



12th Joint Review Mission Report: Karnataka

Mid Day Meal Scheme



KARNATAKA
17-24 Feb 2020

- Mysuru district
- Kodagu district

Ministry of Human Resource Development
Department of School Education & Literacy
Mid Day Meal Scheme
Government of India



Government of India

Ministry of Human Resource Development

Department of School Education & Literacy



मध्याह्न भोजन योजना
Mid Day Meal Scheme

Report of 12th Joint Review Mission on
Mid-Day Meal Scheme – Karnataka
(17th-24th February, 2020)

CONTENTS

Executive Summary

1. Good Practices observed
2. Areas of Concern
3. Recommendations

CHAPTER 1:

The Joint Review Mission

- 1.1. Need and objective of Joint Review Mission
- 1.2. Composition of the Joint Review Mission
- 1.3. The Terms of Reference for the Joint Review Mission
- 1.4. Terms of Reference for Nutritional aspects

CHAPTER 2

Overview of the Mid Day Meal Scheme

- 2.1 Inception of scheme
- 2.2 Objectives of MDM
- 2.3 Major Components of scheme
- 2.4 Revision of scheme
- 2.5 Partnership between centre and States

CHAPTER 3

Methodology for visit of Joint Review Mission

- 3.1 Methodology
- 3.2 Sample size
- 3.3 Investigations - Nutritional Status Assessment
- 3.4 Anthropometric Indices
- 3.5 Diet survey and children's perceptions regarding the MDM
- 3.6 Statistical Analysis

CHAPTER 4

Trend analysis of implementation of MDM in karnataka - 2014-15 to 2018-19

- 4.1 Coverage of children

- 4.2 Coverage of working days
- 4.3 Utilisation of Food Grains
- 4.4 Utilisation of Cooking Cost
- 4.5 Utilisation of Transportation Assistance
- 4.6 Engagement of Cook-Cum-Helpers
- 4.7 Payment of honorarium to Cook-cum-Helpers
- 4.8 Utilisation of funds for Management Monitoring and Evaluation

CHAPTER: 5

Observations from the Field as per the ToR

- 5.1 Review of the fund flow mechanism
- 5.2. Review of the coverage of the scheme
- 5.3 Review of the Management structure
- 5.4 Review the delivery mechanism of food grains from State to Schools
- 5.5 Review the smooth implementation of the Scheme with particular reference to Interruptions.
- 5.6 Review the Creation of Capital Assets
- 5.7 Construction of Kitchen-cum-stores
- 5.8 Procurement/Replacement of Kitchen Devices
- 5.9 Review the convening the meetings of District Level Committee under Chairpersonship of senior most Member of Parliament (LS)
- 5.10 Review the Management Information System (MIS)
- 5.11 Convergence with Rastriya Bal SwasthyaKaryakram 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.
- 5.13 Operationalization of Mid-Day Meal Rules, 2015
- 5.13 Enrolment of children and Cook-cum-Helpers under Aadhaar
- 5.14 Payment of Honorarium to Cook-cum-Helpers
- 5.15 System of Storage food grains and other ingredients
- 5.16 Role of Teachers in Mid-Day Meal Scheme.
- 5.17 Testing of meals

- 5.18 Awareness of the Scheme
- 5.19 School Nutrition Gardens
- 5.20 Cooking Competitions
- 5.21 Mode of Fuel

CHAPTER: 6

Nutritional and Anthropometric Assessment

- 6.1 Nutritional Anthropometry
- 6.2 BMI
- 6.3 Height for Age
- 6.4 Food frequency
- 6.5 Clinical signs and symptoms
- 6.6 Quantity and Quality of Mid Day Meal
- 6.7 Recipes

CHAPTER - 7

The way ahead

1. Good Practices observed
2. Areas of Concern
3. Recommendations

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The JRM also acknowledge the valuable contribution of Ms MounikaPanday, Ms Taniya Mondal, Ms Seema Siddiqi, Ms ShraddhaShivakumar, Ms PratikshaBhat and Ms AkshathaTantri N, Research students of Department of Food Science and Nutrition, University of Mysore during the visit of JRM in Karnataka.

The team has made an earnest effort to include in the report the wide range of observations and discussions held at various levels with key officials and other stakeholders. It sincerely hopes that the recommendations that have emerged through this multi-pronged exercise would help the Government of Karnataka in strengthening the implementation of the Mid Day Meal Scheme in schools and ensure that every school going child avails its right to nutritious food in the State.

Team JRM- Karnataka

Executive Summary

The 12th Joint Review Mission visited the State of Karnataka during 17-24th February, 2020 for review of implementation of Mid Day Meal Scheme with defined Terms of Reference. For this purpose the mission visited 43 schools (22 in district Mysuru and 21 in district Kodagu). During the visits, the team collected information as per the Terms of Reference, held discussions with the select stakeholders i.e. students, teachers, Cook-Cum-Helpers, community members, parents of the students and officials at Block, District and State level.

The JRM team has also covered 1206 children (674 in Mysuru district and 532 in Kodagu district) for anthropometric measurement and assessment of nutrition status. The analysis of data reveals that overall prevalence of stunting was about 12.5% in boys and 9.2% in girls in Mysuru district, while in Kodagu district it was higher at 17.1% in boys and 16% in girls.

The team has summarized recommendations which are feasible and practical with a higher objective to accrue maximum benefits out of the resources and efforts mobilized for the scheme. The team reiterates that besides nutritional adequacy of Mid Day Meal, nutrition education appropriately utilizing School Nutrition Gardens should serve as an effective tool for the child, teacher and parents.

1. Good Practices observed

- i) The state is providing 150 ml. of hot milk under “KsheeraBhagyaYojana” to all students from its own resources.
- ii) State is providing Mid Day Meal to students of class 9th and 10th also from its own resources.
- iii) State is contributing Rs 1700 per head cook and Rs 1600 per cook-cum-helper in addition to its mandatory State share of Rs 400 per cook-cum-helper per month.
- iv) Cook-cum-Helpers in all the visited schools were using aprons and head gears.
- v) Community participation named “ShaaleGagiNavuNeevu” is observed.
- vi) Some of the schools are having School Nutrition (Kitchen) Garden and it should be replicated wherever possible to meet micronutrient diversity.

- vii) Use of LPG as fuel is observed in all the visited schools.
- viii) Drinking water facility is available in all schools within the school premises.
- ix) Separate toilets for boys and girls are available in all schools.
- x) Almost all of the children are seen washing hands before eating the Mid Day Meal.
- xi) Tasting of meal register is maintained in all schools.
- xii) Eating plates have been provided for all the children in schools visited, mostly through donation by community.
- xiii) Health checkup of Cook-cum-Helpers is carried out twice a year.

2. Areas of Concern

- i) Significant prevalence of micro nutrient deficiency observed in children from Kodagu region as evidenced by clinical signs and symptoms for nutritional deficiencies than in Mysuru region. These symptoms indicate low levels or deficiencies of vitamins such as Vitamins A, B-complex, C and D, along with minerals viz., calcium and iron in particular.
- ii) The average consumption of cereals was 60-70 gram for primary and 100-110 against the mandated 100 gram for primary and 150 gram for upper primary.
- iii) The average consumption of pulses was 12-15 gram for primary and 15-17 gram for upper primary in the schools vis-à-vis mandated 20 gram for primary and 30 gram for upper primary.
- iv) The average consumption of oil was 3-5 gram for primary and 4-6 gram for upper primary in the schools vis-à-vis mandated 5 gram for primary and 7.5 gram for upper primary.
- v) The average consumption of vegetables was 25-30 gram for primary and 35-40 gram for upper primary in the schools vis-à-vis mandated 50 gram for primary and 75 gram for upper primary.
- vi) Only one kind of pulse i.e. 'Tur dal' is supplied by the State and thus is used in schools, which has resulted in lack of variety.
- vii) Monitoring requires attention at all levels right from State to school level. It was noticed at school level that the visiting officials i.e. ADPI, BRPs, CRPs

etc. in most of the cases were recording generic remarks about MDM rather than making specific observations.

- viii) Children in some schools do not like wheat based menu.
- ix) The entitlement of children under Mid-day Meal Scheme is not displayed at a prominent place in most of the visited schools and almost all the SMC members /chairpersons were not aware of food norms and entitlements of children.
- x) Mid day meal logo and Menu are also not displayed at a prominent place where it is visible to all in more than 50% of the visited schools.
- xi) IFA supplementation under RBSK by the Health Department is not provided to children in Mysuru district.
- xii) Monthly data entry in MDM-MIS portal has been completed for only 80% schools. District Dharwad and Bangalore North has not completed data entry even for the month of April, 2019.
- xiii) Emergency telephone numbers such as fire, police and medical services were not displayed in prominent places in most of the schools.
- xiv) Storage bins were not available in majority of the schools for keeping food grains.

3. Recommendations

- i) Release of funds towards cooking cost should be based upon the number of beneficiaries instead on enrollment to avoid parking of funds at school level.
- ii) State may conduct a study to assess the reasons for why children in upper primary sections are not eating full prescribed quantities. It is observed that if the prescribed quantities of pulses and vegetables are provided, the children are more likely to consume the prescribed quantities of rice.
- iii) Recording of consumption of rice should be as per actual consumption.
- iv) Creation of a separate and dedicated Directorate for Mid Day Meal Scheme.
- v) State should adopt stringent mechanism to ensure that children receive the prescribed quantities of foodgrains, pulses, vegetables and other ingredients.
- vi) Storage bins for safe storage of food grains may be provided to all schools.

- vii) School Nutrition (Kitchen) gardens developed by some schools should be replicated in other schools to the extent possible.
- viii) The entitlement of children under Mid-day Meal Scheme, MDM logo and menu should be painted at a prominent place in all schools.
- ix) Emergency numbers such as police, fire and medical facilities should be painted on school walls on prominent places.
- x) Millets may be included in MDM menu once in a week.
- xi) Testing of meals through accredited labs needs to be done to comply with provisions of MDM Rules.
- xii) Repair of existing kitchen-cum-stores to be completed, wherever required.
- xiii) Worn out kitchen devices needs replacement.
- xiv) Formats for recording of information on implementation of MDM may be simplified and reduced in number. The same may be circulated across the State, for ease of data collection and management.
- xv) The observations on the quality and taste of Mid Day Meal may be recorded in the taste register by the Parents and community members also.
- xvi) Community may be motivated for participation in the supervision of preparation of Mid Day Meal and monitoring of the scheme.
- xvii) Training and sensitization of officials at different levels.
- xviii) Honorarium to cook cum helper needs to be increased as it is difficult to engage CCH with the present honorarium.
- xix) Regular monitoring of MDM by BEO, ADPI, CRPs to ensure quality and quantity of food served needs to be strengthened.

Chapter 1: The Joint Review Mission

1.1 Need and objective of Joint Review Mission

Primary school age is a dynamic period of physical growth and mental development of the child. The Mid-Day Meal Program 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.

Under-nutrition is one of the most important constraints in achieving the Sustainable Development Goals. It is widely prevalent among school children and India ranks 2nd in highest number on child malnutrition in the world. Consequences of under-nutrition and hidden hunger are very serious on health and nutrition status leading to negative economic growth of the country.

Therefore, nutritional deficiencies and their incidence among children of school-going age group cannot be neglected. Malnutrition not only increase morbidity and mortality, but also prevents a child from developing into a fully functional adult. It also adversely affects education in the following ways:

- i) A malnourished child is less likely to attend school regularly.
- ii) Even if such a child does attend school, he/she finds it difficult to concentrate and participate in teaching-learning activities well enough. He/she therefore, tends to drop out, inter alias, because of the inability to cope up with morbidities.
- iii) Even if the child does not actually drop out, his attainment levels tend to be low.

Education plays a vital role in the development of human capital. The Governments are spending considerable portion of their limited resources to provide educational facilities all over the country. In spite of these efforts, the goal of cent percent universalization of elementary education appears to be far and elusive due to inherent socio-economic factors present in the society. Most of the children from low socio-economic society suffer from under-nutrition, more often low attendance, high dropout rates from schools at an early age,

which directly affects their overall development. Several National Nutrition programs have been launched by the Government of India to combat these problems. One of the most ambitious and flagship programs is the Mid Day Meal (MDM) Program for nutrition supplementation of school going children. 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. The government of India and respective state governments has launched several nutrition sensitive programs since 1970s for the prevention and control of under-nutrition among these groups.

Mid-Day Meal in schools has had a long history in India. In 1925, Mid-Day Meal Program 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 Program with their own resources for children studying in the primary schools and by 1990-91 the number of States implementing the mid-day meal scheme with their own resources on a universal or a large scale had increased to twelve states.

1.2. Composition of the Joint Review Mission

A program 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 program in all its aspects through the Review Missions, which are also to provide suggestions for improvement. The composition of the JRM is as under:

- i. Prof. Asna Urooj, Chairperson, Department of Studies in Food Science and Nutrition, University of Mysore, Manasagangotri, Mysuru - Team Leader
- ii. Shri G. Vijaya Bhaskar Director (MDM), DoSE&L, MHRD, Govt. of India– Member
- iii. Dr. K.G Jagadeesha, Commissioner for Public Instruction, Karnataka– Member
- iv. Dr. Sangeeta Pandey, HOD, Department of Food & Nutrition, Mount Carmel College, Bangalore Central University , Bengaluru - Member

- v. Dr. Anindita Shukla, Chief Consultant (Food & Nutrition) TSG-MDM - Member
- vi. Shri Bhupendra Kumar, Chief Consultant (Plan Monitoring) TSG-MDM - Member

The 12th Joint Review Mission was also assisted by Dr. Sudha Sairam, Mr Lohith M.S, Ms. Namratha Pai K and Ms. Syeda Farha, Research Assistants, during its visit to Mysuru and Kodagu district for monitoring the implementation of Mid Day Meal Scheme as per the defined terms of reference.

1.3. Terms of references of 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 (Lok Sabha).
- xii Review the Management Information System (MIS)
- xiii Review the implementation of Automated Monitoring System
- xiv Convergence with Rashtriya Bal Swasthya Karyakram for health check-up, supplementation of micronutrients under WIFS & de-worming against intestinal parasite under National de-worming day and health check-ups 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

1.4 Terms of Reference for Nutritional aspects:

- a) To assess the anthropometric measurements of a sample of children availing MDM
- b) i) 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.

Chapter 2: Overview of the Mid Day Meal Scheme

2.1 Inception of scheme

National Program of Nutritional Support to Primary Education (NP-NSPE) was launched on 15th August 1995 as a Centrally Sponsored Scheme initially in 2478 blocks and later on in 1997-98 covering entire country for school going children. The scheme was extended in 2008-09, to cover children of upper primary classes and the Scheme was renamed as 'National Program of Mid-Day Meal in Schools' popularly known as Mid-Day Meal Scheme (MDMS). MDMS is a major flagship program of Government of India among all the nutrition intervention programs for prevention and control of under-nutrition. The main objectives of MDM are to improve school enrolment, retention rate, regular attendance and reducing drop-out rate, to improve the nutritional status of children in classes I – VIII in Government, Local Body and Government aided schools, and EGS and AIE centres. Special Training Centers (STCs) and Madrasas & Maqtabas supported under SamagraShiksha and encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities by providing nutritional support to children of primary stage in drought-affected areas during summer vacation. Mid Day Meal Scheme aims for

- i. **Preventing classroom hunger:** Many children belonging to disadvantaged sections of society reach school with an empty stomach. Even children, who have a meal before they leave for school, get hungry by the afternoon and are not able to concentrate. Mid-day meal can help the children from families which cannot afford a lunch box or are staying far away from schools, to overcome “classroom hunger”.
- ii. **Promoting school participation:** Mid-day meal has big effect on school participation, not just in terms of getting more children enrolled in the registers but also in terms of regular pupil attendance on a daily basis.
- iii. **Facilitating healthy growth of children:** Mid-day meal can also act as a regular source of “supplementary nutrition” for children to facilitate their healthy growth.

- iv. **Intrinsic educational value:** A well-organized mid-day meal can be used as an opportunity to impart various good habits to children (such as washing one's hands before and after eating) and to educate them about the importance of clean water, good hygiene and other related matters.
- v. **Fostering social equality:** Mid-day meal can help spread egalitarian values, as children from various social backgrounds learn to sit together and share a common meal. In particular, mid-day meal can help to break the barriers of caste and class among school children. Engaging cooks from SC/ST communities is another way of teaching children to overcome caste prejudices.
- vi. **Enhancing gender equity:** The gender gap in school participation tends to narrow, as Mid-Day Meal Scheme helps erode the barriers that prevent girls from going to school. The scheme also provides a useful source of employment for women and helps liberate working women from the burden of cooking at home during the day. In these and other ways, women and girl children have a special stake in Mid-Day Meal Scheme.

2.2 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 Centres (STCs) and Madrasas & Maqtabas supported under SamagraShiksha.
- 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 vacation.

2.3 Major components of scheme

- 1) **Food Grains:** Supply of food grains @ 100 grams per child per school day for primary and 150 grams for upper primary through Food Corporation of India @ Rs 2 per kg for wheat and Rs 3 per kg for rice.

- 2) **Cooking Cost:** It includes cost of ingredients, e.g. pulses, vegetables, cooking oil and other condiments. It also includes cost of fuel. At present the cooking cost is Rs 4.48 for primary and Rs 6.71 for Upper primary.
- 3) **Honorarium to Cook-cum-helpers (CCH):** There is provision of honorarium of Rs. 1000 to each CCH per month for 10 months in a year.
- 4) **Transportation Assistance:** Transportation Assistance is provided to States and UTs for transportation of food grains from FCI godown to the school level. At present the Transportation Assistance is at par with PDS rates or maximum of Rs. 1500 per MT, whichever is less for transportation of food grains from FCI godown to school except 8 NER and 3 Himalayan States, where it is at par with PDS rates.
- 5) **Management, Monitoring and Evaluation (MME): MME funds are provided @ 3% of cost of food grains, cooking cost, honorarium to CCH and transportation assistance.**
- 6) **Kitchen- cum-store:** There is provision of kitchen-cum-stores for cooking of MDM in hygienic manner. Construction of Kitchen-cum-stores has been linked with the enrolment in schools (20 sq. meter for schools having enrolment of up to 100 students, and addition of 4 sq. meter for every addition of up to 100 students)and State Schedule of Rates.
- 7) **Kitchen devices:** linked to enrolment ranging from Rs 10,000/- to Rs 25,000/- per school.
- 8) **Repair of kitchen-cum-stores: Rs 10,000/- per unit, for the kitchen-cum-stores, which were constructed 10 years ago.**
- 9) **School Nutrition Garden: Rs 5000/- per school.**

2.4 Revision of scheme

The Mid Day Meal has been revised in 2018-19 and the following changes / addition / modifications have been made in the scheme -

- a) **Continuation of existing components for which no revision has been proposed:**
 - i) Cost of food grains as per National Food Security Act (NFSA) rates.
 - ii) Honorarium to Cook-cum-helpers

- iii) Construction of kitchen-cum-stores
- iv) Provision of MDM during summer vacations in drought affected areas.

b) Continuation and Revision of the norms of the following existing approved components:

- i) To increase the cooking cost annually in April linked to inflation index (CPI)
- ii) To revise the transportation rate for non-special category of States at par with PDS rate subject to maximum amount of Rs.150 per quintal.
- iii) To revise MME rate from 2% to 3% of the total admissible recurring Central Assistance.
- iv) Procurement/replacement of kitchen devices @ Rs.10000- Rs.25000 linked to enrolment

c) New Components for 2018-19 and 2019-20

- i) Assistance of Rs.10,000/- for the repair of kitchen-cum-stores constructed ten years ago on sharing basis between Centre and States.
- ii) Fortification of food items in a systematic manner for better benefits under Mid-Day Meal Scheme to address the problems of anaemia and other micro nutrient deficiencies. FCI will be consulted to explore various options for fortification of food grains starting with rice. Also, kitchen gardens in each school will be encouraged.

d) Minor Modifications and Flexibility

- i) The power for implementing scheme with minor modifications from the existing guidelines will be delegated to District Level Committee chaired by the District Magistrate. The States and UTs will also be given flexibility to utilize, with the prior approval of MHRD, 5% of their Annual Work Plan & Budget for new interventions, provided they are not included under any other Central or State Schemes and there is no overlapping of activities.

e) Use of Pulses from buffer stock

- i) **Use of Pulses from buffer stock** –The States and UTs may procure pulses as per their local taste for the Mid-Day Meal from the Central buffer stock created by the Government of India.

f) Innovations

- i) **Monitoring of attendance** –The Ministry of HRD has worked with States and UTs to implement a technology based (SMS, IVRS & Mobile App) Automated Monitoring System by which information on attendance at the Mid Day Meal is collected every day from schools. At present, the level of daily uploading of data has reached 50% of all schools. All States and UTs have been directed to ensure that daily data from 100% schools is uploaded.
- ii) **Menu under MDM** – The Mid-Day Meal guidelines envisage that the nodal implementing agency at district, taluk and school level is empowered to develop indicative menus using locally available and culturally acceptable food items. The guidelines further encourage local support for drawing out varied, but wholesome and nutritious menus. All States and UTs will be further encouraged to adopt ways to develop a menu that reflects local taste and local produce that is different on different days. For example, cooking competitions at various levels (Blocks, Districts and States) are being planned to promote innovative menus. Under this, nutritionists could examine the recipes to ensure compliance with nutrition standards as laid down in Mid-Day Meal guidelines, and the judges could include children because they are the ones for whom the meal is being cooked.

Additionally, all States and UTs will be advised to ensure intensive and regular training of Cook-cum-Helpers as well as members of School Management Committees, and to put in place mechanisms to take feedback from students on quality of meals and menu.

iii) **Involving community and agencies**

TithiBhojan – The Ministry of HRD has issued detailed guidelines regarding TithiBhojan under which States and UTs have been requested to

encourage people from the community to celebrate important days such as child birth, marriage, birthdays etc. by contributing to the Mid Day Meal Scheme.

2.5. Partnership between centre and States

Under the Mid-Day Meal Scheme, the Central Government bears entire cost of food grains, transportation cost, Monitoring, Management and Evaluation (MME) and procurement of kitchen devices.

The cooking cost, cost of the kitchen-cum-stores and honorarium to cook-cum-helpers is shared between the Centre and the NER States & Himalayan States on 90:10 basis, 100% for UTs without legislature and with other States and UTs with Legislature on 60:40 basis.

Chapter 3: Methodology for visit of Joint Review Mission

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.

3.1. METHODOLOGY

Two districts were selected for the 12th JRM review, Kodagu district was selected by the Ministry of HRD and Mysuru, second district by the Government of Karnataka. A cross sectional survey was carried out from 17th to 20th Feb, 2020 in a total of randomly selected 24 schools under MDM scheme. In each district, three to four blocks were randomly selected. The selected blocks in both districts were as follows:

1. Mysuru district- Mysuru North, Nanjangud, Periyapatna and Hunsur.
2. Kodagu district- Somwarpet, Madikeri, Virajpet

3.2. Sample Size:

For this purpose the mission visited 43 schools (22 in district Mysuru and 21 in district Kodagu). During the visits, the team collected information as per the Terms of Reference, held discussions with the select stakeholders i.e. students, teachers, Cook-Cum-Helpers, community members, parents of the students and officials at Block, District and State level.

The JRM team has also covered 1206 children (674 in Mysuru district and 532 in Kodagu district) for anthropometric measurement and assessment of nutrition status from 18 schools (10 in Mysuru and 8 in kodagu). The details are as under :

Coverage Particulars for Anthropometric measurements

	Districts		Total	
	Mysuru	Kodagu	N	%
Number of Schools covered	10	8	18	100
No. of Boys	306	257	563	100

students covered for Anthropometry	Girls	368	275	643	100
	Total	674	532	1206	100
No. of Schools covered for Institutional Diet survey		10	8	18	100
No. of children covered for individual Diet Survey		187	113	300	100
No. of MDM in-charge teachers interviewed		13	6	19	100
No. of Cook Cum Helpers (CCH) interviewed		26	12	38	100

3.3. Investigations - Nutritional Status Assessment:

Anthropometry: Anthropometric measurements such as height, weight and mid upper arm circumference (MUAC) were carried out by the NIN team using standard procedure and equipments. Clinical examination for any nutritional deficiency signs such as Bitot's spot, fluorosis, caries, goiter etc was carried out.

Height for age and BMI for age were used as nutrition indices for assessing nutritional status of children by using WHO growth standards 2007.

Weight: SECA weighing scale was used for measuring weight (Kg) of children at an accuracy of 100g. The balances were calibrated and standardized daily before weighing the children. Children were asked to remove their shoes and stand straight on the weighing balance.

Height: Height of the children was measured using anthropometer rod. Children were asked to remove their shoes and headgear and were asked to stand straight with heels touching together and looking straight ahead, head held comfortable erect, and arms hanging loosely by the sides.

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

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

MUAC: Mid Upper Arm Circumference (MUAC) was measured on left arm using a fibre reinforced non-elastic tape. The child was asked to keep the arm relaxed. Midpoint between acromian process of the scapula and the olecranon process of the ulna was marked with the help of a marker. The MUAC tape was then

wrapped around the arm at that point gently but firmly to avoid compression of tissue in straight hand. The circumference was taken to nearest mm.

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

3.4 Anthropometric Indices:

Height-for-age: Height-for-age reflects long term nutritional status. Low height for age is known as stunting. Thus, stunting indicates chronic undernutrition.

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

Table : Anthropometric Indicators for Nutritional Status Assessment

Anthropometric Indices	Nutritional grades
Height for Age	<-3SD- Severe Stunting
	-3SD to -2SD- moderate Stunting
BMI for Age	<-3 SD- Severe Thinness
	-3SD to -2SD- Moderate Thinness
	-2SD to +1SD- Normal
	+1SD to +2SD- Overweight
	>+2SD Obese
	>+3SD Morbidly Obese

3.5 Diet survey and children’s perceptions regarding the MDM:

Institutional diet survey was conducted in 18 schools to measure the quantity and quality of food intakes by the school children. The data pertaining to the number of meals consumed and the dietary pattern was collected for 300 children. The following information was collected about MDM:

- The children’s perceptions regarding the MDM program and their preferences of various 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 and pretested questionnaire
- The cook-cum-helpers (CCH) 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 taste 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.
- Information was collected from the head teachers as per the records maintained for cook-cum-helpers and maintained at schools. Spot observations were also made regarding the aspects related to safety, hygiene, cleanliness etc.

3.6 Statistical Analysis:

Statistical analysis such as Independent t-test, Anova, Chi-square, One sample t-test was done using SPSS 16. WHO Anthro Plus software was used for deriving z-scores from anthropometric data. Mean \pm SD and One sample t-test was calculated for the dietary data. The n (%) was calculated for HFSS data. All the above parameters are classified according age and gender.

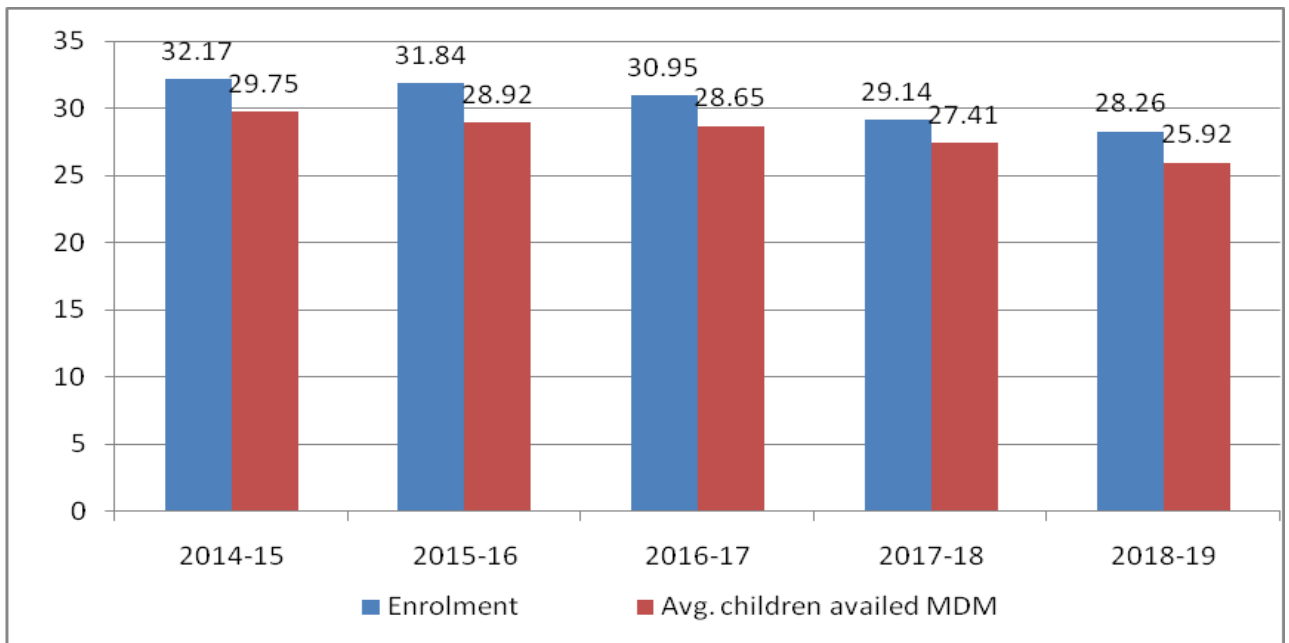
Chapter 4: Trend analysis of implementation of MDM in karnataka - 2014-15 to 2018-19

4.1 Coverage of children

The data on coverage of children reveals that on an average 92% of the enrolled children in the State have availed MDM on an average basis during 2018-19. Although there is a sharp decline of about 4 lakh children in the enrolment in 2018-19 from 2014-15, the proportionate coverage has remained on 92%.

Coverage of Children: Primary

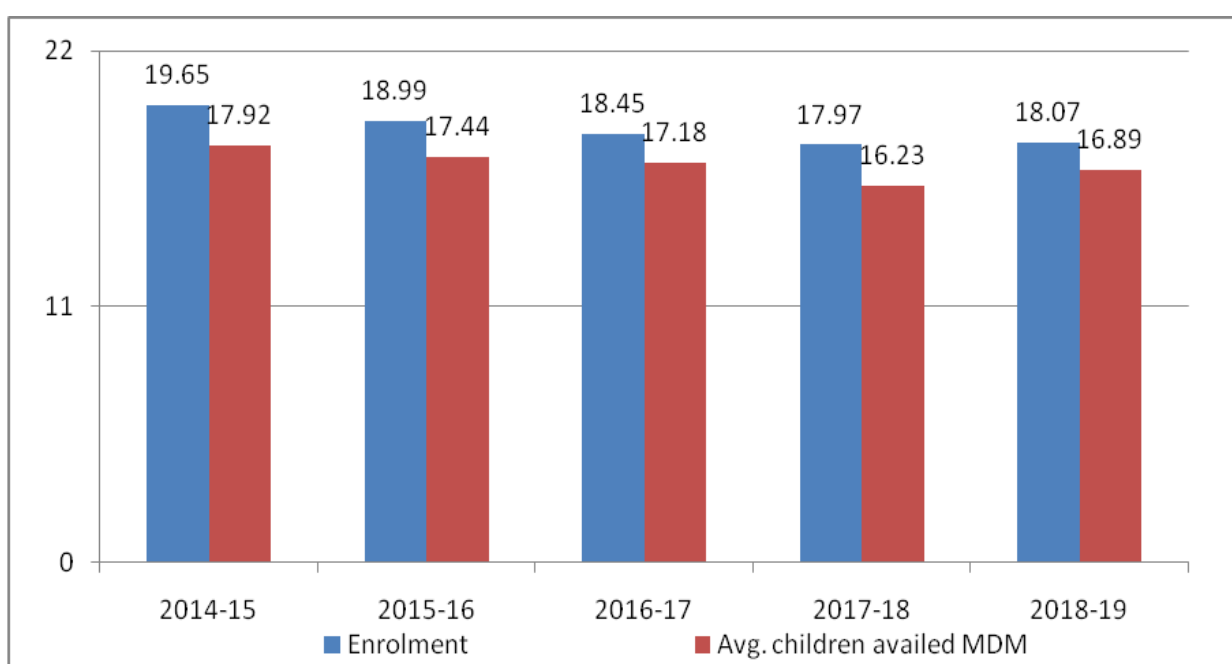
Year	Enrolment	Average number of children availed MDM	% Coverage
2014-15	3216734	2974790	92%
2015-16	3184173	2891585	91%
2016-17	3094871	2864812	93%
2017-18	2913665	2740778	94%
2018-19	2825843	2591915	92%



The reduction of enrolment is of about 1.6 lakh children in upper primary, however, the proportion of children availed MDM on an average basis has increased from 91% to 93%.

Coverage of Children: Upper Primary

Year	Enrolment	Average number of children availed MDM	% Coverage
2014-15	1965080	1792310	91%
2015-16	1898601	1743791	92%
2016-17	1844616	1718363	93%
2017-18	1796808	1622599	90%
2018-19	1807066	1689140	93%



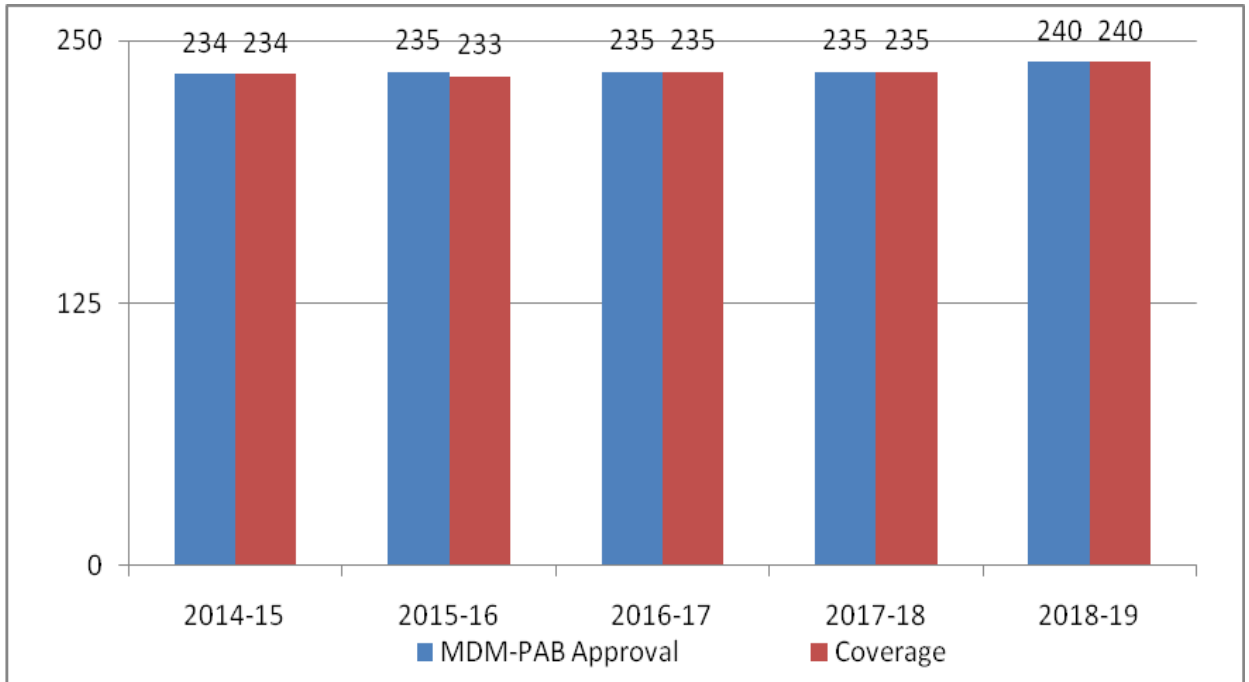
4.2 Coverage of working days:

State has done pretty well in terms of coverage of working days and covered 100% school days in each academic year.

Coverage of working days

Year	PAB-MDM Approval	Coverage	% Coverage
2014-15	234	234	100%
2015-16	235	233	99%
2016-17	235	235	100%

2017-18	235	235	100%
2018-19	240	240	100%

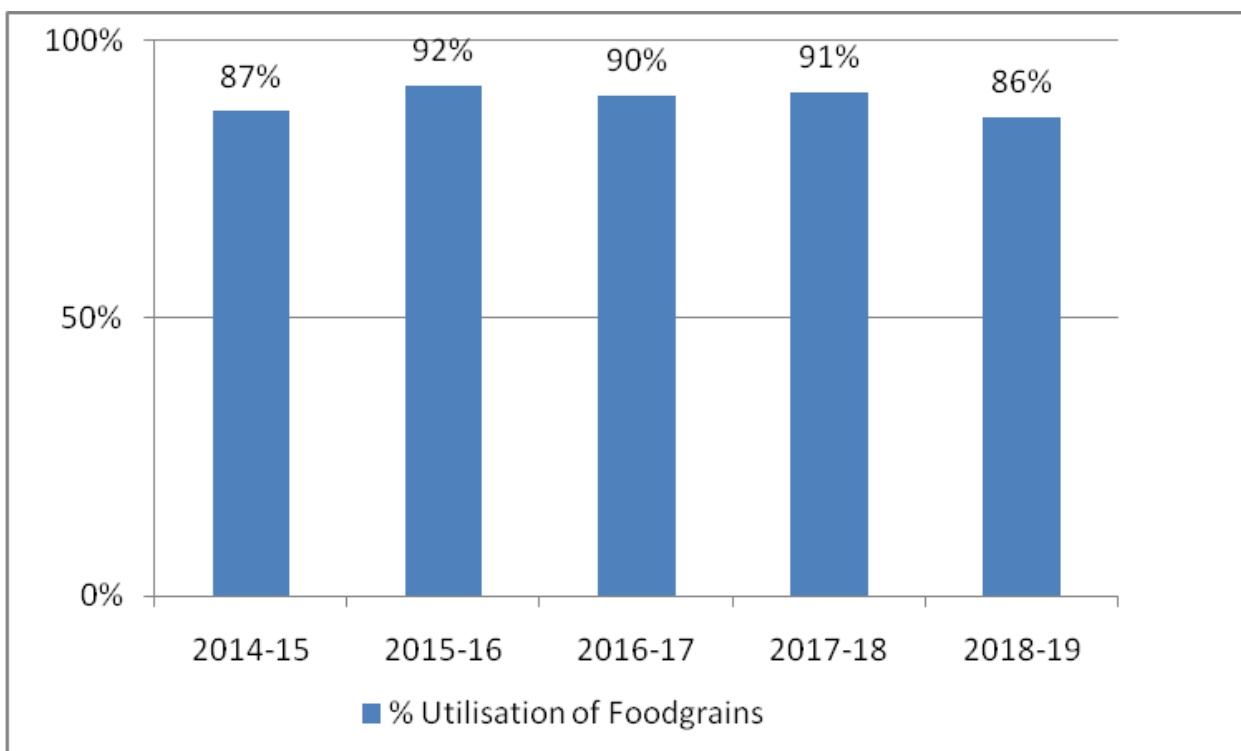


4.3 Utilisation of food grains

The data on utilisation of foodgrains reveals that the utilisation of foodgrains has gone down as 86% of the allocated foodgrains have been utilised during 2018-19 in comparison to 92% in 2015-16.

Year	Allocation	Utilisation	% Utilisation
2014-15	140626.51	122719.80	87%
2015-16	131671.90	120946.37	92%
2016-17	130440.83	117504.32	90%
2017-18	124874.80	113404.06	91%
2018-19	123577.62	106635.78	86%

(in MTs)



4.4 Utilisation of cooking cost

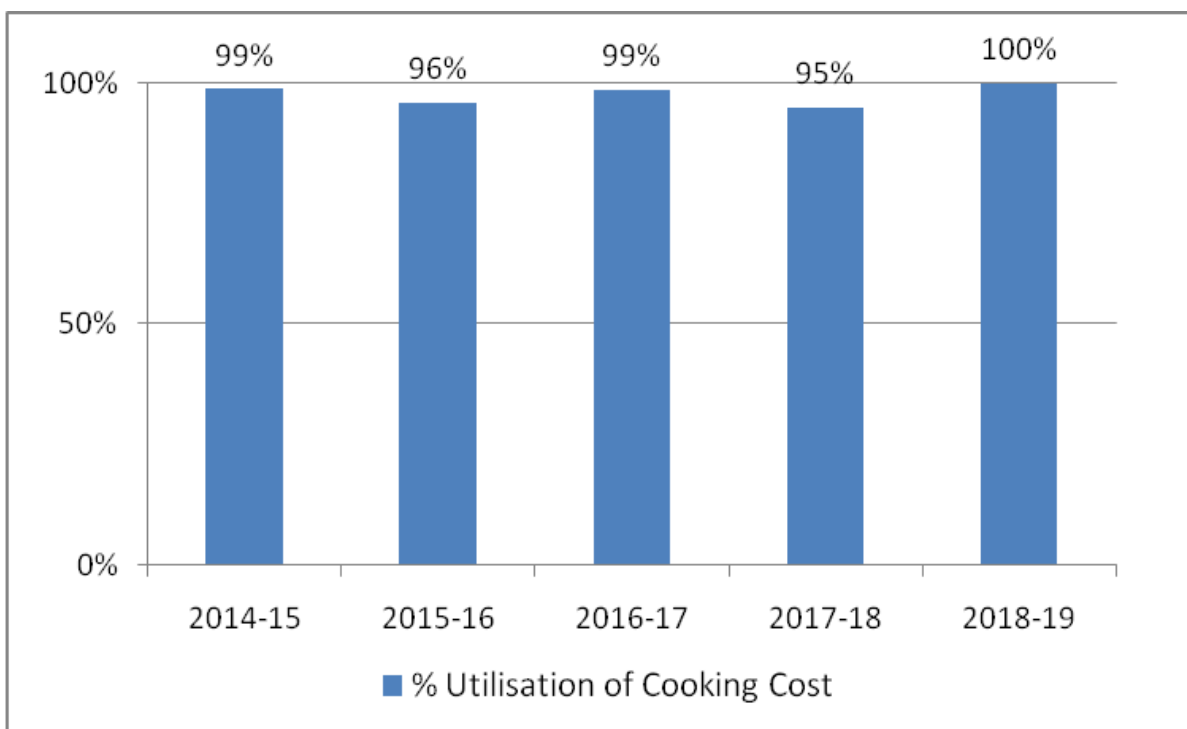
The data of utilisation of cooking cost shows improvement as State has almost utilised the full available funds.

Utilisation of Cooking Cost

(Rs

in lakh)

Year	Allocation	Utilisation	% Utilisation
2014-15	49918.71	49330.25	99%
2015-16	50196.93	48179.82	96%
2016-17	53303.17	52624.77	99%
2017-18	51514.39	48948.31	95%
2018-19	50957.55	51372.23	100%



The utilisation of cooking cost is not sync with the utilisation of food grains, as there is wide disparity in the utilisation of cooking cost and foodgrains.

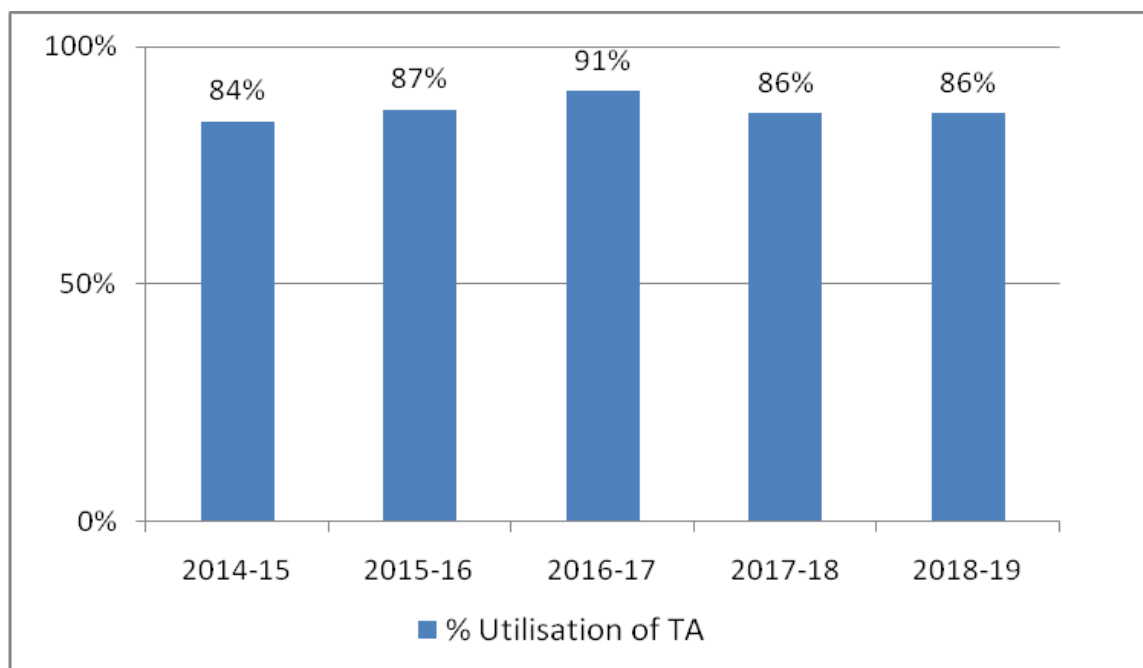
4.5 Utilisation of Transportation Assistance

Transportation Assistance is provided for delivery of foodgrains at the school doorsteps. State is utilising about 86% of the allocated funds towards Transportation Assistance.

Utilisation of Transport Assistance

(Rs in Lakh)

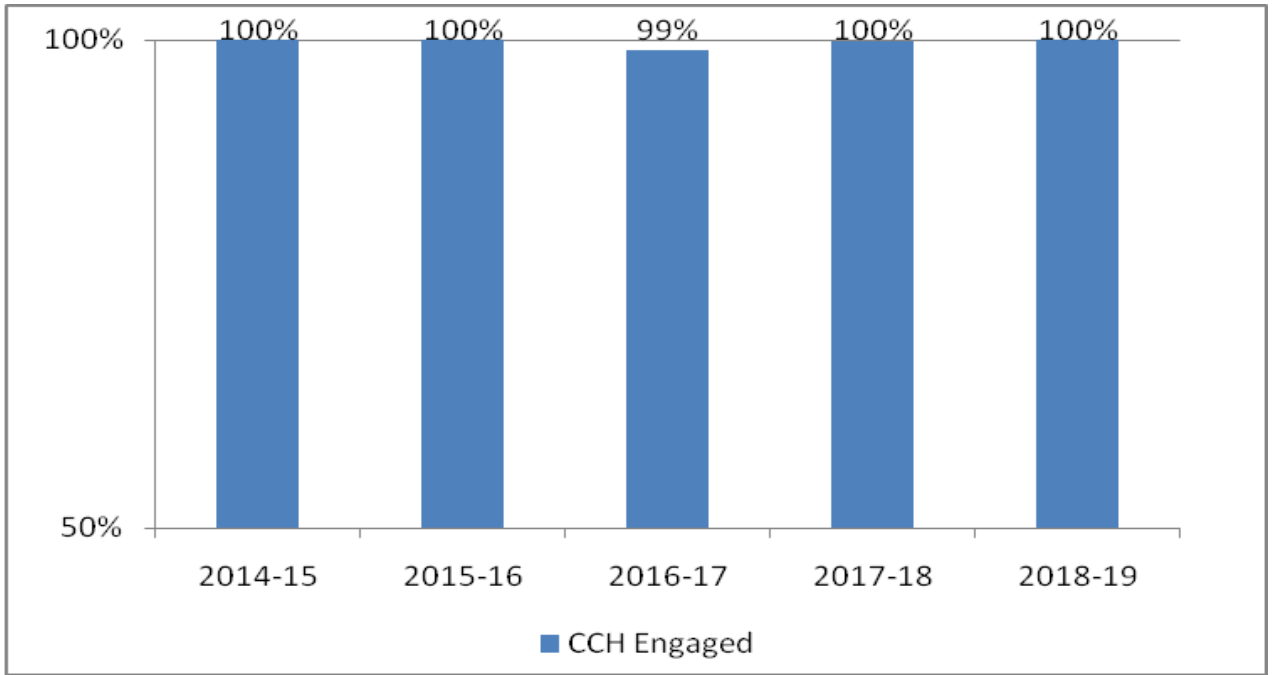
Year	Allocation	Utilisation	% Utilisation
2014-15	1054.70	889.39	84%
2015-16	1019.11	883.07	87%
2016-17	978.31	886.01	91%
2017-18	936.56	805.03	86%
2018-19	926.83	796.46	86%



4.6 Engagement of Cook-Cum-Helpers

The State has engaged almost all the engaged Cook-Cum-Helpers approved by the PAB-MDM.

Year	No. of Cook-Cum-Helpers PAB Approval	No. of Cook-Cum-Helpers Engaged	% Engaged
2014-15	114653	114653	100%
2015-16	117842	117842	100%
2016-17	118886	118199	99%
2017-18	118199	118130	100%
2018-19	118130	117927	100%

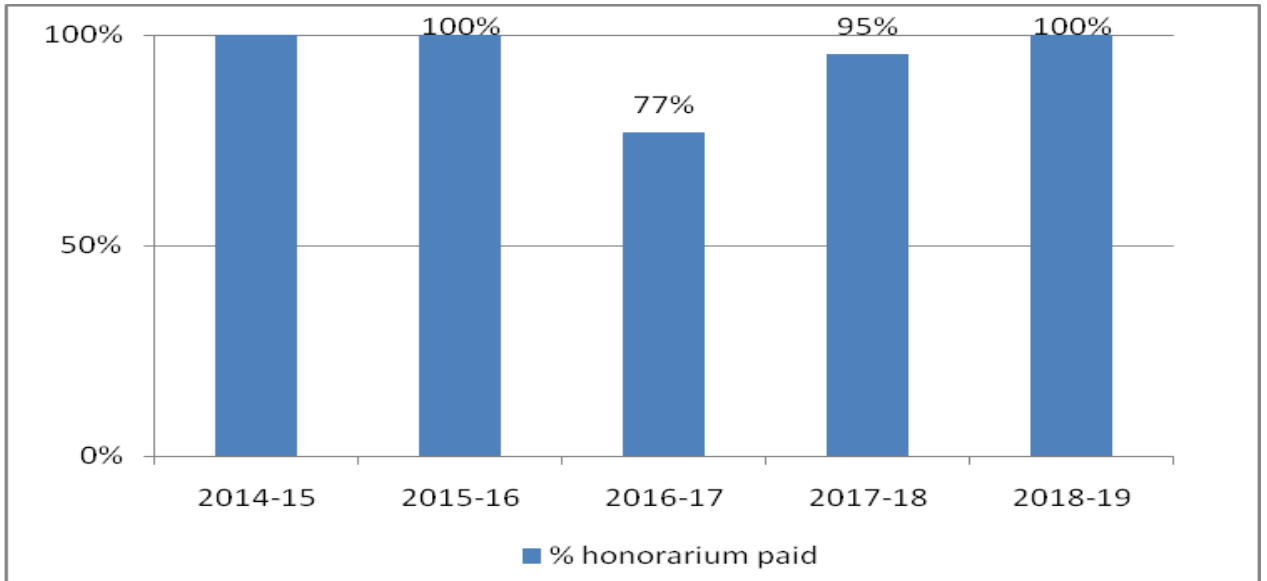


4.7 Payment of honorarium to Cook-Cum-Helper

State Government is providing Rs 1700 to Head cooks and Rs 1600 to Cook-cum-Helpers in addition to their minimum mandatory share.

(Rs in Lakh)

Year	Honorarium Allocation (Central Share)	Honorarium paid	% honorarium paid
2014-15	8598.98	8598.98	100%
2015-16	7070.52	7070.52	100%
2016-17	7133.16	5487.22	77%
2017-18	7091.94	6763.87	95%
2018-19	7087.80	7086.74	100%

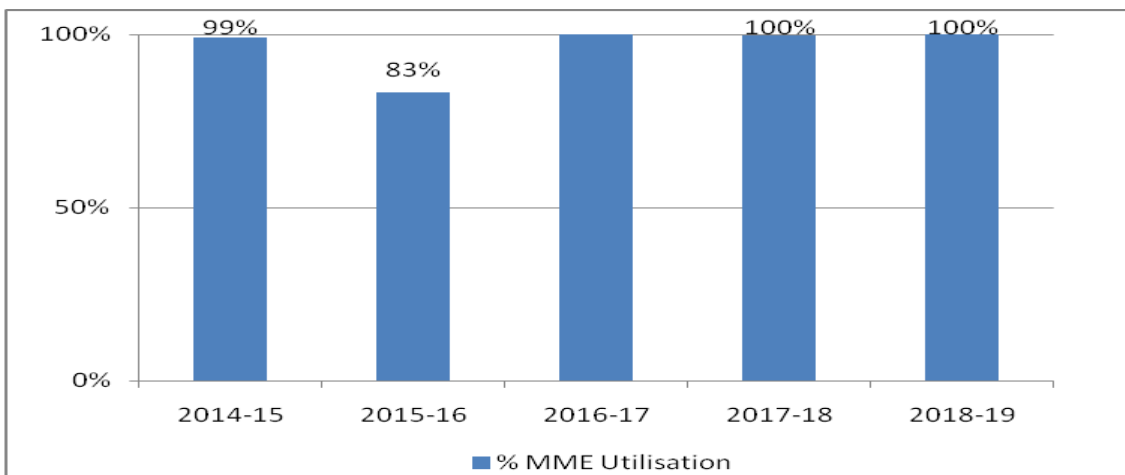


4.8 Utilisation of funds for Management Monitoring and Evaluation

State has done well on the front of utilisation of funds meant for Management, Monitoring and Evaluation (MME). 100% funds have been utilised by the State.

(Rs in Lakh)

S. No.	Allocation	MME Utilisation	% TA Utilisation
2014-15	990.83	981.40	99%
2015-16	939.96	783.23	83%
2016-17	780.42	780.42	100%
2017-18	768.68	767.38	100%
2018-19	786.84	786.84	100%



CHAPTER: 5 - Observations from the Field as per the ToR

5.1 Review of the fund flow mechanism

State Government releases funds in advance to different levels without waiting for the release of central share or when funds are awaited from Govt. of India in order to ensure smooth and uninterrupted implementation of the scheme.

The grants are released in the month of April for 1st quarter, in the month of August for 2nd quarter, for 3rd quarter in the month of November and for 4th quarter in the month of February to Districts. Districts released grant to Taluk and Schools in the same months. Funds are released through treasuries at various levels.

Although utmost care has been taken to ensure availability of funds at schools, however in case of delay, all schools have been directed to utilize any available fund in their school account as per government order towards MDM if any delay or shortage of fund observed in the school. The details of funds received by State and released to districts during 2019-20 are given below

Component	Fund received (Rs in lakh)		Funds released to districts	
	Date	Amount	Date	Amount
Cost of FG	29-04-2019	843.16		
	18-09-2019	829.49		
	16-09-2019	1403.78		
	18-09-2019	473.52		
Cooking cost	29-04-2019	7331.05	1st Quarter 23.05.2019	48841.00
	18-09-2019	11417.98		
	16-09-2019	13432.76		
	18-09-2019	4546.48		
Hon. to CCH	29-04-2019	1611.98	2nd Quarter 05.12.2019 12.12.2019	558.25 48282.75
	18-09-2019	2632.33		
	16-09-2019	2830.25		
	18-09-2019	1254.38		
Transportation Asst.	29-04-2019	210.79	3rd Quarter 13.01.2020	48841.00
	18-09-2019	785.68		
	16-09-2019	747.05		
	18-09-2019	253.67		
MME	29-04-2019	179.94		
	18-09-2019	565.83		
	16-09-2019	497.17		
	18-09-2019	176.26		

District Kodagu - The details of funds received and then released to next levels are given below:

Component	Fund Received		Fund released (Rs in lakh)			
	Date	Amount	Block		School	
			Date	Amount	Date	Amount
Cost of FG						
Cooking cost	14.06.19	364.92	14.06.19	364.92	14.06.19	321.36
Hon. To CCH	30.11.19	245.79	30.11.19	245.79	30.11.19	236.38
Transportation Asst	30.12.19	11.8	30.12.19	11.8	30.12.19	8.8
MME	30.11.19	8.69	30.11.19	8.69	30.11.19	6.09

District Mysuru - The details of funds received in and then released to next levels are given below:

component	Fund Received		Fund released (Rs in lakh)			
	Date	Amount	Block		School	
			Date	Amount	Date	Amount
Cost of FG	23.5.2019	2011.75	NIL			
Cooking cost	23.5.2019		17.07.2019	266.9225	29.07.2019	26692250
Hon to CCH	23.5.2019		17.07.2019	264.696	29.07.2019	26469600
Cost of FG	23.5.2019	2011.75	NIL			
Cooking cost	5.11.2019		25.11.2019	436.25163	17.11.2019	43625163
Hon to CCH	5.11.2019		25.11.2019	529.392	17.11.2019	52939200
Cost of FG	12.12.2019	2011.75	NIL			
Cooking cost	12.12.2019		13.01.2020	581.1118	23.01.2020	58111180
Hon to CCh	12.12.2019		13.01.2020	469.188	23.01.2020	46918800
Transporation Asst	NIL		15.06.2019	34.50	-	
			23.10.2019	60.64517		
MME	3.12.2019	59.78	20.12.2019	46.443		

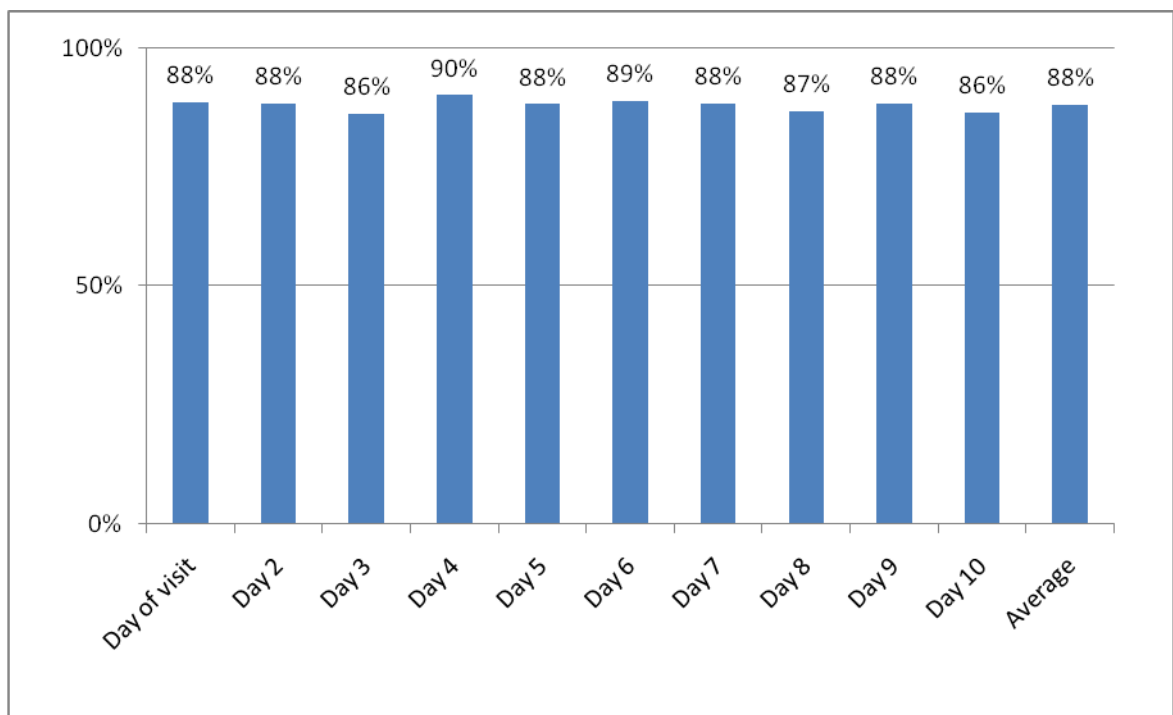
The JRM observed that funds are available in all the visited schools. Honorarium to Cook-cum-Helpers is also paid regularly on monthly basis. All the CCH informed that they have received honorarium up to the month of January, 2020.

5.2. Review of the coverage of the scheme

District Kodagu

The cumulative enrolment in the schools of Kodagu was 1458 against which 1283 Children (88%) availed MDM on average basis during the last 10 days. All the children, who are attending school were availing MDM.

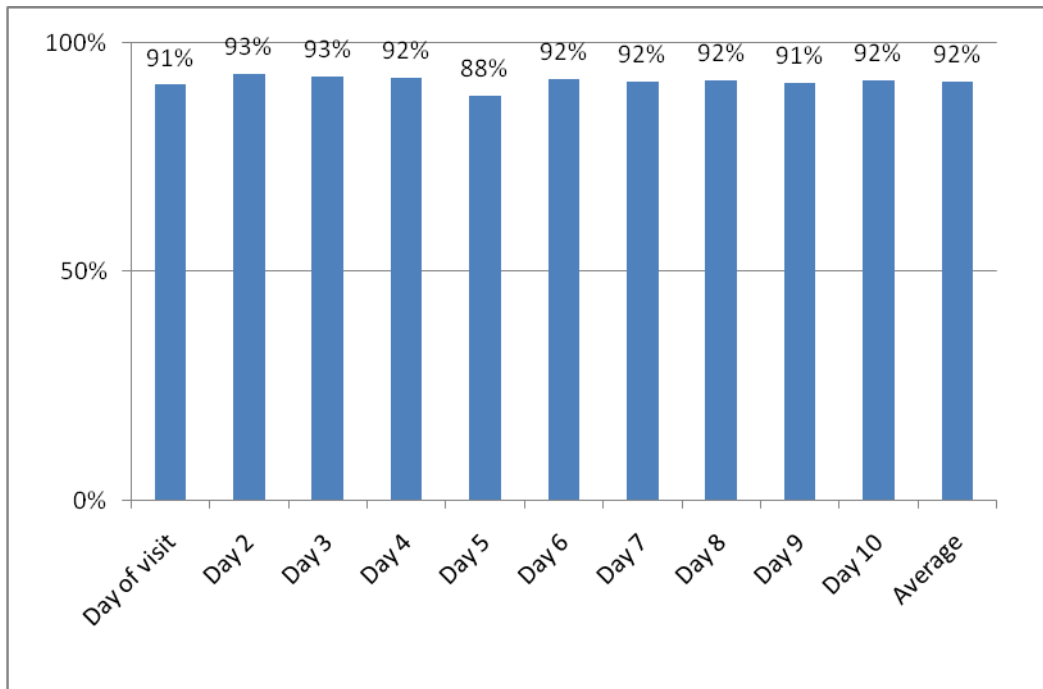
Day wise average students availing MDM in the visited schools in district – Kodagu



District Mysuru

In the 22 visited schools in Mysuru, 4775 children were enrolled. Out of these 4370 (92%) children have availed MDM on an average basis during the last ten days of the day of visit.

Day wise average students availing MDM in the visited schools in district – Mysuru



The average daily coverage is very good in both the districts and is significantly higher than the national average of 76%.

5.3 Review of the Management structure

Education Department is nodal department for implementation of Mid-Day Meal Scheme. At State level Commissioner for Public Instruction has the responsibility to implement the programme and the Joint Director of MDMS is the Nodal Officer for this programme. The Steering cum Monitoring Committee is being constituted under the chairmanship of Additional Chief Secretary at the state level to oversee the implementation and performance of the Scheme, its meeting is held twice in a year.

At District level, Education Officer (MDM) is the nodal officer for programme implementation and supervision in Zilla Panchayat. Implementation Committee under the chairpersonship of District Collector/Chief Executive Officer of Zilla Panchayath shoulders the responsibility of programme implementation and the supervision. The Deputy Director Public Instruction (Admin) assist and co-ordinate at the

district level implementation of MDM programme. Steering and Monitoring Committee under the Chairmanship of Chief Executive officer of Zilla panchayat, is also responsible for the effective implementation and supervision of the programme implementation and supervision.

At Taluk level Assistant Director of Public Instruction, Mid Day Meal Scheme is nodal officer. Steering and Monitoring Committee is formed under the chairmanship of Assistant Commissioner of Sub-division and Executive Officer of Taluk Panchayath at Taluk level for looking after the complete responsibility of the programme implementation and supervision.

At school level Mid-Day Meal Scheme is managed, monitored and supervised by the "School Development and Monitoring committee". The cooking is being done at school kitchen and centralized kitchens (where ever NGO is assigned). In the school based kitchens food is being cooked at school level by the cooks under the close supervision of Head teacher, Nodal Teacher of the day and representatives of Mothers committee.

Supervision of mid day meal in schools is done by Head Teacher, nodal teacher for MDM and other school Staff, Members of School Management Committees, Members of Parent-Teacher Committee and Other government officials from Block, District and State level. Tasting registers have also been maintained at all schools.

The Joint Review Mission observed that schools were being inspected regularly on monthly basis by the cluster coordinators, BRPs, ADPIs and Block Education 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. There is an urgent need to train the ADPIs for the parameters of MDM.

State level officers 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.

State may also form a group of 10-12 officers from Blocks and Districts, who may be sensitized and then used as resource persons or monitoring the implementation of scheme in other districts.

A uniform register for information on implementation of MDMS may also be developed and conveyed to all schools in the State for uniformity of data maintenance at the school level.

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

The District wise allocation is made by The Nodal Officer at The State Level. Allocation of food grains is communicated to the Districts in advance So that there is no difficulty in procuring the Food grains from FCI. KFCSC lifts rice from FCI godown to Karnataka State Food Corporation stock yards located at taluk level. The same is transported to schools under the supervision of Assistant Directors.

The time line for lifting of food grains from the godown is vary from 1st day of the Preceding quarter and it will supplied up to last week of the allocation quarter according to the availability of godown facility. Every district has its own lifting calendar. Districts get indent from Assistant Directors of Taluk Panchayat before 10th of the respective month and lifted before 25th of that month ensuring the allocation of food grains does not gets lapsed. Implementation schedule is followed by the KFCSC authorities and the district level stake holders.

Food grains are being lifted from FCI godown in the first week of every month and are stored in KFCSC godown at Taluka level. Dal, Oil and Salt are procured by KFCSC and stored at KFCSC godown at Taluka level. Based on the indent placed by schools, Rice along with Dhal, Oil, and Salt supplied to schools in the 2nd week of every month. Food grains are lifted and supplied to schools one month well in advance.

JRM observed that in Govt. High school Manugannhalli, the Principal has to bring the food grains from Primary school every day which is approximately 500 meters away from the school. It was informed that as this school is affected by rampant incident of theft. The principal has managed to get new kitchen utensils from the community as donation as the original vessels were stolen. Food grains are also being stolen. This issue has been raised with concerned officers, however, the same is yet to be resolved.

JRM raised concern over the issue of less amount of vegetables cooked on the day of visit in the school. For example in a school, as per the attendance of that day 13.5 kgs of vegetables should have been cooked however on weighing it was observed that only 5 kgs of vegetables were being cooked. The amount of pulses was only 3 kgs used for the preparation of MDM in place of 5 kgs. The teachers were unaware about food and cooking cost norms of Mid - day Meal Scheme. The Cluster Resource Person, who is supposed to monitor the implementation of scheme, was himself not aware of the norms.



JRM observed that less amount of vegetables were cooked in GHPS Hakattur, Madecari Kodagu, Principal Shri T P Swamy was ignorant about food and cooking cost norms of Mid - day Meal Scheme.

JRM observed that quality of pulses provided was not liked by the children in the schools Mansa Higher Primary School, Mysuru, and the same school have not received kitchen devices for the cooking of Mid day Meal.

The mid day meal is the inventory management for the mid day meal provided in the schools. State has created SATs (Student Management Tracking System) The food items and the staff management for the mid day meal are managed here. The system deals with the items management and the cost management for the mid day meal process The System deals with the approval of vendors and holiday & working day management. In the School level, the Indents for items are

generated. The Taluka will collect the Indents from all the school under the taluka and consolidate it. The District Officer will Approve the consolidated intend at taluka Level. The district level Indent Consolidation is done by district officer. The District level approval of Consolidated Indent is done by District Panchayat Once the Consolidated Indent is approved by District Panchayat, User can send it to District Manager to deliver the items in the list The Indent Items are received at Taluka Level. The Received Indent items are distributed by Taluka. The Taluka will approve the Indent of School Level.



During the field visit it was observed that registers are 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 in most cases. The JRM team appreciated that buffer stock of food grains was maintained at every school. However, storage bins for food grains were not available in many schools. It is recommended that storage bins may be provided to schools for safe and hygienic storage of food grains.

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 all visited schools. Kitchen devices were available in all the visited schools. Eating plates were also available for all children in the visited schools. These were provided by the donors of the community 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.



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. Central assistance of Rs. 53929.41 Lakh has been released for construction of 40477 Kitchen-cum-Stores. As on 31.12.2019, construction of 39305 Kitchen-cum-stores has been completed and construction of 57 kitchen-cum-stores is in progress. Construction work of 1115 kitchen-cum-stores is yet to be commenced.



It was observed during the field visit that all the visited schools have a proper kitchen-cum-store. The JRM recommended for completion of construction of kitchen-cum-stores in all remaining eligible schools quickly in a time bound manner.

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. Central assistance of Rs. 3102.90 lakh has been released during 2006-07 to 2018-19 towards procurement of 62058 units of kitchen devices. 42588 units of kitchen devices were also sanctioned as replacement of kitchen devices. State has procured all the sanctioned units of Kitchen devices.



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 food grains and other cooking ingredients were not available in most of the visited schools. It is recommended to provide storage bins for safe storage of food grains 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 provide 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 at least 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)

Government of India have launched MIS web portal online monitoring system for online monitoring of the Mid Day Meal Scheme during January 2012. All States and UTs are entering the annual as well as monthly data for vital components of MDMS such as enrolment, coverage, cooking cost, MME, infrastructures etc. on

monthly basis for the easy monitoring tool. The Government of Karnataka has been entering the data into the web portal regularly. District wise annual data entry status of the Chhattisgarh is given below: -

School Annual Data Entry Status Report For Financial Year : 2019 – 2020				
S. No.	District	Total Schools	Completed Schools	Completed Percentage
1	DHARWAD	1079	58	5%
2	CHIKKODI	2229	2007	90%
3	BANGALORE NORTH	825	759	92%
4	KODAGU	502	476	95%
5	BAGALKOT	1676	1606	96%
6	RAMANAGARA	1469	1437	98%
7	VIJAYAPURA	2303	2255	98%
8	TUMAKURU	2413	2372	98%
9	CHAMARAJANAGAR	937	923	99%
10	YADGIR	1099	1088	99%
11	CHITRADURGA	1999	1981	99%
12	BANGALORE SOUTH	1253	1245	99%
13	UTTARA KANNADA SIRSI	1258	1253	100%
14	BELAGAVI	1765	1758	100%
15	HASSAN	2630	2623	100%
16	BENGALURU RURAL	1198	1195	100%
17	BALLARI	1649	1645	100%
18	CHIKKAMAGALURU	1573	1570	100%
19	UTTARA KANNADA	1089	1087	100%
20	MANDYA	1957	1954	100%
21	KOLAR	2006	2003	100%
22	HAVERI	1515	1513	100%
23	RAICHUR	1716	1714	100%
24	KALABURAGI	1937	1935	100%
25	BIDAR	1730	1730	100%
26	CHIKBALLAPUR	1593	1593	100%
27	DAKSHIN KANNAD	1376	1376	100%
28	DAVANGERE	1839	1839	100%
29	GADAG	834	834	100%
30	KOPPAL	1154	1154	100%
31	MADHUGIRI	1452	1452	100%
32	MYSURU	2343	2343	100%
33	SHIVAMOGGA	2228	2228	100%
34	UDUPI	958	958	100%

School Annual Data Entry Status Report For Financial Year : 2019 – 2020				
S. No.	District	Total Schools	Completed Schools	Completed Percentage
	Total	53584	51964	97%

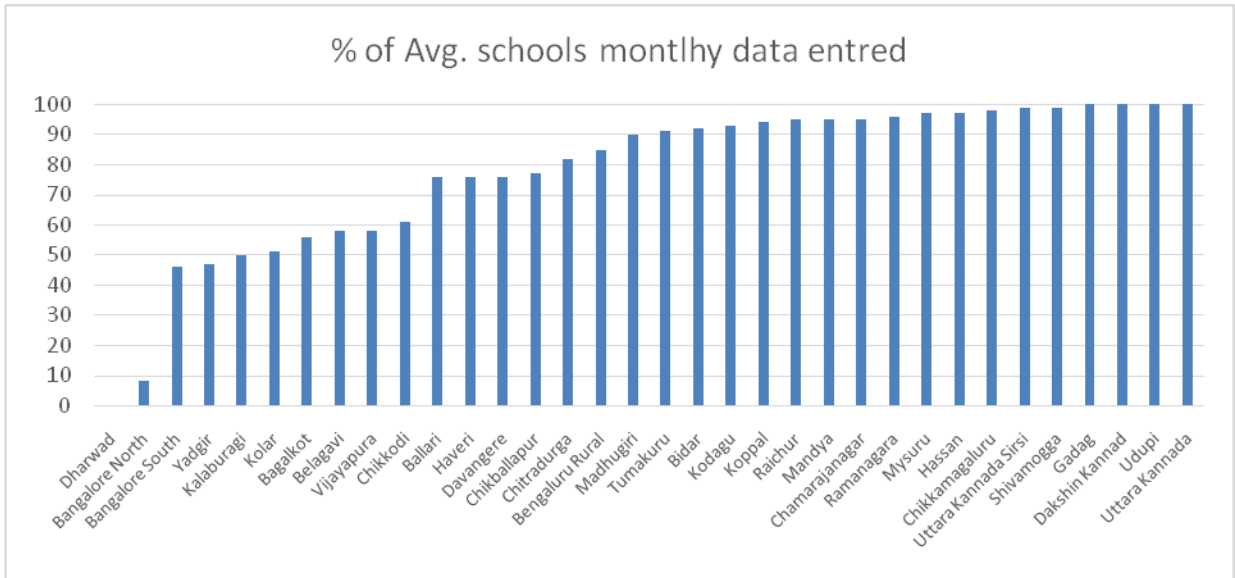
From the above table depict that in some districts viz. Dharwad(5%), Chikkodi(90%), Bangalore North(92%), Kodagu(95%) and Bagalkot(96%) are below the State average (97%).

Monthly Data Entry Status

Similarly, monthly utilization data of various components under MDMS should be entered into the web portal within every 10 day for the month. In Karnataka, 80% of schools have been completed monthly data entry on an average basis. The districts wise monthly data entry status is placed below:-

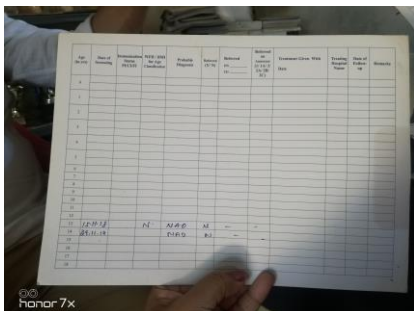
S.N o.	District	%age of Monthly Data Entry Status : FY 2019-20										
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Avg
1	DHARWAD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2	BANGALORE NORTH	27%	15%	8%	5%	2%	2%	1%	1%	0%	0%	8%
3	BANGALORE SOUTH	63%	58%	57%	51%	44%	38%	37%	33%	32%	0%	46%
4	YADGIR	65%	65%	58%	58%	56%	55%	23%	22%	18%	0%	47%
5	KALABURAGI	99%	91%	51%	47%	37%	37%	37%	37%	37%	27%	50%
6	KOLAR	100 %	99%	79%	51%	47%	39%	39%	23%	21%	11%	51%
7	BAGALKOT	97%	93%	91%	65%	51%	50%	45%	39%	28%	6%	56%
8	BELAGAVI	69%	66%	63%	63%	63%	63%	62%	62%	52%	12%	58%
9	VIJAYAPURA	79%	78%	68%	64%	61%	58%	55%	51%	39%	24%	58%
10	CHIKKODI	77%	73%	73%	73%	73%	72%	58%	54%	33%	28%	61%
11	BALLARI	95%	95%	95%	94%	94%	87%	82%	76%	38%	2%	76%
12	HAVERI	100 %	100%	100 %	100 %	100 %	99%	68%	49%	39%	3%	76%
13	DAVANGERE	100 %	100%	86%	85%	78%	70%	70%	70%	70%	31%	76%
14	CHIKBALLAPUR	83%	83%	83%	83%	83%	83%	83%	83%	83%	22%	77%
15	CHITRADURGA	100 %	100%	100 %	100 %	100 %	100 %	91%	25%	18%	0%	82%
16	BENGALURU RURAL	100 %	100%	100 %	99%	99%	99%	97%	75%	72%	14%	85%
17	MADHUGIRI	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	0%	90%
18	TUMAKURU	100	100%	99%	99%	99%	99%	99%	99%	99%	18%	91%

S.N o.	District	%age of Monthly Data Entry Status : FY 2019-20										
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Avg
		%										
19	BIDAR	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	25% 92%
20	KODAGU	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	34% 93%
21	KOPPAL	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	98% 38%	94%
22	RAICHUR	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	45% 95%
23	MANDYA	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	54% 95%
24	CHAMARAJANA GAR	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	55% 95%
25	RAMANAGARA	99% %	99%	99% %	99% %	99% %	99% %	99% %	99% %	99% %	99% %	69% 96%
26	MYSURU	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	66% 97%
27	HASSAN	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	98% 71%	97%
28	CHIKKAMAGALU RU	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	81% 98%
29	UTTARA KANNADA SIRSI	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	87% 99%
30	SHIVAMOGGA	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	89% 99%
31	GADAG	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
32	DAKSHIN KANNAD	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
33	UDUPI	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
34	UTTARA KANNADA	100 %	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	TOTAL	93% %	92%	89% %	86% %	85% %	84% %	80% %	75% %	71% %	39% %	80%



From the above graph 13 out of 34 districts very slow and less than the State average i.e. 80%. These districts are Dharwad(0%), Bangalore North(8%), Bangalore South(46%), Yadgir(47%), Kalaburagi(50%), Kolar(51%), Bagalkot(56%), Belagavi(58%), Vijayapura(58%), Chikkodi(61%), Ballari(76%), Haveri(76%) and Davangere(76%).

5.11 Convergence with Rastriya Bal SwasthyaKaryakram for health check-up, supplementation of micronutrients under WIFS & de-worming medicine under National de-worming day and health check-ups 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. JRM team observed that the medical teams have been conducting the health check-up of the children in all the schools. Iron Folic Acid tablets were not distributed to the children in Mysuru in all the visited schools. However, School Health Cards (SHC) of the students were kept in the visited schools. However entries were not made in some of the cards. State Government may also think of calculating BMI of children studying in schools with the help of teachers, which may give a fair idea about the children’s nutrition status.

JRM observed that the health check up of cook cum helpers have not been carried out in majority of the visited schools. JRM recommends that the health check up of cook cum helpers may also be carried out.

5.12. 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. However, in almost all visited schools, most of the teachers and block officials were unaware of the provisions of MDM rules. It is recommended that the stakeholders may be sensitised about the provisions of MDM rules.

5.13 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 90% of the enrolled children are having Aadhaar card. It is advised to ensure that all enrolled children are registered for Aadhaar.

5.14 Payment of Honorarium to Cook-cum-Helpers

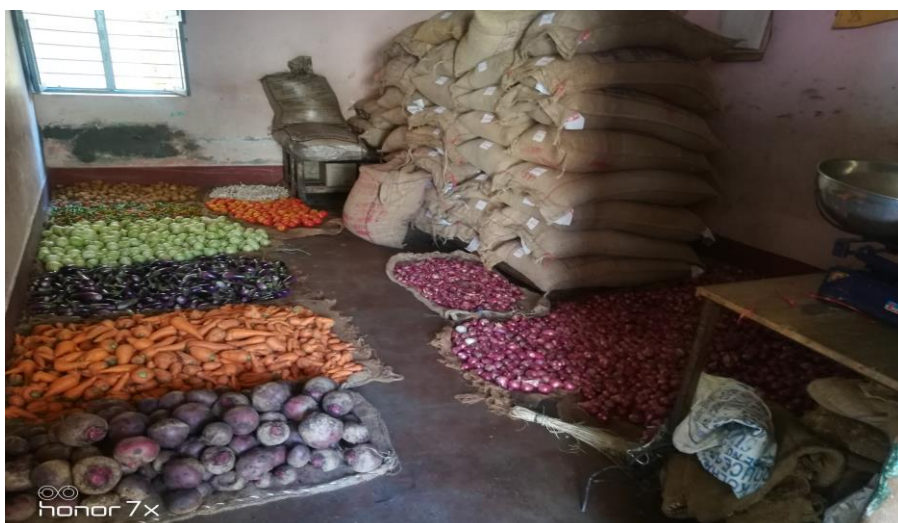
As per MDM guidelines, honorarium of Rs 1000 per month per Cook-Cum-Helper (CCH) is provided on sharing basis. Karnataka has grouped CCHs in two groups, i) Head cook, and ii) Helpers. In addition to its mandatory share of Rs 400 per CCH per month, State Government is providing additional Rs 1700 to head cook and Rs. 1600 to Helper. The JRM observed that in all the visited schools honorarium to cook-cum-helpers was paid up to the month of January. The CCHs also informed that they received honorarium regularly on monthly basis most of the times. It is praiseworthy, since the CCHs belong to socio-economically challenged segment of the society, it is of paramount importance that the payment of honorarium be made regularly on monthly basis.



JRM found that in almost all the visited schools i.e GMPS Bettagari, GLPS Chikkavaddarakeri, GHPS Kaggundi, GHPS Chikunda, cook cum helpers registered their complain regarding present honorarium and requested for a hike in monthly honorarium.

5.15 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 food grains are placed on the wooden plank or floor. It is recommended to provide storage bins to schools for safe and hygienic storage of food grains and other ingredients. The storage bins and sacks of food grains should be placed on raised platforms.



5.16 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 and although they too are involved in preparation of MDM, but majority of work is taken care by the Cook-cum-Helpers who responsible for cooking and serving the mid day meal. This has relieved them for attending to their teaching and learning activities.

The JRM team observed that at present teachers are maintaining daily information on caste wise and gender wise data on coverage of children under MDM. In most of the schools of both the district's teachers were found to be unaware about the food & nutrition norms of Mid-Day Meals.

JRM appreciated that that Principal Shri Nagaraju PC of GHHP Chilkunda, made efforts and was providing horse-gram, green gram and chana dal from her own on the day of the visit and children when asked were found to be very happy as it breaks the monotony, as only Toor dal is provided by State Government to schools on centralized procurement basis. She has also taken initiative and prepared compost pit in the school to make the children learn about composting.



5.17 Testing of meals

JRM observed that testing meals has not been carried out during 2018-19 and 2019-20. It is recommended to get the testing of cooked meal done as envisaged in MDM Rules.

5.18 Awareness of the Scheme

Entitlement of children under MDM, Menu of MDM and MDM logo were displayed in about 50% of the visited schools. In some schools during interaction with the community some people informed that they at times visit schools, 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.

5.19 School Nutrition Gardens

State Government of Karnataka has done very well on development of School Nutrition Gardens. Many schools have developed Nutrition Gardens, which are supplying fresh vegetables and fruits to the children. State may record some success stories and use them as case studies for encouraging the schools, which have yet to develop school nutrition gardens.



JRM observed that School Nutrition (Kitchen) Gardens have been set up in the schools Maria Niketan, Higher Primary School, Mysuru (Principal Ms. Arokiamary), St. Antony school Mysuru (Principal Mr. S.R. Lobo), Govt Higher Primary school Virikeri (Principal Mr. K P Puttanaiah) Govt. Higher PS Mallinathpura (Principal Shri B C. Parshuramagowda), Karnataka Public School Mysuru, GHPS, Yechagalli, Mysuru, GHPS Kirannahalli (Principal Shri Sridharma), GHPS Munrad (Shri Gururaja K.P), GMPS, Munrad (Ms. V.K Lalitha) etc.



5.20 Cooking Competitions

The JRM team is informed that Cooking competitions have not been organised in any districts.

5.21 Mode of Fuel

JRM observed that all the visited schools are using LPG as fuel, which is praise worthy.

CHAPTER -6

Nutritional assessment of Children from two districts

School age is the fourth developmental stage in the life span after infancy, toddler and pre-school stages. Significant growth and development occur during the transition phase between childhood and adolescence, which necessitates adequate nutrient intake to prevent nutritional imbalances. Nutritional imbalance in school age children can have serious health implications in their later years of life. It is well known that childhood malnutrition will retard mental development; predispose them to infections, decreased energy level, resulting in poor academic performance.

Many schemes and programmes have been initiated both at Centre and State level to combat malnutrition among school children, once such scheme being **Mid-Day Meal (MDM)**. According to Planning Commission report (2010), MDM programme has been successful in addressing classroom hunger and objective of social equity in Government school attendees. The scheme has also increased the school enrolment, attendance and decreased the student dropout number.

STUDY DESIGN AND METHODOLOGY

The study was conducted in the primary and upper primary Government run schools, where the MDM is in operation. Two districts were selected for the 12th JRM review, Kodagu district was selected by the Ministry of Human Resource Development (MHRD) and Mysuru district was selected by the Government of Karnataka. A cross sectional survey was carried out from 17th to 20th Feb, 2020 in a total of randomly selected 24 schools under MDM scheme. In each district, three to four blocks were randomly selected. The selected blocks in both districts were as follows:

3. Mysuru district- Mysuru North, Nanjangud, Periyapatna and Hunsur.
4. Kodagu district- Somwarpet, Madikeri, Virajpet

A total of 24 schools in both districts were visited and evaluated for the following terms of reference for nutritional aspects as prescribed:

1. Assess the operationalization of MDM.
2. Assess the anthropometric status of sample of children availing MDM – height ,weight, Mid upper arm circumference(MUAC)
3. Calculate Body Mass Index (BMI) and classify as per height, weight
4. Review the quality and quantity of the served MDM
5. Suggest some nutritionally balanced region specific recipes.

In addition to the above TOR, the team studied the following:

- Measure Skinfold thickness (SFT)
- Assess the dietary intake in a sub sample of children.
- Study the trends/ frequency of consumption of – High Fat, Salt and Sugar (HFSS) rich processed foods.
- Observe clinical signs and symptoms of nutritional deficiency.
- Impart Nutrition education

Tools Used in the study were:

- For Anthropometry: SECA -201 Ergonomic tape, MCP Digital Stadiometer, Hoffen HO-18 Digital weighing balance, Saehan-Skin fold calipers. Measurements were taken according to standard guidelines. Z score were calculated using WHO Anthroplus software.
- Dietary Intake: Standard measuring cups, Standard questionnaire for 24 hour Dietary Recall, Semi structured questionnaire to study the trends/ frequency of consumption of –High Fat, Salt and Sugar (HFSS) rich processed foods. Nutrient intake were calculated using DietSoft software.
- Clinical Signs and symptoms: Visual observation conducted by trained researchers.

- Nutrition Education: Educative videos were prepared to create awareness regarding personal hygiene, balanced diet, food habits and menstrual hygiene (only for girls of pubertal age).

On the basis of z-scores following health indicators were calculated as per WHO guidelines:

- Underweight- children with weight for age z-scores $< -2SD$
- Stunting- children with height for age z-scores $< -2SD$
- Wasted- BMI or weight for age z-scores $< -2SD$
- Thinness - children with BMI for age z-scores $< -2SD$

Statistical Analysis:

Statistical analysis such as Independent t-test, Anova, Chi-square, One sample t-test was done using SPSS 16. WHO Anthro Plus software was used for deriving z-scores from anthropometric data. Mean \pm SD and One sample t-test was calculated for the dietary data. The n (%) was calculated for HFSS data. All the above parameters are classified according age and gender.

RESULTS

1. The operationalization of Mid Day Meal (MDM)

Particulars of schools covered- A total of 24 schools (Mysuru: 15; Kodagu: 09) were evaluated for physical facilities available at schools. The details of school location, number of student and staff strength including cooks is given in table 1. The student strength ranged from 24 to 1461. The average number of teachers was 4, while the minimum number of cooks employed was 2.

Table 1: School location, student and staff strength

Sl. No.	School Name	Place	Classes	Total No. of students	Total No. of Staff	Total No. of Cooks
1.	Christ The King Convent	K.R.Puram, Mysuru	1 st -10 th	1461	5	3

2.	St Rita's Higher Primary School	Manandavadi Road, Mysuru	1 st – 7 th	185	6	2
3.	Maria Niketana Higher Primary School	Bogadi, Mysore (rural)	1 st – 7 th	422	6	4
4.	Govt Higher Primary School	Manuganahalli, Mysore (rural)	1 st – 8 th	86	9	2
5.	Higher Primary School	Bilikere, Mysuru (Rural)	1 st - 7 th	284	13	4
6.	Sarkari GHPS	Nanjangud/ Mysuru	1 st – 7 th Std.	158	5	3
7.	GHPS	Eachagalli, Nanjangud Taluk	1 st – 7 th Std.	153	4	3
8	Govt. Adarsh Vidyalaya	Debur, Nanjangud Taluk	1-10 th	398	6	4
9.	GHPS Halladkeri	Nagammor Town, Nanjangud	1 st – 7 th Std.	94	3	2
10.	Karnataka Public School	Halladakeri Hemmaragala, Nanjangud	LKG – 8 th Std.	594	14	5
11.	Govt. High School	Kampalapura, Periyapatna Taluk, Mysuru	8-10 th	220	4	4
12	GHPS	Kampalapura, Periyapatna Taluk, Mysuru	1 st – 7 th Std.	122	5	3
13	GHPS	Kiranalli, Periyapatna Taluk, Mysuru	1 st – 7 th Std.	120	4	3
14	GLPS	Chikka Vaddarakeri, Periyapatna Taluk, Mysuru	1-4 th Std.	24	4	1

15	GHPS	Kaggundi, Periyapatna Taluk, Mysuru	1 st – 7 th Std.	100	5	3
16	Model Primary School	Madapura, Somwarpettaluk, Kodagu	1 st – 7 th Std.	85	5	2
17	GHS	Madapura, Somwar pet, taluk, Kodagu	8-10 th	74	8	2
18	D. Chennamma Aided High School	Madapura, Somwarpet, Kodagu	8 th – 10 th	150	6	3
19	GHPS	Gargandoor, Kodagu	1 st – 7 th Std.	136	4	3
20	GHPS	Suntikoppa, Kodagu	1 st – 7 th Std.	111	4	3
21	Govt. Model School	Kakotuparambu, Virajpet Taluk, Kodagu	1 st – 7 th Std.	74	4	2
22	Govt. High School	Kakotuparambu, Virajpet Taluk, Kodagu	8 th -10 th	83(only 8 th)	7	2
23	Govt. Model Primary School	Virajpet, Kodagu	1 st – 8 th Std.	169	5	3
24	St. Anne's Institutions	Virajpet, Kodagu	1-8 th	1200	61	8

All the buildings were pucca in nature and were government buildings with the open space in the front and the back. Only one school in Mysuru had minimum rooms and no open space. In upper primary schools, all schools have sufficient rooms for teaching. All the schools had separate toilets for boys and girls. In some schools, physical facilities such as school building, furniture, toilets and drinking water facility were donated by companies such as Nestle, ITC, BHEL, DELL etc., under the CSR activity. Participation of local community, philanthropists and alumni was evident in Kodagu district. The infrastructure for storage of food grains, kitchen area was inadequate in some of the rural schools. It was observed that

grains, oil, milk powder and vegetables were stored in classroom and in staff room also.

Most of the schools were cooking food according to the menu, with some exception in Kodagu district. The reasons cited were ease of preparation and children's liking. The source of water was borewell and tap water in Mysuru district, while in Kodagu district wells were also used for drinking water. Water filters/purifiers facilities were present in all schools. In most of the schools in Kodagu district, water stored in drums was used for hand wash due to lack of tap water supply.

Teachers (In-charge MDM) were mostly involved in weighing food ingredients according to the total number of students present and allocation of food, supervising food preparation, its distribution to children, tasting the food and maintenance of records. The teachers expressed that this was an additional responsibility. First aid kit was not available in most schools. Some schools in Kodagu district had science labs, libraries, smart classroom, computer labs, NCC room and a separate dining area.

Majority of schools (90%) schools had displayed entitlement of children, 100% had MDM logo, 90% displayed menu on the walls. IFA tablets were not available in any of schools. Deworming was done on the National deworming day (10th Feb 2020) in all the schools. Health check-up for all the cooks as suggested were done in last 6 months. The cooks had undergone periodic training also.

2. Assessment of anthropometric status among school children from Mysuru and Kodagu districts

Table 2: Coverage Particulars for Anthropometric measurements

		Districts		Total	
		Mysuru	Kodagu	N	%
Number of Schools covered		10	8	18	100
No. of students covered for Anthropometry	Boys	306	257	563	100
	Girls	368	275	643	100
	Total	674	532	1206	100
No. of Schools covered for		10	8	18	100

Institutional Diet survey				
No. of children covered for individual Diet Survey	187	113	300	100
No. of MDM in-charge teachers interviewed	13	6	19	100
No. of SMC Members interviewed	11	8	19	100
MDM Functionaries (block/district level officers) interviewed	11	8	19	100
No. of Cook Cum Helpers (CCH) interviewed	26	12	38	100

Anthropometric measurements of children from Mysuru region (Age-wise distribution)

The mean anthropometric measurements distributed according to age wise is presented in Table 3. The growth pattern in terms of height and weight showed increasing trend with age. Whereas, the linear trend was not observed in TSF and MUAC. Similar non-linear trend was observed in BMI and MUAMC in all age groups (Table 3). The gender wise anthropometric measurements and indices data showed that the parameters were significantly ($p < 0.001$) higher in girls compared to boys (Table 4).

Anthropometric measurements of children from Kodagu region (Age-wise distribution)

The mean anthropometric data of children from Kodagu district showed that the height of the children showed linear trend according to increase in age, whereas no significant ($p < 0.001$) difference was observed in weight and MUAC among age group 5-6 years and 7-8 years. TSF was similar in all age groups as represented in Table 3. The trend of weight distribution was reflected in BMI and MUAMC (Table 3).

The gender wise anthropometric measurements and indices data showed that the parameters were significantly ($p < 0.001$) higher in girls compared to boys (Table 4).

Table no. 3: Age-wise distribution of anthropometric measurements of children – Mysuru district

Age group (years)	No of subjects	Age (years)	Height (cm)	Weight (kg)	TSF (mm)	MUAC (cm)	MUAMC (cm)
5-6	42	5.86 ± 0.35 ^a	114.86 ± 6.39 ^a	18.16 ± 3.15 ^a	8.32 ± 2.9 ^a	15.04 ± 3.44 ^a	12.43 ± 2.96 ^a
7-8	169	7.6 ± 0.49 ^b	122.08 ± 7.12 ^b	21.22 ± 3.94 ^b	9.05 ± 3.8 ^{ab}	16.11 ± 3.36 ^{ab}	13.27 ± 2.74 ^a
9-10	164	9.59 ± 0.49 ^c	131.87 ± 7.83 ^c	26.7 ± 6.41 ^c	10.23 ± 4.55 ^{bc}	16.71 ± 5.12 ^b	13.49 ± 4.21 ^a
11-12	180	11.49 ± 0.5 ^d	142.23 ± 7.93 ^d	32.65 ± 7.37 ^d	11.44 ± 4.86 ^{cd}	18.33 ± 4.48 ^c	14.74 ± 3.64 ^b
13-14	119	13.29 ± 0.45 ^e	150.67 ± 6.36 ^e	38.3 ± 8.4 ^e	12.3 ± 5.05 ^d	20.93 ± 2.95 ^d	17.07 ± 2.18 ^c
<i>p</i> -value	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Values with the same superscripts do not differ significantly from each other							

Table no. 4: Gender-wise distribution of anthropometric measurements of children – Mysuru district

Gender group	No of subjects	Age (years)	Height (cm)	Weight (kg)	TSF (mm)	MUAC (cm)	MUAMC (cm)
Boys	306	10.06 ± 2.3	133.7 ± 13.15	27.18 ± 8.32 [*]	8.87 ± 3.42 [*]	16.95 ± 4.24 [*]	14.19 ± 3.65

Girls	368	9.98 ± 2.29	135.05 ± 13.65	29.46 ± 9.65*	11.85 ± 5.07*	18.19 ± 4.58*	14.47 ± 3.6
p-value	-	0.687	0.198	0.001	<0.001	<0.001	0.28
Values with the same superscripts differ significantly from each other							

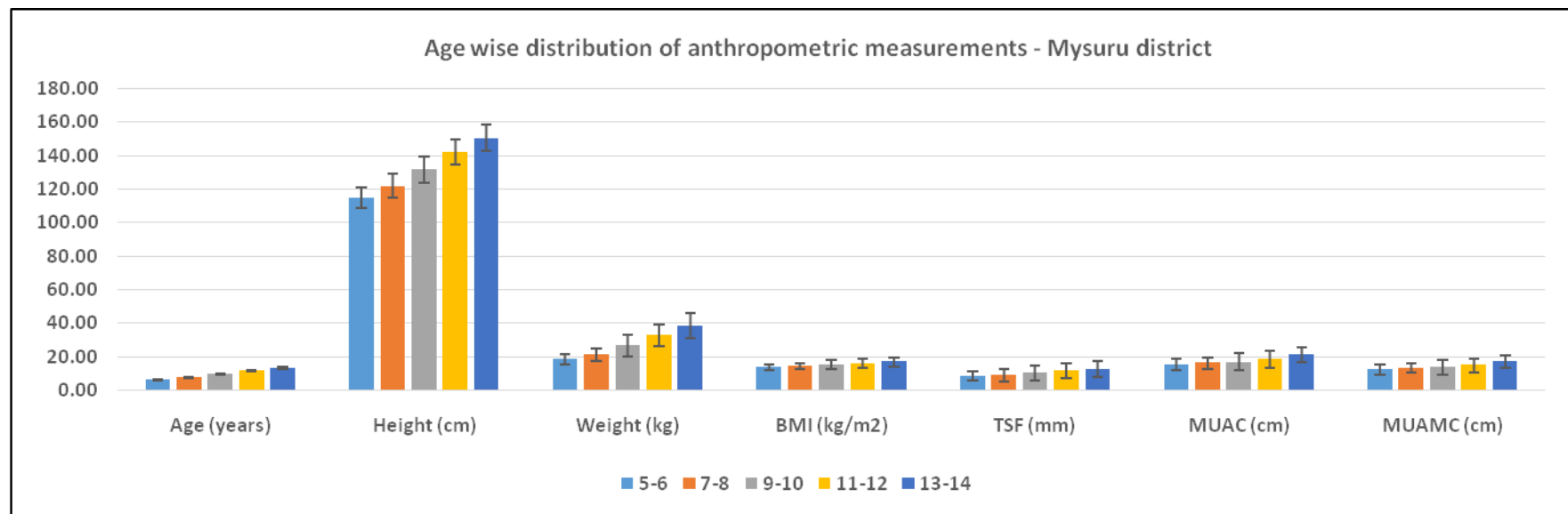


Figure no.1: Schematic representation of age-wise distribution of anthropometric measurements of children – Mysuru district

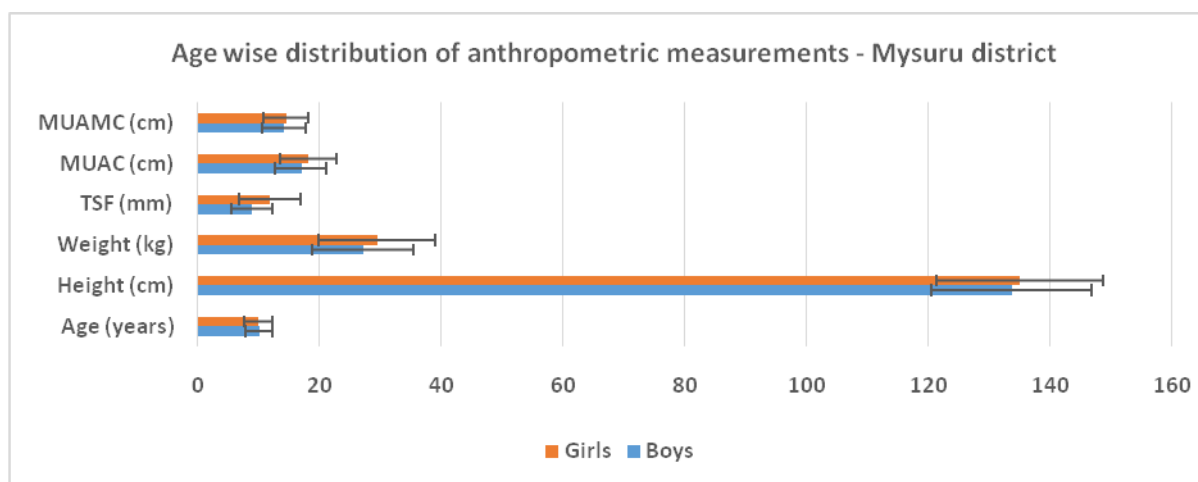


Figure no. 2: Schematic representation of gender-wise distribution of anthropometric measurements of children – Mysuru district

Table no. 5: Age-wise distribution of anthropometric measurements of children – Kodagu district

Age group (years)	No of subjects	Age (years)	Height (cm)	Weight (kg)	TSF (mm)	MUAC (cm)	MUAMC (cm)
5-6	18	5.67 ± 0.49 ^a	114.85 ± 4.45 ^a	18.15 ± 1.83 ^a	9.22 ± 2.05 ^a	16.46 ± 1.07 ^a	13.56 ± 0.88 ^a
7-8	79	7.59 ± 0.49 ^b	122.02 ± 6.82 ^b	20.57 ± 3.26 ^a	9.80 ± 3.45 ^a	16.82 ± 1.36 ^a	13.74 ± 0.99 ^{ab}
9-10	136	9.56 ± 0.5 ^c	130.14 ± 7.79 ^c	24.55 ± 4.89 ^b	10.57 ± 3.62 ^a	17.86 ± 1.89 ^b	14.54 ± 1.34 ^b
11-12	188	11.38 ± 0.49 ^d	140.21 ± 7.54 ^d	30.4 ± 5.54 ^c	11.38 ± 4.03 ^a	19.25 ± 2.06 ^c	15.68 ± 1.58 ^c
13-14	110	13.11 ± 0.31 ^e	148.67 ± 7.15 ^e	37.98 ± 7.91 ^d	14.10 ± 10 ^b	21.27 ± 2.68 ^d	16.84 ± 3.21 ^d

<i>p</i> -value	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Values with the same superscripts do not differ significantly from each other							

Table no. 6: Gender-wise distribution of anthropometric measurements of children – Kodagu district

Gender group	No of subjects	Age (years)	Height (cm)	Weight (kg)	TSF (mm)	MUAC (cm)	MUAMC (cm)
Boys	257	10.57 ± 2	135.18 ± 11.9	27.82 ± 7.58*	9.85 ± 4.16*	18.58 ± 2.55*	15.48 ± 2
Girls	275	10.48 ± 2.01	136.45 ± 12.25	29.35 ± 8.82*	12.89 ± 6.68*	19.13 ± 2.55*	15.07 ± 2.34
<i>p</i> -value	-	0.636	0.224	0.032	<0.001	0.013	0.032
Values with the same superscripts differ significantly from each other							

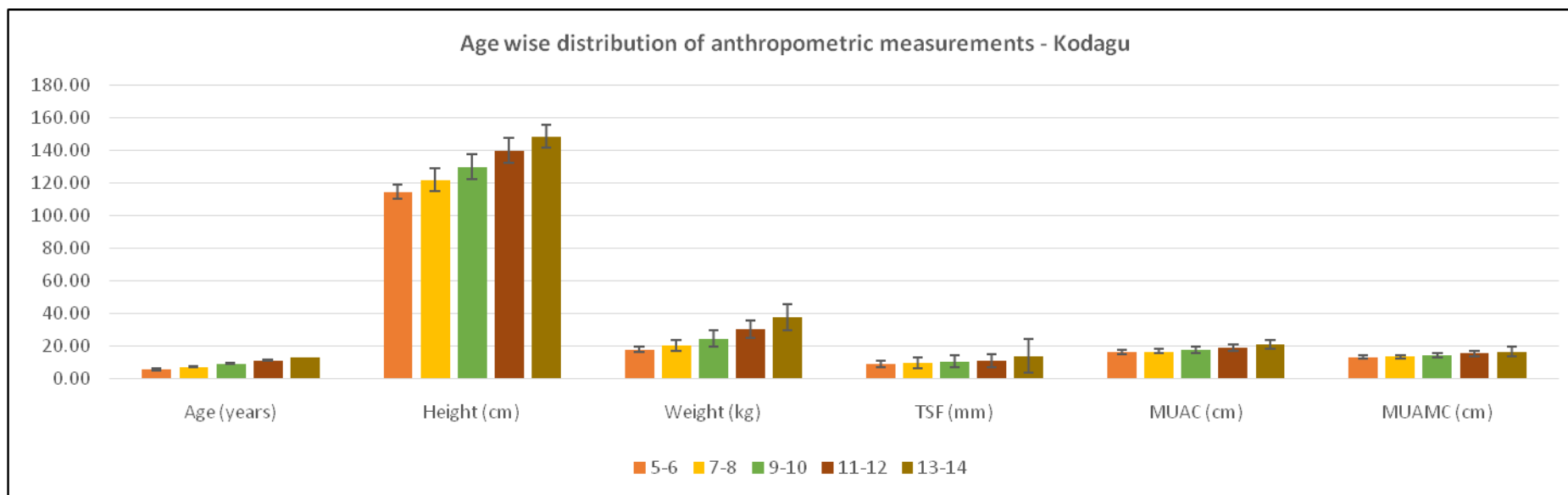


Figure no. 3: Schematic representation of age-wise distribution of anthropometric measurements of children – Kodagu district

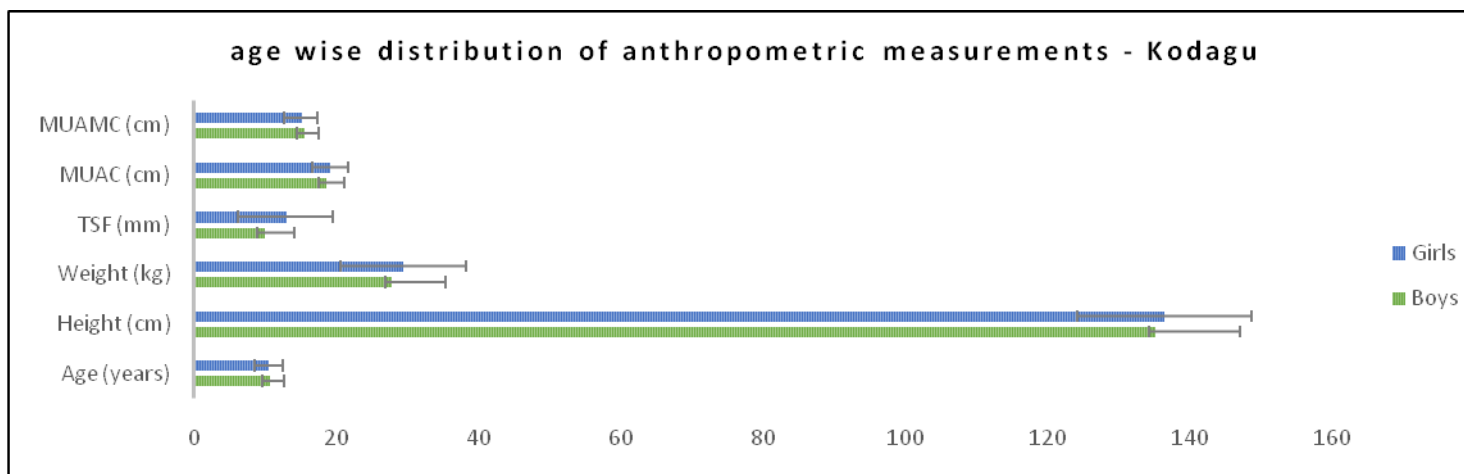


Fig no. 4: Schematic representation of gender-wise distribution of anthropometric measurements of children – Kodagu district

Table no. 7: Age-wise distribution of BMI of children – Mysuru&Kodagu district

Age group (years)	Mysuru district		Kodagu district	
	No of subjects	BMI (kg/m ²)	No of subjects	BMI (kg/m ²)
5-6	42	13.69 ± 1.55 ^a	18	13.75 ± 0.96 ^a
7-8	169	14.18 ± 1.82 ^a	79	13.76 ± 1.24 ^a
9-10	164	15.29 ± 3.02 ^b	136	14.37 ± 1.76 ^a
11-12	180	16.01 ± 2.64 ^b	188	15.38 ± 1.88 ^b
13-14	119	16.79 ± 3.12 ^c	110	17.09 ± 2.94 ^c
<i>p</i> -value	-	<0.001	-	<0.001
Values with the same superscripts do not differ significantly from each other				

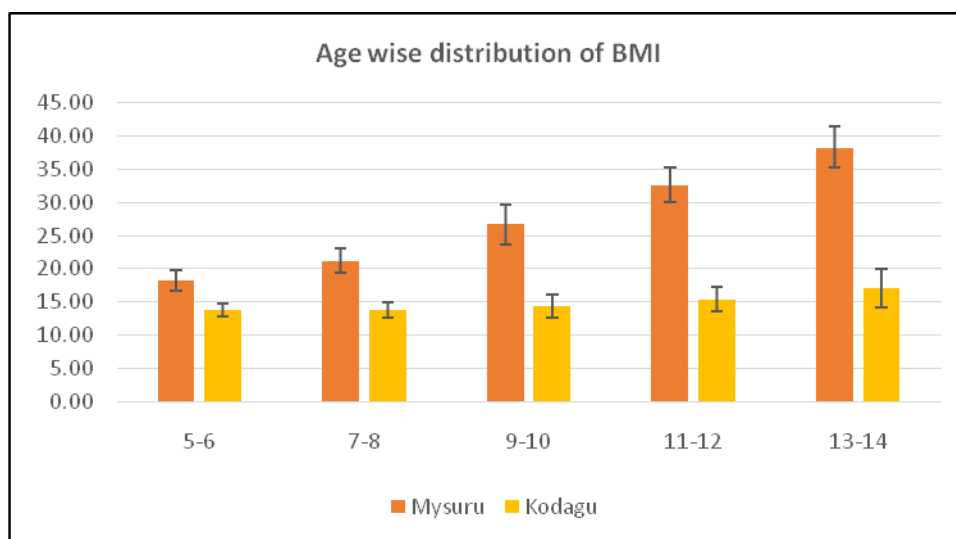


Figure no. 5: Schematic representation of age-wise distribution of BMI of children – Mysuru&Kodagu district

Table no.8: Gender-wise distribution of BMI of children – Mysuru&Kodagu district

Gender group	Mysuru district		Kodagu district	
	No of subjects	BMI (kg/m ²)	No of subjects	BMI (kg/m ²)
Boys	306	14.9 ± 2.48*	257	14.95 ± 2.07*
Girls	368	15.7 ± 2.95*	275	15.4 ± 2.51*
<i>p</i> -value	-	<0.001	-	0.025
Values with the same superscripts differ significantly from each other				

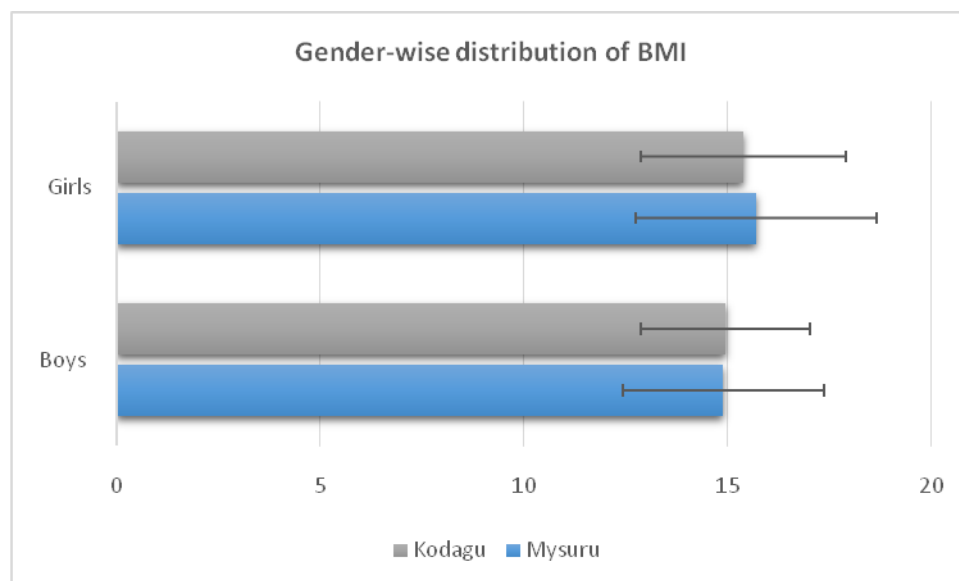


Figure no. 6: Schematic representation of gender-wise distribution of BMI of children – Mysuru&Kodagu district

Classification of weight, height according to age using WHO Z-scores

Mysuru District

Table no. 9: Classification of BMI for Age based on WHO Z scores of selected school children – Mysuru district (n=673)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X ² (P-value)
Severe Thinness	50 (16.4)	18 (4.9)	68 (10.1)	40.938 (<0.001)
Moderate Thinness	69 (22.6)	56 (15.2)	125 (18.6)	
Mild Thinness	80 (26.2)	105 (28.5)	185 (27.5)	
Normal	86 (28.2)	155 (42.1)	241 (35.8)	
Overweight	13 (4.3)	25 (6.8)	38 (5.6)	
Obesity	5 (1.6)	9 (2.4)	14 (2.1)	
Severe obesity	2 (0.7)	0 (0)	2 (3)	

Among boys, moderate and severe thinness was more prevalent compared to girls. Majority of the girls had normal BMI for age (42.1%) compared to boys (28.2%). A very small number of children were found to be overweight/obese with no differences between the genders. Overall, BMI for age differed significantly ($p < 0.001$) between girls and boys, with higher thinness among boys than girls.

Table no. 10: Classification of Height for Age based on WHO Z scores of selected school children – Mysuru district (n=673)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X ² (P-value)
Severe stunting	7 (2.3)	6 (1.6)	13 (1.9)	5.976 (0.309)
Moderate Stunting	31 (10.2)	28 (7.6)	59 (8.8)	

Mild Stunting	94 (30.8)	92 (25)	186 (27.6)	
Normal	154 (50.5)	214 (58.2)	368 (54.7)	
Tall	19 (6.2)	32 (7.6)	47 (6.9)	

Around 35% of the girls and boys had mild to moderate stunting and 2% had severe stunting. 55% of girls and boys had normal height for age. There was no significant difference ($p=0.309$) observed between the genders with respect to height for age.

Table no.11: Classification of Weight for Age based on WHO Z scores of selected school children – Mysuru district (n=372)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X ² (P-value)
Normal	66 (38)	104 (52.5)	170 (45.8)	13.24 (0.039)
Mild underweight	63 (36.2)	60 (30.5)	123 (33.1)	
Moderate underweight	37 (21.3)	28 (14.1)	65 (17.5)	
Severe underweight	8 (4.6)	6 (3)	14 (3.8)	

Majority of girls had normal weight for age (52.5%) than boys (38%), overall 45.8% were in the normal category. A higher number of boys (25%) were moderately and severely underweight than girls (17.1%). The difference in the weight for age were significantly lower among boys ($p=0.039$) than in girls. Overall in Mysore district, BMI and weight for age was lower among boys than girls.

Kodagu District

Table no. 12: Classification of BMI for age based on WHO Z-scores of school children (n=532)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X ² (P-value)
Severe	27 (10.5)	10 (3.6)	37 (7)	13.717 (0.018)

thinness				
Moderate thinness	62 (24.1)	58 (21.1)	120 (22.6)	
Mild thinness	83 (32.3)	88 (32)	171 (32.1)	
Normal	76 (29.6)	109 (39.6)	185 (34.8)	
Overweight	8 (3.1)	8 (2.9)	16 (3)	
Obesity	1 (0.4)	2 (0.7)	3 (0.6)	

Moderate and severe thinness was more prevalent in boys when compared to girls which showed significant difference (P=0.018). Majority of the girls had normal BMI for age compare to boys. Overweight and obesity was found to be similar between genders. Overall, BMI for age was found to be significant (P=0.018) between the genders.

Table no. 13: Classification of Height for age based on WHO Z-scores of school children (n=532)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X ² (P-value)
Severe stunting	8 (3.1)	7 (2.5)	15 (2.8)	3.356 (0.763)
Moderate stunting	36 (14)	37 (13.5)	73 (13.7)	
Mild stunting	89 (34.6)	82 (29.8)	171 (32.1)	
Normal	111 (43.2)	138 (50.2)	249 (46.8)	
Tall	13 (5.1)	17 (4)	24 (4.5)	

Overall, the height for age did not show significant difference between the genders. However majority of boys and girls were normal (46.8%) and mild stunting (32.1%).

Table no. 14: Categorization of Weight for age according based on WHO Z-scores of school children (n=532)

Classification	Boys n (%)	Girls n (%)	Total n (%)	X²(P-value)
Severe underweight	8 (8.1)	11 (11.3)	19 (9.7)	5.362 (0.373)
Moderate underweight	29 (29.3)	18 (18.6)	47 (24)	
Mild underweight	31 (28.3)	31 (37.1)	62 (32.7)	
Normal	31 (31.3)	37 (38.1)	68 (34.7)	

The trend in the weight for age was similar between boys and girls. Around 32% of the total children were mild underweight and 24% were moderately underweight with majority being boys (29.3%).

3. Dietary intake among sub sample of children in Mysuru and Kodagu district

Mysuru District

Actual nutrient intake was analyzed by random sampling in different age group children by one day 24-hour recall method.

Table no.15: Nutrient intake of children aged 5-9years in Mysuru district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (kcal)	867.36	226.93	868.78	1690	51.40
Carbohydrates (g)	153.12	57.99	151.43	253.5	59.7
Protein (g)	27.02	11.61	23.87	29.5	80.9
Fat (g)	26.28	9.29	26.6	30	88.66

In children aged 5-9 years, the mean energy (867.36 kcal), carbohydrates (153.12g), protein (27.02g) and fat (26.28g) intake was lower when compared with that of RDA.

Table no. 16: Nutrient intake of boys aged 10-12 years in Mysuru district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1022.6	331.3	1044.0	2190	47.67
Carbohydrates (g)	162.43	60.02	166.24	328.5	50.60
Protein (g)	25.22	10.05	25.97	39.9	65.08
Fat (g)	21.32	11.74	22.02	35	62.91

In Boys aged 10-12 years, the mean energy, carbohydrate, protein and fat intake was found to be 1022.6 kcal, 162.43g, 25.22g and 21.32g respectively which was lesser when compared to RDA. The average intake of carbohydrates and the total energy was deficient in the diet.

Table no. 17: Nutrient intake of boys aged 13-15 years in Mysuru district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (kcal)	1208.6	255.77	1212.1	2750	44.07
Carbohydrates (g)	217.89	49.19	204.37	412.5	49.54
Protein (g)	36.13	6.27	37.03	54.3	68.19
Fat (g)	28.50	8.26	27.69	45	61.5

In Boys, aged 13-15 years, the mean intake of energy (1208.6 kcal), carbohydrate (217.89g), protein (36.13g) and fat (28.50g) were found to be less when compared to the RDA.

Table no. 18: Nutrient intake of girls aged 10-12 years in Mysuru district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (kcal)	846.99	270.19	808.39	2010	40.2
Carbohydrates (g)	137.17	48.93	128.20	301.5	42.52
Protein (g)	24.64	10.16	23.99	40.4	59.38
Fat (g)	22.79	8.03	22.23	35	63.51

In Girls, aged 10-12 years, the mean energy (846.99 kcal), carbohydrates (137.17g), protein (24.64g) and fat (22.79g) intake were found to be lesser when compared with the RDA.

Table no.19: Nutrient intake of girls aged 13-15 years in Mysuru district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1137.23	379.40	1056.53	2330	45.34
Carbohydrates (g)	210.95	60.41	223.61	349.5	63.98
Protein (g)	31.83	9.42	34.81	51.9	67.07
Fat (g)	22.49	7.31	22.07	40	55.18

In Girls, aged 13-15 years, the mean intake of energy (1137.23kcal), carbohydrate (210.95g), protein (31.83g) and fat (22.49g) was lesser compared to RDA.

Kodagu District

Table no.20: Nutrient intake of children aged 5-9years in Kodagu district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1213.3	268.87	1098.5	1690	65.0
Carbohydrates (g)	244.83	64.27	224.0	253.5	88.36
Protein (g)	26.0	6.81	26.5	29.5	89.83
Fat (g)	20.33	4.76	19.5	30	65.0

Children aged 4-9 years were selected randomly. The mean values of all the nutrients were lower than the RDA with a higher deficit in fat.

Table no.21: Nutrient intake of boys aged 10-12 years in Kodagu district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1203.3	185.39	1289.4	2190	58.87
Carbohydrates (g)	189.26	29.87	183.7	328.5	55.92
Protein (g)	24.68	8.43	24.60	39.9	61.65
Fat (g)	23.41	9.51	24.93	35	71.22

In a random selection of boys aged 10-12 years, the mean intake of energy (1203.3Kcal), carbohydrates (189.26g), protein (24.68g) and fat (23.41g) were found to be lower when compared to the RDA except for fat, which was mainly contributed by intake of chips and non-vegetarian food such as mutton and chicken in the diet.

Table no.22: Nutrient intake of boys aged 13-15 years in Kodagu district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1320.0	185.73	1338.2	2750	48.66
Carbohydrates (g)	220.70	47.80	218.10	412.5	52.87
Protein (g)	42.59	8.94	41.57	54.3	76.55
Fat (g)	30.67	11.39	31.95	45	72.11

In a sub-sample of boys randomly selected aged 13-15 years, the mean intake of energy (1320Kcal), carbohydrates (220.70g), protein (42.59g) and fat (30.67g) were found to be lower when compared to the RDA.

Table no. 23: Nutrient intake of girls aged 10-12 years in Kodagu district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	1155.3	158.40	1163.8	2010	57.90
Carbohydrates (g)	228.24	46.88	210.0	301.5	69.65
Protein (g)	27.88	3.83	29.2	40.4	72.27
Fat (g)	28.89	16.27	20.55	35	58.71

In a sub-sample of girls aged 10-12 years, the mean intake of energy and fat met only around 60% of the adequacy of RDA. The adequacy of protein upto 72% was met due to higher frequency of fish and chicken in the 24-hour recall than Mysuru district. One day recall may not be a true reflect of net/daily nutrient intake.

Table no.24: Nutrient intake of girls aged 13-15 years in Kodagu district

Nutrients	Mean	SD	Median	RDA	% Adequacy
Energy (Kcal)	967.05	241.51	947.16	2330	40.65
Carbohydrates (g)	162.10	38.03	164.94	349.5	47.19
Protein (g)	31.85	10.43	30.90	51.9	59.53
Fat (g)	26.18	14.84	21.80	40	54.5

In a sub-sample randomly selected from among girls aged 13-15 years, the mean intake of energy, protein and fat were found to be lower when compared to the RDA.

Table no. 25: Comparison of nutrient adequacy between Mysuru and Kodagu district

Age group	Adequacy of nutrient intake (%)				
	District	Energy (Kcal)	Carbohydrates (g)	Protein (g)	Fat (g)
Children 5 - 9 years	Mysuru	51.40	59.70	80.90	88.66
	Kodagu	65.0	88.36	89.83	65.0
Boys 10 - 12 years	Mysuru	47.67	50.60	65.08	62.91
	Kodagu	58.87	55.92	61.65	71.22
Boys 13 - 15 years	Mysuru	44.07	49.54	68.19	61.50
	Kodagu	48.66	52.87	76.55	72.11

Girls 10 - 12 years	Mysuru	40.20	42.52	59.38	63.51
	Kodagu	57.90	69.65	72.27	58.51
Girls 13 - 15 years	Mysuru	45.34	63.98	67.07	55.18
	Kodagu	40.65	47.19	59.53	54.5

Table no. 26: Dietary intake of macro-nutrients among children

Nutrients	Mysuru	Kodagu
Energy (Kcal)	867-1208	967-1320
Protein (g)	25-36	25-43
Carbohydrates (g)	137-218	162-244
Fat (g)	21-29	20-31

The dietary intake of macro-nutrients were similar among the two districts. However, the nutrient adequacy and intake levels did not meet the Recommended Dietary Allowances across different age groups. Deficit in protein was higher in 13-15years age group than other age groups in both the districts. The micro-nutrient deficiency of iron and B-complex vitamins and the associated clinical signs were higher and evident in Kodagu than in Mysuru. Overall, a higher deficit in carbohydrates and energy was observed across all the age groups irrespective of the district.

4. Trends and Frequency of consumption of High fat, Salt and Sugar (HFSS) rich processed foods

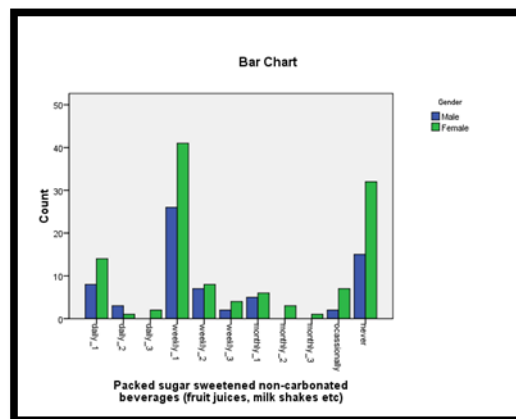
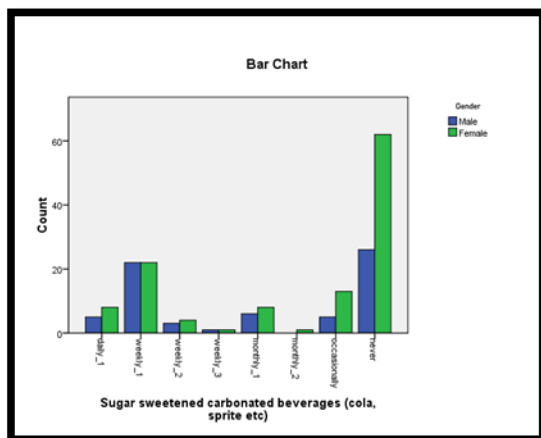
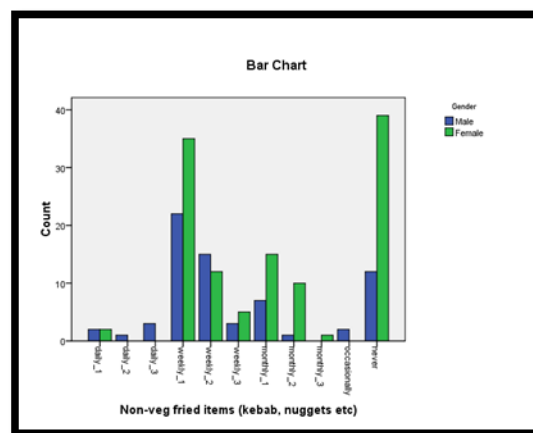
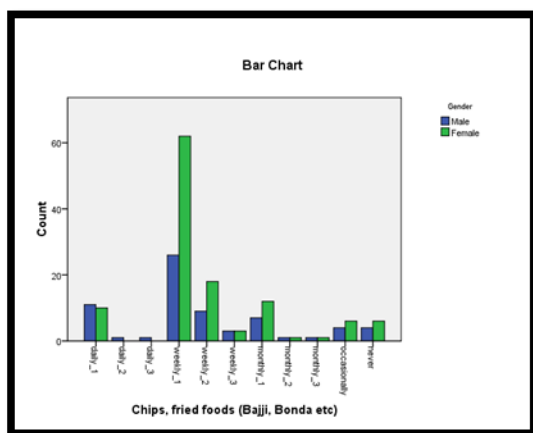
a) Mysuru District

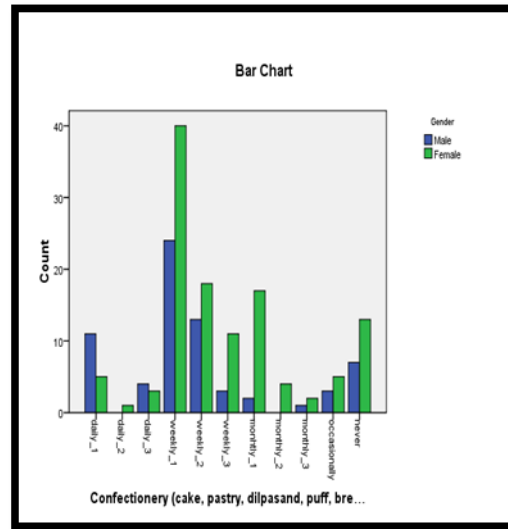
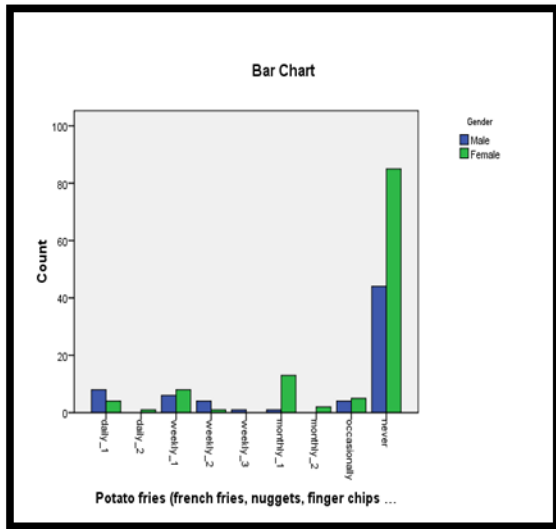
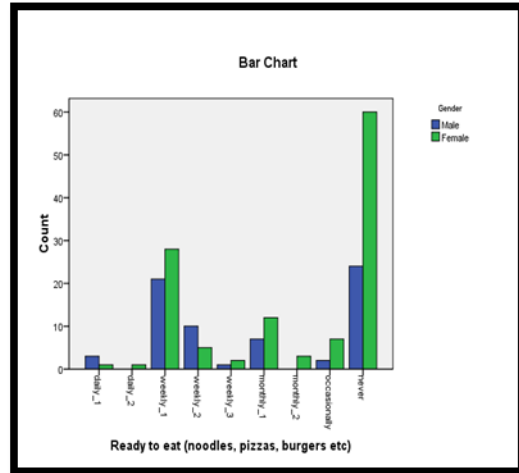
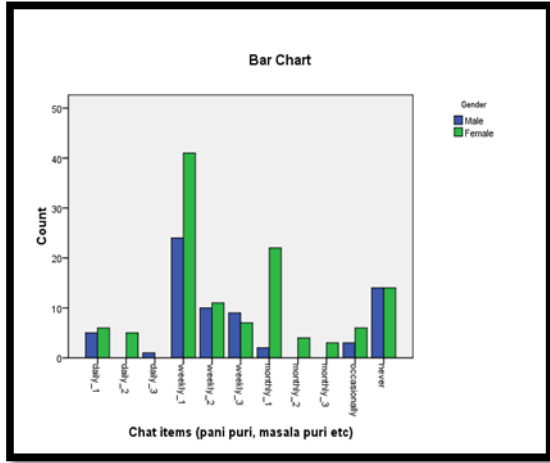
Our team visited 9 schools in and around Mysuru on the 17th and 18th of February, 2020. The frequency of high fat, salt and sugar food intake was assessed in 187 (male- 68 and female- 119) primary and higher primary children through a pre-designed questionnaire consisting of various fried foods, sweetened beverages, processed foods, junk foods, baked products and confectionery.

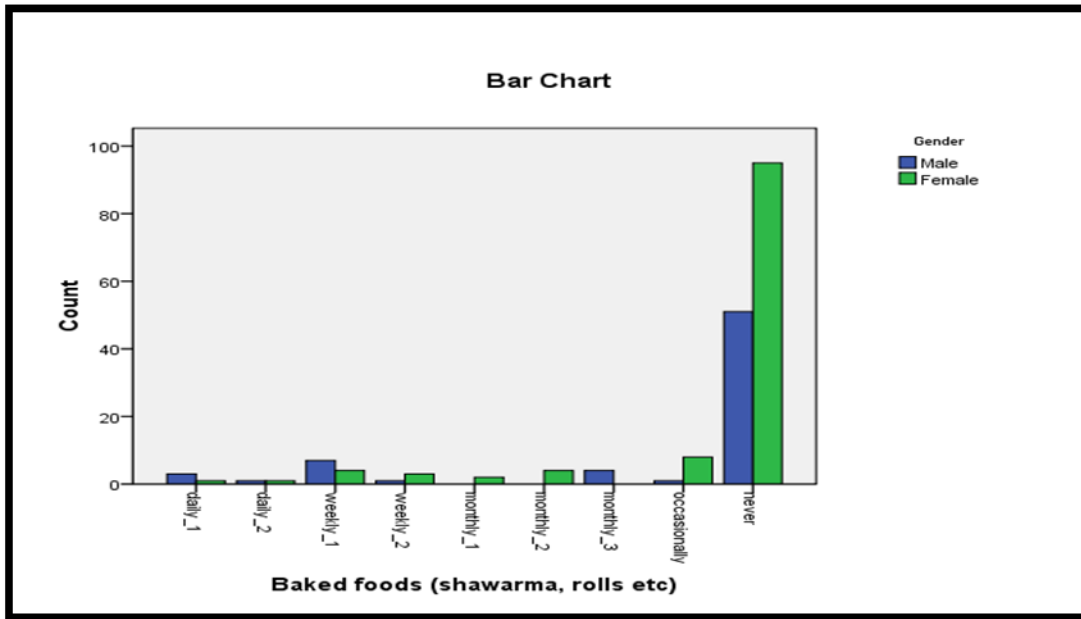
- *Chips, fried foods* – 47% (n=88) of the children consumed once a week, majority of whom were females (n=62). Ease of availability and cost of packaged chips may be the reason for the high consumption.
- *Non-veg fried items*–30.5% (n=57) of the children consumed once a week, majority of whom were females (n=35). Chicken kebab was commonly consumed.
- *Sugar sweetened carbonated beverages* –47% (n=88) of the children reported that they never consume carbonated beverages.
- *Packed sugar sweetened non-carbonated beverages* –35.8% (n=67) of the children consumed packed sweetened non-carbonated beverage such as frooti and packed milkshakes.
- *Homemade sugar sweetened non-carbonated beverages*–Around equal number of children i.e.28% (n=52) and 29% (n=54) of children reported consuming homemade fruit juice once a week and never respectively.
- *Chat items* –35% (n=65)of the children consumed chat items once a week, most of whom were females (n=41). Chats; especially panipuri (golgappa) and masala puri were consumed as evening snacks during weekends,from food stalls located alongside the roads.
- *Ready-to-eat* – 45% (n=84) of the children reported that they never consumed ready-to-eat foods. Among the children who reported consumption, highest percentage of children (26%, n=49) ate once a week. The higher price of these foods in comparison to money accessible to the children maybe a reason driving the above behaviour.
- *Potato fries* –Consumption of potato fries followed a similar trend as the other ready-to-eat products i.e. 69% (n=129) of the children reported that they never consume potato fries.
 - *Confectionery*–34.2% (n=64) of the children consumed once a week, majority of whom were females (n=40). Among the bakery items, puff and cakes were most common.
 - *Baked foods* –Following a similar pattern as ready-to-eat products and potato fries, 79% (n=146) of the children reported that they never consume baked food items.

Overall, increased preference towards fried foods such as packaged chips, confectionery (food items available in the bakery) and street foods (chats such as Panipuri, masala puri, etc) was seen regardless of the gender of the child or geographical area of the school. Consumption of these three food items was majorly a weekend event. The least consumed were ready-to-eat products, potato fries and baked foods. This discrepancy in likeliness and consumption maybe driven by the cost and ease of availability of commercial chips and street foods over junk foods.

Figure 7: HFSS consumption trends in children at Mysuru District







b) Kodagu District

On the 19th and 20th of February, 2020, our team visited 7 schools in Kodagu district. The assessment of high fat, salt and sugar (HFSS) food intake among 113 (male-64 and female-49) primary and higher primary children revealed the following:

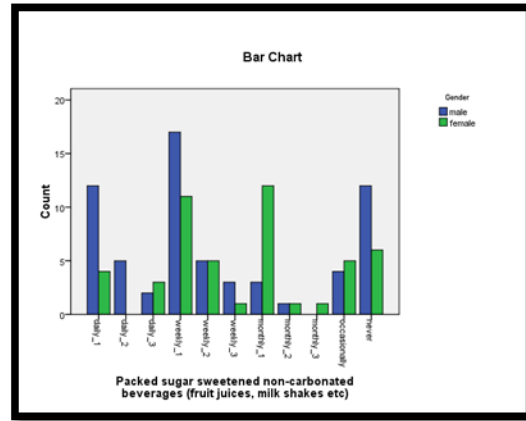
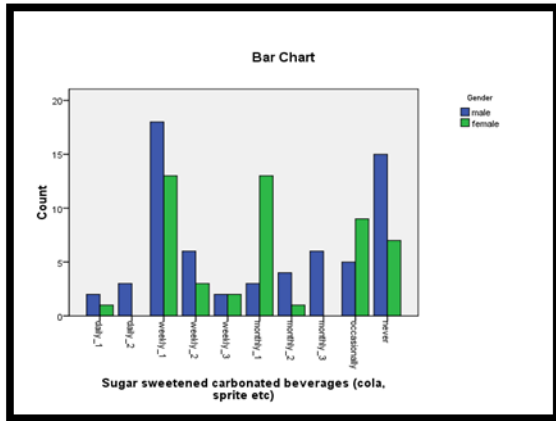
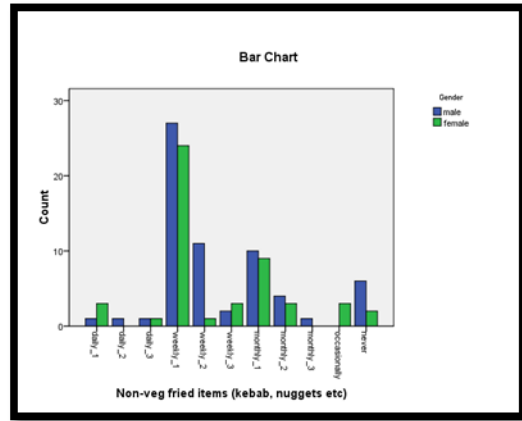
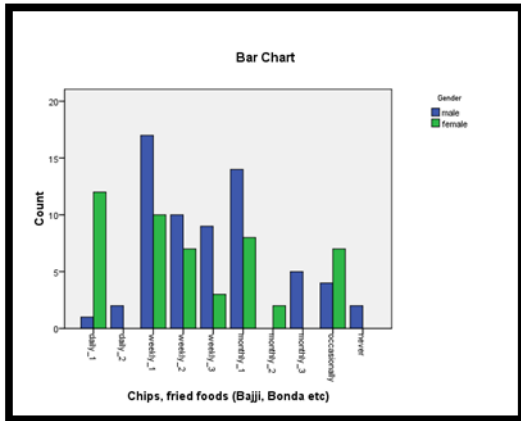
- *Chips, fried foods* – 24%(n=27) of the children consumed once a week, majority of whom were males (n=17). In this district, in addition to chips of commercialized brands potato chips packed in unlabelled plastic packets were also consumed.
- *Non-veg fried items*– 45% (n=51) of the children consumed once a week. Chicken kebab was commonly consumed.
- *Sugar sweetened carbonated beverages* – 27% (n=31) of the children consumed once a week, most of whom were males (n=18). Cola and sprite were commonly consumed.
- *Packed sugar sweetened non-carbonated beverages* – 25% (n=28) of the children consumed packed sweetened non-carbonated beverages such as fruit juices of local brands.
- *Homemade sugar sweetened non-carbonated beverages*– Around equal number of children i.e. 16% (n=18), 14% (n=16),and again 14% (n=16) of children

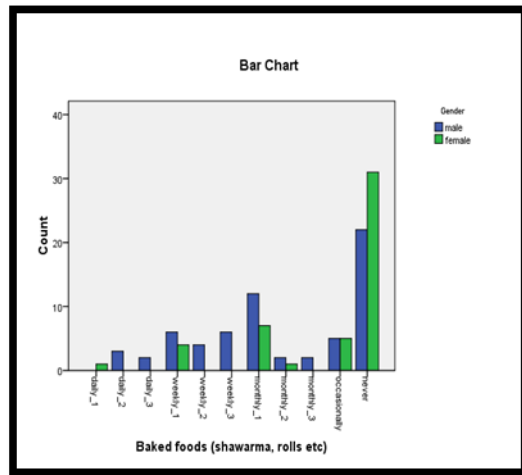
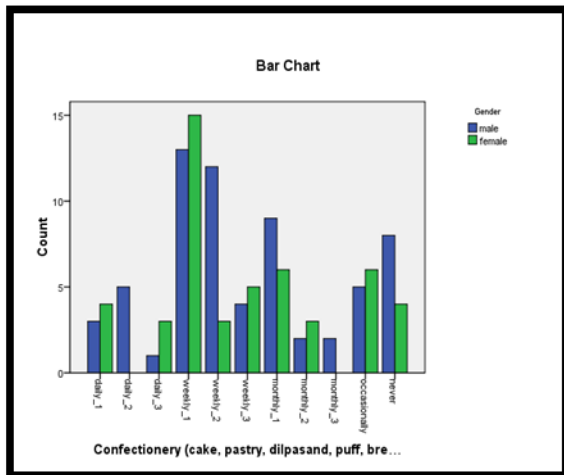
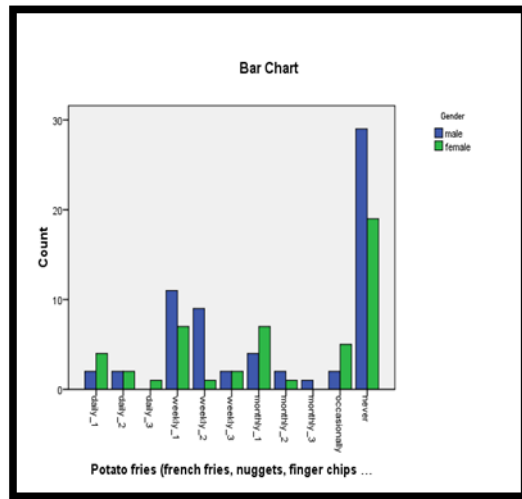
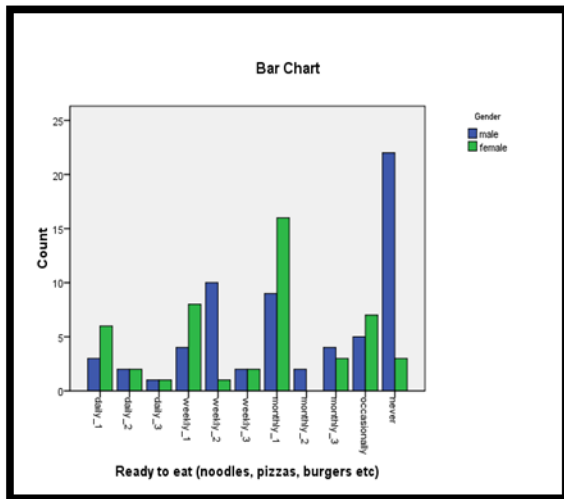
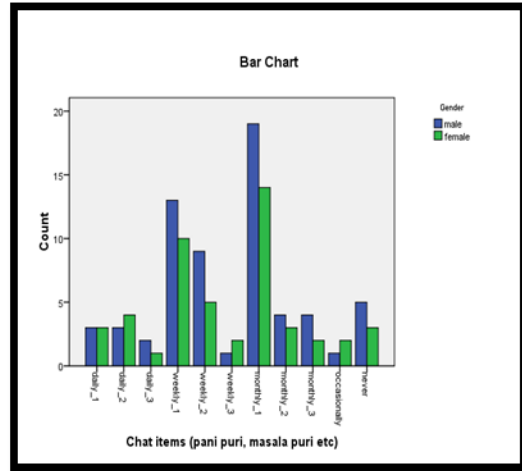
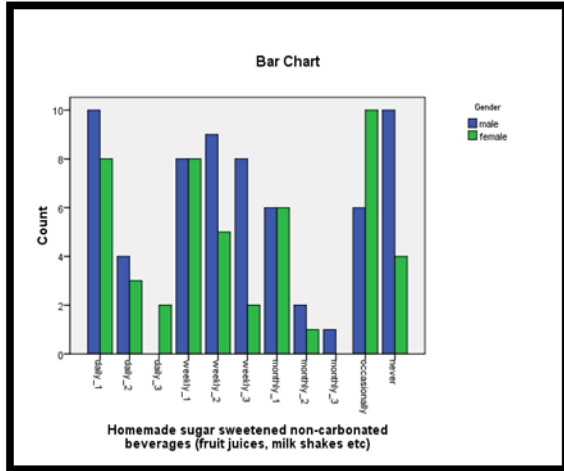
reported consuming homemade fruit juice every day, once a week and occasionally respectively.

- *Chat items* – 29% (n=33) of the children consumed chat items once a month, most of whom were males (n=19). The consumption of chats is less frequent in comparison to Mysuru district due to lower availability pertaining to the cultural differences and geographical area.
- *Ready-to-eat* – 22% (n=25) of the children consumed ready to eat products once a month and an equal number of children reported that they never consume ready-to-eat foods. Commercial noodle brand such as Maggi was commonly consumed.
- *Potato fries* – A majority of 43% (n=48) of the children reported that they never consume fried products of potato such as french fries, nuggets, finger chips etc.
- *Confectionery* – 25% (n=28) of the children consumed once a week with approximately equal number of boys and girls (13 males and 15 females). Among the bakery items, cake was most commonly consumed.
- *Baked foods* – Following a similar pattern as potato fries, 47% (n=53) of the children reported that they never consume baked food items.

Overall, children consumed potato chips, non-veg fried items (mostly chicken kebab), carbonated beverages and bakery items i.e. both plain and cream topped cakes and buns more frequently than baked foods and foods of a western diet pattern (pizza, burger etc).

Figure 8: HFSS consumption trends in children at Kodagu District





5. Clinical signs and symptoms among children in Mysuru and Kodagu district

Clinical signs and symptoms of malnutrition is a simple technique to detect nutritional deficiencies among children. These may include delayed growth and development as determined by comparing an individual or a group with normal values on growth charts, pallor of the skin, mucous membranes of the mouth and eyes, nail beds or palm surfaces, and the more serious signs of advanced protein-calorie malnutrition such as changes occurring in hair color and body appearance, as by edema.

Mysuru district-The most common clinical signs observed among school children in Mysuru district were pale skin & nails, pale eye membranes indicating iron deficiency anaemia.

Kodagu district- There was significant prevalence of micro nutrient deficiency observed in children from Kodagu region as evidenced by clinical signs and symptoms for nutritional deficiencies than in Mysuru region. These symptoms indicate low levels or deficiencies of vitamins such as Vitamins A, B-complex, C and D, along with minerals viz., calcium and iron in particular.

Table no. 27: Clinical signs and symptoms for nutritional deficiencies in children from Kodagu districts

Sl No	Body part	Features of clinical signs & symptoms for nutritional deficiency
1	Hair	Lack of natural shine, dull and dry, thin and sparse, color changes (flag sign), can be easily plucked
2	Face	Skin color loss (depigmentation), skin dark over cheeks and under eyes (malar and supra-orbital pigmentation), swollen face, scaling of skin around nostrils (nasolabialseborrhea)
3	Eyes	Eye membranes are pale (pale conjunctivae), Bitot's spots
4	Lips	Redness and swelling of mouth or lips (cheilosis), especially at corners of mouth (angular fissures and scars)
5	Tongue	Swelling; swollen sores
6	Teeth	gray or black spots (fluorosis), cavities (caries)
7	Gums	"Spongy" and bleed easily, recession of gums

8	Skin	Dryness of skin (xerosis), sandpaper feel of skin (follicular hyperkeratosis), flakiness of skin, skin swollen and dark, red swollen pigmentation of exposed areas (pellagrous dermatosis), excessive lightness or darkness of skin (dyspigmentation), black and blue marks due to skin bleeding (petechiae), lack of fat under skin
9	Nails	Nails are spoon-shape (koilonychia), brittle, ridged nails
10	Muscular & Skeletal systems	Knock-knees or bow-legs

The below mentioned nutritional deficiencies are due to lower intake of protein, essential fatty acids, vitamins and minerals in their diet.

Figure no. 9: Clinical signs and symptoms of nutritional deficiency among school children from Kodagu district



Cheilosis



Geographic tongue



Dryness of skin (xerosis) (B- Complex deficiency)



Dental caries



Fungal infection



Skin ulcer



Ring worm infection



Pale, spotted tongue (anemia)



Ridged, Striated nails (Anemia)



Scabies

6. Quality & Quantity attributes of Mid-day meal (MDM) served at Mysuru&Kodagu district

During discussions it was noticed that the quality of meals prepared at school kitchens is better than the meals served through centralised kitchen. It was observed during the school visits that The quality characteristics of MDM prepared in Mysuru district was better than schools at Kodagu district. In terms of food ingredients none of the schools from both the districts met the recommended quantity. The food ingredients recommendation and the range of actual quantity used in mentioned in the table given below -

Table no. 28: Recommended and actual usage of food ingredients in MDM at visited schools

Ingredients	Class 1 – 5		Class 6 & above	
	Recommended Quantity (g)	Actual quantity used (g)	Recommended Quantity (g)	Actual quantity used (g)
Rice	100	60-70	150	100-110
Pulses	20	12-15	30	15-17
Oil	5	3-5	7.5	4-6
Vegetables	50	25-30	75	35-40

Table No.29: Nutrient content of the recommended Mid-day meal for class 1-5

S.No.	Food Item	Weight [g]	PROTEIN[g]	FAT[g]	CARBOHYDRATE[g]	ENERGY[kcal]	CALCIUM[mg]	IRON[mg]	CAROTENE [mcg]
1.	RICE	100	7.94	0.52	78.24	356.36	7.49	0.65	-
2.	RED GRAM DAL	20	4.34	0.31	11.05	66.16	14.35	0.78	-
3.	COOKING OIL	5	-	5.00	-	45.00	-	-	-
4.	BRINJAL	10	0.14	0.03	0.40	2.40	1.80	0.04	7.40
5.	CUCUMBER, ORANGE, ROUND	5	0.05	0.01	0.15	0.98	1.10	0.02	-
6.	CORIANDER LEAVES	2	0.07	0.01	0.13	0.88	3.68	0.03	96.00
7.	CURRY LEAVES	3	0.18	0.03	0.56	3.24	24.90	0.03	213.30
8.	BEANS	5	0.35	0.05	1.50	7.60	2.17	0.13	1.75
9.	CARROT	5	0.05	0.02	0.28	1.66	1.75	0.03	-
10.	ONION	5	0.06	0.01	0.56	2.50	2.35	0.03	-
11.	TOMATO	10	0.09	0.02	0.36	2.00	4.80	0.06	59.00
12.	POTATO	5	0.08	0.01	1.13	4.85	0.50	0.02	-
	Total	175	13.35	6.02	94.36	493.63	64.89	1.82	377.45

Table no. 30: Nutrient content of the recommended Mid-day meal for class 6 and above

S.No.	Food Item	Weight [g]	PROTEIN[g]	FAT[g]	CARBOHYDRATE[g]	ENERGY[kcal]	CALCIUM[mg]	IRON [mg]	B-CAROTENE [mcg]
1.	RICE	150	11.91	0.78	117.36	534.54	11.24	0.98	-
2.	RED GRAM	30	6.51	0.47	16.57	99.24	21.52	1.17	-
3.	COOKING OIL	7.5	-	7.50	-	67.50	-	-	-
4.	BRINJAL	10	0.14	0.03	0.40	2.40	1.80	0.04	7.40
5.	BEANS	10	0.74	0.10	2.98	15.80	5.00	0.26	3.40
6.	CARROT	10	0.10	0.05	0.56	3.32	3.51	0.06	-
7.	ONION	7.5	0.09	0.01	0.83	3.75	3.52	0.05	0.00
8.	TOMATO	15	0.14	0.03	0.54	3.00	7.20	0.10	52.65
9.	CUCUMBER, ORANGE, ROUND	10	0.10	0.02	0.30	1.96	2.20	0.05	-
10.	CORIANDER LEAVES	2	0.07	0.01	0.13	0.88	3.68	0.03	96.00
11.	CURRY LEAVES	3	0.18	0.03	0.56	3.24	24.90	0.03	213.30
12.	POTATO	7.5	0.12	0.01	1.70	7.28	0.75	0.04	1.80
	Total	262.5	20.10	9.04	141.93	742.91	85.32	2.81	374.55

Nutritionally balanced region specific recipes

Children did not have an acceptable minimum diet and the most common cereal and pulse consumed was rice and red gram dhal. Rice is not a rich source of protein, fiber and micronutrients, the amount of pulse used was also less, coupled to this the intake of vegetables and fruits was also minimum, the result of which was evident in the clinical signs and symptoms among majority of children screened. Even minimum level of diet diversity was not achieved, which is critical for their growth and development during early childhood. In many households (through 24hour diet recall), it was observed that only this was the pattern in all the three meals of the day and the same was served even after school to the children if they felt hungry. Milk and milk products and fruits and vegetables were conspicuously less in their diets except for the milk served in schools as part of KsheeraBhagya scheme. Protein from white rice is incomplete in amino acid profile as it is limiting in an essential amino acid lysine. Eating foods rich in lysine helps the body procure this missing essential amino acid. Rice is generally a poor source of vitamins and minerals. Hence, replacing rice with millets at least once a week in the mid-day meal will add variety and fulfill the macro and micro nutrient requirements.

Millets are highly nutritious and are even superior to rice and wheat in certain constituents. They are good source of protein, dietary fiber and micro nutrients especially iron and calcium. Millet consumption is suggested as a remedy to combat double burden of the country and to fight against silent deficiencies observed in growing children. They are important nutritional bio-source, rich in valuable nutrients such as carbohydrates, proteins, dietary fiber, minerals (magnesium, phosphorus, manganese, iron and potassium), Vitamins (niacin), essential amino acids (methionine and lecithin), vitamin E, antioxidants and acts as a good source of prebiotics which help in improving the gut health. Although millet foods are considered among the healthiest food choices that are available, their consumption remains well below in developing countries where diet-related chronic diseases are alarming. Therefore, including such foods in the Mid-day meal Programme may reduce the burden of malnutrition by adding variety and acceptance towards the food given. Therefore, following recipes easy to make and serve have been suggested to be incorporated in the Mid-day meal of children.

Recipe no. 1: Little Millet Uppitu(*Panicumsumatrense*)

Kannada name: Sama

Preparation time: 10 min

Cooking time: 25 min

Serves :2

Ingredients:

- Little millet-10 g
- Water-250 ml
- Beans-15g
- Carrot-15g
- Peas -15g
- Onion -15g
- Green chillies-3
- Coriander leaves - few; Chopped
- Lemon juice-2.5ml
- Salt to taste
- Mustard- for seasoning
- Split Black gram Urad dal-seasoning
- Bengal Gram Chana Dal-for seasoning
- A pinch of turmeric powder
- Few Curry Leaves
- Oil-7.5 ml



Source: smithakalluraya.com

Method:

- Dry roast little millet in a pan or kadai.
- To the same pan add oil and heat. Add chana dal, urad dal and mustard. Fry till they turn golden brown and mustard splutters. Later add curry leaves, onion and green chilli . Saute for a minute or two till the onion turns slight pink.
- Add finely chopped mixed veggies. Add some salt, turmeric and saute for 3-4 mins.
- Add water to another kadai. Keep the flame on medium high and bring to boil.
- When the water starts to boil add roasted little millet, lemon, all the sauted ingredients and the remaining salt. Mix well. Cover and cook for about 10 minutes on low flame.
- Once little millet is cooked (until all the water has been absorbed by the millet and feels cooked and looks grainy) add coriander leaves and coconut. Toss once and switch off.
- Serve little milletuppitu hot as such or with chutney.
- Once little millet is cooked (until all the water has been absorbed by the millet and feels cooked and looks grainy) add coriander leaves and coconut . Toss once and switch off.

Table no. 31: Nutrient content of Little Millet Uppitu

Recipe	Amount (g)	Energy (kcal)	Protein (g)	Carbohydrate (g)	Fat (g)	Calcium (mg)	Iron (mg)	Beta carotene (mcg)
Little Millet	100	353	14.3	66.6	1.4	82.48	4.20	126
Beans	15	3.6	0.37	0.75	0.039	8.3	0.18	0.2
Carrot	15	4.95	0.28	0.9	0.07	5.2	0.9	0.1
Peas	15	12.17	1.09	2.8	0.02	4.24	0.23	0.05
Onion	15	7.2	0.21	2	0.03	3.15	0.7	0.1
Oil	7.5	54.41	-	-	7.5	-	-	13.06
Total		434	16.25	73	9	103	6.21	148.45

Recipe no. 2: Little millet Tomato bath (*Panicumsumatrense*)

Kannada name: Sama

Preparation time: 20 mins

Cooking time: 20 mins

Serves :2

Ingredients:

- Water-250ml
- Little millet-100g
- Chilies-2-3
- Coriander –5g



- Peas-15g
- Curry leaves-Few
- Mustard seeds-for seasoning
- Oil -7.5 ml
- Sambar powder-5g
- Tomatos -100g
- Onions -15g
- Capsicum-25g
- Add salt to taste.

Method:

- Chop all vegetables.
- Cook Little millet in cooker (2 whistles) or cook at medium flame in a kadai with closed lid. Add a bay leaf and peas along with millet.
- Heat oil / ghee in a pan and add mustard seeds until they pop. Add curry leave, green chilies and chopped onions, capsicum and fry.
- Add samba powder, red chilies powder and cook in low flame.
- Add tomatos and cook till it gives out water. Stir continuously and mix in the little millet and mix. Garnish with finely chopped coriander leaves.
- Serve hot or with coconut chutney.

Table no. 32: Nutrient content of Little Millet Bhath

Recipe	Amount (g)	Energy (kcal)	Protein (g)	Carbohydrate(g)	Fat (g)	Calcium (mg)	Iron (mg)	Beta carotene (mcg)
Little millet	100	353	14.32	66.6	1.4	82.48	4.20	126
Tomato	100	9.6	1.1	3.6	0.24	5.08	0.2	75.8
capsicum	25	4.06	0.27	2.2	0.08	3.38	0.12	13.3
Peas	15	12.17	1.09	2.8	0.02	4.24	0.23	0.05

Onion	15	7.2	0.21	2	0.03	3.15	0.7	0.1
Oil	7.5	54.41	-	-	7.5	-	-	13.06
Total		440	16.99	77.2	9.27	98.33	5.45	227.15

Recipe no. 3: Foxtail Millet Pulao(*Setariaitalica*)

Kannada name: Navane

Preparation time: 20 min

Cooking time: 20 min

Serves :2

Ingredients:

- Foxtail millet-100g
- Water-250ml
- Salt as required
- Oil-7.5ml
- Tomato-15g
- Capsicum-15 g
- Peas-15g
- Onion-15 g
- A few mint leaves.



Method:

- Wash and soak millets for an hour in hot water.
- Heat a pan and saute dry spices with oil along with ginger-garlic paste.
- Add vegetables and mint leaves and saute.
- Pour water and bring to boil.
- Add millet and cook till done.
- Keep it covered for 10 mins before serving hot.

Table no. 33: Nutrient content of Foxtail Millet Pulao

Recipe	Amount (g)	Energy (kcal)	Protein (g)	Carbohydrate (g)	Fat (g)	Calcium (mg)	Iron (mg)	Beta carotene (mcg)
Foxtail millet	100	350	11	63	4	30	2.8	1
Tomato	15	5.8	0.27	0.54	0.14	7.2	0.09	45.8
capsicum	15	5.12	0.56	1.8	0.05	5.38	0.04	1.3
Peas	15	24.38	1.20	2.8	1.02	7.86	1.37	0.20
Onion	15	24.02	0.75	2	0.12	10.52	0.22	0.09
Oil	7.5	54.41	-	-	7.5	-	-	13.06
Total		439	13.78	70.14	82.97	60.9	4.52	65.11

Recipe no. 4: Dhal Khichdi with Greens

Preparation time: 20 min

Cooking time: 20 min

Serves :2

Ingredients:

- Rice-100g
- Tur dal-30g
- Spinach -50g
- Amaranth-50g
- Water-200ml
- Salt as required
- Oil-7.5 ml
- Onion -20g
- Tomato -20g



Method:

- Combine dal and rice in a bowl and soak in water for 30 minutes. Drain well.
- Mix turmeric powder, salt, water, with dal and rice and pressure cook for 3 whistles.
- Combine palak and amaranth and 2 tbsp water in a mixer and grind till puree.
- Heat ghee in a pan and saute chopped onions and tomato.
- Add green mixture and add rice and dal khichdi to it.
- Stir occasionally and lower the flame. Add ginger or green chilli if required.

Table no.34: Nutrient content of Dhal Kichadi with greens

Recipe	Amount (g)	Energy (kcal)	Protein (g)	Carbohydrate (g)	Fat (g)	Calcium (mg)	Iron (mg)	Beta Carotene (mcg)
Rice	100	344	6.7	28	0.5	-	-	-
Tur dal	30	98.7	6.47	19	1.59	13.9	1.82	8.25
Palak	50	12.19	1.07	1.82	0.32	41.15	1.48	217.08
Amaranth	50	15.3	1.65	1.9	0.33	165	2.32	712.7
Onion	20	9.61	0.3	2	0.05	4.21	0.08	0.04
Tomato	20	6.2	0.45	0.5	0.20	4.07	0.12	47.8
Oil	7.5	54.41	-	-	7.5	-	-	13.06
Total		539	16.64	53.22	10.4	228.33	5.82	997

8) Best Practices:

- Kitchen gardens were well maintained in few schools and the produce was utilized in the school kitchen on the regular basis
- Community and parents involvement in the kitchen garden.
- Under eco club activities, schools were reusing plastic bottles and used milk sachets for growing plants and making compost out of kitchen waste.
- Involvement of school children in cleaning school premises.
- Using lever to prevent overflowing of drinking water from the steel drums (gifted by school alumni)

- Fireproof apron were used in Govt Model School.
- All the cooks and helpers in the school used apron and headgears.
- SOPs for food safety are maintained by all the schools visited in Mysuru district
- Special meals were provided to children on National festivals, teachers day etc.
- In few schools teachers are monitoring intake of food including the vegetable, which generally children remove from the food.
- Food such as pulao is liked by many children, so few schools were repeating this menu in a week.
- In two schools provision was made to keep the gas cylinder outside kitchen.
- Most of the kitchens were neatly maintained after cooking and serving of food. Kitchen was washed and Rangoli was made in front of gas hob.
- In rural part cooks were very motherly, they had explained the recipe and ingredients with lot of passion, which reflects their involvement in cooking and serving.
- Majority of the schools were using GLV in Sāmbhar on the day of the visit.
- In some schools, in Kodagu district, teachers have been trained to check the vision of children using an eye chart

Chapter – 7: Way Ahead

The 12th Joint Review Mission visited the State of Karnataka during 17-24th February, 2020 for review of implementation of Mid Day Meal Scheme with defined Terms of Reference. For this purpose the mission visited 43 schools (22 in district Mysuru and 21 in district Kodagu). During the visits, the team collected information as per the Terms of Reference, held discussions with the select stakeholders i.e. students, teachers, Cook-Cum-Helpers, community members, parents of the students and officials at Block, District and State level.

1. Good Practices observed

- i) The state is providing 150 ml. of hot milk under “KsheeraBhagyaYojana” to all students from its own resources.
- ii) State is providing Mid Day Meal to students of class 9th and 10th also from its own resources.
- iii) State is contributing Rs 1700 per head cook and Rs 1600 per cook-cum-helper in addition to its mandatory State share of Rs 400 per cook-cum-helper per month.
- iv) Cook-cum-Helpers in all the visited schools were using aprons and head gears.
- v) Community participation named “ShaaleGagiNavuNeevu” is observed.
- vi) Some of the schools are having School Nutrition (Kitchen) Garden and it should be replicated wherever possible to meet micronutrient diversity.
- vii) Use of LPG as fuel is observed in all the visited schools.
- viii) Drinking water facility is available in all schools within the school premises.
- ix) Separate toilets for boys and girls are available in all schools.
- x) Almost all of the children are seen washing hands before eating the Mid Day Meal.
- xi) Tasting of meal register is maintained in all schools.

xii) Eating plates have been provided for all the children in schools visited, mostly through donation by community.

xiii) Health checkup of Cook-cum-Helpers is carried out twice a year.

2. Areas of Concern

i) Significant prevalence of micro nutrient deficiency observed in children from Kodagu region as evidenced by clinical signs and symptoms for nutritional deficiencies than in Mysuru region. These symptoms indicate low levels or deficiencies of vitamins such as Vitamins A, B-complex, C and D, along with minerals viz., calcium and iron in particular.

ii) The average consumption of cereals was 60-70 gram for primary and 100-110 against the mandated 100 gram for primary and 150 gram for upper primary.

iii) The average consumption of pulses was 12-15 gram for primary and 15-17 gram for upper primary in the schools vis-à-vis mandated 20 gram for primary and 30 gram for upper primary.

iv) The average consumption of oil was 3-5 gram for primary and 4-6 gram for upper primary in the schools vis-à-vis mandated 5 gram for primary and 7.5 gram for upper primary.

v) The average consumption of vegetables was 25-30 gram for primary and 35-40 gram for upper primary in the schools vis-à-vis mandated 50 gram for primary and 75 gram for upper primary.

vi) Only one kind of pulse i.e. 'Tur dal' is supplied by the State and thus is used in schools, which has resulted in lack of variety.

vii) Children in some schools do not like wheat based menu.

viii) The entitlement of children under Mid-day Meal Scheme is not displayed at a prominent place in most of the visited schools and almost all the SMC members /chairpersons were not aware of food norms and entitlements of children.

- ix) Mid day meal logo and Menu are also not displayed at a prominent place where it is visible to all in more than 50% of the visited schools.
- x) IFA supplementation under RBSK by the Health Department is not provided to children in Mysuru district.
- xi) Monthly data entry in MDM-MIS portal has been completed for only 80% schools. District Dharwad and Bangalore North has not completed data entry even for the month of April, 2019.
- xii) Monitoring at school level is found inadequate, the visiting officials i.e. ADPI, BRPs, CRPs etc. in most of the cases were found recording generic remarks about MDM rather than making specific observations.
- xiii) Emergency telephone numbers such as fire, police and medical services were not displayed in prominent places in most of the schools.
- xiv) Storage bins were not available in majority of the schools for keeping food grains.

3. Recommendations

- i) Release of funds towards cooking cost should be based upon the number of beneficiaries instead on enrollment to avoid parking of funds at school level.
- ii) State may conduct a study to assess the reasons for why children in upper primary sections are not eating full prescribed quantities. It is observed that if the prescribed quantities of pulses and vegetables are provided, the children are more likely to consume the prescribed quantities of rice.
- iii) Recording of consumption of rice should be as per actual consumption.
- iv) Creation of a separate and dedicated Directorate for Mid Day Meal Scheme.
- v) State should adopt stringent mechanism to ensure that children receive the prescribed quantities of foodgrains, pulses, vegetables and other ingredients.
- vi) Storage bins for safe storage of food grains may be provided to all schools.
- vii) School Nutrition (Kitchen) gardens developed by some schools should be replicated in other schools to the extent possible.
- viii) The entitlement of children under Mid-day Meal Scheme, MDM logo and menu should be painted at a prominent place in all schools.
- ix) Emergency numbers such as police, fire and medical facilities should be painted on school walls on prominent places.

- x) Millets may be included in MDM menu once in a week.
- xi) Testing of meals through accredited labs needs to be done to comply with provisions of MDM Rules.
- xii) Repair of existing kitchen-cum-stores to be completed, wherever required.
- xiii) Worn out kitchen devices needs replacement.
- xiv) Formats for recording of information on implementation of MDM may be simplified and reduced in number. The same may be circulated across the State, for ease of data collection and management.
- xv) The observations on the quality and taste of Mid Day Meal may be recorded in the taste register by the Parents and community members also.
- xvi) Community may be motivated for participation in the supervision of preparation of Mid Day Meal and monitoring of the scheme.
- xvii) Training and sensitization of officials at different levels.
- xviii) Honorarium to cook cum helper needs to be increased as it is difficult to engage CCH with the present honorarium.
- xix) Regular monitoring of MDM by BEO, ADPI, CRPs to ensure quality and quantity of food served needs to be strengthened.


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Annexure- I

Enrolment and attendance details of last ten days in the visited school: District Mysuru

SN	Block	Name of the School	Enrolment	Day 1	2	3	4	5	6	7	8	9	10	Avg	% Covg
1	Mysuru North	Saint Antony school	143	110	124	128	124	123	122	114	123	122	106	120	84%
2	Mysuru North	GHPS Hhmoi School	106	83	83	72	74	74	74	74	81	80	70	77	72%
3	Mysuru North	CKs higher Primary school	1164	1079	1135	1088	1090	950	1073	1098	1080	1044	1098	1074	92%
4	Mysuru North	GPS Kyathamaramhalli	473	466	468	461	442	462	456	447	460	465	458	459	97%
5	Mysuru North	Manasa Higher Primary School	252	232	239	235	241	243	243	229	240	240	237	238	94%
6	Mysuru North	Ganapati Sachdeva School	75	73	73	73	73	73	73	73	73	73	73	73	97%
7	Mysuru Rural	Maria Niketan HP School	350	286	310	322	343	296	296	284	295	284	295	301	86%
8	Honsur	GHHP Chilkunda	149	144	144	140	145	146	147	143	144	145	144	144	97%
9	Honsur	GHS Manugonahalli	40	38	37	34	36	38	38	37	36	36	36	37	92%
10	Honsur	GHPS, Virikeri	284	265	268	259	237	267	265	266	282	262	261	263	93%
11	Honsur	GHS Mallinathpuram	64	64	64	64	64	64	64	64	64	64	64	64	100%
12	Honsur	GLPS Kolagatta	30	29	27	28	28	29	28	28	29	30	29	29	95%
13	Periyapatna	GHPS Kirananhalli	121	119	116	120	114	115	118	118	119	120	119	118	97%
14	Periyapatna	GHPS Kaggudi	100	98	95	98	97	95	97	94	91	99	99	96	96%
15	Periyapatna	GLPS Chikkavaddarakeri	24	20	22	23	23	23	23	23	23	24	24	23	95%
16	Periyapatna	GHPS Kampalapura	122	107	114	117	110	111	116	116	117	119	118	115	94%
17	Periyapatna	GHS kampalapura	73	67	60	66	62	62	65	64	70	70	59	65	88%
18	Nanjanguda	Karnataka Public School	479	452	458	459	460	460	458	457	458	458	459	458	96%
19	Nanjanguda	GHPS Tandavapura	158	117	140	136	136	94	141	143	145	138	145	134	84%
20	Nanjanguda	GHPS Yechagalli	78	68	68	75	75	75	73	75	75	73	75	73	94%
21	Nanjanguda	Got Adarsh Vidyalaya Deburu	396	337	317	344	348	337	345	349	293	327	331	333	84%
22	Nanjanguda	GHPS Halladakeri	94	80	82	84	83	79	81	76	81	81	79	81	86%

Delivery of food grains at door step: District Mysuru

SN	District	Block	Name of the School	Delivery of Food grains at school level
1	Mysuru	Mysuru North	Saint Antony school	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes
4	Mysuru	Mysuru North	GPS Kyathamarahalli	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes
13	Mysuru	Periyapatna	GHPS Kirananahalli	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes

Organisation of Cooking Competition: District Mysuru

SN	District	Block	Name of the School	Cooking competition
1	Mysuru	Mysuru North	Saint Antony school	No
2	Mysuru	Mysuru North	GHPS Hhmoi School	No
3	Mysuru	Mysuru North	CKs higher Primary school	No
4	Mysuru	Mysuru North	GPS Kyathamarahalli	No
5	Mysuru	Mysuru North	Manasa Higher Primary School	No
6	Mysuru	Mysuru North	Ganapati Sachdeva School	No
7	Mysuru	Mysuru Rural	Maria Niketan HP School	No
8	Mysuru	Honsur	GHHP Chilkunda	No
9	Mysuru	Honsur	GHS Manugonahalli	No
10	Mysuru	Honsur	GHPS, Virikeri	No
11	Mysuru	Honsur	GHS Mallinathpuram	No
12	Mysuru	Honsur	GLPS Kolagatta	No
13	Mysuru	Periyapatna	GHPS Kirananahalli	No
14	Mysuru	Periyapatna	GHPS Kaggudi	No
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	No
16	Mysuru	Periyapatna	GHPS Kampalapura	No
17	Mysuru	Periyapatna	GHS kampalapura	No
18	Mysuru	Nanjanguda	Karnataka Public School	No
19	Mysuru	Nanjanguda	GHPS Tandavapura	No
20	Mysuru	Nanjanguda	GHPS Yechagalli	No
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	No
22	Mysuru	Nanjanguda	GHPS Halladakeri	No

Status of School Nutrition Garden : District Mysuru

SN	District	Block	Name of the School	School Nutrition Gardens set up
1	Mysuru	Mysuru North	Saint Antony school	No
2	Mysuru	Mysuru North	GHPS Hhmoi School	No
3	Mysuru	Mysuru North	CKs higher Primary school	No
4	Mysuru	Mysuru North	GPS Kyathamarahalli	No
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	No
7	Mysuru	Mysuru Rural	Maria Niketan HP School	No
8	Mysuru	Honsur	GHHP Chilkunda	No
9	Mysuru	Honsur	GHS Manugonahalli	No
10	Mysuru	Honsur	GHPS, Virikeri	No
11	Mysuru	Honsur	GHS Mallinathpuram	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes
13	Mysuru	Periyapatna	GHPS Kirananahalli	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	No
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	No
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes

Annexure- V

Status of Kitchen cum store and Kitchen Devices : District Mysuru

SN	District	Block	Name of the School	Kitchen cum store	Kitchen devices
1	Mysuru	Mysuru North	Saint Antony school	Yes	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	Yes
4	Mysuru	Mysuru North	GPS Kyathamaranhalli	Yes	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes	Yes
13	Mysuru	Periyapatna	GHPS Kirananhalli	Yes	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	Yes	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	Yes

Availability of Drinking water & Eating Utensils : District Mysuru

SN	District	Block	Name of the School	Drinking Water	Eating utensils
1	Mysuru	Mysuru North	Saint Antony school	Yes	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	Yes
4	Mysuru	Mysuru North	GPS Kyathamarahalli	Yes	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes	Yes
13	Mysuru	Periyapatna	GHPS Kirananahalli	Yes	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	Yes	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	Yes

Display of MDM Logo, display of MDM entitlements: District Mysuru

SN	District	Block	Name of the School	Display of MDM logo	Display of MDM Entitlements
1	Mysuru	Mysuru North	Saint Antony school	Yes	No
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	No
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	No
4	Mysuru	Mysuru North	GPS Kyathamaranhalli	Yes	No
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	No
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	No
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	No
8	Mysuru	Honsur	GHHP Chilkunda	Yes	No
9	Mysuru	Honsur	GHS Manugonahalli	Yes	No
10	Mysuru	Honsur	GHPS, Virikeri	Yes	No
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	No
12	Mysuru	Honsur	GLPS Kolagatta	Yes	No
13	Mysuru	Periyapatna	GHPS Kirananhalli	Yes	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddakeri	Yes	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	Yes

Tasting Register Maintained & MDM tasted by authorities: District Mysuru

SN	District	Block	Name of the School	Tasting Register	Tasting of meals before Serving meal tasted by HM/Teacher/ Parents/SMC
1	Mysuru	Mysuru North	Saint Antony school	Yes	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	Yes
4	Mysuru	Mysuru North	GPS Kyathamarahalli	Yes	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes	Yes
13	Mysuru	Periyapatna	GHPS Kirananhalli	Yes	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	Yes	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	Yes

Payment of honorarium and Training of cook cum helpers : District Mysuru

SN	District	Block	Name of the School	Honorarium received	Training of CCH
1	Mysuru	Mysuru North	Saint Antony school	Yes	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	Yes
4	Mysuru	Mysuru North	GPS Kyathamahalli	Yes	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes	Yes
13	Mysuru	Periyapatna	GHPS Kirananahalli	Yes	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddarakeri	Yes	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	Yes

Health Check ups, distribution of IFA and Deworming Medicine : District Mysuru

SN	District	Block	Name of the School	Health Check ups	IFA	Deworming Medicine
1	Mysuru	Mysuru North	Saint Antony school	Yes	No	Yes
2	Mysuru	Mysuru North	GHPS Hhmoi School	Yes	No	Yes
3	Mysuru	Mysuru North	CKs higher Primary school	Yes	No	Yes
4	Mysuru	Mysuru North	GPS Kyathamahalli	Yes	No	Yes
5	Mysuru	Mysuru North	Manasa Higher Primary School	Yes	No	Yes
6	Mysuru	Mysuru North	Ganapati Sachdeva School	Yes	No	Yes
7	Mysuru	Mysuru Rural	Maria Niketan HP School	Yes	No	Yes
8	Mysuru	Honsur	GHHP Chilkunda	Yes	No	Yes
9	Mysuru	Honsur	GHS Manugonahalli	Yes	No	Yes
10	Mysuru	Honsur	GHPS, Virikeri	Yes	No	Yes
11	Mysuru	Honsur	GHS Mallinathpuram	Yes	No	Yes
12	Mysuru	Honsur	GLPS Kolagatta	Yes	No	Yes
13	Mysuru	Periyapatna	GHPS Kirananahalli	Yes	No	Yes
14	Mysuru	Periyapatna	GHPS Kaggudi	Yes	No	Yes
15	Mysuru	Periyapatna	GLPS Chikkavaddakeri	Yes	No	Yes
16	Mysuru	Periyapatna	GHPS Kampalapura	Yes	No	Yes
17	Mysuru	Periyapatna	GHS kampalapura	Yes	No	Yes
18	Mysuru	Nanjanguda	Karnataka Public School	Yes	No	Yes
19	Mysuru	Nanjanguda	GHPS Tandavapura	Yes	No	Yes
20	Mysuru	Nanjanguda	GHPS Yechagalli	Yes	No	Yes
21	Mysuru	Nanjanguda	Got Adarsh Vidyalaya Deburu	Yes	No	Yes
22	Mysuru	Nanjanguda	GHPS Halladakeri	Yes	No	Yes

Annexure- XI

Enrolment and attendance details of last ten days in the visited school: District Kodagu

SN	Block	Name of the School	Enrolment	Day 1	2	3	4	5	6	7	8	9	10	Avg .	% Covg
1	Madikeri	GHS Murnad	13	11	11	8	9	10	10	9	9	9	6	9	71%
2	Madikeri	GMPS Murnad	247	234	222	223	222	215	231	218	212	217	206	220	89%
3	Madikeri	GHPS Kaggodlu	42	41	41	37	35	31	36	35	35	35	35	36	86%
4	Madikeri	GMHP School Madikari	218	186	187	191	198	187	181	171	198	200	195	189	87%
5	Madikeri	GHPS Madikeri	40	37	39	38	38	36	34	34	33	34	29	35	88%
6	Madikeri	GHPS Hakttur	53	53	53	53	53	51	52	52	51	54	53	53	99%
7	Madikeri	Aruna PU College	31	23	27	25	26	27	29	29	25	25	24	26	84%
8	Madikeri	GHs Karugunda	33	29	32	32	32	33	33	33	32	32	32	32	97%
9	Madikeri	GMPS Bettagari	28	27	24	24	27	28	27	28	26	26	22	26	93%
10	Madikeri	GMPS Cherambane	99	82	88	76	89	84	87	89	85	83	85	85	86%
11	Madikeri	GHPS Chettimani	88	68	80	77	79	80	84	84	84	77	74	79	89%
12	Madikeri	GHPS Bhagamandala	59	52	54	53	48	53	51	55	52	53	54	53	89%
13	Somerpet	GHPS Suntikoppa	111	92	90	79	98	101	91	101	91	96	97	94	84%
14	Somerpet	GHPS Gargandoor	136	121	117	109	123	115	115	120	113	109	109	115	85%
15	Somerpet	DChanmma Composite Pu College Madhepura	150	134	128	134	129	133	135	129	129	135	134	132	88%
16	Somerpet	GHS Madhapur	25	22	22	18	25	22	22	22	20	20	22	22	86%
17	Somerpet	GMP Madhapur	85	78	73	80	82	80	79	79	69	84	84	79	93%

Status of delivery of food grains at school level : District Kodagu

SN	District	Block	Name of the School	Delivery of Food grains at school level
1	Kodagu	Madikeri	GHS Murnad	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes
21	Kodagu	Virajpet	St. Annes school	Yes

Status of Cooking Competition : District Kodagu

SN	District	Block	Name of the School	Cooking competition
1	Kodagu	Madikeri	GHS Murnad	No
2	Kodagu	Madikeri	GMPS Murnad	No
3	Kodagu	Madikeri	GHPS Kaggodlu	No
4	Kodagu	Madikeri	GMHP School Madikari	No
5	Kodagu	Madikeri	GHPS Madikeri	No
6	Kodagu	Madikeri	GHPS Hakttur	No
7	Kodagu	Madikeri	Aruna PU College	No
8	Kodagu	Madikeri	GHs Karugunda	No
9	Kodagu	Madikeri	GMPS Bettagari	No
10	Kodagu	Madikeri	GMPS Cherambane	No
11	Kodagu	Madikeri	GHPS Chettimani	No
12	Kodagu	Madikeri	GHPS Bhagamandala	No
13	Kodagu	Somerpeta	GHPS Suntikoppa	No
14	Kodagu	Somerpeta	GHPS Gargandoor	No
15	Kodagu	Somerpeta	DChanmma Composite Pu College Madhepura	No
16	Kodagu	Somerpeta	GHS Madhapur	No
17	Kodagu	Somerpeta	GMP Madhapur	No
18	Kodagu	Virajpet	GMPS Kakotuparambu	No
19	Kodagu	Virajpet	GHS Kakotuparambu	No
20	Kodagu	Virajpet	GMPS virajpet Town	No
21	Kodagu	Virajpet	St. Annes school	No

Annexure- XIV

Status of School Nutrition Gardens : District Kodagu

SN	District	Block	Name of the School	School Nutrition Gardens set up
1	Kodagu	Madikeri	GHS Murnad	No
2	Kodagu	Madikeri	GMPS Murnad	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes
4	Kodagu	Madikeri	GMHP School Madikari	No
5	Kodagu	Madikeri	GHPS Madikeri	Yes
6	Kodagu	Madikeri	GHPS Hakttur	No
7	Kodagu	Madikeri	Aruna PU College	No
8	Kodagu	Madikeri	GHs Karugunda	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes
10	Kodagu	Madikeri	GMPS Cherambane	No
11	Kodagu	Madikeri	GHPS Chettimani	No
12	Kodagu	Madikeri	GHPS Bhagamandala	No
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	No
16	Kodagu	Somerpet	GHS Madhapur	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes
21	Kodagu	Virajpet	St. Annes school	Yes

Status of Kitchen shed and Kitchen Devices: District Kodagu

SN	District	Block	Name of the School	Kitchen shed	Kitchen devices
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes	Yes
21	Kodagu	Virajpet	St. Annes school	Yes	Yes

Status of drinking water and eating utensils : District Kodagu

SN	District	Block	Name of the School	Drinking Water	Eating utensils
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes
13	Kodagu	Somerpel	GHPS Suntikoppa	Yes	Yes
14	Kodagu	Somerpel	GHPS Gargandoor	Yes	Yes
15	Kodagu	Somerpel	DChanmma Composite Pu College Madhepura	Yes	Yes
16	Kodagu	Somerpel	GHS Madhapur	Yes	Yes
17	Kodagu	Somerpel	GMP Madhapur	Yes	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes	Yes
21	Kodagu	Virajpet	St. Annes school	Yes	Yes

Display of MDM logo Display of MDM Entitlements : District Kodagu

SN	District	Block	Name of the School	Display of MDM logo	Display of MDM Entitlements
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes	Yes
21	Kodagu	Virajpet	St. Annes school	Yes	Yes

Annexure- XVIII**Payment of honorarium and Training of cook cum helpers : District Kodagu**

SN	District	Block	Name of the School	Honorarium received	training of cook cum helpers
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes	Yes
21	Kodagu	Virajpet	St. Annes school	Yes	Yes

Health check up IFA and Deworming Medicine distribution : District Kodagu

SN	District	Block	Name of the School	Health Check Ups	IFA Distribution	Deworming Medicine
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes	Yes	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes	Yes	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes	Yes	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes	Yes	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes	Yes	Yes
18	Kodagu	Virajpet	GMPS Kakotuparambu	Yes	Yes	Yes
19	Kodagu	Virajpet	GHS Kakotuparambu	Yes	Yes	Yes
20	Kodagu	Virajpet	GMPS virajpet Town	Yes	Yes	Yes
21	Kodagu	Virajpet	St. Annes school	Yes	Yes	Yes

Tasting Register Maintained & MDM tasted by authorities : District Kodagu

SN	District	Block	Name of the School	Tasting Register	Before Serving meal tasted by HM/Teacher/Sometimes Parents/sometimes SMC mangers
1	Kodagu	Madikeri	GHS Murnad	Yes	Yes
2	Kodagu	Madikeri	GMPS Murnad	Yes	Yes
3	Kodagu	Madikeri	GHPS Kaggodlu	Yes	Yes
4	Kodagu	Madikeri	GMHP School Madikari	Yes	Yes
5	Kodagu	Madikeri	GHPS Madikeri	Yes	Yes
6	Kodagu	Madikeri	GHPS Hakttur	Yes	Yes
7	Kodagu	Madikeri	Aruna PU College	Yes	Yes
8	Kodagu	Madikeri	GHs Karugunda	Yes	Yes
9	Kodagu	Madikeri	GMPS Bettagari	Yes	Yes
10	Kodagu	Madikeri	GMPS Cherambane	Yes	Yes
11	Kodagu	Madikeri	GHPS Chettimani	Yes	Yes
12	Kodagu	Madikeri	GHPS Bhagamandala	Yes	Yes
13	Kodagu	Somerpet	GHPS Suntikoppa	Yes	Yes
14	Kodagu	Somerpet	GHPS Gargandoor	Yes	Yes
15	Kodagu	Somerpet	DChanmma Composite Pu College Madhepura	Yes	Yes
16	Kodagu	Somerpet	GHS Madhapur	Yes	Yes
17	Kodagu	Somerpet	GMP Madhapur	Yes	Yes



A meal to a Child is an offering to the Divinity

