0	0	0.0
13	1	4.8	0	0.0	5	15.6	0	0.0	0	0.0	6	11.3	0	0.0	0	0.0
14	1	4.8	0	0.0	1	3.1	0	0.0	0	0.0	2	3.8	0	0.0	0	0.0
15	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	21	100.0	1	100.0	32	100.0	3	100.0	1	100.0	53	100.0	4	100.0	1	100.0

SECTION II: DIETARY PATTERN, MDM EVALUATION AND SATISFACTION LEVELS OF PARENTS, TEACHERS AND CHILDREN

Dietary pattern of the children

The data was elicited from 568 children to arrive at the typical dietary pattern of the children, which is projected in Table 37

The observations emerging from the dietary data collected are as follows (Table 37)

1. On an average the children had 5 meals a day of which MDM was one meal. Typical pattern consisted of breakfast, mid-morning, MDM lunch, evening snacks and Dinner (Graph-13).
2. The breakfast primarily consisted of tea/milk with biscuits, chapatti, pav, chivda/poha etc.
3. Before coming to school nearly 95% of the children used to have mid-morning meals. It usually consisted of puri/rotli-bhaji or khichdi or Varan bhat.
4. Evening snacks comprised of tea/milk with biscuits or chivda, mumra, kurkure or bread.
5. Nearly 95-99% of children consumed MDM at school.
6. A typical dinner comprised of Roti Vegetable or Khichadi or Varan Bhat.

Thus, the dietary pattern suggested that

- The children had 5 meals a day including the MDM
- Predominantly the children (63.5%) were non-vegetarians with frequency of consumption of non veg foods being once or twice a week. Eggs, Mutton, Chicken and Fish were the consumed by majority of the children (Table 38).
- The intake of milk was inadequate
- The intake of GLVs and vegetables was very poor. MDM contributed significantly to the nutrient intake of the diets of children.

Graph-13: Dietary pattern of school children of Jalgaon and Satara districts (N, %)

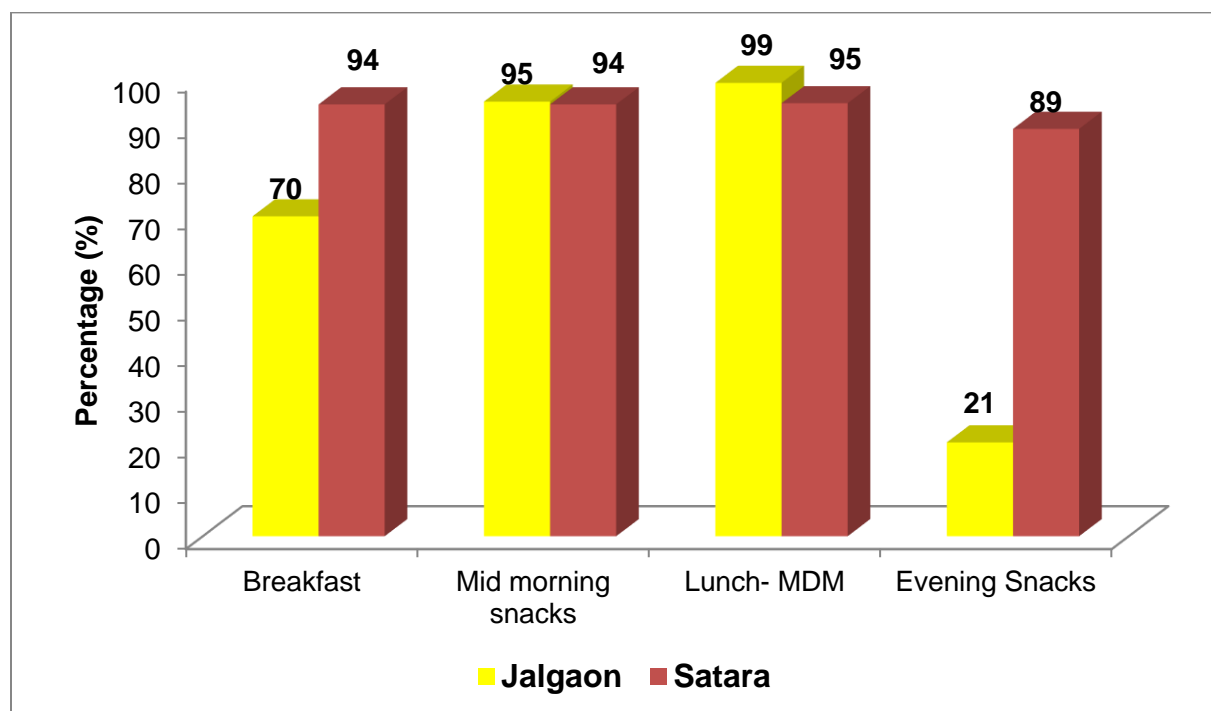


Table 37: Typical Dietary Pattern of School Children in Jalgaon and Satara

Breakfast	<ul style="list-style-type: none"> • Tea/milk and biscuits • Tea/ milk and chapatti/ pav/ egg/ chivda/ poha/ kurkure/ murmure
Mid morning	<ul style="list-style-type: none"> • Roti/ puri/ and subji (Bhaji) • Shiro • Varan bhat • Khichdi
Lunch	<ul style="list-style-type: none"> • Mid day meal- served in school
Evening	<ul style="list-style-type: none"> • Tea/ milk and Biscuits / chivda/ murmure/ kurkure/ bread
Dinner	<ul style="list-style-type: none"> • Roti and bhaji/ varan bhat

Table 38: Dietary pattern of school children of Jalgaon and Satara (n, %)

Jalgaon (N=219)							
Meal		Boys (N= 105)		Girls (N= 114)		Total (N= 219)	
		n	%	n	%	n	%
Breakfast	Always	76	72.38	77	67.54	153	69.9
	Never	29	27.62	37	32.46	66	30.1
Mid Morning	Yes	99	94.29	109	95.61	208	95.0
	No	6	5.71	5	4.39	11	5.0
Lunch-MDM	Yes	103	98.10	114	100.00	217	99.1
	No	2	1.90	0	0.00	2	0.9

Evening Snacks	Yes	20	19.05	25	21.93	45	20.5
	No	85	80.95	89	78.07	174	79.5
Satara (N=392)							
Meal		Boys (N=191)		Girls (N=201)		Total (N=392)	
		n	%	n	%	n	%
Breakfast	Always	178	93.19	192	95.52	370	94.39
	Never	13	6.81	9	4.48	22	5.61
Mid Morning	Yes	177	92.67	193	96.02	370	94.39
	No	14	7.33	8	3.98	22	5.61
Lunch-MDM	Yes	178	93.19	193	96.02	371	94.64
	No	13	6.81	8	3.98	21	5.36
Evening Snacks	Yes	167	87.43	182	90.55	349	89.03
	No	24	12.57	19	9.45	43	10.97

MDM Observations

1. All the children sat together to have meals. No discrimination was observed with regard to gender or caste. The social equity was maintained in all the schools. Prayers were recited before consuming meals.
2. The serving was primarily done by the Cook & Helpers. In few schools some girls & boys helped in giving plates to children.
3. The food served to the children was adequate but the portion size i.e. the Quantity of food served was not standardized. Depending on the child's request the food was served. Additional serving was given if the child demanded.
4. The serving plates were provided by the school.
5. School corridor was used for serving the food. Mats were placed for children to sit & eat
6. The utensils were clean.
7. The schools had provision of safe drinking water.
8. Majority of the schools had good hand washing facility. However, the children did not wash the hands before eating the meals.

SPOT OBSERVATIONS ON CONSUMPTION OF MDM

We made an attempt to quantify the food eaten by the school children by actually measuring the quantity of foods eaten by the children using standard cups. The table 39 gives the nutritive value of the foods consumed by the children. Based on the actual consumption by the children, the nutritive

value of the meals consumed was calculated and compared with the MDM norms. Majority of the children were able to meet the RDA norms set for MDM. However, looking at the prevalence of under nutrition, there is a need to conduct training and sensitization workshop on Healthy diets for all the stakeholders to improve the nutritional status.

Table 39: Spot Observations on Consumption of MDM

Recipe	Class	Cooked Volume Consumed(ml)	Nutrient Composition		MDM Norms	
			Energy (Kcal)	Protein (g)	Energy (Kcal)	Protein (g)
Jalgaon District						
Vatane Bhat	Primary	300 ml Vatane and 400 ml Bhat	934	26.3	450	12
Varan Bhat	Upper Primary	300 ml varan and 400ml bhat	518	12.5	700	20
Satara District						
Khichadi Bhat/Masala Bhat	Primary	250	489	15.8	450	12
Khichadi Bhat/Masala Bhat	Upper Primary	400	971	25.4	700	20

Preference given by the children

1. The children appreciated and were satisfied with the meals given in the MDM programme. They were also satisfied with the quantity that was being served as they were given a second helping on demand
2. The most preferred recipes by the children were Varan Bhat & Masala Khichadi (Table 40)

Overall the children liked the various recipes and enjoyed eating together with their classmates.

Teachers Perceptions

All the teachers interviewed were satisfied with the quality and quantity of food served. They also felt that MDM is beneficial to children and it had a positive Impact on the overall physical growth, health and cognitive development of the children. (Table 41)

- The teachers and principals were satisfied with the ongoing MDM programme.
- According to them the children are benefitted nutritionally with this programme

- They also reported that there is appreciable contribution & participation by the community to support MDM as well as for the school. They had contributed in the construction of taps, donating soaps, plates, vessels etc

Thus, the parents and teachers appreciated the MDM Programme.

Parents Perceptions (Table 42)

Around 16 parents were interviewed for their perception regarding MDM and the observations are as follows.

- Majority of the parents said that their child has meals at school
- Almost all the parents responded that their children had on all the days.
- The parents also reported that their children liked the food that was served through MDM Programme.
- All the parents were of the opinion that MDM was beneficial to their children and it had positive impact on physical growth, health and cognitive development
- The parents were satisfied with the quality of MDM and the quantity of MDM served to the children.
- The parents also reported that because the children eat together they don't make a fuss in eating at school.
- According to the parents the most acceptable and liked recipe by the children was rice & Dal, Masala Khichdi
- The suggestions given by parents were that in addition to the MDM meals that is being given, on certain days they may be provided additional food such as chiki, Rajageera Ladoo

Table 40:MDM preference by Children

MDM preference	Jalgaon (N=209)		Satara (N=359)		Total (N=568)	
	n	%	n	%	n	%
Khichdi	111	53.11	90	25.07	201.00	35.4
Varan bhat	51	24.40	116	32.31	167.00	29.4
Matki usal+ bhat	43	20.57	50	13.93	93.00	16.4
Harbhara usal + bhat	8	3.83	23	6.41	31.00	5.5
Vatana usal + bhat	18	8.61	24	6.69	42.00	7.4
Sambhar rice	0	0.00	12	3.34	12.00	2.1
Masala khichdi	0	0.00	113	31.48	113.00	19.9

Table 41: Teachers views on Mid Day Meal

TEACHERS REPONSES (N=6)	%
MDM is beneficial to children	100
Positive impact on <ul style="list-style-type: none"> • physical growth, health and cognitive development • Other- positive impact on attendance 	100 16.66
Satisfaction of quality of served MDM	100
Satisfaction of quantity served MDM	100

Table 42: Parents' Views on Mid Day Meal

PARENTS RESPONSES (N=16)	%
Child Eats MDM	
<ul style="list-style-type: none"> • Yes • No 	100.0 0
Frequency of eating MDM	
<ul style="list-style-type: none"> • 6 days 	100.0
Likes served food	
<ul style="list-style-type: none"> • Yes • No 	100.0 0
MDM is beneficial to children	
<ul style="list-style-type: none"> • Yes 	100.0
Positive impact on the following and	
<ul style="list-style-type: none"> • Physical growth (Yes) • Health (Yes) • Cognitive development <ul style="list-style-type: none"> ○ Yes ○ Can't say 	100.0 100.0 87.5 12.5
Satisfaction of quality of served MDM	
<ul style="list-style-type: none"> • Yes • No 	100.0 0
Satisfaction of quantity served MDM	
<ul style="list-style-type: none"> • Yes • Can't say 	100.0 0

Quality Assessment of Food Grains in School Kitchen

Visual quality assessment of food such as Cereals, Pulses, oil, spices (turmeric powder, onion garlic masala powder, cumin seeds, and mustard seeds), salt and vegetables were done at the school. It was good that packaged soyabean oil bottles/sachets were provided. Use of double fortified salt providing iodine and iron in cooking is also appreciated. As depicted in table 43, the visual rating of all ingredients was greater than 90%. Pulses quality needs to be improved.

Storage of Ingredients in School

The storage quality of food ingredients is displayed in Table 44. Oils, spices, salt and vegetables were stored well. However, the authorities need to evolve a mechanism to store rice and pulses to prevent pest infestation

Sanitation & Hygiene Practices at School

Sanitation & Hygiene practices at school is given in Table 45. Most of the schools had potable tap water supply with water purifier system. There was presence of soap for hand washing and for washing utensils. However, there is a need to improve the cleanliness of the utensils and the kitchen from the hygiene perspective

Kitchen Sheds

Most of the schools were having Kitchen sheds with LPG connection. At Satara prefabricated sheds were made which can be replicated at places where kitchen sheds are not available. Presence of fire extinguishers was an additional positive feature in kitchen shed. There is a need to make provision for good food storage practice at school kitchen

Thus, overall the storage facilities were good and there is scope for strengthening it further.

Table 43: Quality Assessment of Food Grains in School Kitchen (N, %)

Quality of Ingredients	Jalgaon (N=4)	Satara (N=9)	Total (N=13)	Rating
Cereals	4 (100)	8 (88.9)	12 (92.3)	*****
Pulses	4 (100)	7 (77.8)	11 (84.7)	****
Oils	4 (100)	9 (88.9)	13 (100)	*****
Spices	4 (100)	8 (88.9)	12 (92.3)	*****
Salt	4 (100)	8 (88.9)	12 (92.3)	*****
Vegetables	4 (100)	8 (88.9)	12 (92.3)	*****

Values in parenthesis indicate percentages

Table 44: Storage of Food Grains at School (N, %)

Storage of ingredients	Jalgaon (N=4)	Satara (N=9)	Total (N=13)	Rating
Cereals	3 (75)	5 (55.6)	8 (61.5)	**
Pulses	3 (75)	5 (55.6)	8 (61.5)	**
Oils	4 (100)	9 (100)	13 (100)	*****
Spices	4 (100)	8 (88.9)	12 (92.3)	*****
Salt	3 (75)	8 (88.9)	11 (84.6)	****
Vegetables	4 (100)	8 (88.9)	12 (92.3)	*****
Cleanliness of utensils	3 (75)	7 (77.8)	10 (76.9)	***
Cleanliness of kitchen	3 (75)	8 (88.9)	11 (84.7)	****

Values in parenthesis indicate percentages

Table 45: Sanitation and Hygiene Aspects in School Kitchen

Miscellaneous		Jalgaon (N=4)	Satara (N=9)	Total (N=13)	Rating
Source of water	Tap water	3 (75)	9 (100)	12 (92.3)	*****
	Bore well	1 (25)	0	1 (7.7)	
Hand washing soap	Present	3 (75)	9 (100)	12 (92.3)	*****
Soap for washing utensils	Present	3 (75)	9 (100)	12 (92.3)	*****

Values in parenthesis indicate percentages

≥ 90% *****, 80-89% ****, 70-79% ***, 60-69% **, <60% *

SECTION III:

SUGGESTED NUTRITIOUS RECIPES

1. Vegetable Ukadpendi

Primary			
Vegetable Ukadpendi	Amount (gm)	Energy (Kcal)	Protein (gm)
Wheat Flour	100	320	10.6
Besan	20	74	4.5
Onion	10	6	0.2
Tomato	10	2	0.1
Carrot	10	4	0.1
Spinach*	15	4	0.3
Oil	5	45	0
Total		509	15.8

*Can be replaced by seasonally available green leafy vegetables

Upper Primary			
Vegetable Ukadpendi	Amount (gm)	Energy (Kcal)	Protein (gm)
Wheat Flour	150	480	15.9
Besan	30	111	6.8
Onion	10	6	0.2
Tomato	10	2	0.1
Carrot	15	6	0.2
Spinach*	20	5	0.4
Oil	7.5	68	0
Total		678	23.6

*Can be replaced by seasonally available green leafy vegetables

2. Vegetable Pithla + Roti and Lapsi

Primary			
Vegetable Pithla + Roti	Amount (gm)	Energy (Kcal)	Protein (gm)
Wheat Flour (For Roti)	50	160	5.3
Besan	20	74	4.5
Jowar	20	67	2
Onion	10	6	0.2
Tomato	10	2	0.1
Carrot	15	6	0.2
Spinach*	15	4	0.3
Oil	2	18	0
Total		337	12.6
Lapsi			
Wheat Flour	30	96	3.2
Sugar/Jaggery	20	70	0.4
Oil	3	27	0
Total		193	3.6

*Can be replaced by seasonally available green leafy vegetables

Upper Primary			
Vegetable Pithla + Roti	Amount (gm)	Energy (Kcal)	Protein (gm)
Wheat Flour (For Roti)	75	240	7.9
Besan	30	110	6.8
Jowar	30	100	3
Onion	15	9	0.3
Tomato	15	3	0.1
Carrot	20	8	0.2
Spinach*	20	5	0.4
Oil	2	18	0
Total		493	18.7
Lapsi			
Wheat Flour	45	144	4.8
Sugar/Jaggery	25	88	0.5
Oil	4.5	41	0
Total		273	5.3

*Can be replaced by seasonally available green leafy vegetables

3. Fada Khichadi and Rajgeera Laddoo

Primary			
Fada Khichadi			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Broken Wheat	60	193	6.4
Green Gram Dal	20	65	4.8
Onion	20	11	0.4
Tomato	10	2	0.1
Potato	30	21	0.5
Carrot	15	6	0.2
Coriander leaves	5	2	0.2
Oil	2	18	0
Total		318	12.6
Rajgeera Laddoo			
Rajgeera	30	107	4
Sugar/Jaggery	20	71	0.4
Oil	3	27	0
Total		205	4.4

Upper Primary			
Fada Khichadi			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Broken Wheat	90	290	9.5
Green Gram Dal	30	98	7.2
Onion	30	17	0.6
Tomato	15	3	0.1
Potato	45	31	0.7
Carrot	20	8	0.2
Coriander leaves	7.5	2	0.3
Oil	3	27	0
Total		476	18.6
Rajgeera Laddoo			
Rajgeera	45	160	6.0
Sugar/ Jaggery	30	106	0.6
Oil	4.5	41	0
Total		307	6.6

4. Mix Usal+Rice and Sheera

Primary			
Mix Usal+Rice			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Green gram whole	10	29	2.3
Moth Beans	10	31	2
Potato	30	21	0.5
Onion	20	10	0.3
Tomato	20	4	0.2
Coriander leaves	10	4	0.4
Oil	2	18	0
Rice, raw milled	60	214	4.8
Total		331	10.5
Sheera			
Wheat Flour (whole)	30	96	3.2
Sugar/Jaggery	20	71	0.4
Oil	3	27	0
Total		194	3.6

Upper Primary			
Mix Usal+Rice			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Green gram whole	15	44	3.4
Moth Beans	15	47	3
Potato	45	31	0.7
Onion	30	17	0.6
Tomato	30	6	0.3
Coriander leaves	15	5	0.5
Oil	3	27	0
Rice, raw milled	90	321	7.2
Total		498	15.7
Sheera			
Wheat Flour	40	128	4.2
Jaggery/sugar	25	88	0.5
Oil	4.5	41	0
Total		257	4.7

5. Biryani with egg or chana groundnut chaat

Primary			
Biryani			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Rice	100	356	7.9
Onion	10	6	0.2
Tomato	20	4	0.2
Carrots	15	6	0.2
Spinach	10	2	0.2
Oil	2	18	0
Total		392	8.7
Egg			
Egg 1 piece (Boiled)	50	84	6.6
OR			
Chana groundnut chaat			
Bengal gram whole	20	57	3.8
Groundnut	10	57	2.6
Total		114	6.4

Upper Primary			
Biryani			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Rice	150	535	11.9
Onion	15	9	0.3
Tomato	30	6	0.3
Carrots	20	8	0.2
Spinach	15	4	0.3
Oil	5	45	0
Total		607	13
Egg			
Egg 1 piece (Boiled)	50	84	6.6
Chana Groundnut chaat			
Bengal gram whole	30	86	5.6
Groundnut	10	57	2.6
Oil	2.5	23	0
Total		166	8.2

6. Rice + Kala Chana Amti with Groundnut Chikki

Primary			
Rice + Kala Chana Amti			
Ingredients	Amount (gm)	Energy (Kcal)	Protein (gm)
Rice	60	213	4.8
Bengal Gram	30	86	5.6
Onion	10	6	0.2
Tomato	10	2	0.1
Carrot	15	6	0.2
Spinach*	20	5	0.4
Oil	2	18	0
Total		336	11.3
Groundnut Chikki			
Groundnut	20	114	5.2
Sugar/Jaggery	15	53	0.3
Oil	3	27	0
Total		194	5.5

Upper Primary			
Rice + Kala Chana Amti			
Rice with Kala Chana Amti	Amount (gm)	Energy (Kcal)	Protein (gm)
Rice	90	321	7.2
Bengal gram whole	45	129	8.5
Onion	20	11	0.4
Tomato	20	4	0.2
Carrot	30	12	0.3
Spinach*	45	11	1
Oil	3	27	0
Total		515	17.6
Groundnut Chikki	Amount (gm)	Energy (Kcal)	Protein (gm)
Groundnut	20	114	5.2
Sugar/Jaggery	15	53	0.3
Oil	3	27	0
Total		194	5.5

CONSOLIDATED SUGGESTED RECEIPES

Suggested Recipes	Primary		Upper Primary	
	Energy (Kcal)	Protein (gm)	Energy (Kcal)	Protein (gm)
1. Vegetable Ukadpendi	509	15.8	678	23.6
2. Vegetable Pithla+ Roti and Lapshi	530	16.2	766	24
3. Fada Khichadi and Rajgeera Laddoo	523	17	783	25.2
4. Mix Usal +Rice and Sheera	525	14.1	755	20.4
5. Biryani + Boiled Egg/ Chana Groundnut Chaat	476/506	15.3/15.2	691/733	19.6/21.2
6. Rice+ Kala Chara Amti and Chikki	530	16.8	709	23.1

CHAPTER: 7

BEST PRACTICES, ISSUES AND RECOMMENDATIONS

7.1 Best Practices :

- i. Buffer stock of foodgrains was maintained in all the visited schools.
- ii. E-transfer of cooking cost to schools directly from State.
- iii. Sneh Bhojan – Local people offer sweets, fruits, meals etc. on special occasions like marriage, birthdays etc. to the school children.
- iv. Constitution of Mid Day Meal committee consisting of parents and teachers in Satara district.
- v. Eating plates were available to all students in Government schools.
- vi. Kitchen gardens are maintained in some of the visited schools.
- vii. R.O. plants were available in some schools, these are donated through CSR / community.
- viii. Cooking competition organised in a school in Satara district.
- ix. LPG is being used as mode of fuel in almost all schools in Satara district.
- x. Mandatory health checkup of cook-cum-helpers, twice a year.
- xi. Mobile App is in use for furnishing information related to implementation of MDM.
- xii. All the children were washing hands before and after eating the mid day meal.

7.2 Issues

- i. About 41 % (out of a sample of 1110) children were under nourished.
- ii. Officials are not even aware about the information to be entered through MDM-MIS, which is an area of deep concern.
- iii. Entitlement of children under MDM was not displayed in any of the visited schools.
- iv. Kitchen-cum-stores not constructed in many schools.
- v. Storage bins are not available in some of the visited schools.
- vi. Urgent need to improve the consistency of dal that is being served to the children
- vii. BMI cut off for adults is being used for school children.
- viii. No follow-up action for children identified as malnourished.
- ix. Inadequate monitoring of scheme by State level officials.

7.3 RECOMMENDATIONS & SUGGESTIONS

The JRM members propose the following recommendations and suggestions

1. SCHOOL KITCHEN: Most of the schools had well maintained kitchen with basic infrastructure facilities. In several schools fabricated kitchen sheds were developed. In 4 school kitchens were not available and meals were cooked in open or in classroom. However, the following points may be considered for strengthening the kitchen area

- i) Construction of kitchen-cum-store in all eligible schools.
- ii) Provision of pest control in the kitchen area.
- iii) Regular sanitization of the kitchen.
- iv) Provision of exhaust fan to prevent pollution as cooking is being done in large quantities.
- v) Proper storage facilities for raw ingredients wherever lacking.
- vi) Standard weights, food weighing balance, measuring cups for weighing raw food ingredients should be provided in the schools.

2. MDM FOOD: The meals provided through MDM programme were well accepted by the children. The following suggestions may be considered for strengthening the programme:

- i) As most of the recipes were rice based recipes, in order to introduce variety, recipes made from locally available acceptable foods should be included in the menu. There is a need to develop various regional recipes of Maharashtra which are acceptable to children. The recipes should meet the nutritional norms.
- ii) The dietary pattern of the children revealed good intake of cereal pulse combination but poor intake of green leafy vegetables (GLV) & vegetables. The recipes may be targeted using the optimal levels of pulses and GLVs/Vegetables to meet the prescribed food and nutrition norms under MDM. At several places the dal was too thin in consistency. There is a need to improve the consistency of dal to improve palatability.
- iii) Kitchen gardens may be developed and strengthened to meet some requirements of the vegetables and fruits. Drumstick leaves may be incorporated in all the dal

- preparation. Seasonal fruits like Papaya, Guava, Chickoo can be served occasionally when the fruit ripens
- iv) As the nutritional norms are different for primary and upper primary children, the serving size/ration of cooked food should be standardized with local household measures to ensure appropriate ration of cooked food to the child. The schools should be provided with standard serving measures to ensure correct entitlement of food to primary and upper primary children as per the nutritional norms.
 - v) The weekly menu of MDM along with Logo and entitlement should be displayed in all the schools at strategic location. It should be visible to parents, children and teachers.
 - vi) The Government may consider the idea of developing a banner of MDM comprising of following points. MDM Logo, Children's entitlement, ration, menu with nutritive value, emergency contact number etc.
 - vii) Rice was the only predominant cereal that was being used. Other cereals like wheat flour may be used once in a while to break the monotony of the recipes.

3. NUTRITIONAL STATUS BASED ON ANTHROPOMETRY: Overall the nutritional status of the children revealed the prevalence of thinness, stunting and underweight being 35.7%, 13.4% and 40.4% respectively. The prevalence of overweight was 4.8% and obesity 0.5%. Strengthening the MDM programme by introducing variety in recipes which meet the nutritional norms may help to reduce the burden of undernutrition. The health services in terms of health checkup of children along with good coverage of Deworming tablets and once weekly IFA tablet needs to be appreciated. Looking into all these,

- i) Each child should have a record book of nutrition health index at entry level. The record should be maintained till the child leaves the school so that tracking can be done easily for monitoring of moderate and severely undernourished or anemic child.
- ii) It is appreciated that BMI of children is being calculated in schools. Those who are found undernourished may be given extra servings of meal.
- iii) The BMI cut off for children and adolescent to be used for in schools.

- iv) The school may be given appreciation/award for maximum coverage of MDM along with least prevalence of under nutrition and Iron deficiency anemia.

4. MONITORING & SUPERVISION: It is a vital component for the success of any programme.

- i) Display of Entitlement, Menu and Logo of Mid Day Meal Scheme at a prominent place, where it is easily visible to community.
- ii) The teachers reported that they tasted the food daily. However, tasting record register was not maintained on a daily basis, which is a missing component in the programme. Tasting register should be maintained.
- iii) The officials should visit the school regularly and enter the remarks in the school visitor register.
- iv) Unified formats may be designed for field level monitoring and each official should submit the same after visit to higher authority.
- v) The data coming from MIS system should be put to use.
- vi) SMC was very active in most of the schools. They supported in proper implementation of MDM. SMC members, who are given the responsibility of monitoring the ongoing MDM programme should be asked to enter their comments in the register.
- vii) The State may constitute State level Joint Review Mission teams for Mid Day Meal on the lines of Central Government. The teams may visit 5-6 districts in a year to oversee the implementation of the MDM scheme.
- viii) The centre may do a multicenter review project of 5 years by roping in the home science/foods and nutrition colleges of each state as stakeholders for evaluation. Such studies will bring in uniformity in evaluation and reporting along with the progress made by each state. The recommendations emerging may help to strengthen the largest nutrition programme of the country

5. TRAINING: Training on sensitization and capacity building maybe done on the following aspects

- i) Supervisors, Principals and teachers on the role and responsibilities for the effective implementation of MDM

- ii) Teachers, Parents and children about the MDM programme, the norms, menu etc.
- iii) Food safety training, food ration to be provided to the child, standardization of recipes, cooking methods needs to be taught to cooks and helpers & all the stake holders
- iv) Sanitation and Hygiene practices to be followed by children, cooks and helpers.
- v) Involvement of Home Science/ Foods and Nutrition college teachers for training , capacity building and development of IEC materials to impart key messages related to MDM.
- vi) Research in the area of MDM may be supported by the Government.
- vii) MDM week celebrations may be planned with the help of all stakeholders

6. SUPPORT OF CORPORATE SOCIAL RESPONSIBILITY: The Government may take the initiative for supporting and strengthening MDM programme with the help of CSR. The support may be in the following ways

- i) Plates for lunch, Kitchen sheds, storage facilities
- ii) Measuring cups, spoons, utensils, storage vessels, weighing balance etc.
- iii) Upgradation of Kitchen.
- iv) Development of Kitchen Garden in schools.
- v) Aprons, headgears, gloves, soaps, etc.

7. COMMUNITY PARTICIPATION: Parents/Community are important stakeholders who can play a significant role in strengthening the MDM programme. They can help by

- i) Intermittently supervising & monitoring the cooking & consumption of food by the children.
- ii) Giving feedback on the quality of food served to the children.
- iii) Recommend palatable acceptable local recipes through recipe competitions meeting the nutritional norms.
- iv) The good practice of Sneha Bhojan can be strengthened by encouraging the donor to give local seasonal fruits to children like Amla, Guava, Papaya etc. which is not reflected in their dietary pattern. Milk may also be provided in the Sneh Bhojan.

SWOC ANALYSIS

Strengths

- Providing good nutritious meals.
- Good record keeping at schools.
- Use of double fortified salt
- Health Checkup along with good coverage of deworming and once weekly IFA tablets
- Sneha Bhojan concept to be extended to all schools to provide healthy nutritious food
- Distribution of soyabean oil in bottles/pouches
- Well maintained district godown
- Availability of fire extinguishers at Kitchen sheds

Weakness

- Many schools do not have kitchens.
- Tasting Register with remarks to be strengthened.
- Thin Consistency watery Dal needs urgent attention & improvement
- Poor storage practice at kitchen shed with the presence of pests inside the grains
- Absence of display of entitlement rights with menu and MDM Logo

Opportunity

- Introduce variety of recipes by incorporating local available grains
- Use of millets
- Training of stake holders to sensitize about MDM
- CSR funds may be attempted to strengthen infrastructure
- SMC members may have active role in strengthening MDM by supporting various activities, monitoring & evaluation

Challenges

- Improve Kitchen Infrastructure
- Strengthening the Storage practice of grains
- Follow up of severe underweight, thin and stunted children to reduce the burden of malnutrition

On the whole, the Mid Day Meal Scheme has made strident improvements in the physiological, social and mental well-being of our school children; and it is expected to continue doing so for our future generations with greater efficiency and much better impact.



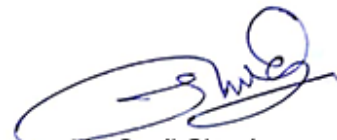
Mr. Dinesh Pradhan



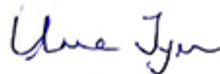
Mr. Bhupendra Kumar



Dr Swati Dhruv



Mr. Sunil Chauhan



Prof. Uma Iyer

Annexure-1

Publicity and awareness of the MDMS							
Sl.	District	Block	School	Enrolment	Display Menu	Menu decided by	Display of MDM Logo
1	Jalgaon	Dharangaon	ZP Primary School	126	Yes	District level	Yes
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	Yes	District level	Yes
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	Yes	District level	Yes
4	Jalgaon	Amalner	ZP School Savakheda	93	Yes	District level	Yes
5	Jalgaon	Chopada	ZP Primary School, Machale	121	Yes	District level	Yes
6	Jalgaon	Erandol	ZP Primary School BK	161	Yes	District level	Yes
7	Jalgaon	Erandol	ZP Primary	104	Yes	District level	Yes
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	Yes	District level	Yes
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	Yes	District level	No
10	Jalgaon	Jalgaon	Municipality Schools No.15	276	Yes	District level	No
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	Yes	District level	No
12	Jalgaon	Yawal	ZPS Aklud	59	Yes	District level	No
13	Jalgaon	Yawal	ZPPS Rajore	29	Yes	District level	No
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	Yes	District level	No
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	Yes	District level	No
16	Jalgaon	Bhushwal	ZP PS Boys	161	Yes	District level	No
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	Yes	District level	No
18	Jalgaon	Jamner	ZPPS Khadgaon	167	Yes	District level	No
19	Jalgaon	Jamner	ZPS Sonale	186	Yes	District level	No
20	Satara	Satara	GPS Sivaji Nagar	15	Yes	District level	No
21	Satara	Satara	GPS Karandi	65	Yes	District level	No
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	Yes	District level	No
23	Satara	Satara	ZP School Zarewad	19	Yes	District level	No
24	Satara	Charegaon	New English School Charegaon	437	Yes	District level	No
25	Satara	Charegaon	Shri Jagadamba High School	111	Yes	District level	No

Publicity and awareness of the MDMS							
Sl.	District	Block	School	Enrolment	Display Menu	Menu decided by	Display of MDM Logo
26	Satara	Patan	New English School Vihe	194	Yes	District level	No
27	Satara	Satara	ZP Pry School Chinchani	46	Yes	District level	No
28	Satara	Jaoli	ZP Primary Bhanang	92	Yes	District level	No
29	Satara	Jaoli	Z P Primary School Ozare	92	Yes	District level	No
30	Satara	Jaoli	ZP Primary School Bibhavi	86	Yes	District level	No
31	Satara	Jaoli	ZP Primary School Mamridi	84	Yes	District level	No
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	Yes	District level	No
33	Satara	Satara	ZPS Shakvewadi	74	Yes	District level	No
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	Yes	District level	No
35	Satara	Satara	ZPPS	283	Yes	District level	No
36	Satara	Satara	ZPPS Verne	254	Yes	District level	No
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	Yes	District level	No
38	Satara	Wai	ZPS Bhardachiwadi	80	Yes	District level	No
39	Satara	Mahavaleswar	ZP Panchgani	185	Yes	District level	No
40	Satara	Mahavaleswar	ZPPS Tayghat	19	Yes	District level	No

Annexure-II

Infrastructure available at schools' level									
Sl.	District	Block	School	Enrolment	Avaibility		Mode of Cooking		Remarks
					Kitchen	Kitchen devices	Eating plates		
1	Jalgaon	Dharangaon	ZP Primary School	126	Yes	Yes	Yes	LPG	
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	Yes	Yes	Yes	Firewood	
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	Yes	Yes	Yes	Firewood	
4	Jalgaon	Amalner	ZP School Savakheda	93	Yes	Yes	Yes	Firewood	
5	Jalgaon	Chopada	ZP Primary School, Machale	121	Yes	Yes	Yes	Firewood	
6	Jalgaon	Erandol	ZP Primary School BK	161	Yes	Yes	Yes	Firewood	
7	Jalgaon	Erandol	ZP Primary	104	Yes	Yes	Yes	Firewood	
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	Yes	Yes	Yes	Firewood	
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	Yes	Yes	Yes	LPG	
10	Jalgaon	Jalgaon	Munciplity Schools No.15	276	Yes	Yes	Yes	LPG	Addl. Classroom used as Kitchen
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	Yes	Yes	Yes	Firewood	Prefabricated
12	Jalgaon	Yawal	ZPS Aklud	59	Yes	Yes	Yes	Firewood	
13	Jalgaon	Yawal	ZPPS Rajore	29	Yes	Yes	Yes	Firewood	
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	Yes	Yes	Yes	Firewood	

Infrastructure available at schools' level									
Sl.	District	Block	School	Enrolment	Avaibility		Mode of Cooking		Remarks
					Kitchen	Kitchen devices	Eating plates		
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	Yes	Yes	Yes	Firewood	Addl. Classroom used as Kitchen
16	Jalgaon	Bhushwal	ZP PS Boys	161	Yes	Yes	Yes	Firewood	
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	Yes	Yes	Yes	LPG	Old classroom used as kitchen
18	Jalgaon	Jamner	ZPPS Khadgaon	167	Yes	Yes	Yes	Firewood	
19	Jalgaon	Jamner	ZPS Sonale	186	Yes	Yes	Yes	Firewood	
20	Satara	Satara	GPS Sivaji Nagar	15	Yes	Yes	Yes	LPG	Prefabricated Kitchen
21	Satara	Satara	GPS Karandi	65	Yes	Yes	Yes	LPG	Prefabricated Kitchen
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	Yes	Yes	Yes	LPG	Prefabricated Kitchen
23	Satara	Satara	ZP School Zarewad	19	Yes	Yes	Yes	LPG	Prefabricated Kitchen
24	Satara	Charegaon	New English School Charegaon	437	Yes	Yes	Yes	LPG and firewood	Prefabricated Kitchen, cooking outside due to use of LPG expensive
25	Satara	Charegaon	Shri Jagadamba High School	111	Yes	Yes	Yes	LPG and firewood	Prefabricated kitchen
26	Satara	Patan	New English School Vihe	194	Yes	Yes	Yes	LPG	
27	Satara	Satara	ZP Pry School Chinchani	46	Yes	Yes	Yes	LPG	

Infrastructure available at schools' level									
Sl.	District	Block	School	Enrolment	Avaibility		Mode of Cooking		Remarks
					Kitchen	Kitchen devices	Eating plates		
28	Satara	Jaoli	ZP Primary Bhanang	92	Yes	Yes	Yes	LPG	
29	Satara	Jaoli	Z P Primary School Ozare	92	Yes	Yes	Yes	LPG	
30	Satara	Jaoli	ZP Primary School Bibhavi	86	Yes	Yes	Yes	LPG	
31	Satara	Jaoli	ZP Primary School Mamridi	84	Yes	Yes	Yes	LPG	
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	Yes	Yes	Yes	LPG	
33	Satara	Satara	ZPS Shakvewadi	74	Yes	Yes	Yes	LPG	
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	Yes	Yes	Yes	LPG	
35	Satara	Satara	ZPPS	283	Yes	Yes	Yes	LPG	
36	Satara	Satara	ZPPS Verne	254	Yes	Yes	Yes	LPG	
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	Yes	Yes	Yes	LPG	
38	Satara	Wai	ZPS Bhirdachiwadi	80	Yes	Yes	Yes	LPG	
39	Satara	Mahavaleswar	ZP Panchgani	185	Yes	Yes	Yes	LPG	
40	Satara	Mahavaleswar	ZPPS Tayghat	19	Yes	Yes	Yes	LPG	

Annexure-III

Cook-cum-helpers details										
Sl.	District	Block	School	Enrolment	Cook-cum-helpers			Payment of Honorarium	Mode of payment	Honorarium received
					Male	Female	Total	Regular		
1	Jalgaon	Dharangaon	ZP Primary School	126	1	1	2	No	E-transfer	
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	0	4	4	No	E-transfer	
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	0	6	6	No	E-transfer	
4	Jalgaon	Amalner	ZP School Savakheda	93	1	1	2	No	E-transfer	
5	Jalgaon	Chopada	ZP Primary School, Machale	121	0	2	2	Yes	E-transfer	
6	Jalgaon	Erandol	ZP Primary School BK	161	0	2	2	Yes	E-transfer	
7	Jalgaon	Erandol	ZP Primary	104	0	2	2	Yes	E-transfer	
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	0	2	2	Yes	E-transfer	
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	0	3	3	Yes	E-transfer	till June 2018
10	Jalgaon	Jalgaon	Municipality Schools No.15	276	0	2	2	Yes	E-transfer	
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	0	2	2	Yes	E-transfer	till October, 2018
12	Jalgaon	Yawal	ZPS Aklud	59	0	2	2	Yes	E-transfer	till October, 2018
13	Jalgaon	Yawal	ZPPS Rajore	29	0	1	1	Yes	E-transfer	
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	0	2	2	Yes	E-transfer	
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	0	3	3	Yes	E-transfer	till October, 2018
16	Jalgaon	Bhushwal	ZP PS Boys	161	0	2	2	Yes	E-transfer	
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	0	6	6	Yes	E-transfer	
18	Jalgaon	Jamner	ZPPS Khadgaon	167	0	2	2	yes	E-transfer	till Novembe, 2018
19	Jalgaon	Jamner	ZPS Sonale	186	0	2	2	yes	E-transfer	till August, 2018
20	Satara	Satara	GPS Sivaji Nagar	15	0	1	1	yes	E-transfer	

Cook-cum-helpers details										
Sl.	District	Block	School	Enrolment	Cook-cum-helpers			Payment of Honorarium	Mode of payment	Honorarium received
					Male	Female	Total	Regular		
21	Satara	Satara	GPS Karandi	65	0	2	2	yes	E-transfer	
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	0	2	2	yes	E-transfer	
23	Satara	Satara	ZP School Zarewad	19	0	1	1	yes	E-transfer	
24	Satara	Charegaon	New English School Charegaon	437	0	6	6	yes	E-transfer	till July, 2018
25	Satara	Charegaon	Shri Jagadamba High School	111	1	1	2	yes	E-transfer	
26	Satara	Patan	New English School Vihe	194	0	2	2	yes	E-transfer	
27	Satara	Satara	ZP Pry School Chinchani	46	0	2	2	yes	E-transfer	till Sept, 2018
28	Satara	Jaoli	ZP Primary Bhanang	92	0	2	2	yes	E-transfer	
29	Satara	Jaoli	Z P Primary School Ozare	92	1	1	2	yes	E-transfer	till Sept, 2018
30	Satara	Jaoli	ZP Primary School Bibhavi	86	0	2	2	yes	E-transfer	till Sept, 2018
31	Satara	Jaoli	ZP Primary School Mamridi	84	0	2	2	yes	E-transfer	till Aug, 2018
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	0	2	2	yes	E-transfer	till Sept, 2018
33	Satara	Satara	ZPS Shakvewadi	74	0	2	2	yes	E-transfer	till Sept, 2018
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	0	2	2	yes	E-transfer	till Sept, 2018
35	Satara	Satara	ZPPS	283	0	3	3	yes	E-transfer	
36	Satara	Satara	ZPPS Verne	254	0	3	3	yes	E-transfer	
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	0	3	3	yes	E-transfer	till Sept, 2018
38	Satara	Wai	ZPS Bhirdachiwadi	80	0	2	2	yes	E-transfer	till Sept, 2018
39	Satara	Mahavaleswar	ZP Panchgani	185	0	4	4	yes	E-transfer	
40	Satara	Mahavaleswar	ZPPS Tayghat	19	0	1	1	yes	E-transfer	till Sept, 2018

Inspection by higher authorities							
Sl.	District	Block	School	Enrolment	Inspection	Inspected by	
					Carried out	CRC/BRC	District officials
1	Jalgaon	Dharangaon	ZP Primary School	126	Yes	Monthly	Quarterly
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	Yes	Monthly	Quarterly
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	Yes	Monthly	Quarterly
4	Jalgaon	Amalner	ZP School Savakheda	93	Yes	Monthly	Quarterly
5	Jalgaon	Chopada	ZP Primary School, Machale	121	Yes	Monthly	Occasionally
6	Jalgaon	Erandol	ZP Primary School BK	161	Yes	Monthly	Occasionally
7	Jalgaon	Erandol	ZP Primary	104	Yes	Monthly	Occasionally
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	Yes	Monthly	Occasionally
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	Yes	Monthly	No
10	Jalgaon	Jalgaon	Munciplity Schools No.15	276	Yes	Monthly	No
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	Yes	Monthly	No
12	Jalgaon	Yawal	ZPS Aklud	59	Yes	Monthly	No
13	Jalgaon	Yawal	ZPPS Rajore	29	Yes	Monthly	No
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	Yes	Monthly	No
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	Yes	Monthly	No
16	Jalgaon	Bhushwal	ZP PS Boys	161	Yes	Monthly	No
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	Yes	Monthly	No
18	Jalgaon	Jamner	ZPPS Khadgaon	167	Yes	Monthly	No
19	Jalgaon	Jamner	ZPS Sonale	186	Yes	Monthly	No
20	Satara	Satara	GPS Sivaji Nagar	15	Yes	Monthly	Once in a year
21	Satara	Satara	GPS Karandi	65	Yes	Monthly	Once in a year
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	Yes	Monthly	Once in a year
23	Satara	Satara	ZP School Zarewad	19	Yes	Monthly	Once in a year
24	Satara	Charegaon	New English School Charegaon	437	Yes	Monthly	Once in a year
25	Satara	Charegaon	Shri Jagadamba High School	111	Yes	Monthly	Once in a year

Inspection by higher authorities							
Sl.	District	Block	School	Enrolment	Inspection	Inspected by	
					Carried out	CRC/BRC	District officials
26	Satara	Patan	New English School Vihe	194	Yes	Monthly	Once in a year
27	Satara	Satara	ZP Pry School Chinchani	46	Yes	Monthly	Once in a year
28	Satara	Jaoli	ZP Primary Bhanang	92	Yes	Monthly	Once in a year
29	Satara	Jaoli	Z P Primary School Ozare	92	Yes	Monthly	Once in a year
30	Satara	Jaoli	ZP Primary School Bibhavi	86	Yes	Monthly	Once in a year
31	Satara	Jaoli	ZP Primary School Mamridi	84	Yes	Monthly	Once in a year
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	Yes	Monthly	Once in a year
33	Satara	Satara	ZPS Shakvewadi	74	Yes	Monthly	No
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	Yes	Monthly	No
35	Satara	Satara	ZPPS	283	Yes	Monthly	No
36	Satara	Satara	ZPPS Verne	254	Yes	Monthly	No
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	Yes	Monthly	No
38	Satara	Wai	ZPS Bhirdachiwadi	80	Yes	Monthly	No
39	Satara	Mahavaleswar	ZP Panchgani	185	Yes	Monthly	No
40	Satara	Mahavaleswar	ZPPS Tayghat	19	Yes	Monthly	No

School Health Programme								
Sl.	District	Block	School	Enrolment	Children Health Card available at schools	Health Check-up	Doctor Visit	Distribution of (IFA,Dworming, Vitamin -A)
1	Jalgaon	Dharangaon	ZP Primary School	126	Yes	Yes	in 6 month	Yes
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	Yes	Yes	in 6 month	Yes
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	Yes	Yes	in 6 month	Yes
4	Jalgaon	Amalner	ZP School Savakheda	93	Yes	Yes	in 6 month	Yes
5	Jalgaon	Chopada	ZP Primary School, Machale	121	Yes	Yes	in 6 month	Yes
6	Jalgaon	Erandol	ZP Primary School BK	161	Yes	Yes	Onece in year	Yes
7	Jalgaon	Erandol	ZP Primary	104	Yes	Yes	Onece in year	Yes
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	Yes	Yes	Onece in year	Yes
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	Yes	Yes	Onece in year	Yes
10	Jalgaon	Jalgaon	Municipality Schools No.15	276	Yes	Yes		yes
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	Yes	Yes		yes
12	Jalgaon	Yawal	ZPS Aklud	59	Yes	Yes		yes
13	Jalgaon	Yawal	ZPPS Rajore	29	Yes	Yes		yes
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	Yes	Yes		yes

School Health Programme								
Sl.	District	Block	School	Enrolment	Children Health Card available at schools	Health Check-up	Doctor Visit	Distribution of (IFA,Dworming, Vitamin -A)
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	Yes	Yes		yes
16	Jalgaon	Bhushwal	ZP PS Boys	161	Yes	Yes		yes
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	Yes	Yes		yes
18	Jalgaon	Jamner	ZPPS Khadgaon	167	Yes	Yes		yes
19	Jalgaon	Jamner	ZPS Sonale	186	Yes	Yes		yes
20	Satara	Satara	GPS Sivaji Nagar	15	Yes	Yes		yes
21	Satara	Satara	GPS Karandi	65	Yes	Yes		yes
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	Yes	Yes		yes
23	Satara	Satara	ZP School Zarewad	19	Yes	Yes		yes
24	Satara	Charegaon	New English School Charegaon	437	Yes	Yes		yes
25	Satara	Charegaon	Shri Jagadamba High School	111	Yes	Yes		yes
26	Satara	Patan	New English School Vihe	194	Yes	Yes		yes
27	Satara	Satara	ZP Pry School Chinchani	46	Yes	Yes		yes
28	Satara	Jaoli	ZP Primary Bhanang	92	Yes	Yes		yes
29	Satara	Jaoli	Z P Primary School Ozare	92	Yes	Yes		yes
30	Satara	Jaoli	ZP Primary School Bibhavi	86	Yes	Yes		yes

School Health Programme								
Sl.	District	Block	School	Enrolment	Children Health Card available at schools	Health Check-up	Doctor Visit	Distribution of (IFA,Dworming, Vitamin -A)
31	Satara	Jaoli	ZP Primary School Mamridi	84	Yes	Yes		yes
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	Yes	Yes		yes
33	Satara	Satara	ZPS Shakvewadi	74	Yes	Yes		yes
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	Yes	Yes		yes
35	Satara	Satara	ZPPS	283	Yes	Yes		yes
36	Satara	Satara	ZPPS Verne	254	Yes	Yes		yes
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	Yes	Yes		yes
38	Satara	Wai	ZPS Bhirdachiwadi	80	Yes	Yes		yes
39	Satara	Mahavaleswar	ZP Panchgani	185	Yes	Yes		yes
40	Satara	Mahavaleswar	ZPPS Tayghat	19	Yes	Yes		yes

Contingency plan at school level							
Sl.	District	Block	School	Enrolment	Availability of contingency plan	Tasting Roster	Before Siring meal tasted by
1	Jalgaon	Dharangaon	ZP Primary School	126	No	Yes	Teacher/HM
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	No	Yes	Teacher/HM
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	No	Yes	Teacher/HM
4	Jalgaon	Amalner	ZP School Savakheda	93	No	Yes	Teacher/HM
5	Jalgaon	Chopada	ZP Primary School, Machale	121	No	Yes	Teacher/HM
6	Jalgaon	Erandol	ZP Primary School BK	161	No	Yes	Teacher/HM/SMC members
7	Jalgaon	Erandol	ZP Primary	104	No	Yes	Teacher/Perants/SMC
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	No	Yes	Teacher/Perants/SMC
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	No	Yes	Teacher/Perants/SMC
10	Jalgaon	Jalgaon	Municipality Schools No.15	276	No	Yes	Teacher/Perants/SMC
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	Yes	Yes	Teacher/Perants/SMC
12	Jalgaon	Yawal	ZPS Aklud	59	Yes	Yes	Teacher/Perants/SMC
13	Jalgaon	Yawal	ZPPS Rajore	29	No	Yes	Teacher/Perants/SMC
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	No	Yes	Teacher/Perants/SMC
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	Yes	Yes	Teacher/Perants/SMC
16	Jalgaon	Bhushwal	ZP PS Boys	161	Yes	Yes	Teacher/Perants/SMC

Contingency plan at school level							
Sl.	District	Block	School	Enrolment	Availability of contingency plan	Tasting Roster	Before Siring meal tasted by
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	Yes	Yes	Teacher/Perants/SMC
18	Jalgaon	Jamner	ZPPS Khadgaon	167	No	Yes	Teacher/Perants/SMC
19	Jalgaon	Jamner	ZPS Sonale	186	No	Yes	Teacher/Perants/SMC
20	Satara	Satara	GPS Sivaji Nagar	15	Yes	Yes	Teacher/Perants/SMC
21	Satara	Satara	GPS Karandi	65	Yes	Yes	Teacher/Perants/SMC
22	Satara	Satara	Shri Shamrtha Schools Karnai	29	Yes	Yes	Teacher/Perants/SMC
23	Satara	Satara	ZP School Zarewad	19	Yes	Yes	Teacher/Perants/SMC
24	Satara	Charegaon	New English School Charegaon	437	Yes	Yes	Teacher/Perants/SMC
25	Satara	Charegaon	Shri Jagadamba High School	111	Yes	Yes	Teacher/Perants/SMC
26	Satara	Patan	New English School Vihe	194	Yes	Yes	Teacher/Perants/SMC
27	Satara	Satara	ZP Pry School Chinchani	46	Yes	Yes	Teacher/Perants/SMC
28	Satara	Jaoli	ZP Primary Bhanang	92	Yes	Yes	Teacher/Perants/SMC
29	Satara	Jaoli	Z P Primary School Ozare	92	Yes	Yes	Teacher/Perants/SMC
30	Satara	Jaoli	ZP Primary School Bibhavi	86	Yes	Yes	Teacher/Perants/SMC
31	Satara	Jaoli	ZP Primary School Mamridi	84	Yes	Yes	Teacher/Perants/SMC
32	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	Yes	Yes	Teacher/Perants/SMC
33	Satara	Satara	ZPS Shakvewadi	74	Yes	Yes	Teacher/Perants/SMC

Contingency plan at school level							
Sl.	District	Block	School	Enrolment	Availability of contingency plan	Tasting Roster	Before Sering meal tasted by
34	Satara	Satara	ZPPS Bhavatgaon Wadi	69	Yes	Yes	Teacher/Perants/SMC
35	Satara	Satara	ZPPS	283	Yes	Yes	Teacher/Perants/SMC
36	Satara	Satara	ZPPS Verne	254	Yes	Yes	Teacher/Perants/SMC
37	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	Yes	Yes	Teacher/Perants/SMC
38	Satara	Wai	ZPS Bhardachiwadi	80	Yes	Yes	Teacher/Perants/SMC
39	Satara	Mahavaleswar	ZP Panchgani	185	Yes	Yes	Teacher/Perants/SMC
40	Satara	Mahavaleswar	ZPPS Tayghat	19	Yes	Yes	Teacher/Perants/SMC

Annexure-VII

Coverage of Children during 10 days of JRM Visit															
Sl.	District	Block	School	Enrolment	1st day of Visit	2nd Day	3rd Day	4th Day	5th Day	6th Day	7th Day	8th Day	9th Day	10th Day	Average
1	Jalgaon	Dharangaon	ZP Primary School	126	118	120	111	111	110	110	110	102	100	111	110
2	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	190	178	184	183	183	183	182	172	163	155	145	173
3	Jalgaon	Dharangaon	Indira Ghandi M. Vidhalaya	638	588	614	618	611	615	607	583	544	495	475	575
4	Jalgaon	Amalner	ZP School Savakheda	93	71	60	65	65	65	60	60	35	45	20	55
5	Jalgaon	Chopada	ZP Primary School, Machale	121	82	98	95	96	96	98	96	84	87	63	90
6	Jalgaon	Erandol	ZP Primary School BK	161	130	140	145	62	72	100	100	147	127	151	117
7	Jalgaon	Erandol	ZP Primary	104	55	79	74	79	70	77	77	74	68	67	72
8	Jalgaon	Erandol	ZP Pry. School Patarkheda	49	34	34	34	33	33	37	37	36	35	45	36
9	Jalgaon	Jalgaon	Yadav Devchand Patil Middle Schools Mehrun	561	350	357	350	354	354	223	230	53	53	92	242
10	Jalgaon	Jalgaon	Municipality Schools No.15	276	225	257	255	250	242	193	193	260	270	269	241
11	Jalgaon	Yawal	ZP Central Schools Anzana	125	110	114	109	111	111	105	100	105	92	107	106
12	Jalgaon	Yawal	ZPS Aklud	59	47	50	49	48	48	46	44	47	48	48	48

Coverage of Children during 10 days of JRM Visit															
Sl.	District	Block	School	Enrolment	1st day of Visit	2nd Day	3rd Day	4th Day	5th Day	6th Day	7th Day	8th Day	9th Day	10th Day	Average
13	Jalgaon	Yawal	ZPPS Rajore	29	29	29	27	29	29	29	28	29	29	25	28
14	Jalgaon	Yawal	Nutan Vidya Mandir Ajale	137	116	123	127	126	125	124	109	102	98	102	115
15	Jalgaon	Bhushwal	Jijami Prathmik Vidya Mandir	240	230	210	209	210	222	220	224	220	213	214	217
16	Jalgaon	Bhushwal	ZP PS Boys	161	106	112	119	119	139	133	144	144	143	138	130
17	Jalgaon	Bhushwal	Raja Ram Dhondu Madhyamik vidyalaya	501	386	376	405	410	403	367	343	314	314	308	363
18	Jalgaon	Jamner	ZPPS Khadgaon	167	142	138	163	160	151	152	152	152	128	101	144
19	Jalgaon	Jamner	ZPS Sonale	186	156	163	169	166	166	167	161	158	161	159	163
			Total	3924	3153	3258	3307	3223	3234	3030	2963	2769	2661	2640	3024
			Jalgaon		80%	83%	84%	82%	82%	77%	76%	71%	68%	67%	77%

Annexure-VIII

Coverage of Children during 10 days of JRM Visit															
Sl.	District	Block	School	Enrolment	1st day of Visit	2nd Day	3rd Day	4th Day	5th Day	6th Day	7th Day	8th Day	9th Day	10th Day	Average
1	Satara	Satara	GPS Sivaji Nagar	15	14	14	14	14	15	15	15	15	15	15	15
2	Satara	Satara	GPS Karandi	65	65	65	65	65	65	65	65	64	64	64	65
3	Satara	Satara	Shri Shamrtha Schools Karnai	29	28	29	29	29	29	29	29	29	29	29	29
4	Satara	Satara	ZP School Zarewad	19	19	19	19	19	19	19	19	19	19	19	19
5	Satara	Charegaon	New English School Charegaon	437	404	434	420	422	426	426	426	426	418	425	423
6	Satara	Charegaon	Shri Jagadamba High School	111	109	110	110	110	110	111	111	102	101	110	108
7	Satara	Patan	New English School Vihe	194	191	194	194	194	194	194	194	194	194	194	194
8	Satara	Satara	ZP Pry School Chinchani	46	46	46	46	46	46	46	46	46	46	46	46
9	Satara	Jaoli	ZP Primary Bhanang	92	92	92	92	92	92	92	92	92	92	92	92
10	Satara	Jaoli	Z P Primary School Ozare	92	92	92	92	92	92	92	92	92	92	92	92
11	Satara	Jaoli	ZP Primary School Bibhavi	86	85	86	86	86	86	86	86	86	86	86	86
12	Satara	Jaoli	ZP Primary School Mamridi	84	82	83	83	83	83	83	83	83	83	83	83

Coverage of Children during 10 days of JRM Visit

Sl.	District	Block	School	Enrolment	1st day of Visit	2nd Day	3rd Day	4th Day	5th Day	6th Day	7th Day	8th Day	9th Day	10th Day	Average
13	Satara	Jaoli	Shree Bhairamath V.M. Kelghar	145	141	143	144	145	144	145	144	144	144	144	144
14	Satara	Satara	ZPS Shakvewadi	74	74	74	74	74	74	74	74	74	74	74	74
15	Satara	Satara	ZPPS Bhavatgaon Wadi	69	68	69	69	69	69	69	69	69	69	69	69
16	Satara	Satara	ZPPS	283	282	282	283	281	269	278	276	270	272	272	277
17	Satara	Satara	ZPPS Verne	254	253	252	253	253	253	253	253	253	253	246	252
18	Satara	Wai	Mahatma Gandhi Vidyalaya, Pachwad	208	188	180	186	177	199	200	200	188	195	195	191
19	Satara	Wai	ZPS Bhirdachiwadi	80	80	80	78	80	80	80	80	80	80	80	80
20	Satara	Mahavaleswar	ZP Panchgani	185	178	178	175	161	183	185	183	184	175	161	176
21	Satara	Mahavaleswar	ZPPS Tayghat	19	19	19	19	19	19	19	19	19	19	19	19
				2587	2510	2541	2531	2511	2547	2561	2556	2529	2520	2515	2532
			Satara Districts		97%	98%	98%	97%	98%	99%	99%	98%	97%	97%	98%

Maharashtra AMS - Report (on 7-December, 2018)

S.No.	District	Total Schools	Total Enrolment	Reported Schools	Reported Schools Enrolment	Meals Served	Meals Served Percentage
1	AHMADNAGAR	4543	655668	3956	578963	408729	[70.6 %]
2	AKOLA	1426	231008	1091	180921	109765	[60.67 %]
3	AMRAVATI	2397	364931	1837	301025	187909	[62.42 %]
4	AURANGABAD	2991	564023	2479	501258	344874	[68.8 %]
5	BHANDARA	1125	162052	974	147837	95348	[64.5 %]
6	BID	3265	458566	2711	404718	262461	[64.85 %]
7	BULDANA	1991	383569	1625	332545	218179	[65.61 %]
8	CHANDRAPUR	2028	239459	1692	207959	142844	[68.69 %]
9	DHULE	1668	330284	1367	277258	173288	[62.5 %]
10	GADCHIROLI	1778	128365	927	83559	57881	[69.27 %]
11	GONDIYA	1357	169949	1066	141575	91651	[64.74 %]
12	HINGOLI	1029	169061	871	149643	107899	[72.1 %]
13	JALGAON	2745	618334	2252	516620	313423	[60.67 %]
14	JALNA	1877	299232	1542	262831	183828	[69.94 %]
15	KOLHAPUR	3048	490106	2650	438856	305144	[69.53 %]
16	LATUR	2134	400119	1802	349738	234262	[66.98 %]
17	MUMBAI (BMC)	1517	426884	977	288506	190324	[65.97 %]
18	MUMBAI (DYD)	610	446423	355	285028	140036	[49.13 %]
19	NAGPUR	2859	471894	2336	399964	240212	[60.06 %]
20	NANDED	3018	482515	2184	358789	233148	[64.98 %]
21	NANDURBAR	1719	227738	1252	189327	120025	[63.4 %]
22	NASHIK	4417	822801	3488	670045	462614	[69.04 %]
23	OSMANABAD	1526	219799	1314	192170	146112	[76.03 %]

Maharashtra AMS - Report (on 7-December, 2018)

S.No.	District	Total Schools	Total Enrolment	Reported Schools	Reported Schools Enrolment	Meals Served	Meals Served Percentage
24	PALGHAR	2424	314491	1690	230375	152827	[66.34 %]
25	PARBHANI	1556	287163	1270	248136	176813	[71.26 %]
26	PUNE	5488	970182	4529	818293	558021	[68.19 %]
27	RAIGARH	3247	273835	2034	195514	110533	[56.53 %]
28	RATNAGIRI	3096	204304	2039	155458	88517	[56.94 %]
29	SANGLI	2494	378533	1953	314585	221686	[70.47 %]
30	SATARA	3440	365703	2817	307216	219568	[71.47 %]
31	SINDHUDURG	1683	101725	932	56088	33848	[60.35 %]
32	SOLAPUR	4072	632138	3303	523785	369346	[70.51 %]
33	THANE	2756	591166	1438	351866	232032	[65.94 %]
34	WARDHA	1248	141491	1086	127372	79573	[62.47 %]
35	WASHIM	1108	189581	820	134609	82940	[61.62 %]
36	YAVATMAL	2792	368735	2291	306510	217342	[70.91 %]
	TOTAL	86472	13581827	66950	11028942	7313002	[66.31 %]

Some glimpses of school visits.

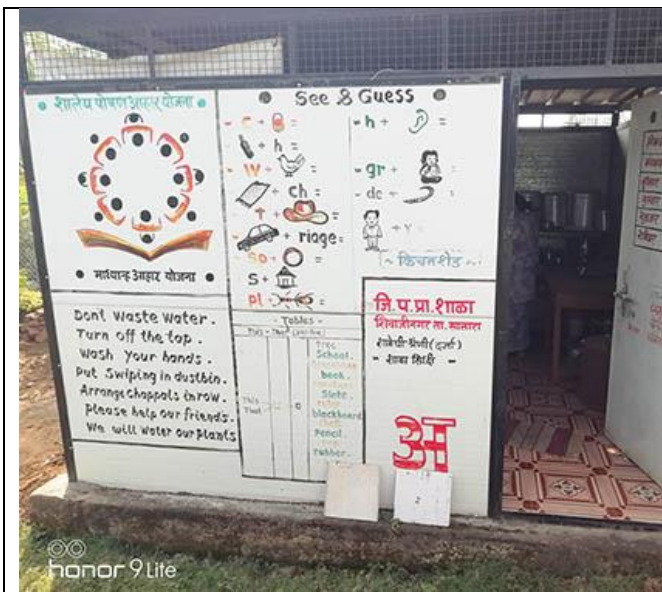
Schools structures



Constructed by HDFC Egro General Insurance Company in Chopda block of Jalgaon.



Kitchen-cum-stores



Preparation of meal



Serving of hot cooked meal at school



Storage bins



Kitchen Gardens





