*Decentralized evaluation for evidence-based decision making*

# WFP'S USDA McGovern -Dole International Food for Education and Child Nutrition Program's Support in Kenya from 2016 to 2020

## Decentralized Evaluation

### Midline Report – Final

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## Disclaimer

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## Executive Summary

**Background:** This report summarizes the midline findings for Kenya's World Food Programme (WFP) implemented School Meals Programme (SMP) - a USD 28 million grant for a period of five years. The WFPSMP is funded by the United States Department of Agriculture's (USDA) – Mc Govern Dole (MGD) International Food for Education and Child Nutrition Programme. The programme targets 358,000 primary school children. Children are provided with a hot lunch for 120 out of the 190 school days, with the purpose of contributing to improved enrolment, retention and attentiveness at school level. At the school-level, the MGD School Meals Programme (SMP) includes WFP support to train education officials to monitor school feeding and guarantee food safety and train trainers to facilitate school feeding management s at the sub-county level. The programme is implemented in eight counties namely: Baringo, Garissa, Mandera, Turkana, Wajir and West Pokot, Marsabit and Tana River. Support to the last two counties does not include a food component and is limited to the complimentary training and support activities. The responsibility for meals provision has been progressively handed over from WFP to the Government of Kenya (GoK) Home Grown School Meals Programme (HGSMP) (a process that started in other areas of the country in 2009), and was completed by 30 June 2018 as scheduled. HGSMP schools receive funding from the GoK to procure food locally. By the end of the MGD funded WFPSMP programme in 2020, all WFP schools will have been integrated into the HGSMP and responsibility for management and funding will lie with the GoK.

**Purpose:** This report compares the situation of the programme at midline (May 2018) against the baseline (in May 2017). The midline timing – one year after the baseline - is a requirement by the donor. The endline will take place in early 2020. At mid-line the purpose of the evaluation is to provide an independent assessment of:

- The project's relevance, effectiveness, efficiency, coherence and sustainability;
- Performance against indicators in comparison with values at baseline;
- Whether the project is on track to meet the results and targets
- Necessary mid-course corrections

**Users:** The evaluation focusses on learning and accountability. Its primary users are: WFP Kenya; the Ministry of Education (MOE) and government officers at county and district levels, USDA, the WFP Regional Bureau (RB), and WFP more generally. The mid-line findings will also be of direct interest to the wider group of donors, international Non-Governmental Organizations (NGO) and local NGOs, supporting the education sector in Kenya. While not direct users, beneficiaries are also concerned by the results of this evaluation.

**Methodology:** An inception report for this study was produced at baseline stage, and updated at midline. It presented a three-arm quasi-experimental design, which was agreed upon at baseline and involves doing two sets of comparison: a) between WFPSMP schools and a group of WFPSMP control schools, and b) between WFPSMP schools and HGSMP schools. The midline followed the baseline methodology, and used three survey tools at school level. In-depth interviews and Focus Group Discussions (FGDs), which complemented the survey were done at national, county, sub-county, school and community level in 14 schools and covered 349 informants. Secondary data was collected from government and WFP records. For the survey, selected control and HGSMP schools were matched against WFPSMP schools using propensity score matching. Survey data collection covered a sample of 5301 pupils (equal number of boys and girls) and an equal number of parents in 90 schools. Sampling took place using a two-step sampling process, across the three arms of the study. Data was collected in five of the six targeted Arid and Semi-Arid Lands (ASAL) counties. Limitations of the study are inherent with the difficulty of finding identical matches between School Meals Programme (SMP) schools and control schools as WFP covers all schools in a given region. The other limitation is the very short time-period between the baseline and midline findings which reduces the probability of being able to identify outcome and impact level findings. All findings presented here will need to be confirmed at the end line.

**Context:** Twelve percent of Kenyan households have inadequate food consumption. These are most likely to be poor, living in rural areas and with low education levels. These conditions are particularly severe in the arid and semi-arid parts of the country - which comprise 80 percent of the land area – where undernourishment, wasting, stunting, and child mortality are high. Immediate causes of malnutrition are inadequate food intake (in particular for under-fives) and presence of diseases. In addition, food insecurity, poor water and sanitation, as well as limited access to health services, all contribute. Worsening droughts and their frequency in recent years - 2008-2011, and 2014-18 - have led to negative household coping mechanisms such as withdrawing children from school and selling productive assets. The arid north, is particularly underdeveloped, drought-prone and is often affected by local conflicts. Food availability is constrained by poor transport infrastructure and long distances to markets, and more recently by the effects of the prolonged drought, although rains in 2018 brought some relief as well as floods. Enrolment and completion and the north-eastern counties - where the MGD programme is implemented - are significantly lower than the national average.

## Key findings

### Evaluation questions 1 - How relevant and appropriate is the programme?

At mid-line the evaluation finds that the intervention continues to be well aligned with the priorities of the Government of Kenya as highlighted in its main policy documents, as well as with the priorities of WFP, UN partners and other development agencies.

Interviews and survey results highlight that the school meals are relevant to parents, communities and children in the arid areas. School meals contribute directly to food security and also indirectly through alleviating the burden on parents. In some regions, school meals are particularly relevant to girls who are more easily taken out of school for social and cultural reasons.

The midline evaluation confirms findings from the baseline that the programme made appropriate choices in terms of geographical focus given prevailing issues of drought, insecurity, and low education performance. In addition, the evidence clearly highlights that the transition to the HGSMP represents an appropriate choice that is coherent with the national policy, and with the preferences of the beneficiaries and education actors at decentralized levels.

### Evaluation question 2 and 3 - How effective is the programme and what are emerging areas of impact?

**Learning outcomes**: The survey findings, comparing baseline and midline, show that WFPSMP is significantly associated with improved numeracy. There was significant improvement in favour of WFPSMP schools in the proportion of children who scored the highest level of numeracy (division) compared to control schools ($p=0.002$). Interviews at school and community level confirmed the perception that school feeding contributes to learning outcomes. Analysis by arms also shows that the results of the HGSMP appear to be dropping. Across a range of indicators, including numeracy and literacy scores, HGSMP school perform less well compared to WFPSMP schools. Thus, the proportion of children in HGSMP who scored the highest level of numeracy (division), in literacy in Kiswahili (reading a story), and in English literacy (reading a story) is significantly lower compared to WFPSMP schools across all three indictors. The comparison of baseline and midline does not show an association with higher enrolment, attendance or improved attentiveness when comparing WFPSMP schools with control schools and with HGSMP schools.

**Short term hunger**: The survey data shows that compared to the baseline, at midline an increased number of children accessing food through school meals programme and more so in WFP supported schools. Children are also more likely, particularly in areas with WFP support, to have a meal before and after school. Compared to the control schools, more households with children in schools supported by WFP are within the acceptable food Consumption score, and appear to be employing less severe coping strategies. The qualitative findings align with the survey in that parents and teacher report better access to food in the last season.

**Provision of school meals and importance of education:** Survey results highlight that access to school meals has improved for WFPSMP schools, and that children in these schools are more likely to have a meal during the day and during the week than children in HGSMP schools and control

schools. However, comparison of parental understanding of the importance of education shows an inverse trend and is higher in HGSMP schools compared to WFPSMP schools, and higher in control schools compared to WFPSMP schools.

**Food utilization and food safety:** The survey shows that WFPSMP schools have better conditions in terms of food preparation and storage when compared to HGSMP schools and control schools. Understanding of food preparation and safety is also higher in WFPSMP schools compared to HGSMP schools, and also when compared to control schools.

**Evaluation question 4: How efficiently was the programme implemented?**

The midline establishes that the transitioning process is broadly on track although with some delays in some of the planned activities, including key training activities for School Meals Committees (SMC) and Boards of Management (BOM) which had to be deferred due to new government regulations on when training can be organized. WFP monitoring systems are recognized as being strong, but challenges are evident from the school, county and sub-county visits in terms of the government financial and technical capacity to maintain the same level of support. Communication about allocated and disbursed amounts by the GoK to the county and school is weak, and contributes to weak control and accountability. Various instances of suspected tampering with food quantities were reported to the evaluation. Delays in the disbursement of funds for HGSMP schools have meant that food has been purchased at higher prices, and this has reduced number of school feeding days. Interviewees report that the complex government procurement procedures for the HGSMP schools have reduced the level of benefit that the cash-based model has for local communities, as only registered larger traders and farmers can qualify.

**Evaluation question 5: What progress has been made towards sustainability?**

The mid-line finds that the transitioning process is known and understood by actors at different levels, and that the financial commitment by the government has continued in place, and government staff have been allocated. Nonetheless, funding for the programme is still insufficient to allow for full funding of school meals to all the beneficiary schools. Community engagement is strong, but participation in decision making of women is insufficient, and in some cases parental contributions through labour for cooking is affecting quality of food preparation, hygiene and management as they lack necessary training. In terms of capacity, the policy framework has been strengthened through the approval and launching of Kenya's first National Meals and Nutrition Strategy in May 2018. However, inter-sectoral coordination remains weak, and capacity for monitoring still continues to be a major concern.

**Evaluation question 6: What factors have affected the results?**

External factors that have affected the programme include droughts and floods, poor road infrastructure affecting transportation of food, as well as insecurity related to elections in 2017 and cattle rustling. Poverty, combined with nomadic lifestyle, have also affected enrolment and participation in schools, specifically by girls in some areas.

Enhanced policy commitment, strong government ownership and a strong relationship with WFP has facilitated the transition process. Internal factors that have had a negative effect include delays in transfers of cash grants by the government, complex procurement processes, and capacity challenges have affected timeliness and regularity of school meals. Inadequate information about the school feeding programme has negatively affected implementation and accountability. Food sharing has reduced the quantity of the meals for beneficiaries. At school level the existence of multiple initiatives, and the effect of the delocalisation of head teachers and introduction of a new curriculum in the same period, have created challenges for the management of the education process.

**Conclusions**

Across the spectrum, the McGovern-Dole supported interventions have been relevant to the beneficiaries. The programme has seen WFP successfully engaging at policy level with the government, as is reflected in the recent approval of Kenya's first School Feeding and Nutrition Strategy, and in a growing financial contribution by the GoK to the HGSMP, although the financial commitment and policy engagement still need considerable further strengthening.

The mid-line also highlights that school feeding provided under the McGovern-Dole supported SMP has output and outcome level effects for girls and boys. The comparison of the baseline and midline one year later show evidence of positive effect of the WFPSMP on most of the indicators, including in terms of better scores on numeracy, on food consumption (in school and at home), and better performance on safe food preparation and storage, as well as improved conditions in schools for preparing food for pupils. After transitioning of school from WFP to the government HGSMP, many of these indicators appear to decline. The short time-period between the baseline and midline require that all these findings be comprehensively re-examined at endline to ensure that they are not due to external variations such as better rainfall or other confounding variables.

**Recommendations**

**Recommendation 1:** Support the MOE to strengthen the communication and accountability measures for the HGSMP by reinstating, from next school year (2018/2019) mandatory circulars for information sharing on the details of grants provided to each school. WFP Kenya and MOE. Timeline: by January 2019, and at the beginning of each school year for subsequent years.

**Recommendation 2:** Prioritize the establishment of an independent complaints hotline for the HGSMP and ensure annual reporting on complaints received and how these were addressed. Responsible entity: MOE and the intersectoral committees at national and county levels, with technical support from WFP Kenya. Timeline: by the first quarter of 2019.

**Recommendation 3:** Commission a review of the current strategy for training SMC and school heads and use this to improve the training approach and content moving forward. Responsible entity: WFP Kenya, in consultation with MOE. Timeline: by the end of the first semester of 2019.

**Recommendation 4:** Advocate with the Treasury to: a) increase funding to the monitoring of the HGSMP; and, b) decentralize the disbursement of funds for the HGSMP to the county level to ensure that funds are received in a more regular and timely manner. Responsible entity: WFP Kenya and MOE. Timeline: End of the first semester of 2019.

**Recommendation 5:** Secure strong involvement of audit, quality assurance, and gender staff at county level in the monitoring of the HGSMP programme**.** Responsible entity: MOE, with technical support from WFP Kenya. Timeline: by the end of the current project (2020).

**Recommendation 6**: During the transition phase, enhance technical support provision at county and sub-county levels by placing WFP funded consultant staff at county level to reinforce training at the level of county offices and sub-county offices on HGSMP management and supervision. Responsible entity: WFP Kenya in partnership with the MOE. Timeline: continuously until the end of the programme.

**Recommendation 7:** Strengthen the integration of gender into the transition by carrying out a gender analysis as a follow up to the midline evaluation and identifying key aspects to include in capacity building and monitoring. Responsible entity: WFP Kenya, in consultation with MOE. Timeline: By the start of the 2019/2020 school year.

**Recommendation 8:** Establish clear targets for female participation and representation in the SMC to ensure gender balance and women representation in decision making and ensure that gender considerations are integrated in all capacity building activities and included in monitoring by WFP and MOE. Responsible entity: WFP Kenya and MoE. Timeline: By the end of the first quarter of 2019.

**Recommendation 9**: Improve the transparency and rationale of selection of SMP schools by reviewing the criteria for school selection in coordination with communities who have a better knowledge of the challenges that each individual school faces. Responsible entity: MOE at various levels, with technical support from WFP Kenya. Timeline: by the next school year (2019/2020).

**Recommendation 10:** Strengthen the monitoring of HGSMP by linking the monitoring system to the Education Management Information System (EMIS) and to the Free Primary Education (FPE) funding, to reduce the incidence of ghost schools and pupils. Responsible entity: MOE, with technical support from WFP Kenya. Timeline: by the end of 2019.

# 1. Introduction

1. The United States Department of Agriculture (USDA) – Mc Govern Dole (MGD) International Food for Education and Child Nutrition Programme has granted the World Food Programme (WFP) Kenya US$ 28 million to support school feeding in Kenya. The overall duration of the support is five years (2016-2021). The grant agreement specifies that performance of the grant will be measured against agreed indicators at baseline, mid-line and end-line. This report concerns the measurement at mid-line and follows one year after the baseline.

2. The baseline – based on a quasi-experimental design - was conducted in April/May 2017.[1] The midline – one year after the baseline - coincides with WFP handing over the programme to the Government of Kenya (GoK) in June 2018. It is a requirement by the donor that the mid-line takes place at this time. The end-line will take place in early 2020.

3. The purpose of the mid-line is to provide an independent assessment of:

   - The project's relevance, effectiveness, efficiency, coherence and sustainability;
   - Performance against indicators in comparison with values at baseline;
   - Whether the project is on track to meet the results and targets;
   - The need for mid-course corrections.

4. The evaluation has an accountability objective by providing mid-term values against indicators. It also has a learning objective which focusses on determining why results occurred or failed to occur and to inform operational and strategic decision making moving forward. Complete terms of reference (ToR) are in Annex 1.

5. The primary users of this evaluation are: WFP Kenya; the Ministry of Education Science and Technology (MoE) at national, county, district and school levels, which is the main implementing partner and responsible for ensuring the transition to a Home Grown School Meals Programme (HGSMP); the United States Department for Agriculture (USDA) which will be able to use this evaluation to improve its interventions; WFP Regional Bureau (RB) which will use the evaluation for strategic guidance, support and oversight, and WFP for wider organizational learning and accountability. The mid-line findings will also be of direct interest to partners who contribute the broader outcomes of the initiative (see paragraph 10) such as the United Nations Children's Fund UNICEF, to International and National Non-Governmental Organizations (NGO) and to the members of the evaluation Reference Group and to the wider group of donors supporting the education sector.

## 1.1. Overview of the Evaluation Subject

6. The current USDA Mc Govern-Dole International Food for Education and Child Nutrition Programme (McGovern-Dole) project is the last of three phases of support, and targets full hand-over to the GoK. It has a total budget of 28 million.[2] The programme target of 358,000 beneficiaries per year surpassed in both years for which data is available (531.467 beneficiaries in 2016 and 494.522 beneficiaries in 2017, of whom 44 percent were girls). The programme distributed a total of 16,286 tons of food in these two years, and an additional 1,693 tons of locally grown food was used in beneficiary schools in this period.

7. In the spirit of transition, the MGD 2016-2020 programme is divided into two phases. For the first period of three years (2016-2018), the program planned to provide daily school lunches to primary school children in targeted arid and food insecure counties. This phase culminates in the handing over of the management and funding responsibility to the GoK. Support from USDA will continue for two years (2019-2020) during which WFP provides technical assistance to strengthen institutional structures and ensure sustainability.

[1] Findings from the baseline were recorded in a comprehensive baseline report (Visser et al. 2017).
[2] Previous phases of USDA support included three single year awards in 2004, 2005, and 2006, and three multi-year phases awarded in 2007 (2007-2009), 2010 (2010-2012), and 2013 (2013-2016), respectively. These phases were followed by the current multi-year phase awarded in 2016 (2016-2020). The funds awarded between 2004 and 2015 amount to approximately 93 million USD.

8. At the school-level, the MGD School Meals Programme (SMP) includes WFP support to train education officials to monitor school feeding and guarantee food safety and train trainers among local education, health and agriculture officers, equipping them to facilitate school feeding management trainings at the sub-county level. Up to June 2018 (the transition), WFP shared the responsibility for the commodity delivery with the MOE, with WFP managing the pipeline and ensuring delivery to central warehouses and the MOE transporting commodities at sub- county level and to schools. The hot lunch, funded by USDA MGD is served for 120 out of the 190 school days.[3] The programme is implemented in eight counties namely: Baringo, Garissa, Mandera, Turkana, Wajir and West Pokot, Marsabit and Tana River. Support to the last two counties did not include food supply but will benefit from the complimentary activities.[4] A map in Annex 2 shows the location of the activities.

9. **Gender dimensions of the intervention:** The intervention seeks to benefit both girls and boys, and the results framework requires gender disaggregated reporting for educational indicators such as enrolment, repetition and drop-out rates. Other than this, the programme design – as reflected in the agreement with USDA and the description of its activities - does not include specific attention to issues of gender equality in the implementation of the programme[5] and no specific gender analysis was done at the design stage of the intervention. No specific gender indicators are included in the Performance Monitoring Framework (PMF) (Annex 3).

10. **Logical framework:** The results framework for the programme is in Annex 4 and shows a logical sequence of activities through to outcomes and impact. As indicated in the results framework, the intervention has two overarching strategic objectives (SO) namely: a) improved literacy of school-aged children, and b) increased health and dietary practices. Underlying the first SO (literacy) are three main outcomes, two of which are marked as being directly related to WFP activities i.e. 'improved attentiveness' and 'improved student attendance'. The third outcome is 'improved quality of literacy instruction' to be achieved through what is marked as 'outcomes to be achieved by other organizations'. The second SO (use of health and dietary practices) has six underlying outcomes of which only one 'increased access to preventive health interventions' is a result to be achieved through partner activities. Complementary activities implemented by other partners include the Tusome programme[6] funded by USAID, that aims at increasing the pupils' literacy rate and is implemented in all schools. The United Nations Children's Fund (UNICEF) is working with the GoK to update the current national curriculum (with inputs from WFP) and through awareness campaigns sensitizing communities about the importance of education and increasing literacy under the support by the Global Partnership for Education (GPE). UNICEF is also supporting Water, Sanitation and Hygiene (WASH), by providing toilets and running water at school level.

11. All other outcomes in the logical framework will be attained through WFP or sub-recipient interventions. Foundations results for both SO include increased capacity, improved policy and regulatory framework, increased government support and increased engagement of local

[3] The meals comprise 150 grams of bulgur wheat, 40 grams of green split peas, 5 grams of vegetable oil (fortified with vitamin A and D), and 3 grams of iodized salt – to be procured separately by WFP.

[4] The complementary activities focus on: strengthening governance and multi-sectoral coordination and collaboration for the school meals programme; advocacy and dialogue to ensure adequate and regular budget allocations and to maintain political commitment to the programme; strengthening oversight and management functions; empowering communities to manage school feeding activities through training and capacity building of school managers, teachers, and parents in order to ensure a solid level of awareness about school feeding implementation principles.

[5] This could have included, for example ensuring that community involvement embraces male and female participation equally.

[6] The Tusome ("Let's Read" in Kiswahili) Early Grade Reading Activity is a collaboration between the MOE, USAID and UKAID to improve learning outcomes in English and Kiswahili in Class 1 and 2. The TUSOME Programme was conceptualized and developed as a National Literacy Programme. It targets approximately 60,000 teachers, 22,600 schools for improvement in literacy instruction and outcomes. It is envisaged that 5.4 million class 1 and 2 pupils will be twice as likely to meet MOE benchmarks for literacy. The programme is being implemented in all public primary schools and 1000 alternative basic education institutions serving low cost urban settlements countywide.

organizations. A set of four assumptions underlie the logical framework.[7]

12. A number of points arise from the logical framework with implications for the assessment:
    - Firstly, the logical framework highlights very clearly that the actual provision of school meals is only one of a range of inputs (although it takes up most of the budget).
    - Secondly the framework clearly shows that the outcomes and impact are to be achieved through a combination of direct interventions by WFP and interventions by other partners.
13. **Past evaluations:** Several evaluations were undertaken during the period of the previous grant (FFE-615-2013/041-00, covering 2013-2016). A baseline was conducted from May to July 2014, a mid-term evaluation in October 2015[8] covering the period September 2013 to December 2014 and the final evaluation was launched in June 2016. The final evaluation concluded that: support had been relevant to beneficiaries; good complementarity with the work of other partners had been achieved; and, that the project had met key indicator targets. Efficiency challenges were highlighted related to limited capacity and insufficient funding at county level. Weaknesses in the communication with WFP and partners were also found. While an increase was found in enrolment and retention, the educational performance of pupils remained low. An evaluation of the transitional Cash Transfer to Schools (CTS) pilot in Isiolo County (funded by the Government of Canada) was done in 2015[9] and found that such transfers were relevant, efficient and effective, and allowed schools to purchase food for daily meals, at a cost that was 24 percent cheaper than in-kind transfers. Food delivery was found to be more reliable, and the initiative produced added value through transfers to traders/local farmers, and strengthened ownership. There are no specific differences between the original design of the WFP SMP and the implementation to be noted.

### 1.2. Context

14. Key aspects of the context are highlighted in the ToR (see Annex 1) which state that while Kenya was classified as lower-middle income, poverty, food insecurity, under-nutrition and income inequality remain, with 45.6 percent of Kenyans living below the national poverty line. According to the National School Meals Strategy (2017-2022), 47 percent of the population is food insecure, with an estimated 2 million Kenyans in constant need of food relief. This figure can rise up to 4 million when the country suffers drought, often followed by flooding. The WFP Country Strategic Plan (2018-2023) indicates that 4 million people or 12 percent of households have inadequate food consumption. These are most likely to be poor, living in rural areas and with low education levels, showing the strong link between poverty, lack of education and food insecurity.
15. These conditions are particularly severe in the arid and semi-arid parts of the country - which comprise 80 percent of the land area – where undernourishment, wasting, stunting, and child mortality are high. Immediate causes of malnutrition are inadequate food intake (in particular for under-fives) and presence of diseases. In addition, food insecurity, poor water and sanitation, as well as limited access to health services, all contribute. Worsening droughts and their frequency in recent years; 2008-2011, and 2014-18 have led to negative household coping mechanisms such as withdrawing children from school and selling productive assets.
16. The arid north is particularly underdeveloped, drought-prone and is often affected by local conflicts. Food availability is constrained by poor transport infrastructure and long distances to markets, and more recently by the effects of the prolonged drought. Enrolment and completion and the north-eastern counties - where the MGD programme is implemented - are significantly lower than the national average. Adult literacy can be as low as 8 percent[10].

[7] The assumptions are that there will be increased political commitment to expansion of HGSMP, that the GoK will allocate sufficient funding for the HGSMP, that public and private donors will be able to do the same, and that other initiatives will take place in a complementary manner.
[8] Dunn & Kariuki (2014). External Evaluation of WFP's Cash Transfers to Schools Pilot Project. WFP.
[9] Bartolli (2016). A Mid-Term Evaluation of WFPs USDA McGovern Dole International Food for Education/Child Nutrition Programme Support (2013-2015). WFP, Kenya.
[10] Government of Kenya (2015). "National Education Sector Plan: Volume One". Nairobi: MOE.

Retention and educational quality are ongoing challenges. This region also has the highest rate of stunting and wasting,[11] with acute malnutrition among children aged 6 - 59 months exceeding 15 percent and micronutrient deficiencies above 50 percent.

17. Kenya has a relatively well-developed policy context, with policies that seek to promote advancement in education, health and nutrition, and which all fall under the umbrella of an overall development plan. A social-protection policy (2012) aims at increasing access to services for vulnerable populations and includes school feeding. A ten-year Ending Drought Emergencies plan (2013-2022) targets drought resilience through investment in infrastructure, security, and human capital. Social-assistance programmes cover only 27 percent of the poor and are funded up to 90 percent by development partners. In 2017, the government developed the National School Meal Nutrition Strategy, which was closely followed by the Sustainability Road Map for School Meal Programme.

18. Kenya's new constitution and the Government's Vision 2030 both address gender equality. The Bill of Rights in the constitution affirms equal rights and non-discrimination, and the constitution embeds affirmative action aiming at improving equal participation in decision making. Notwithstanding, there are still considerable differences in the country between men and women's possibilities to control and benefit from economic, social and political resources and structures. Although women represent 75% of the population engaged in agriculture, they face greater challenges than men when it comes to accessing land, education and financial resources. Consequently, female headed households tend to be more prone to food insecurity when faced with shocks such as drought.[12] Kenyan women are underrepresented in decision-making positions. Girls and women living in rural areas spend long hours collecting water and firewood which interferes with school attendance and leaves them with little time to earn money or engage in other productive activities. Sexual abuse, violence, and harmful cultural practices like female genital mutilation are prevalent.

19. Although Kenya has achieved almost 100 percent gender parity in enrolment in primary education[13], and prioritizes gender in its national development plan and education policy, gender disparities persist in the Arid and Semi-Arid Lands.[14] Many girls are still out of school due to, among other factors, customary practices that expose them to early marriages and child pregnancies. Marginalized communities in these areas face climate hardships that keep the girls out of school to engage in livelihood and domestic chores.

20. WFPs work in Kenya focusses on: a) strengthening the capacity of national institutions and county governments to respond to food insecurity and undernutrition; promoting and sustainably expanding a HGSMP towards full school-meals national coverage by mid-2018; c) assisting smallholder farmers and millers to acquire skills and benefit from structured market opportunities; and d) improving the nutritional outcomes of vulnerable groups by focusing on chronic malnutrition.[15] The present intervention is part of this package of activities.

## 1.3. Evaluation Methodology and Limitations

21. The overall purpose of the midline is to assess progress against baseline indicators (see ToR, Annex 1). A set of six evaluation questions were identified for the midline covering OECD/DAC evaluation criteria. A seventh question aims at identifying underlying factors affecting the

[11] A Discussion Paper by the World Bank and UNICEF (2016) An Investment Framework for Nutrition in Kenya: Reducing Stunting and Other Forms of Child Malnutrition shows the highest rate to be in West Pokot County (45.9 percent). While national wasting prevalence is at 4%, these are much higher in the arid north. Turkana County has the highest prevalence of wasting at 22 percent followed by Mandera at 14.8 percent and Wajir County at 14.2 percent.

[12] Determinants of Food Security in Kenya, a Gender Perspective.
file:///C:/Users/lenovo/Downloads/WhatDeterminesGenderInequalityinHouseholdFoodSecurity.pdf

[13] Girls' enrolment improved from 0.96 in 2008 to 1.0 in 2012, in part due to the introduction of free primary education in 2003.

[14] Government of Kenya. (2012). "Second Medium-term Plan, 2013–2017" Nairobi.

[15] The country programme was funded at 71% by donors in 2017. Capacity strengthening activities were well-resourced, with predictable multi-year funding. School meals activity was seriously under-resourced. Micronutrient supplementation for children aged 6-23 months had no funding in 2017 and relied on carry-over stocks from 2016.

results and outcomes of the programme (see Table 1). An evaluation matrix (Annex 5) maps evaluation questions and sub-questions and identified indicators and relevant sources of evidence. Priority questions were identified at inception stage and are in italics in Table 1.

**Table 1 - Evaluation questions, sub-questions and criteria**

| Evaluation question and sub-question | Evaluation criteria |
|---|---|
| **KQ 1 – Relevance: How relevant is the programme?** | |
| 1. To what extent is the programme approach/activities relevant to the GoK? | Relevance |
| 2. Is the activity aligned with WFP, UN agency and donor policies and priorities? | Relevance |
| 3. Is the package of interventions coherent with the needs of boys, girls, and parents of school-age children? | Internal and external coherence |
| 4. Is the investment in the right, relevant areas? | Relevance & coherence |
| **KQ 2 - Appropriateness: How Appropriate is the programme?** | |
| 5. Is the intervention the best way to meet the food security/nutrition needs of male and female beneficiaries and capacity gaps of key institutions? | Relevance |
| 6. Are protection needs met for male and female beneficiaries? | Relevance & cross-cutting |
| 7. To what extent is the intervention based on a sound gender analysis? To what extent is the implementation of the intervention gender-sensitive? | Relevance and cross-cutting |
| **KQ 3 – Effectiveness: What are the results of the programme?** | |
| 8. *To what extent are the intervention's outcomes/objectives likely to be achieved? What have been the gender dimensions of the results?* | *Effectiveness* |
| 9. *What are the major factors influencing progress in achievement or non-achievement of the outputs outcomes/objectives of the intervention?* | *Effectiveness* |
| 10. *To what extent does the intervention deliver results for beneficiaries?* | *Effectiveness* |
| **KQ 4: Efficiency – How efficiently was the programme implemented?** | |
| 11. *Is the programme implemented in a timely way?* | *Efficiency* |
| 12. *Is the programme implemented efficiently? Are financial and human resource inputs efficient compared to outputs? Are the activities cost-efficient?* | *Efficiency* |
| 13. *Does the monitoring system efficiently meet the needs and requirements of the project?* | *Efficiency, internal & external coherence* |
| 14. *What are the management strengths - technical and financial - of the project?* | *Efficiency* |
| **KQ 5 – Impact: What are the impact level results of the programme so far?** | |
| 15. What are the medium-term effects? | Impact |
| **KQ 6 – Sustainability: To what extent are the project results sustainable?** | |
| 16. *To what extent is the government taking ownership of the programme?* | *Sustainability* |
| 17. *What is the demonstrated capacity at central and sub-national levels to manage the programme?* | *Effectiveness and sustainability* |
| 18. *How are local communities involved in and contributing to the implementation of the programme?* | *Effectiveness* |
| 19. *Is the HGSMP adequately funded?* | *Effectiveness* |
| **KQ 7 – What factors affected the results and what lessons can be learned from the implementation so far?** | |
| 20. *What are the major factors influencing the achievement or non-achievement of sustainability of the program?* | *Internal and external coherence* |
| 21. What are lessons learned from the project up to this point? | |
| 22. *What are the recommendations for mid-course corrections to improve relevance, efficiency, effectiveness, impact, & sustainability?* | |

22. At the inception stage of the baseline, a quasi-experimental design was proposed, assessed for feasibility, agreed on, and approved by both the internal committee and USDA as the most suitable methodology for evaluation this programme. USDA requirements determined that the baseline would be followed-up by a midline after one year to assess progress in terms of take-over, in spite of the very short time-line.

23. Following the previously agreed design, the midline was set up with a three-arm quasi-experimental design which involves two sets of comparison, namely:

- Between WFP SMP schools and WFPSMP control schools

- Between WFPSMP schools with HGSMP schools.

24. A more detailed discussion of this design can be found in the Inception Report. The first comparison (WFPSMP and control schools) provides the means for examining what differences the WFP supported SMP makes to key education and nutrition indicators. The HGSMP versus WFPSMP arm of the study assesses progress on sustainability, given that HGSMP schools have been handed over to the GoK.

25. The research questions and testable hypotheses that underpin the quasi-experimental design focus on examining whether the baseline, mid-term and end-line primary education outcomes (literacy and numeracy levels) and other educational outcomes (enrolment, attendance, etc.) in the ASAL areas of Kenya are the same in schools included in WFP/USDA-MGD school meals programme (2016 -2020) as those not included (controls and those transitioning to HGSMP). Four different hypotheses were formulated at baseline and proposed for testing at mid-term and end-line for each indicator (see Annex 6).

26. In line with requirements of the ToR and as documented in the Inception Report, data collection combined secondary and primary data sources and mirrored the procedure at baseline. Secondary data focussed on an analysis of WFP and GOK policy documents, documentation by other donors, as well WFP and GoK reporting, WFP monitoring and Education Management Information System (EMIS) data. Sources consulted are in the bibliography. Primary data collection included key informant interviews (KIIs) and focus group discussions (FGDs) at national, county, sub-county, school and community level and the administration of three survey questionnaires (the first for pupils with their respective parents; the second for school teachers; and the third combined a head teacher questionnaire and school checklist to collect information on schools. Tools had been tested at baseline. The evaluation use of mixed methods was part of a consistent focus on triangulating information from different methods and sources to enhance the reliability of findings. Validity was addressed through the choice of research approach (comparison of intervention and control group) and by calculating the sample size to ensure statistical validity (a large sample was used to reduce sampling error and the sample size was doubled to ensure adequate attention to gender issues). Details on these aspects are in Annex 6.

27. Data collection instruments were reviewed and improved for the mid-line data collection– redundant/unclear questions were removed/reformulated. An additional question was included in all three survey tools to allow for identification of respondents who participated in the baseline survey. The study arm was also included to enhance visualization of the data.

28. Enumerator and supervisor selection followed the same criteria for selection as set during the baseline (see Annex 7). A five-day training (28th May – 1st June 2018) preceded data collection. Gender balance was secured through the recruitment of equal numbers of male and female enumerators. As much as possible enumerators and supervisors with experience from the baseline were recruited at midline. All the supervisors for the midline had participated in the baseline while 60% of the enumerators for the midline had also participated in the baseline.

29. Primary data collection was conducted at the same time as the preceding baseline survey (in May - June 2018, the baseline having been in May 2017). Control schools were selected from the neighboring areas (either within the same county or in a neighboring county in a manner that matched as closely as possible the socio-economic activities and livelihood characteristics to ensure similarity in terms of vulnerability and food insecurity).[16] HGSMP schools were also selected from the neighboring areas with comparable socio-economic activities.[17]

30. Schools – which at baseline had been selected and matched using Propensity Score Matching (PSM) - were again targeted at the midline. Sample size was identical to the baseline and included an adjustment to account for gender. The midline targeted 90 schools (divided over the control, HGSMP and SMP schools) and a total of 5301 children. The second stage of

16 The control schools were in Elgeyo Marakwet, Kajiado, Kitui, Laikipia, Machakos, Makueni, Nyeri and Taita Taveta.
17 This covered Elgeyo Marakwet, Embu, Kajiado, Kitui, Laikipia, Machakos, Makueni and Nyeri.

sampling focused on selecting children in schools using a random number generator. For each child, the corresponding parent was asked to participate. A 40 percent target was set for female (parent) respondents. Sampling of girls was done to ensure that half of the pupils were girls.

31. Qualitative data collection was modified from the baseline approach to ensure in-depth analysis of issues of particular interest at the mid-line, namely management, capacity, accountability, performance, and progress to sustainability. Qualitative data collection through KIIs and FGDs was carried out in seven counties, with a total of 14 schools. There were KIIs at national, county, sub-county and school levels, involving MOE at national and sub-national levels, officers in charge of SMP and WFP officials, chairs of school Boards of Management (BOM), and head teachers. In order to address gender mainstreaming and women's empowerment as per WFP's evaluation principle of gender equality, the evaluation was conducted with a view to elucidating the effect of the intervention (WFPSMP or HGSMP) among boys and girls. Views of male and female respondents were sought at all levels. To the greatest extent possible, the consultants ensured both men and women were targeted as respondents, with the target of at least 40 percent female parents largely surpassed. At school level, FGDs were held with teachers, pupils and parents; ensuring that both girls and boys, women and men participated. Where needed, discussions were organised separately for women and men. A total of 349 persons participated in the interviews and FGDs.
32. Quality assurance took place at various levels starting from rigorous instruments redesign, and selection and training of staff responsible for data collection. The work of enumerators was supervised by team supervisors who in turn were supervised by the research teams. Survey data uploaded on Open Data Kit (ODK) was reviewed daily. Anomalies or problems were identified and corrected in a timely manner.
33. As part of the overall approach to the evaluation both triangulation and complementarity between quantitative and qualitative methods were ensured. Triangulation between methods focused on confirming and corroborating results reached by one method with other results reached by another method. Complementarity focused on using results obtained by a method to help better understand those obtained by another method. Triangulation within methods was used where appropriate (e.g. comparing the perspectives of stakeholders interviewed). A one-day research team workshop, and four-day workshop on qualitative data, allowed for comparison of findings and discussion of emerging conclusions and recommendations.
34. WFPs Decentralised Evaluation Quality Assurance System (DEQAS) guidelines which have in-built steps for quality assurance and templates for evaluation products, as well as checklists for feedback on quality - were followed in the design, implementation, and reporting. The study complied with standard 3.2 of the United Nations Evaluation Group (UNEG) Norms and Standards. The evaluation also complied fully with GoK and WFP guidelines on contact with children. Ethical considerations were taken on board in the study in the following manner:

    - Enumerators training included ethical considerations for work with children.
    - A courtesy call was made to the county district education officials before starting.
    - Head teacher consent was sought before any activity in the school.
    - Teachers introduced the enumerators to the class to explain the survey.
    - For the control schools the survey team emphasized that participation sought to understand differences between intervention and non-intervention schools. Parents were interviewed prior to the their respective children so that consent could be sought. Participants were informed that they could decline participation.
    - All data collected has been kept confidential.
    - Passwords and backing up of data were carried out for security of digital data.
    - Research team members signed a code of conduct which included handling of children.

35. Data analysis was complimentarily done using IBM SPSS version 24.0 and SAS version 9.4. MS-Excel was used to generate graphical presentation of specific findings.
36. ***Univariate analysis:*** Descriptive statistics such as measures of central tendency (mean, standard deviations, median, and range) were used for analysis of continuous variables, while

frequencies and percentages for categorical variables.

37. ***Bivariate analysis:*** Pearson's Chi-square or Fisher Exact test (depending on the mean expected count) was used to compare the distribution of indicator variables and other observable characteristics between interventions and control groups. T-test was used to compare mean difference between intervention and control groups. Where normality assumptions are violated, appropriate non-parametric methods were used.
38. ***Multiple regression analysis:*** Binary logistic regression was used to estimate the difference in *the proportion of children ages 7-13 that have attained literacy and numeracy for a Standard 2 level* adjusting for midline characteristics, identified to be significantly different between intervention and control groups at bivariate analysis. Threshold for statistical significance was set at $p<0.05$.
39. **Estimation of programme effects:** Difference-in-differences (DID), also known as the 'double difference' method, was used to compare the changes in outcome (effect size) *over time* between specific intervention (HGSMP and WFPSMP) and control group. Application of DID method was able to adjust for difference in the outcome between both interventions (HGSMP and WFPSMP) and control group at baseline.
40. *Effect of WFPSMP:* the difference in the measurement indicator between WFPSMP and control groups was first calculated at baseline and midterm. The calculated baseline difference were then differenced from the midterm differences to ascertain the accurate difference attributable to the WFPSMP at midterm.
41. *Evaluating sustainability of SMP:* In order to determine whether transitioning schools from WFPSMP to HGSMP sustains school performance, the comparison of HGSMP and WFPSMP was done. The indicators measured at baseline, were compared again at midterm. Owing to its rigorous programme implementation, the bench mark was WFPSMP. Propensity score matching was used as an adjustment factor at every step of analysis.
42. Qualitative results were coded and analyzed for patterns, identifying similarities and differences among the different groups of people, different contexts. Identification of patterns, similarities and differences led to conclusions.

*Limitations*

43. Limitations are inherent with the difficulty of finding identical matches between SMP schools and control schools as WFP covers all schools in a given region. Care was taken to ensure as close a match as possible for indicators for which data could be collected. The following table presents the identified limitations, implemented mitigations, risk level and possible impact on the survey.
44. The other limitation is the very short time-period between the baseline and midline findings which reduces the probability of being able to identify outcome and impact level findings.

| Limitation | Mitigation | Risk level | Impact |
|---|---|---|---|
| Limited matching after using propensity score matching (PSM) - 23 against the expected 30. | Independent paired matching for different groups | Low | Comparison between HGSMP and Control not possible |
| Not able to implement the ideal triple matching for PSM | Independent paired matching for different groups | Low | None |
| Slight variation between 2016 EMIS data and actual enrolment figures in May 2017 | Redistribution of sample size at school and class level | Low | Minimal biasness |
| Limited variables in the EMIS data from the ministry of education for PSM | Computed alternative variables for PSM | Low | Limited matching |

## 2. Evaluation Findings

45. The evaluation findings and the evidence to substantiate them are presented below. They are structured as a response to each evaluation question in turn.

### 2.1. Evaluation Question 1 and 2 - How relevant and appropriate is the programme?

**Summary EQ 1 and 2**

- The intervention is well aligned with the priorities of the GoK. The MGD programme is also well aligned with the priorities of UN partners and other development agencies.
- School meals are relevant to parents, communities and children in the arid areas. School meals contribute directly to food security and also indirectly through alleviating the burden on parents.
- The programme made appropriate choices in terms of geographical focus.
- The transition to HGSM represents an appropriate choice that is coherent with the national policy and with the preferences of the beneficiaries and education actors at decentralized levels.

**Relevance to the Government and other key stakeholders?**

46. The GoK commitment to education is articulated in the Constitution of Kenya (2010), which states that education is a basic right. Article 53 b stipulates that basic education is 'free and compulsory'. The constitution has provision for food as a basic right (Article 53c)[18]. At international level, Kenya is a signatory to the Sustainable Development Goals (SDGs), and SDG4 commits United Nations (UN) member states to: *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*. In regard to basic education, MOE and partners efforts focus on ensuring: 'Access, equity, retention and completion' for all children. This effort focuses on bridging the gap in achieving 100% Net Enrolment Rates (NER) and in reversing the current low learning achievement (see Uwezo[19], Southern African Consortium for Measuring Education Quality (SACMEQ), and Kenya National Assessment System for Monitoring Learning Achievement (NASMLA) assessment results).

47. The key strategic objectives of the programme, i.e. SO1: improved literacy of school age children, and SO2: increased Use of Health and Dietary Practices, address the issues of learning outcomes, nutrition and health, therefore complementing GoK efforts to increase enrolment, attendance and retention, completion and transition, as well as improved learning outcomes in arid counties of North East and West of Kenya.

48. School meals are relevant to parents, communities and children in the arid areas. For the parents, informants pointed out the benefit of parents' time freed by provision of lunch and especially the female parents who had more time to look for food for the evening meal, work on improving their livelihoods, or time to look for water and firewood. Schools with the SMP also attracted the younger children to the early childhood development (ECD) level, generating interest in education, thus facilitating enrolment in primary school at the right age. Gender parity has generally improved in enrolments, especially at the lower levels, with some schools, reporting there are now more girls enrolled than boys, especially in the lower classes in primary schools. With meals provided to both boys and girls, and young children enrolling in ECD, parents and pupils also reported that girls are less burdened to look after the younger siblings. With assured food in school, girls are also reported to be becoming more confident and performing better in class.

[18] National School Meals and Nutrition Strategy 2017 -2022.
[19] Uwezo is a five year initiative that aims to improve competencies in literacy and numeracy among children aged 6-16 years old in Kenya, Tanzania and Uganda, by using an innovative approach to social change that is citizen driven and accountable to the public.

**Alignment with WFP, partner UN agency and donor policies and priorities?**

49. The MGD programme is aligned to the WFP Kenya Strategic Plan of 2011-2014 whose focus was on capacity building of government to extend the HGSMP to arid areas, while continuing to give direct food supplies to areas with limited capacity and cash transfers to schools transitioning to HGSMP. There has since then been a shift in the current WFP strategy (2018-2013), with the overarching aim to move: 'from the direct provision of transfers and services to the strengthening of national systems and capacities to deliver food and nutrition security.'

50. The WFP Kenya Country Strategy is anchored on the United Nations Development Assistance Framework (UNDAF) and its five principles: a human rights-based approach, gender equality, environmental sustainability, capacity development, and results-based management. Capacity development aspect cuts across the UN agencies supporting education, with the United Nations Educational Scientific and Cultural Organization (UNESCO) supporting the government capacity to 'ensure equitable and inclusive quality of education and lifelong learning for all by 2030', in line with SDG 4, while UNICEF works in partnership with the GoK to 'create an inclusive, protective, healthy and learning environment for children'. The GPE, supports government programmes in achieving SDG4 and is supporting the GoK in improving early grade numeracy. This initiative complements the USAID funded Tusome Programme which, in partnership with the GoK, aims at improving early grade literacy. Thus, the MGD SO1 contributes to GoK and donor policies and priorities in improving learning outcomes, by strengthening enrolment, attendance and attentiveness, retention and completion.

**Coherence and Relevance of the Package of Interventions?**

**51.** The seven areas of intervention by WFP MGD project, can be categorised into: a) direct material support in terms of food supply, provision of energy saving stoves and building/rehabilitation of kitchens/cooking areas; b) capacity building at national, county, sub-county, school and community levels; and c) awareness creation/education on importance of education, hygiene and nutrition. Each of the component resonates with and complements the other, which is important for smooth transition and handover.

**Investment in the right, relevant areas?**

52. Kenya has almost half (45.6 percent) of its population living below the poverty line in spite of the fact that the country was reclassified by the World Bank, in 2014, as a lower-middle income country. It has remained a food deficit country, with high prevalence of malnutrition and significant inequality. The counties targeted by this programme have similar characteristics, which include vast geographical expanse and sparse population, pastoralism and in some counties nomadic pastoralism as the main source of livelihood, where poverty indices are highest. These counties experience prolonged periods of drought, which are becoming more frequent; resulting in famine and food insecurity. Food insecurity is compounded by instability and insecurity caused by protracted internal conflict, at times fuelled by cattle rustling. The situation in the north-eastern region has been exacerbated by terrorist attacks from Al Shabab, Food insecurity is exacerbated by constraints in accessing markets and subsequently high prices of food commodities due to poor roads which become impassable during rainy seasons.

53. Within the context of food insecurity, the evaluation was informed in all the counties visited, that families normally have one meal per day in the evening and in some families, there are times when there is no meal. This underscores the importance of school meals for the children. In areas affected by conflict, parents and communities are also assured children are safe in school and have a meal. In some situations, children save half of their lunch for younger siblings. In the case of Wajir and Turkana, evaluators were informed that during extreme famine, people living within the school's neighbourhood come to school at lunch time

54. The program activities are very relevant because of the protracted drought. Some of the parents, are forced to move to other areas in search for pasture. The SMP enables them to leave their children behind with relatives, allowing them to attend school and get some food. As noted by one of the County Directors of Education (CDE):

*"It is the right intervention, focussing on areas with food challenges. Some of the issues in the county include border skirmishes which affect food production in the dry areas, at times unable to harvest any food. This has had a negative effect on retaining children in school. The areas that experience drought are the same ones that also are affected by conflict, affecting the nutrition of children in the area."* (informant, Elgeyo Marakwet).

**Coherence of WFP activity with key policies of other partners operating in the context**

55. The MOE is working with various partners towards increasing enrolments, retention and completion rates as well as improving quality of education and learning outcomes. The WFP SMP intervention is gradually being handed over to the government, which is in coherence with the policies of government partners. Agencies such as UNICEF are supporting WASH in schools, and GPE is supporting improvement of early numeracy and strengthening of systems, while other interventions such as the World Bank Secondary Education Quality Improvement Project for Kenya, straddle across the primary and secondary education. All these interventions supporting the GoK to ensure equal access to quality education. The coherence of WFP activity with key policies of other partners is summarized by one head teacher in Turkana: "*Even with FPE (Free Primary Education), if there is no food, other programmes won't go on". (*Head teacher, Turkana).

**Appropriateness**

56. The approach chosen - considering the food security and nutrition needs of the beneficiaries - is generally accepted as the best one. Most informants, in particular head teachers, were of the opinion that the cash transfer is mostly preferred compared to the food in kind. Their main reason is that the children need food of their choice, and that the cash advance allows schools to plan in advance, get variety of food, and allow them to cope with the delays they have been experiencing. Education officials at sub-county and county levels and community officials as well as members (including parents) underscored that the cash based model presented in principle advantages in terms of the benefits for local producers (farmers and small traders). On the other hand, some teachers, parents and the BOM were clearly concerned that the cash based model produces disagreements and misappropriation of funds when they are channelled to the schools (this is issue is further discussed under the efficiency section).

57. Head teachers reported that there is a WFP hotline for reporting issues that may be affecting the SMP, but that they also resorted to consulting with the sub-county Directors of Education on issues related to food delivery, delays, quantities and distribution. However, some head teachers reported preferring to present any challenges directly to WFP during their monitoring visits, because they get feedback and action is taken very fast (and there is lower risk of repercussions). Other key stakeholders – in particular parents and almost all the children – were not clear on communication lines and on where they should present complaints about the SMP. No examples were identified of instances where this had been done.

58. While the school meals were widely considered very appropriate to needs, a few issues that could have a negative effect were raised. Some schools, for example did not have easy access to water and children were required to fetch water. In one school in West Pokot, pupils informed the evaluation that they could take about five hours - from 6 am to 11 am - fetching water. In other schools, children brought water from home and the head teachers could not vouch for the quality of the water. The issue of fear of dependency was also raised by a number teachers and head teachers, who shared the view that people in the areas where SMP was implemented had become dependent on the programme and that this was a concern given high levels of food insecurity combined with the irregular provision of school meals under the SMP, and the lack guarantees about continuity beyond the support by WFP.

59. Another challenge raised was the selection of schools under the programme. Head teachers expressed concerns that the selection process for the schools was not transparent and that neighbouring schools were not selected which creates movements of pupils from one school to

the other. For the receiving school this creates challenges in terms of management of educational process, while other schools struggle to maintain enrolments.

60. It was clear that the interventions were benefiting both boys and the girls. However, in some situations, such as in North Eastern Kenya, teenage girls fear to be in the same queue with boys to get food, and women cannot eat in the same place with men, so the girls are forced to send the younger ones to collect food for them. Some schools have mitigated this by having girls use a different line while being served. In other schools this was not the case.

## 2.2. Evaluation Question 3 (Effectiveness) and Evaluation Question 5 (Impact)

**Summary EQ 3 and EQ 5**

- The survey findings comparing baseline and midline show that WFPSMP is significantly associated with improved numeracy. In addition, though not significant, there was improvement on literacy for English and Kiswahili. (i.e. progression of the percentage of children who are able to read a paragraph as opposed to a sentence).
- Compared to the baseline, the midline points to an increased number of children accessing food through school meals programme and more so in WFP supported schools.
- Compared to the control schools, more households with children in schools supported by WFP are within the acceptable FCS, and appear to be employing less severe coping strategies. Attribution of these findings to the intervention are not possible at this stage.
- The survey comparison of baseline and midline does not show an association with higher enrolment, attendance or improved attentiveness.
- Analysis by arms also shows that the results of the HGSMP appear to be dropping. Across a range of indicators, including numeracy and literacy scores, HGSMP school perform less well compared to WFPSMP schools.

61. This section of the report discusses the combined results and impact of the programme. It follows the same structure as the baseline report. and presents the findings of the survey across the three arms of the study with respect to the USDA MGD indicators. This section of the covers results, outcomes and emerging areas of impact, as follows:

    - **Learning outcomes** – discusses findings for impact level indicators of literacy and numeracy, as well as indicators on attentiveness and student attendance.
    - **Short term hunger** - this section covers the situation with respect to food consumption by children during the day and week.
    - **School meals and expected outcomes** – this section presents outcome level indicators (access to food and to school meals during in 2017 and 2018, and in the week of the survey) and community understanding of the importance of education.
    - **Food utilization and food safety** – covers issues related to hygiene, nutrition, food preparation and storage and the knowledge of nutrition.

62. For each section, quantitative findings from the survey instruments are presented first. Where appropriate, qualitative findings provide further understanding. An overview of the characteristics of the respondents is provided in Annex 8. To facilitate understanding a summary of the effects that have been retained for all indicator is provided in Annex 11.

### Learning Outcomes

63. This section discusses the findings with respect to indicators of literacy and numeracy of school age children (7-13 years): improved attentiveness; and improved student attendance. It presents the findings organized under specific objectives and outcomes in the PMF.

## MGD SO 1: Improved literacy of school age children

**Summary of main findings**

- There was significant improvement in favour of WFPSMP schools in the proportion of children who scored the highest level of numeracy (division) compared to control schools (p=0.002). A significant improvement for boys (p=0.001) but not girls (p=0.059).
- There was no significant change in proportion of children with highest level of literacy (reading story) in Kiswahili (p=0.707).This was consistent both in boys and girls.
- There is a significant decrease in the literacy and numeracy results for HGSMP schools compared to WFPSMP schools. The proportion of children who scored the highest level of numeracy (division) in HGSMP is significantly lower compared to WFPSMP schools (p<0.001). The decrease was significantly high among boys (p<0.001) but not girls (p=0.277).
- There is also a significant decrease in proportion of children with highest level of literacy (reading story) in Kiswahili in HGSMP schools compared to WFPSMP schools (p=0.025). The decrease was significantly high among boys (p=0.027) but not girls (p=0.285).
- Finally, there is a significant decrease in the proportion of children who scored the highest level of literacy in English (reading a story) in HGSMP compared to WFPSMP schools (p=0.027). The decrease was significantly high among girls (p=0.046) but not boys (p=0.245).

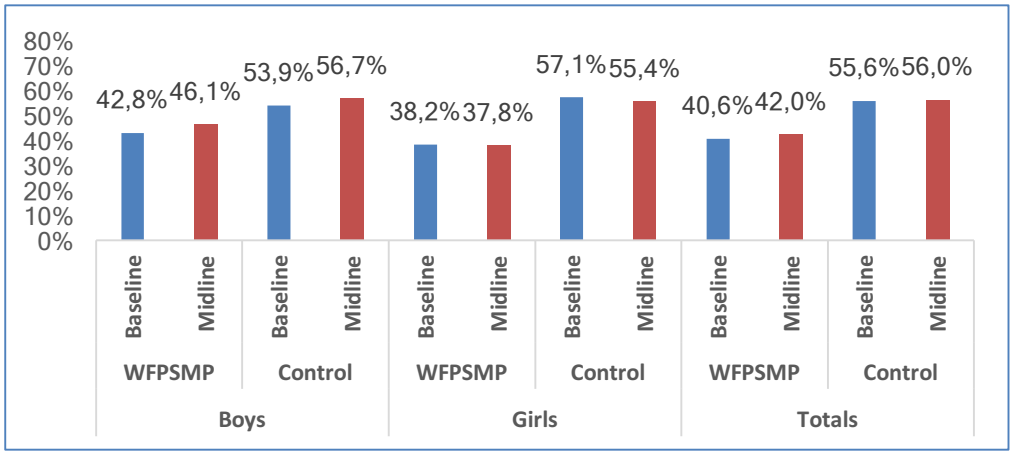
64. Three specific performance indicators monitoring of learners' outcomes, namely competence in numeracy, and competence in literacy in English and Kiswahili.

### Indicator 1: Children 7-13 who can solve Class 2 numeracy & literacy problems

Literacy (English)

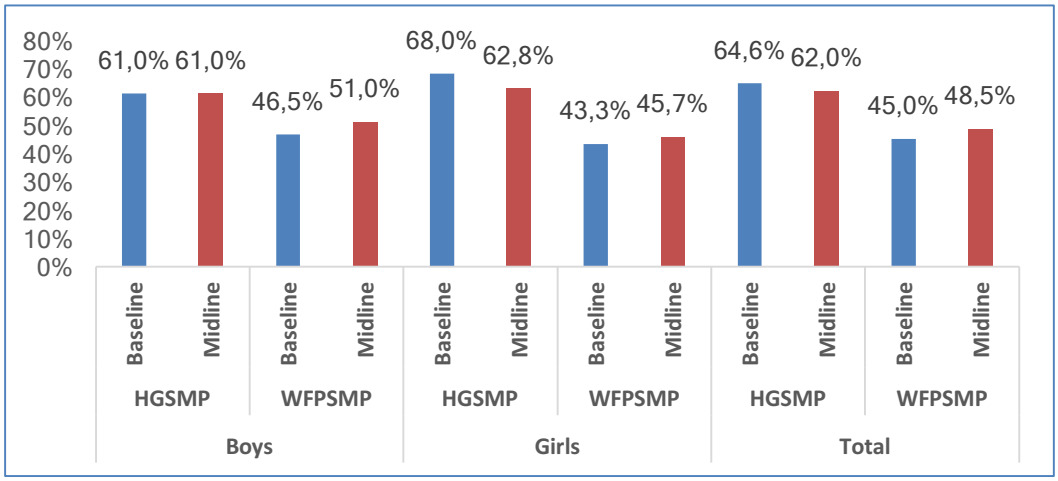
65. Changes in highest level of literacy in English (reading a story) between baseline and midline for pupils enrolled in WFPSMP schools were compared with those of children enrolled control schools. Figure 1a and Table 24a show that, there was no significant difference in the change of proportion of children with highest level of literacy in English, between schools having WFPSMP (1.4%) compared to their control counterparts (0.4%), (net change of 1.0%; p=0.761). This was consistent both in boys (net change of 0.5%; p=0.895) and girls (net change of 1.3%; p=0.894), (Figure 1a and annex 10a (Table 24 and 25)).

**Figure 1a – Highest level English literacy scores (reading a story), compared at baseline and midline for WFPSMP and control schools, stratified by gender**




66. A further comparison was done between the HGSMP schools and the WFPSMP schools. The analysis showed that, there was a significant decrease in the proportion of children who scored the highest level of literacy in English (reading a story) in HGSMP (-2.6%) compared to improvement in WFPSMP (3.5%) schools (a net change of -6.1%; p=0.027). The change was significantly high among girls (a net change of -7.6%; p=0.046) but not boys (a net change of -4.5%; p=0.245), (Figure 1b and Annex 10b (Table 33 and 34)).

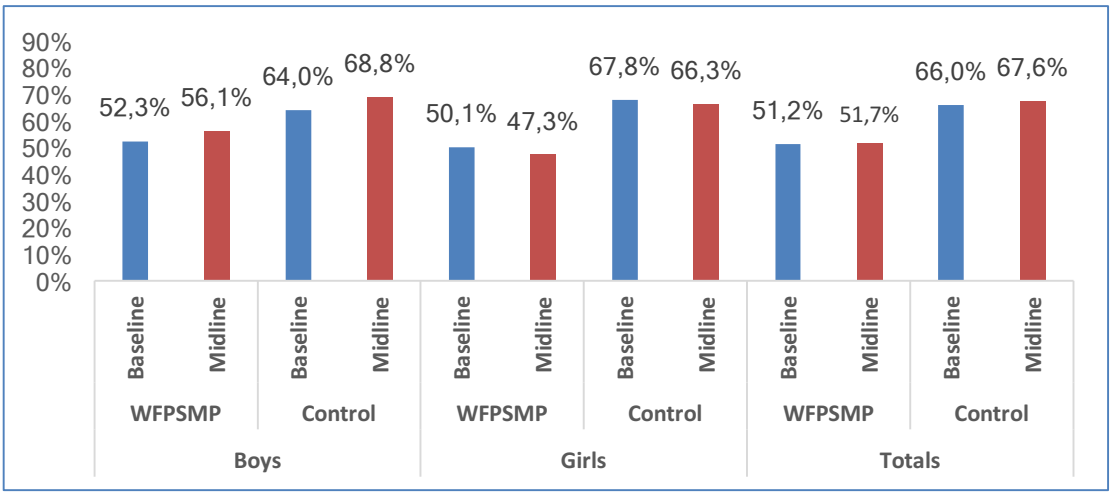
**Figure 1b - Highest level English literacy scores (reading a story), compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




Literacy (Kiswahili)

67. As was the case for the English results, comparing the different arms was for the Kiswahili results, there was no significant change in proportion of children with highest level of literacy (reading a story) in Kiswahili in schools having WFPSMP (0.5%) compared to control (1.6%), (net change of -1.1%; p=0.604). This was consistent in boys (net change of -1.0%; p=0.707) and girls (net change of -1.3%; p=0.633), (Figure 2a and Annex 10a (Table 24 and 25)).

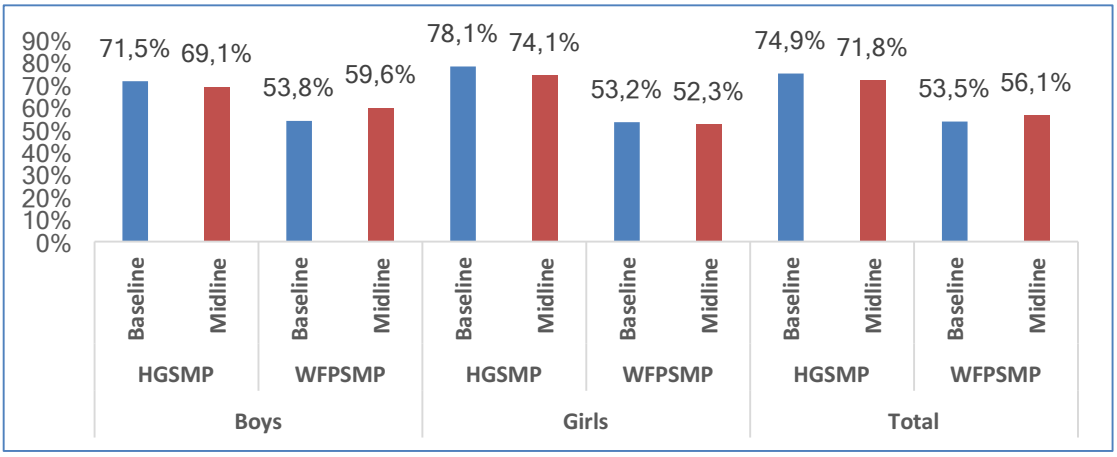
**Figure 2a – Highest level Kiswahili literacy scores (reading a story), compared at baseline and midline for WFPSMP and control schools, stratified by gender**




68. Comparing the HGSMP with the WFPSMP schools, Figure 2b and Annex 10b (Table 33 and 34) shows that, there was a significant decrease in proportion of children with highest level of literacy (reading a story) in Kiswahili in schools having HGSMP (-3.5%) compared to improvement in WFPSMP (2.6%) schools (net change of -5.7%; p=0.025). The change was

significantly high among boys (net change of -8.2%; p=0.027) but not girls (net change of -3.1%; p=0.285).

**Figure 2b - Highest level Kiswahili literacy scores (reading a story), compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**

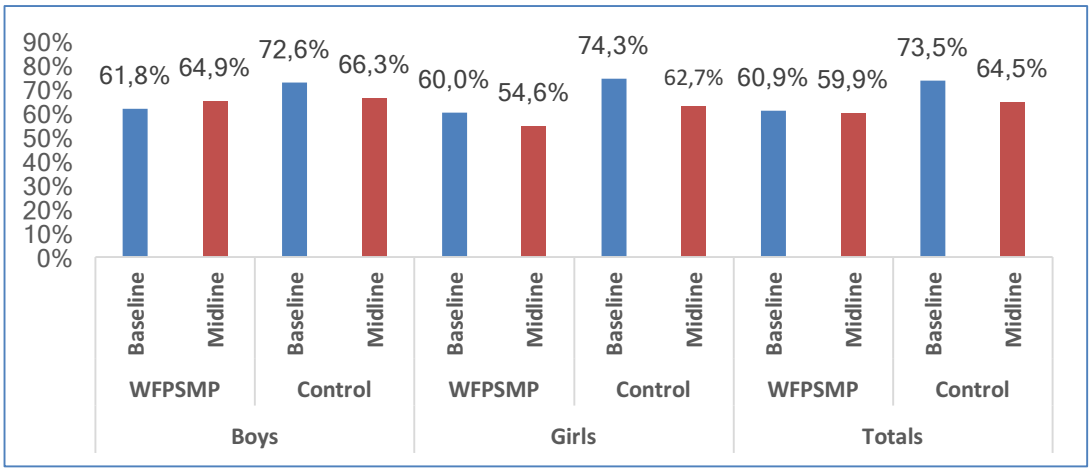



Numeracy

69. Similar analyses were done on the numeracy portion of the UWEZO test. The numeracy test includes eight levels of acquisition which are ordered from 'nothing' to 'division' with the latter reflecting the highest level of acquisition.

70. There was a significant change in favour of WFPSMP schools (-1.0%) in the proportion of children who scored the highest level of numeracy (division) compared to control (-9.0%) schools (net change of 8.0%; p=0.002). A significant improvement for boys (net change of 9.4%; p=0.011) but not girls (net change of 6.2%; p=0.059). (Figure 3a and Annex 10a (Table 24 and 25)).

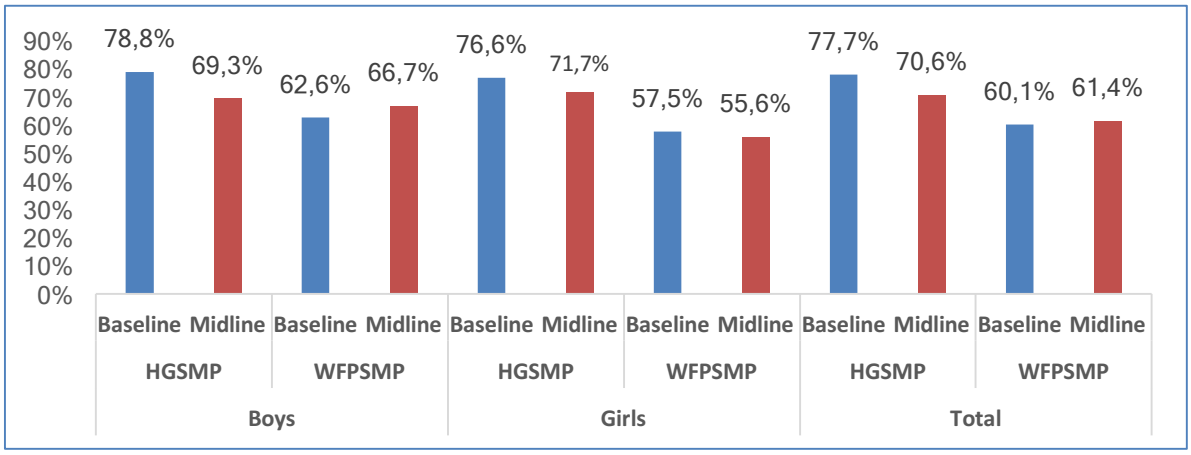
**Figure 3a – Highest level of numeracy scores (division), compared at baseline and midline for WFPSMP and control schools, stratified by gender**




71. The proportion of children with the highest numeracy level (division) was significantly different between the HGSMP and WFPSMP. There was a significant decrease in the proportion of children who scored the highest level of numeracy (division) in HGSMP (-7.1%) compared to slight improvement in WFPSMP (1.3%) schools (net change of -8.4%; p<0.001).

The decrease was significantly high among boys (net change of -13.6%; p<0.001) but not girls (net change of -3.0%; p=0.277). (Figure 3b and Annex 10b (Table 33 and 34)).

**Figure 3b - Highest level numeracy scores (division), compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




### Indicator 2: Number of individuals benefiting directly from USDA-funded interventions

72. At midline, a total of 245,591 pupils were reported to be benefiting directly from USDA funded interventions. There was a notable decrease of -28.1% (corresponding to 96,048 pupils) in the number of individuals who directly received assistance form USDA funded interventions both in terms of school meals and trainings.

### Indicator 3: Number of individuals benefiting indirectly from USDA-funded interventions

**73.** The reduction in the number of direct beneficiaries to the USDA funded interventions, is equally reflected in a proportionate decrease in the number of indirect beneficiaries (-27.8%, or 142,145 indirect beneficiaries).

## Findings from interviews and focus group discussions

74. The interviews and focus group discussion at school level generally support the survey findings with a predominant perception by parents and teachers that school meals encourage better learning results. There were two schools that showed different results, indicating the benefit of school meals to learning and achievement of better results. In one school in Turkana, the head teacher reported that they had marked improvement in KCPE[20] results; with the mean score improving from 206 in 2015 to 227 in 2016 but, declining to 214 in 2017 (2017 was characterised by prolonged drought and the break up in the food pipeline, which meant no food for one term of the school year). In another school (control school) which used to be in the SMP but was later removed from the schools under the programme, there was evidence of declining KCPE results over the last five years. Some elements from the interviews and focus group discussions could explain the dropin results for the HGSMP results (under the assumption that school feeding does impact on learning). Interviews with head teachers and school BOM consistently highlighted challenges for the schools that had transitioned to the HGSMP in terms of a reported reduction in the number of school feeding days, considerable

[20] Kenya Certificate of Primary Education, which is the examinations students have to sit at the end of primary school level. The results of the examination determine if the student will transition to secondary education and what kind of secondary school the student will be enrolled in.

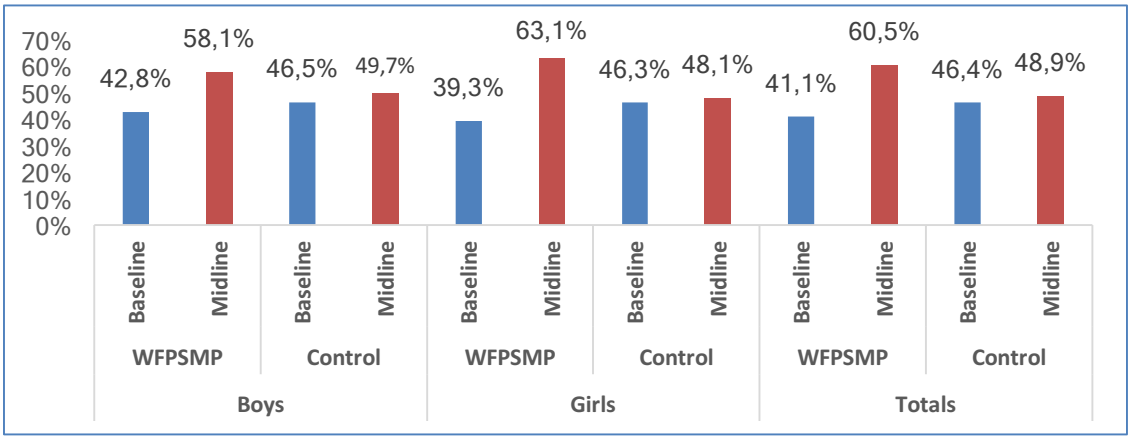
delays in the transfer of funds (see paragraph 95), and challenges because of food being diverted before reaching schools (paragraph 127).

## MGD 1.2: Improved Attentiveness

### Indicator 4: Percent of students in classrooms identified as inattentive by their teachers

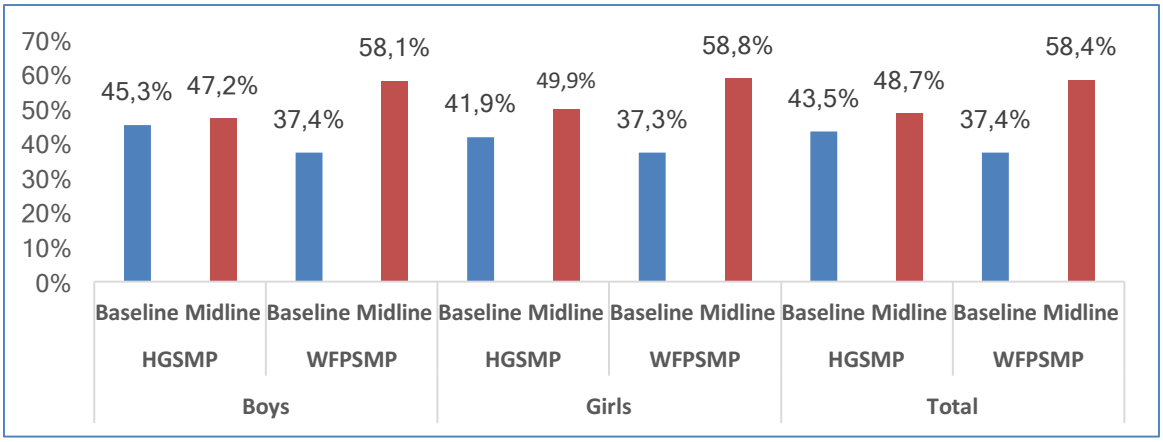
75. There was a significant increase in the proportion of students who reported that "sometimes" they find it difficult to concentrate in class in WFPSMP schools (19.4%), compared to control (2.5%) schools (net change of 16.9%; p<0.001). A significant increase in boys (net change of 12.1%; p=0.002) as well as girls (net change of 22.1%; p<0.001). (Figure 4a and Annex 10a (Table 24 and 25)).

**Figure 4a – Percentage of students who report "sometimes" findin it difficult to concentrate, compared at baseline and midline (WFPSMP & control schools), stratified by gender**




76. The proportion of students who report that "sometimes" they find it difficult to concentrate in class, significantly increased in WFPSMP (21.0%) compared to HGSMP (5.2%) schools (net change of -15.8%; p<0.001). The change was significantly high among boys (net change of -18.8%; p<0.001) compared to girls (net change of -13.6%; p=0.001). (Figure 4b and Annex 10b (Table 33 and 34)).

**Figure 4b – Percentage of students who report "sometimes" finding it difficult to concentrate, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




## Findings from interviews and focus group discussions

77. The interviews and focus group presented the perception by parents and teachers that school meals play a part in increasing student attentiveness in class. This finding goes contrary to the survey results that indicate attentiveness has dropped in WFPSMP schools. A partial explanation for this issue could be the challenges that were faced during the preceding school year in terms of the insecurity generated by the contested elections which occurred after the

baseline, and affected some areas more than others, and which were mentioned by head teachers in a number of the interviews. Insecurity could also be a cause for poor concentration.

## Short-term Hunger

78. This section covers the situation with respect to food consumption by children during the day and week. It also looks at results for the Food Consumption Scores (FCS) of households covered by the survey and associated coping mechanisms. The data was collected through the parent/child tool with the parents as respondents.

### MGD 1.2.1 Reduced Short-Term Hunger

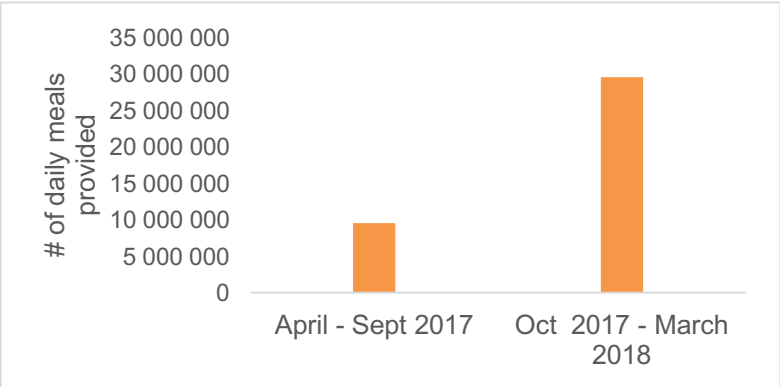
**Summary of main findings**

- There was a significant increase in the proportion of parents/guardians who reported their children ate daily before going to school in WFPSMP schools (23.3%), compared to control (12.6%) schools (net change of 10.7%; p<0.001). The WFPSMP schools were more likely compared to controls.
- The proportion of parents/guardians who reported their children ate daily before going to school, also significantly increased in WFPSMP (27.0%) compared to HGSMP (19.3%) schools (net change of -7.7%; p=0.004). The HGSMP schools were less likely compared to WFPSMP schools.
- There is an increase in the proportion of parents/guardians who reported their children ate daily after going to school in WFPSMP schools (18.3%) compared to control (-12.0%) schools (net change of 30.3%; p<0.001). The WFPSMP schools were more likely compared to control schools.
- The proportion of parents/guardians who reported their children ate daily after going to school, significantly increased in HGSMP (10.5%) compared to WFPSMP (8.3%) schools (net change of 2.2%; p=0.038). The HGSMP schools were more likely compared to WFPSMP schools.
- The proportion of parents/guardians with acceptable FCS in WFPSMP schools (37.3%) was a significant high compared to control (33.5%) schools (net change of 3.8%; p>0.050). The WFPSMP schools were more likely compared to control schools.
- The proportion of parents/guardians with acceptable FCS, significantly decreased in HGSMP (32.8%) compared to WFPSMP (37.5%) schools (net change of -4.7%; p=0.016). The HGSMP schools were less likely compared to WFPSMP schools.

### Indicator 5: Number of daily school meals (breakfast, snack, lunch) provided to school-age children because of USDA assistance

79. There was a two-fold increase (209.3%, 19,930,542) in the number of daily school's meals provided to school children from baseline to midline (29,452,080). This was noted to be as a result of carry forward of WFP food consignment for term 2 (2018) to the next school term (term 3, 2018) to avoid duplication of food distribution to schools which was also being done by the government in response to the drought in school term 2. This is illustrated in figure 4c.

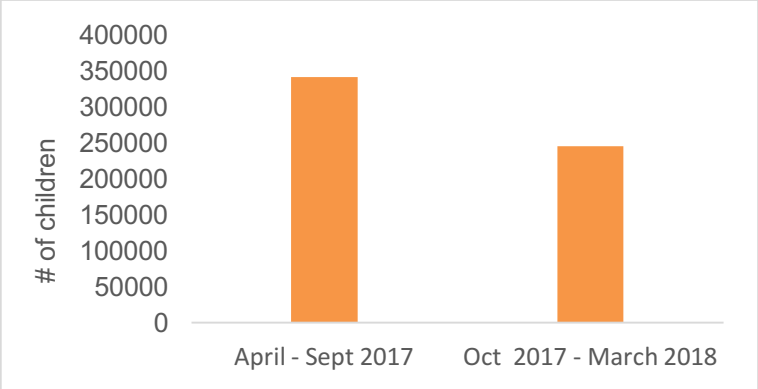
**Figure 4c: Number of daily school meals provided to school-aged children with USDA assistance in 2017 and 2018**



### Indicator 6: Number of school-aged children receiving daily school meals (breakfast, snack, lunch) because of USDA assistance

80. Though the number of meals provided to school going children significantly increased at midline compared to baseline, there was a -28.0% (95,683) decrease in the number of school-aged children receiving daily school meals as a result of USDA assistance at midline (245,243).

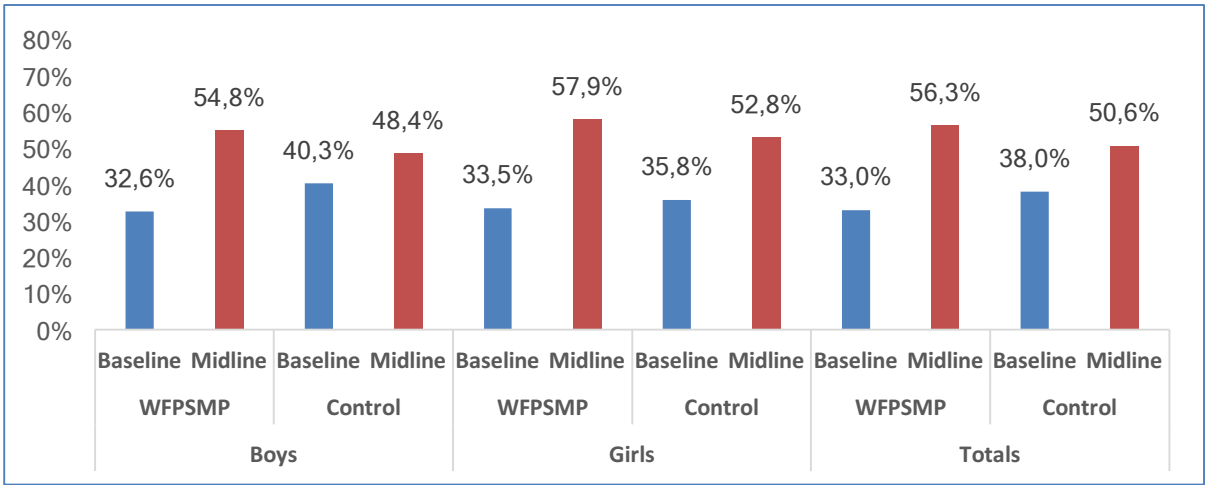
**Figure 4d: number of school-aged children receiving daily school meals as a result of USDA assistance**




### Indicator 7: Percent of students in target schools regularly consuming a meal before the school

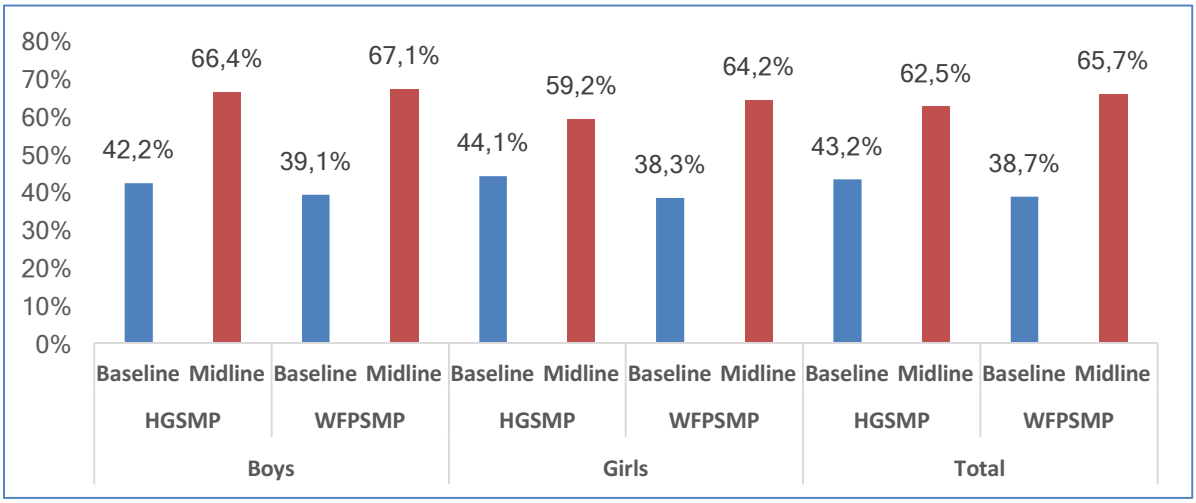
81. There was a significant increase in the proportion of parents/guardians who reported their children ate daily before going to school in WFPSMP schools (23.3%), compared to control (12.6%) schools (net change of 10.7%; p<0.001). A significant increase in boys (net change of 14.1%; p=0.002) than girls (net change of 7.4%; p=0.050). (Figure 5a and Annex 10a (Table 24 and 25)).

**Figure 5a - Percentage of parents/guardians who reported their children ate daily before going to school, compared at baseline and midline (WFPSMP & control schools) stratified by gender**



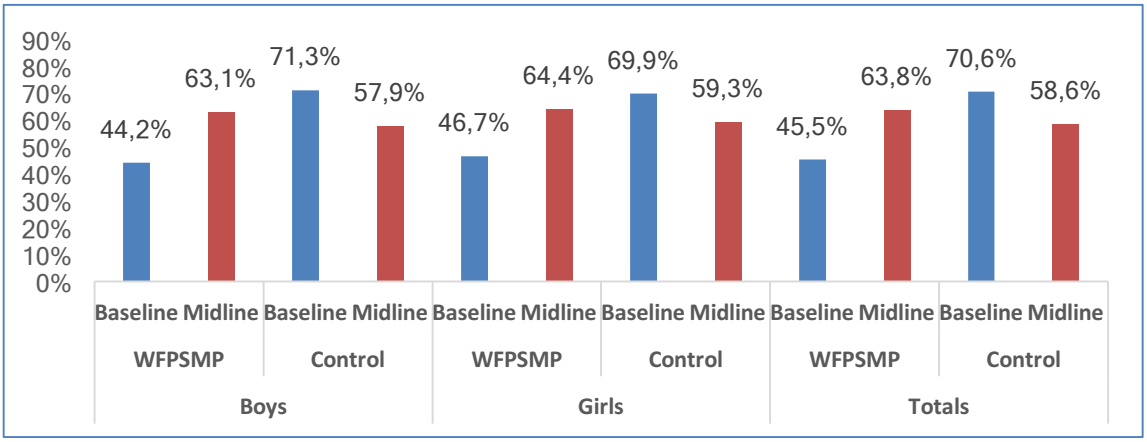

82. The proportion of parents/guardians who reported their children ate daily before going to school, significantly increased in WFPSMP (27.0%) compared to HGSMP (19.3%) schools (net change of -7.7%; p=0.004). The change was significantly high among girls (net change of -10.8%; p=0.005) but not boys (net change of -3.8%; p=0.323). (Figure 5b and Annex 10b (Table 33 and 34)).

**Figure 5b - Percentage of parents/guardians who reported their children ate daily before going to school, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**



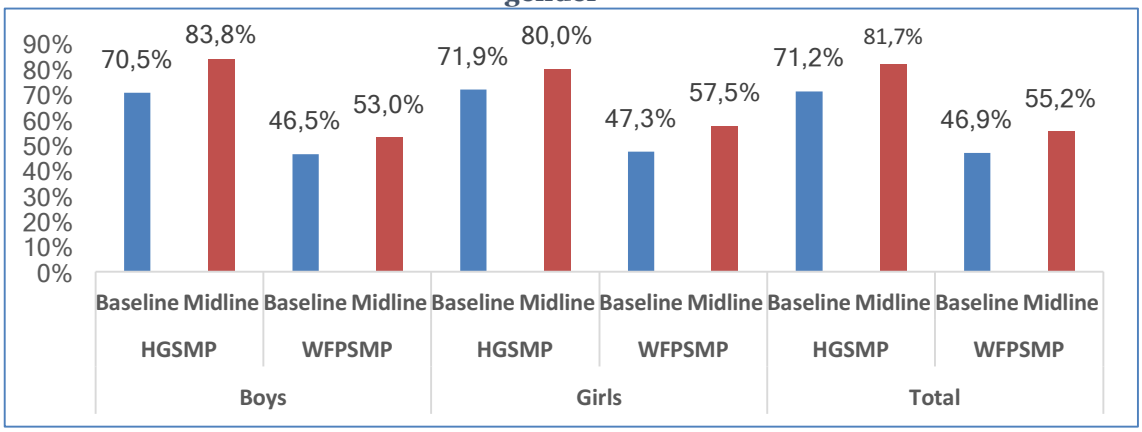

83. Increase in the proportion of parents/guardians who reported their children ate daily after going to school in WFPSMP schools (18.3%) was a significant high compared to control (-12.0%) schools (net change of 30.3%; p<0.001). A significant increase in boys (net change of 32.3%; p=0.004) as well as girls (net change of 28.3%; p<0.001). (Figure 6a and Annex 10a (Table 24 and 25)).

**Figure 6a - Percentage of parents/guardians who reported their children ate daily after going to school, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




84. The proportion of parents/guardians who reported their children ate daily after going to school, significantly increased in HGSMP (10.5%) compared to WFPSMP (8.3%) schools (net change of 2.2%; p=0.038). The change was significantly high among boys (net change of 6.8%; p=0.004) but not girls (net change of -2.1%; p=0.978). (Figure 6b and Annex 10b (Table 33 and 34)).

**Figure 6b - Percentage of parents/guardians who reported their children ate daily after going to school, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**

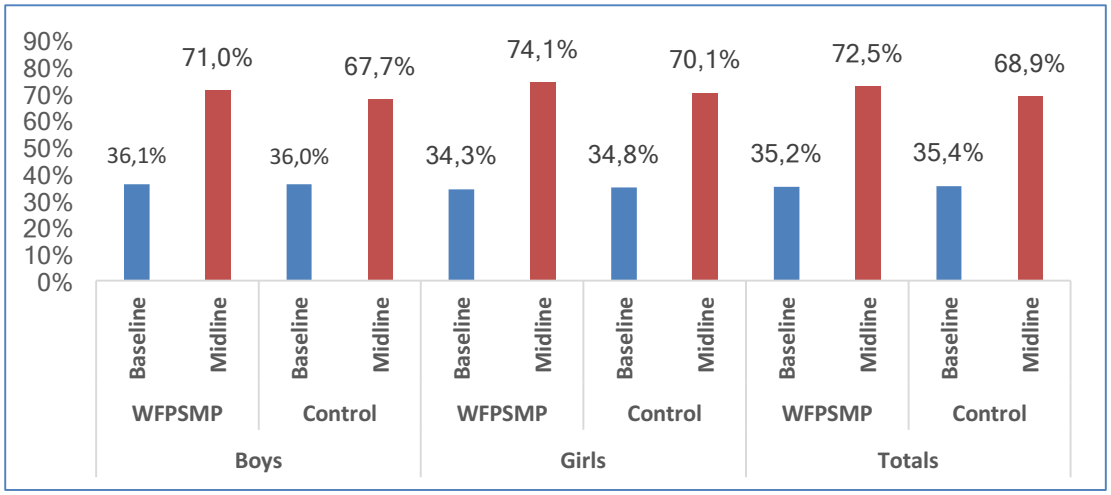



## Food Consumption Scores:[21]

85. To further anchor the preceding results in the context, an analysis of the household FCS was undertaken.

86. The increase in the proportion of parents/guardians with acceptable FCS in WFPSMP schools (37.3%) was not significantly high compared to control (33.5%) schools (net change of 3.8%; p=0.128). There was no significant increase in boys (net change of 3.2%; p=0.347) as well as girls (net change of 4.5%%; p=0.194). (Figure 7a and Annex 10a (Table 24 and 25)).

**Figure 7a - Percentage of parent/guardians with acceptable FCS, compared at baseline and midline for WFPSMP and control schools, stratified by gender**

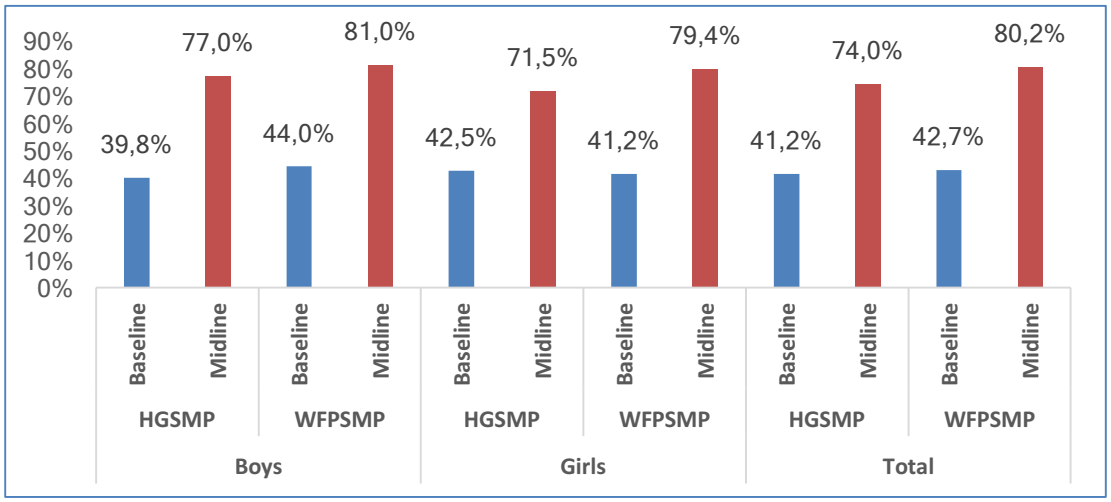



87. The proportion of parents/guardians with acceptable FCS, significantly increased in HGSMP (32.8%) compared to WFPSMP (37.5%) schools (net change of -4.7%; p=0.016). The change

[21] The FCS was calculated using WFP's guidelines as set out in: WFP VAM Unit (2008). Food consumption analysis - Calculation and use of the FCS in food security analysis. WFP, Vulnerability Analysis and Mapping.

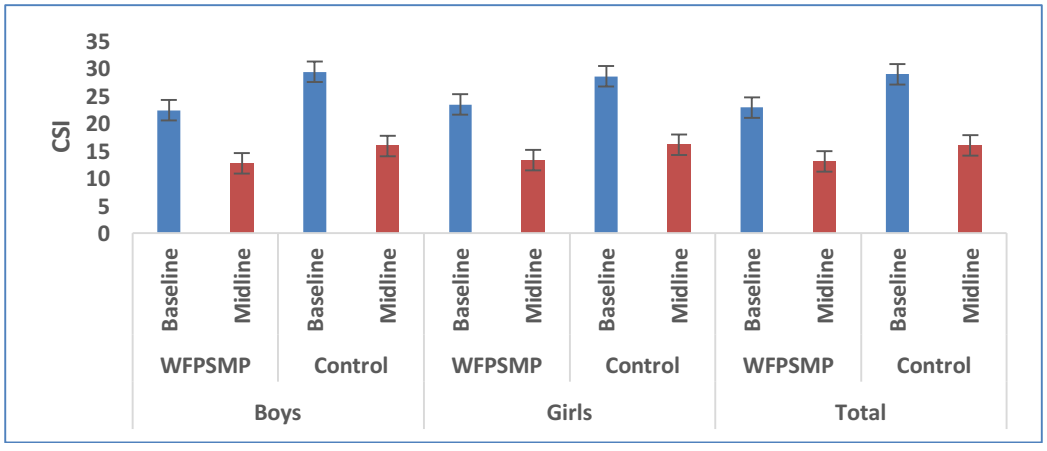
was significantly high among girls (net change of -9.2%; p=0.004) but not boys (net change of 0.2%; p=0.693). (Figure 7b and Annex 10b (Table 33 and 34)).

**Figure 7b - Percentage of parent/guardians with acceptable FCS, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**



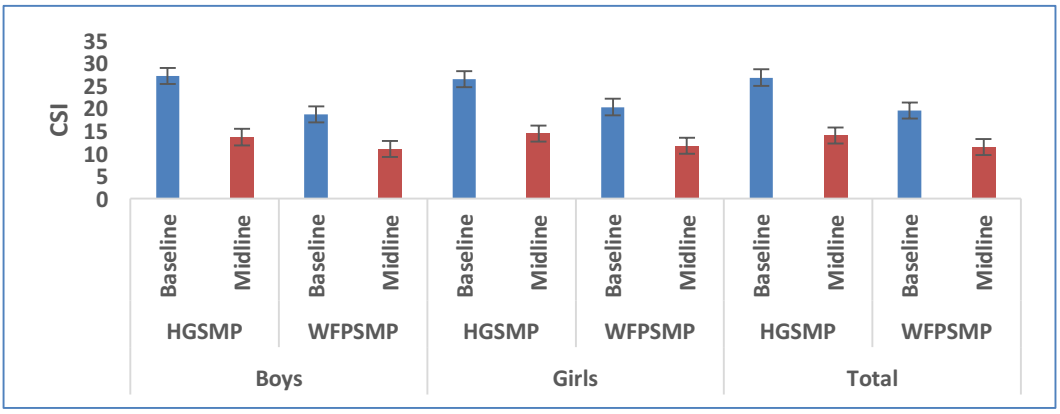

88. There was a significant difference in change of mean copying strategy index (CSI) between WFPSMP schools (-9.84) compared to control (-1.290) schools (net change of 2.362; p=0.048). Significant in both boys (net change of 3.080; p<0.001) and girls (net change of 3.768; p=0.002). (Figure 8a and Annex 10a (Table 21)).

**Figure 8a – Mean CSI comparing WFPSMP and control group schools, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




89. Similarly, there was a significant difference in change of mean CSI between HGSMP schools (-12.75) compared to WFPSMP (-8.04) schools (net change of -4.697; p<0.001). Significant in both boys (net change of -5.890; p<0.001) and girls (net change of -3.548; p<0.001) (Figure 8b and Annex 10b (Table 30)).

**Figure 8b – Mean CSI comparing WFPSMP and control group schools, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




### Findings from interviews and focus group discussions

90. Interviews with parents support the finding that the food security situation has generally improved, compared to the situation during the baseline. Parents and education officials attribute this to the rains over the last season which alleviated the effects of the drought. The heavy and prolonged rains that started in early March had provided pasture for animals and in the more arable lands, crops had done well. This had meant more food in the market and therefore lower food prices. In such areas as West Pokot, the team found that a bag of maize which would have cost up to KES 3,000, was, at the time of the evaluation, sold for KES 1,000.

## School meals and expected outcomes

91. This section presents the situation with respect to access to food and to school meals during the year of the study (2017 and 2018) and in the week of the survey. It also reports on the situation with respect to key expected outcomes of school feeding, namely attendance, enrolment and community understanding.

### MGD 1.2.1.1/1.3.1.1.Increased Access to Food (School Feeding)

**Summary of main findings, comparing baseline to midline**

- There was a significant increase in the proportion of parents/guardians who reported their children had received school meals in the current school year in WFPSMP schools (30.7%), compared to control (4.2%) schools (net change of 26.5%; p<0.001). The WFPSMP schools were more likely compared to control schools.
- The proportion of parents/guardians indicating that their child had received school meals in the current school year, significantly increased in WFPSMP (25.5%) compared to HGSMP (-1.6%) schools (net change of -27.1%; p<0.001). The HGSMP schools were less likely compared to WFPSMP schools.
- There was a significant increase in the proportion of parents/guardians indicating that their child had received school meals in the week of the survey in WFPSMP schools (18.8%), compared to control (5.0%) schools (net change of 13.8%; p=0.001). The WFPSMP schools were more likely compared to control schools.
- The proportion of parents/guardians indicating that their child had received school meals in the week of the survey, significantly increased in WFPSMP (26.3%) compared to HGSMP (16.6%) schools (net change of -9.7%; p<0.001). The HGSMP schools were less likely compared to WFPSMP schools.

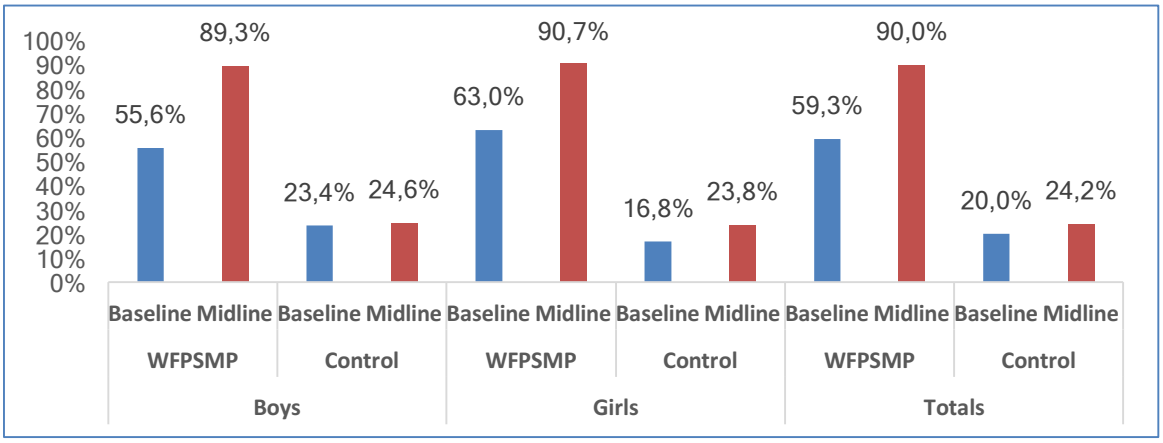
## Indicator 8: Percent of students in target schools who regularly consume a meal

92. This section of the survey examined regularity of school meal consumption during the school year, and during the week of the survey.

### School meals situation in the year 2017 and 2018

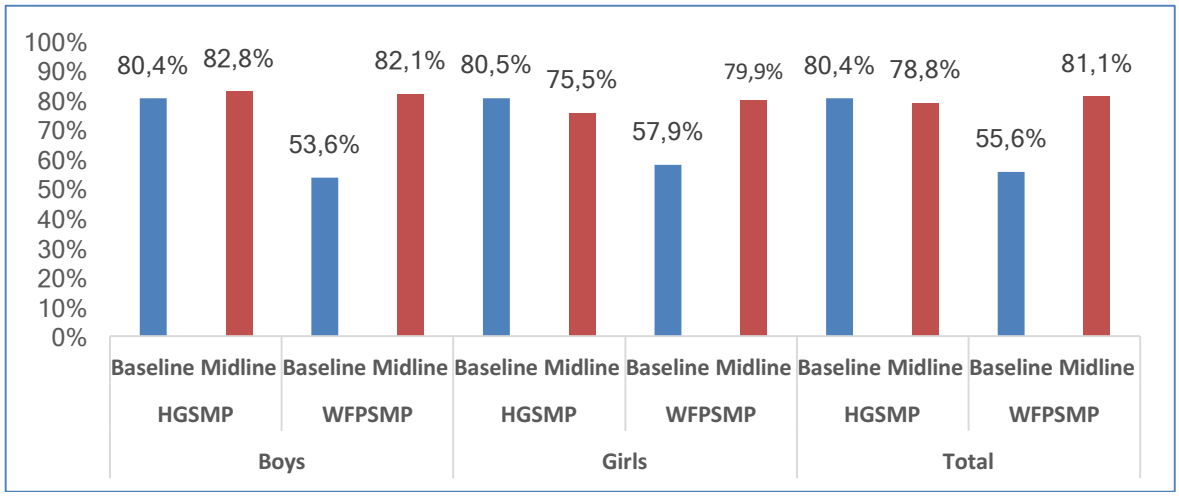
93. There was a significant increase in the proportion of parents/guardians who reported their children had received school meals in the current school year in WFPSMP schools (30.7%), compared to control (4.2%) schools (net change of 26.5%; p<0.001). A significant increase in boys (net change of 32.5%; p<0.001) as well as girls (net change of 20.7%; p<0.001). (Figure 9a and Annex 10a (Table 24 and 25)).

**Figure 9a - Percentage of parents/guardians stating their child received school meals in current school year, comparing baseline and midline (WFPSMP & control) schools, by gender**




94. The proportion of parents/guardians indicating that their child had received school meals in the current school year, significantly increased in WFPSMP (25.5%) compared to HGSMP (-1.6%) schools (net change of -27.1%; p<0.001). The change was significantly high among boys (net change of -26.1%; p=0.004) as well as girls (net change of -27.0%; p<0.001). (Figure 9b and Annex 10b (Table 33 and 34)).

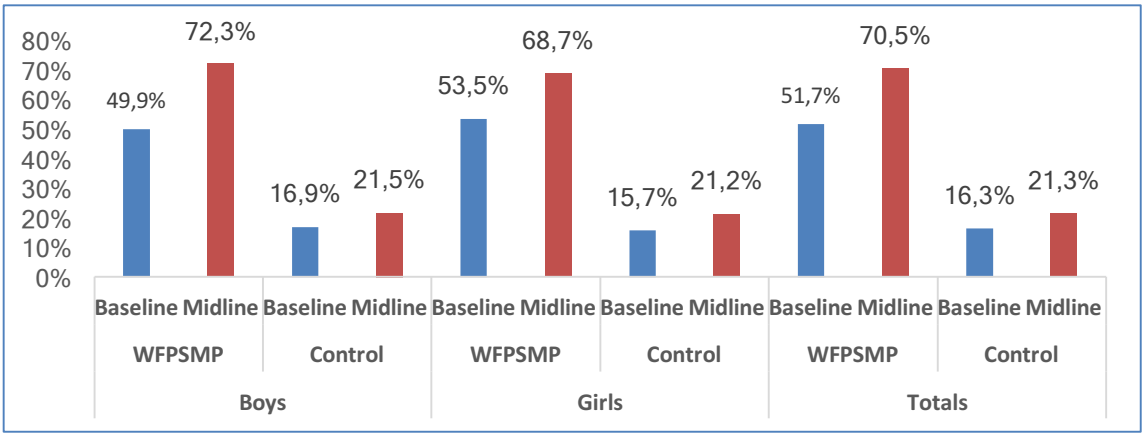
**Figure 9b - Percentage of parents/guardians indicating that child had received school meals in current school year, comparing baseline and midline (HGSMP & WFPSMP schools) by gender**



**School meals situation in the current week**

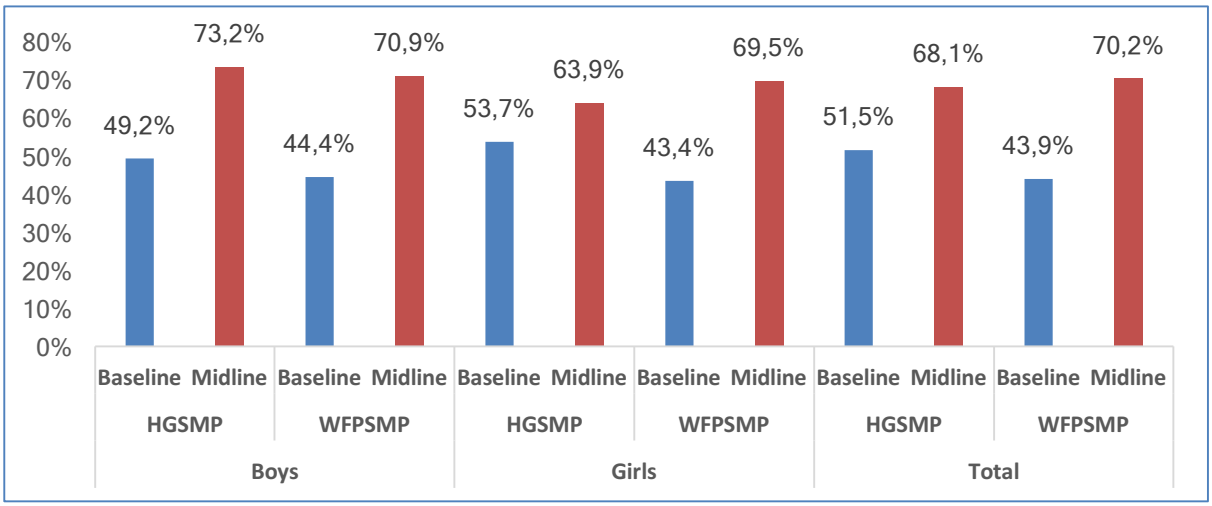
95. A significant increase in the proportion of parents/guardians indicated that their child had received school meals in the week of the survey in WFPSMP schools (18.8%), compared to control (5.0%) schools (net change of 13.8%; p=0.001). The data show a significant increase in boys (net change of 17.8%; p=0.001) but not girls (net change of 9.7%; p=0.114). (Figure 10a and Annex 10a (Table 24 and 25)).

**Figure 10a - Percentage of parents/guardians indicating that their child had received school meals in the week of the survey, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




96. The proportion of parents/guardians indicating that their child had received school meals in the week of the survey, significantly increased in WFPSMP (26.3%) compared to HGSMP (16.6%) schools (net change of -9.7%; p<0.001). The change was significantly high among girls (net change of -15.9%%; p<0.001) but not in boys (net change of -2.5%%; p=0.631). (Figure 10b and Annex 10b (Table 33 and 34)).

**Figure 10b - Percentage of parents/guardians indicating that child received school meals in the week of the survey, comparing baseline and midline (HGSMP & WFPSMP schools) by gender**

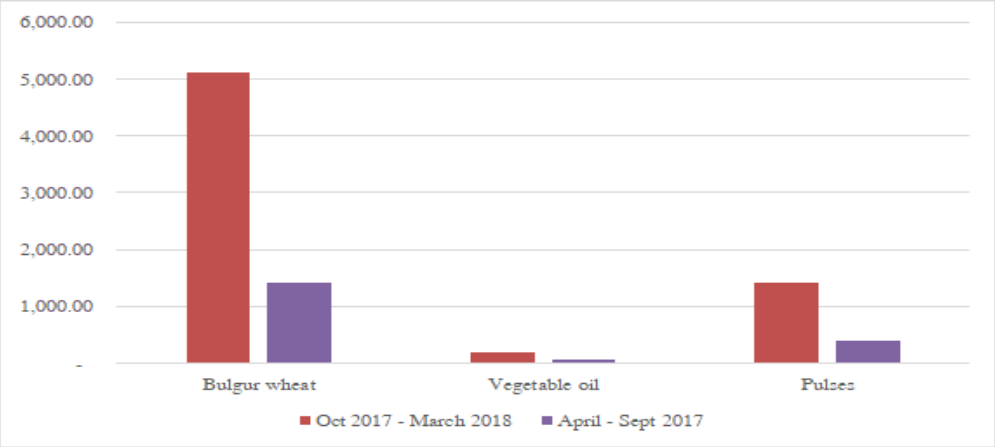



Indicator 9: Total amount of commodities that have been provided as a part of USDA-funded intervention.

97. As at midline, a total of 6,712.00MT of different commodities were provided to schools as per of USDA funded intervention to the schools. The amount of commodities distributed was 261.0% more than the amount distribution as at the time of baseline (1856.70MT). As at the

time of baseline, the government in kind distribution in response to the drought was being implemented and thus USDA supported commodities were carried forward to avoid duplication. The amounts distributed is as illustrated below.

**Figure 10c: Total amount of commodities (in MT) provided as part of USDA funded intervention**




## Findings from interviews and focus group discussions

98. The qualitative interviews (as well as the review of documentation) highlight that the Baseline Survey was undertaken at a time when the drought was severe in the target counties. At the same time, WFP had a complete pipeline break in term one of 2017. No funding was availed for any school meals in the arid counties. While there was no direct school feeding from WFP during the survey period at the time, when the data was collected at baseline there was school feeding in some of the schools where this was not expected, mainly because there were interventions from Government and other actors to mitigate the effects of the drought. In addition, a small number of WFP schools were providing school feeding with carryovers from the previous phase of the SMP.

## MGD 1.3 Improved Student Attendance

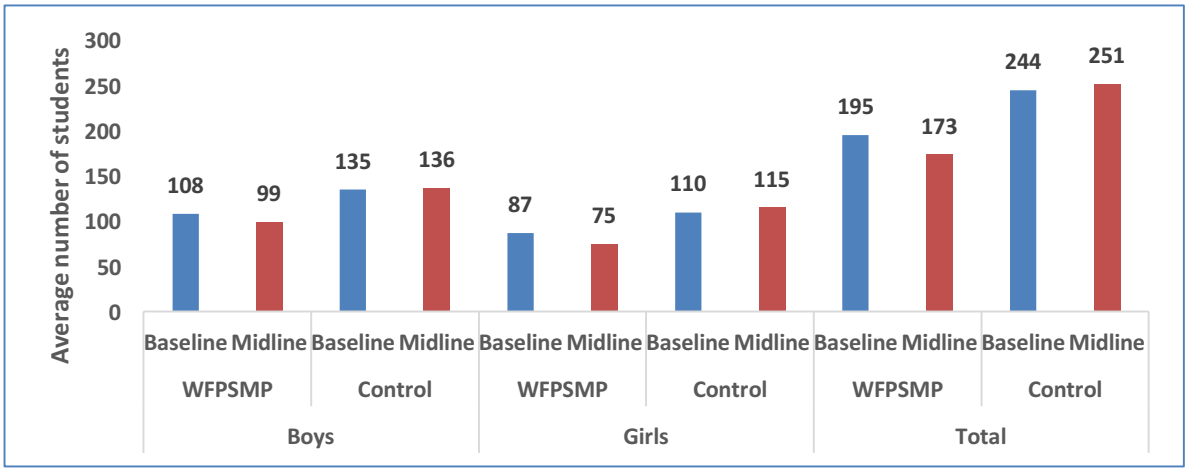
**Summary of main findings**

- The mean change in the number of students regularly (80%) attending school in WFPSMP schools (-21), was not significantly different compared to control (7) schools (net change of -28; p=0.556).
- The mean change in the number of students regularly (80%) attending school in HGSMP schools (42), was not significantly different compared to WFPSMP (9) schools (net change of 33; p=0.705).

### Indicator 10: Number of students regularly (80%) attending USDA supported classrooms/schools

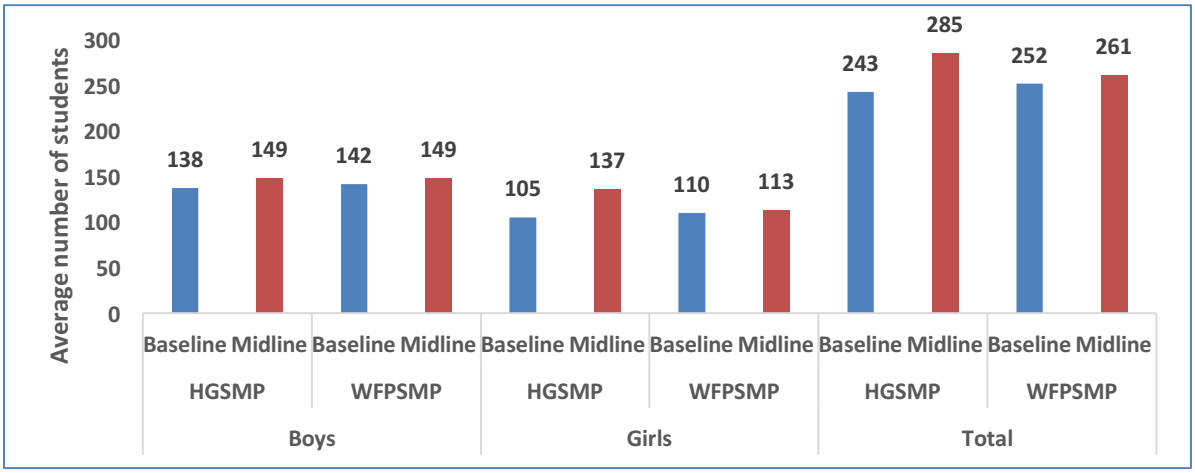
99. The mean change in the number of students regularly (80%) attending school in WFPSMP schools (-21), was not significantly different compared to control (7) schools (net change of -28; p=0.556). The change was consistent in boys (net change of -10; p=0.722) and girls (net change of -18; p=0.403). (Figure 11a and Annex 10a (Table 28 and 29)).

**Figure 11a – Mean number of students regularly (80%) attending school, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




100. The mean change in the number of students regularly (80%) attending school in HGSMP schools (42), was not significantly different compared to WFPSMP (9) schools (net change of 33; p=0.705). The change was consistent in boys (net change of 4; p=0.929) and girls (net change of 29; p=0.490). (Figure 11b and Annex 10a (Table 37 and 38)).

**Figure 11b – Mean number of students regularly (80%) attending school, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




## MGD 1.3.4 Increased Student Enrolment

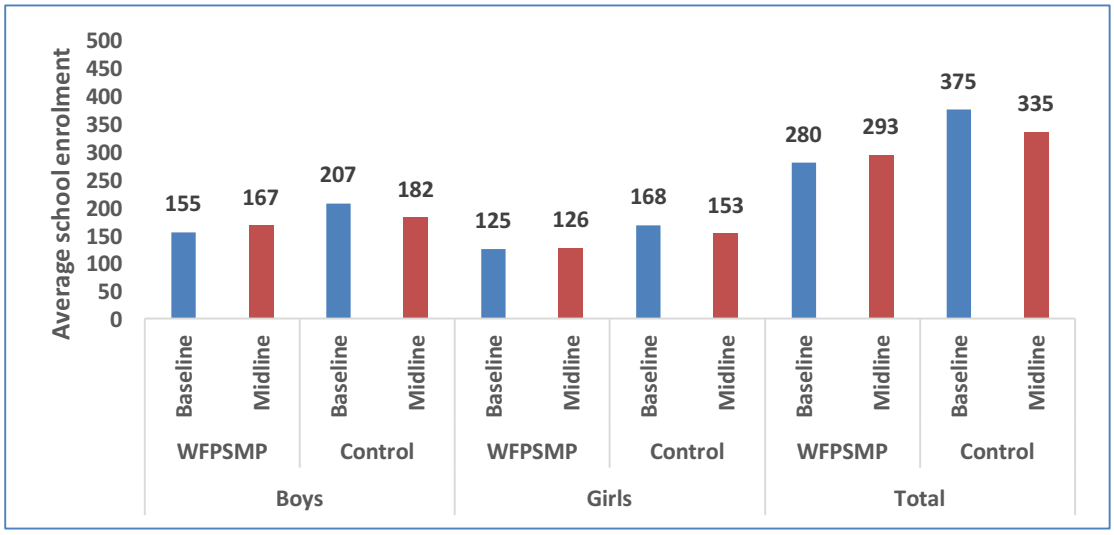
**Summary of main findings**

- The mean change in the number of students enrolled in schools in WFPSMP schools (13), was not significantly different compared to control (-40) schools (net change of 54; p=0.456).
- Similarly, mean change in the number of students enrolled in schools in HGSMP schools (-37), was not significantly different compared to WFPSMP (64) schools (net change of -101; p=0.388).

### Indicator 11: Number of students enrolled in schools receiving USDA assistance

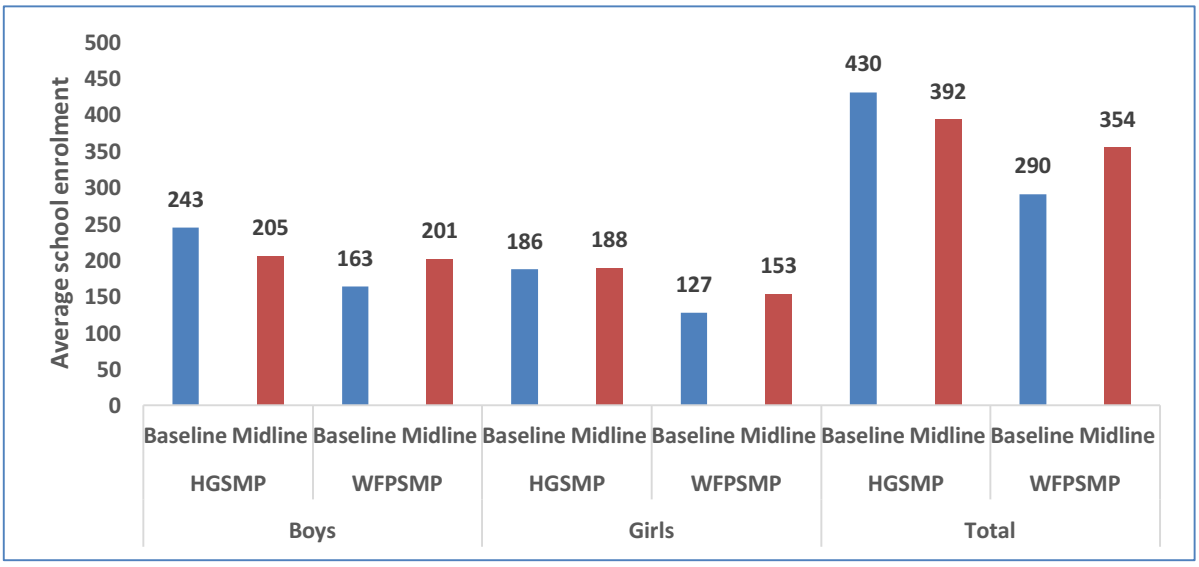
101. The mean change in the number of students enrolled in schools in WFPSMP schools (13), was not significantly different compared to control (-40) schools (net change of 54; p=0.456). The change was consistent in boys (net change of 37; p=0.399) and girls (net change of 16; p=0.604). (Figure 12a and Annex 10a (Table 28 and 29)).

**Figure 12a – Mean number of students enrolled in schools, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




102. The mean change in the number of students enrolled in schools in HGSMP schools (-37), was not significantly different compared to WFPSMP (64) schools (net change of -101; p=0.388). The change was consistent in boys (net change of -77; p=0.253) and girls (net change of -24; p=0.663). (Figure 12b and Annex 10a (Table 37 and 38)).

**Figure 12b – Mean number of students enrolled in schools, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**




## Findings from interviews and focus group discussions

103. Interviews with school heads, sub-county education officers, and parents suggest a number of reasons, which could explain the lack of impact of school feeding on enrolment and attendance. For schools under the WFPSMP and also the HGSMP, it was reported that food was not regularly delivered, and that the quantities of food are not always adequate. According to one teacher: *"Food can be in the stores in Kapenguria but it doesn't get to the schools in time"* (informant, West Pokot). Delays and irregularity in school feeding were reported by a number of parents to have a significant effect on attendance. This may in some cases, as reported by a parent in West Pokot, lead to school closure until the next delivery: *'There was a time, last year, when the school had to close. It was closed earlier than the end of the third term because there was no food.'* (Male Parent – West Pokot). WFP sources confirmed that this was related to a food pipeline break in 2017, due to lack of funding.

## MGD 1.3.5 Increased Community Understanding of the Benefits of Education

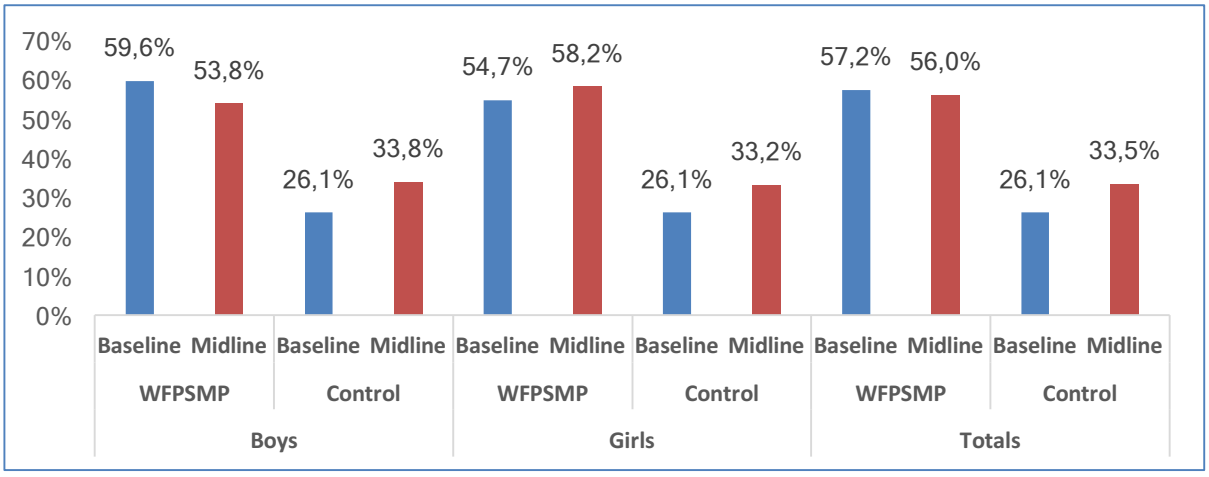
**Summary of main findings**

- There was a significant difference in the change of proportion of parents/guardians in target communities who could name at least three benefits of primary education in WFPSMP (-1.2%) schools, compared to control (7.4%) schools (net change of -8.6%; p=0.001). Parents/guardians in the WFPSMP schools were less likely to be able to name the benefits of education compared to control schools.
- The change in proportion of parents/guardians in target communities who could name at least three benefits of primary education, was not significantly different in HGSMP (3.9%) compared to WFPSMP (0.3%) schools (net change of 3.6%; p=0.092). Parents in the HGSMP schools were more likely to be able to name the benefits compared to WFPSMP schools.

### Indicator 12: Percent of parents in target communities who can name at least three benefits of primary education

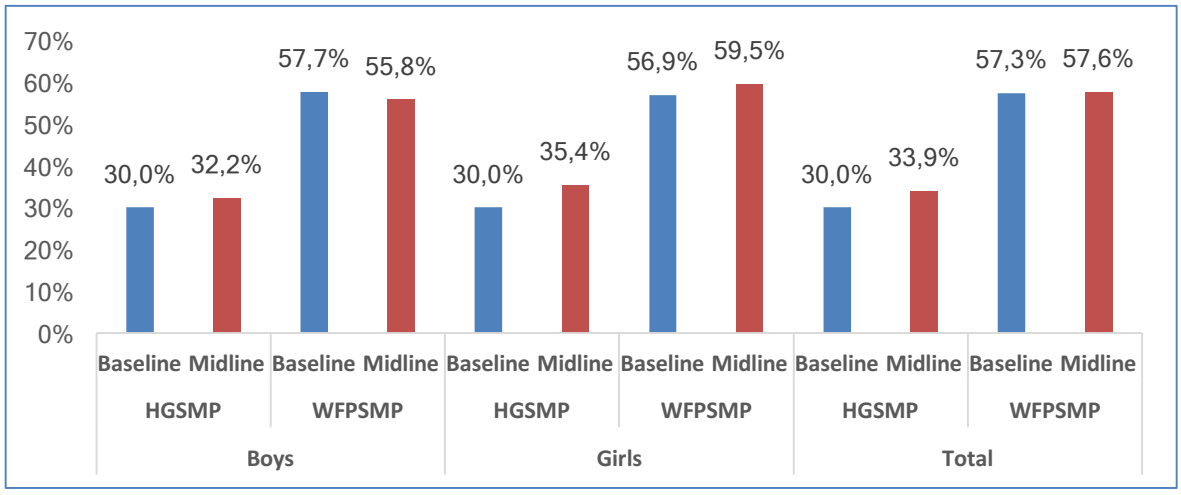
104. There was a significant difference in the change of proportion of parents/guardians in target communities who could name at least three benefits of primary education in WFPSMP (-1.2%) schools, compared to control (7.4%) schools (net change of -8.6%; p=0.001). A significant high in male respondents (net change of -13.5%; p<0.001) but not female (net change of -3.6%; p=0.401). (Figure 13a and Annex 10a (Table 24 and 25)).

**Figure 13a - Percentage of parents/guardians who could name at least three benefits of primary education, compared at baseline and midline, stratified by gender**




105. The change in proportion of parents/guardians in target communities who could name at least three benefits of primary education, was not significantly different in HGSMP (3.9%) compared to WFPSMP (0.3%) schools (net change of 3.6%; p=0.092). The change was higher among male respondents (net change of 4.1%; p=0.215) compared to female respondents (net change of 2.8%; p=0.282). (Figure 13b and Annex 10b (Table 33 and 34)).

**Figure 13b - Percentage of parents/guardians in target communities who could name at least three benefits of primary education at baseline & midline for HGSMP and WFPSMP, by gender**




### Findings from interviews and focus group discussions

WFPSMP is mainly in the very arid counties, whose mainstay is pastoralism and for some, nomadic pastoralism. In all the counties, the evaluation was informed that food in school was the main attraction for both children and their parents and it was after many years of children coming to school that they developed interest in and appreciated the value of education. According to one head teacher in Turkana: "The challenge is value given to education, compared to value given to animals... Their animals are the priority. The programme has helped them to have a change of attitude towards education... while before there was resistance." This was confirmed by parents, who (in almost all the schools visited) explained that families would not send all their children to school. Indeed, some female parents in Turkana explained by giving an example that, if one has five children, one could send two to school while three were left at home. The rationale was to create a balance between going to school and helping with work at home because, if all went to school, there were no children to help at home So, if one goes to school, the other one stays at home to help with fetching water as they rely on the children to help them with work, so according to them: "one (child) takes care of animals and another one helps with fetching water, otherwise we won't have anyone to help us". In the case of girls: "if no one gets married and the family gets animals, one will not get help...".

## Increased Capacity

### MGD 1.4.1 Increased Capacity of Government Institutions

#### Indicator 13: Number of county-level inter-ministerial committees for HGSMP established

106. Implementation of the school meals programme at decentralized levels requires strong inter-ministerial coordination at the county level. At baseline, no county level inter-ministerial committees were in place for the control, WFPSMP, and HGSMP schools. MGD reporting and interviews with national and county level informants highlighted that county level ministerial committees had not yet been established at midline. Information provided to the team is that this will take place now that technical assistance has been placed full time in the MoE to support further capacity strengthening and that this indicator should be positive at endline.

#### Indicator 14: Number of national-level inter-ministerial coordination committees for HGSMP

107. Stakeholder analysis informed by documentary research and key informant interviews at baseline confirmed the assumptions around a critical role for government ministries, development partners, other government entities and departments and civil society organizations in the implementation of school meals programmes in Kenya. In particular, the

MOE, the Ministry of Agriculture and the Ministry of Health stand out in their respective roles and responsibilities in implementing the school meals programmes.

108. At baseline the KIIs indicated that the participation of other ministries in school feeding coordination was ad-hoc on that commitment was insufficient. At midline, interviews suggest that there has been some improvement – among others through the organization of a national launch for the School Feeding Strategy in May 2018.

109. As was the case at baseline, there has been a challenge in the frequent changes in leadership and senior positions in the MOE. The MOE acknowledges, and confirms the important roles played by the development partners and civil society organizations, with roles that range from resource/funding provision to implementing partners. However, inadequate multi-sectoral commitment to school feeding is evident, with the programme being mostly run by the MOE, although nutrition has been participating well.

110. At midline, there continues to be a need for further strengthening of the multi-sectoral approach in particular to ensure:

- Strong action by the recently established national steering committee (formally established in May 2018), in particular to become truly multi-sectoral in nature and provide guidance to the county level multi-sectoral action.
- More formal integration of the school meals efforts with the national social protection programmes.
- Further integration of SMP with agricultural production and marketing programs.

### MGD 1.4.2/2.7.2 Improved Policy and Regulatory Framework

**Summary of main findings**

- The policy and institutional environment has improved in the period preceding with the approval of the National School Health, Nutrition and Meals Programme Strategy.
- The value of government funding (allocated budget) has increased from 623 million to 1.6 bn KES in the preceding period.
- Delays in disbursement of funds and differences between allocations and disbursements reduce the amount of available funding for schools.
- Targets for private-public partnerships as reflected in the number contracts signed with local traders had been surpassed at midline stage, although there are challenges at the level of identifying and contracting traders.
- Various training activities for Parent Teacher Associations (PTA) and BOM had to be deferred due to new government regulations on when training can be organized at local level.

#### Indicator 15: Number of educational policies, regulations, and/or administrative procedures in each of the following stages of development because of USDA assistance (Stage 5)

#### Indicator 16: Number of child health and nutrition policies, regulations, and/or administrative procedures in each of the following stages of development because of USDA assistance (Stage 5)

111. An inventory of key policy documents was done at the time of the baseline report. The baseline also recorded an overall view from KII that the policy environment had been strengthened over time although these achievements were not directly or uniquely linked to the inputs from the USDA project. The main documents include: the overarching **Vision 2030** of the GoK; the **Agriculture Sector Development Strategy** (2010), the **National Social Protection Policy** (2011) in which school meals are one of the approaches to ensuring social protection; the **National School Health Policy** (2009); and the **National School Health Guidelines** (2009); the **Food and Nutrition Security Policy** (2011).

112. A gap at the time of the baseline was the fact that the **National School Health, Nutrition and Meals Programme Strategy** remained to be formally approved. At mid-line a major achievement is the formal approval of this document, which is being disseminated to county and sub-county levels. The launching of the strategy formalizes a commitment that

the GoK has been making to SF. It also provides the framework for involvement of different government ministries in SF. While noting the importance of this achievement, key interviewees at national level also stressed that ensuing implementation of the strategy will be a major task and cited continued challenges in terms of commitment by other ministries (with the exception of the department for nutrition of the Ministry of Health) in spite of the strategy being in place.

### MGD 1.4.3/2.7.3 Increased Government Support

#### Indicator 17: Value of new public and private sector investments leveraged

113. WFP reporting testifies to an increase in government funding to the school meals programme by Ksh.1.6bn during the 2017/2018 financial year[22] compared to the previous year with a funding level of KES 623 million to support school feeding during the drought.[23] However, the allocated 1.6bn for 2018 is unlikely to be made fully available as already during the evaluations' visit some of the allocated funding was retracted (300 million). Other challenges include the significant delays in the transfer of allocated funding to schools which the evaluation found has knock-effects for the purchasing of food (in particular purchasing at a time when prices are high) and ultimately for the number of school meals that are served.

#### Indicator 18: Number of public-private partnerships formed

114. Public-private partnerships under this programme are interpreted as referring to the number of traders contracted to supply food commodities to schools. Against a target of 100 traders contracted at midline WFP reported the existence of 81 contracts (WFP, 2018), against zero in the previous reporting (WFP, 2017) - a value which was considerably higher than anticipated. Interviews with informants at county and sub-county level underscored that these partnerships are critical to the HGSMP model but that the partnerships are challenging in some counties and sub-counties because of various externalities including unfriendly agro-ecological conditions, long distances, etc., as well as internal factors including delays and uncertainty about the timing and volume of government disbursements. In particular, in some areas there is not much food in the market, and so counties have to procure from neighbouring counties, making the food costlier.

#### Indicator 19: Number of Parent-Teacher Associations (PTAs) supported

115. This activity was not implemented both at baseline and midline but is planned for the upcoming WFP reporting period. A new government directive has mandated that such trainings can only take place during the holiday period which has affected the programming and resulted in a shift to the next period. The evaluation team noted during the qualitative work at school level that PTAs are in place in all schools, and are playing a role in the management of the SF. However, there is insufficient representation of women in the PTAs/BOM, and inadequate involvement of the PTA's/BOM in key decisions related to the awarding of tenders and the contracting of traders.

## Food utilization and food safety

116. This final section of the survey reports on issues related to hygiene and nutrition and provides the situation in the schools in terms of food preparation and storage.

### MGD SO 2 Increased Use of Health and Dietary Practices

**Summary of main findings**

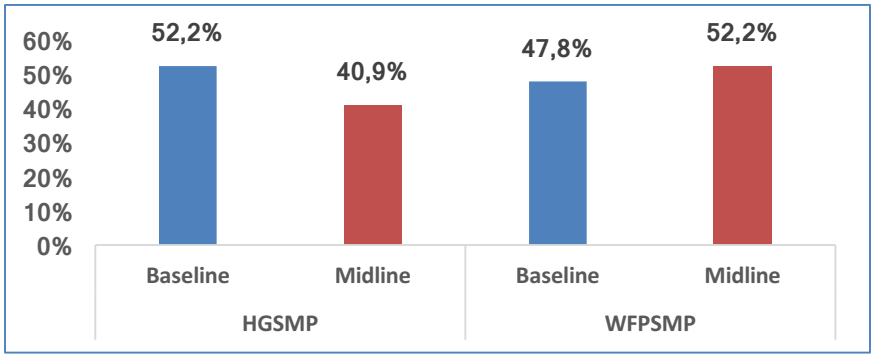
- There was no significant difference in the change of proportion of schools in target counties that store food off the ground in HGSMP (-11.3%) schools, compared to WFPSMP (4.4%) schools (net change of -15.6%; p=0.456). The HGSMP schools were less likely compared to WFPSMP schools to store food off the ground.

[22] WFP (2018). Kenya Semi-Annual Report – October 2017 – March 2018.
[23] WFP (2019). Kenya Semi-Annual Report – October 2016 – March 2017.

### Indicator 20: Percent of schools in target counties that store food off the ground [24]

117. There was no significant difference in the change of proportion of schools in target counties that store food off the ground in HGSMP (-11.3%) schools, compared to WFPSMP (4.4%) schools (net change of -15.6%; p=0.456). (Figure 14a and Annex 10b (Table 35 and 36)).

**Figure 14 – Percentage of schools in target counties that store food off the ground, compared at baseline and midline for HGSMP and WFPSMP schools**




## 2.2 Increased Knowledge of Safe Food Prep and Storage Practices

**Summary of main findings**

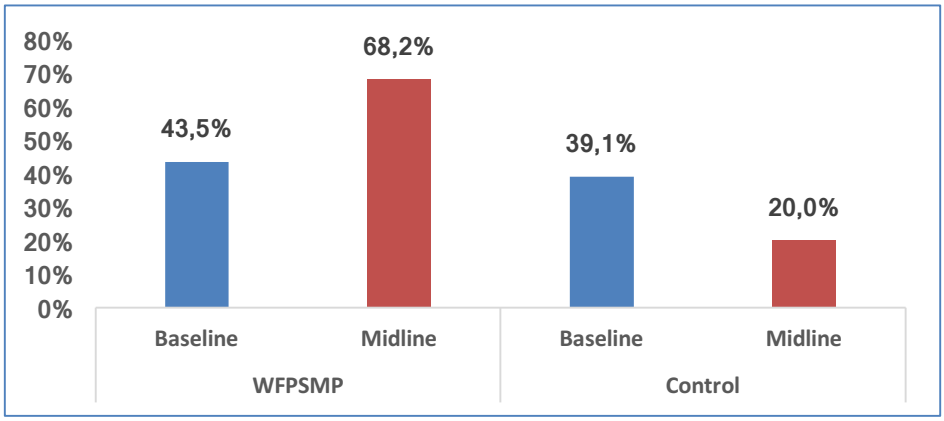
- There was a significant difference in the change of proportion of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage in WFPSMP (24.7%) schools, compared to control (-19.1%) schools (net change of 43.8%; p=0.036). The WFPSMP schools were more likely to have a passing score compared to control schools.
- Although not statistically significant, there was a remarkable difference in the change of proportion of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage in HGSMP (-19.4%) schools, compared to WFPSMP (17.4%) schools (net change of -36.8%; p=0.074). The HGSMP schools were less likely to have passing score compared to WFPSMP schools.

### Indicator 21: Percent of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage

118. There was a significant difference in the change of proportion of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage in WFPSMP (24.7%) schools, compared to control (-19.1%) schools (net change of 43.8%; p=0.036). More likely in WFPSMP schools compared to control schools. (Figure 15a and Annex 10a (Table 26 and 27)).

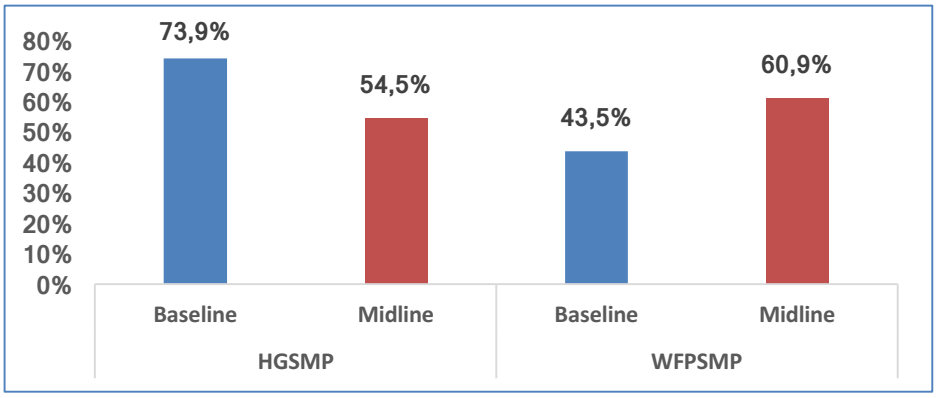
[24] The denominator is 23 schools (with or without food store) per arm. Please note that as the denominators are different for some variables a small percentage difference in one part of the analysis may be significant, while it may not be significant in other analyses where the denominator is much lower.

**Figure 15a – Percentage of food preparers at target schools achieving a passing score on a test of safe food preparation and storage, compared at baseline and midline (WFPSMP & control)**




119. Though not statistically significant, there was a remarkable difference in the change of proportion of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage in HGSMP (-19.4%) schools, compared to WFPSMP (17.4%) schools (net change of -36.8%; p=0.074). (Figure 15b and Annex 10b (Table 35 and 36)).

**Figure 15b – Percentage of food preparers at target schools achieving a passing score on a test of safe food preparation and storage, at baseline and midline (HGSMP & WFPSMP schools)**




## Findings from interviews and focus group discussions

120. Interview with county and sub-county official in the HGSMP areas revealed that in some of the schools, communities are providing labour (in the form of time spent managing and preparing food) to compensate for the lack of capacity to contribute financially for hiring a cook. This is seen as an efficient way of ensuring community contribution and reducing costs of the school feeding model. When questioned, informants at county level admitted not having considered that this may impact on the quality of the meals and on aspects related to hygiene.

## MGD 2.3 Increased Knowledge of Nutrition

**Summary of main findings**

- There was a significant difference in the change of proportion child survey respondents in WFPSMP schools who were able to mention the three most important hygiene methods (-8.0%) schools, compared to control (7.1%) schools (net change of -15.6%; p<0.001). The WFPSMP schools were less likely compared to control schools.
- The change in proportion of parents/guardians in target communities who could name at least three benefits of primary education, was significantly different in HGSMP (1.3%) compared to WFPSMP (-11.4%) schools (net change of 12.7%; p<0.001). The HGSMP schools were more likely compared to WFPSMP schools.
- There was a significant difference in the change of proportion of children who responded to the

survey who mentioned three most important nutrition efforts in WFPSMP (13.0%) schools, compared to control (14.0%) schools (net change of -1.0%; p<0.001). The WFPSMP schools were less likely compared to control schools.

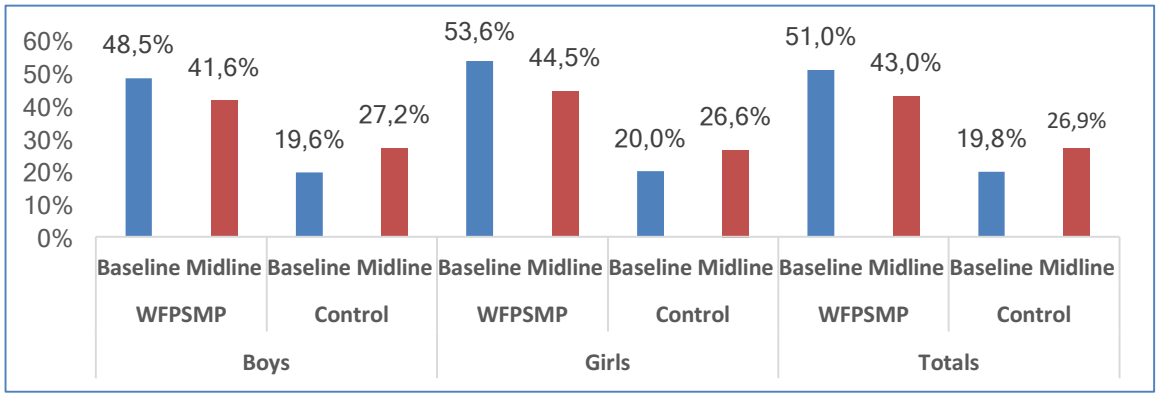
- The change in proportion of children who mentioned three most important nutrition efforts, was not significantly different in HGSMP (8.6%) compared to WFPSMP (14.5%) schools (net change of -5.9%; p=0.841). The HGSMP schools were less likely compared to WFPSMP schools.

### Indicator 22: Number of schools benefitting from nutrition and hygiene education

## Hygiene

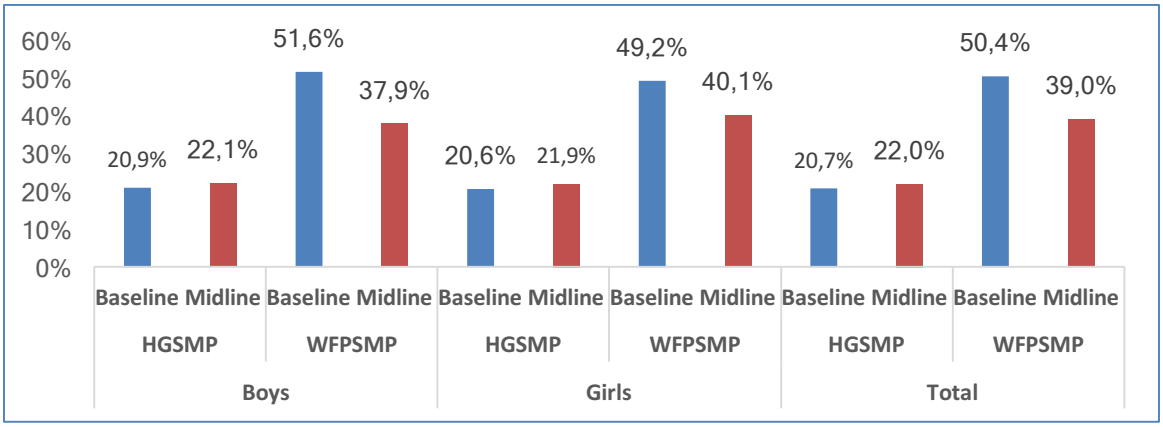
121. There was a significant change of proportion of children who responded to the survey who mentioned three most important hygiene methods in WFPSMP (-8.0%) schools, compared to control (7.1%) schools (net change of -15.6%; p<0.001). A significant high in boys (net change of -14.5%; p<0.001) as well as girls (net change of -15.7%; p=0.401). (Figure 16a and Annex 10a (Table 24 and 25)).

**Figure 16a – Percentage of children who mentioned three most important hygiene methods, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




122. The change in proportion of parents/guardians in target communities who could name at least three benefits of primary education, was not significantly different in HGSMP (1.3%) compared to WFPSMP (-11.4%) schools (net change of 12.7%; p<0.001). The change was higher among boys (net change of 14.9%; p<0.001) as well as girls (net change of 10.4%; p=0.005). (Figure 16b and Annex 10b (Table 33 and 34)).

**Figure 16b – Percentage of children who mentioned three most important hygiene methods, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**

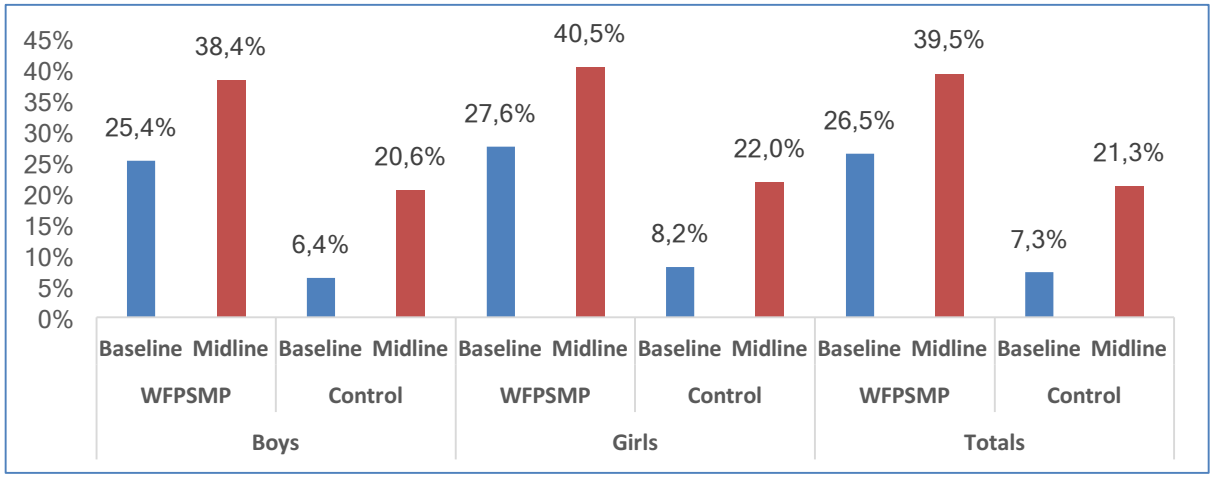


## Nutrition

### Indicator 23: Number of individuals trained in child health and nutrition

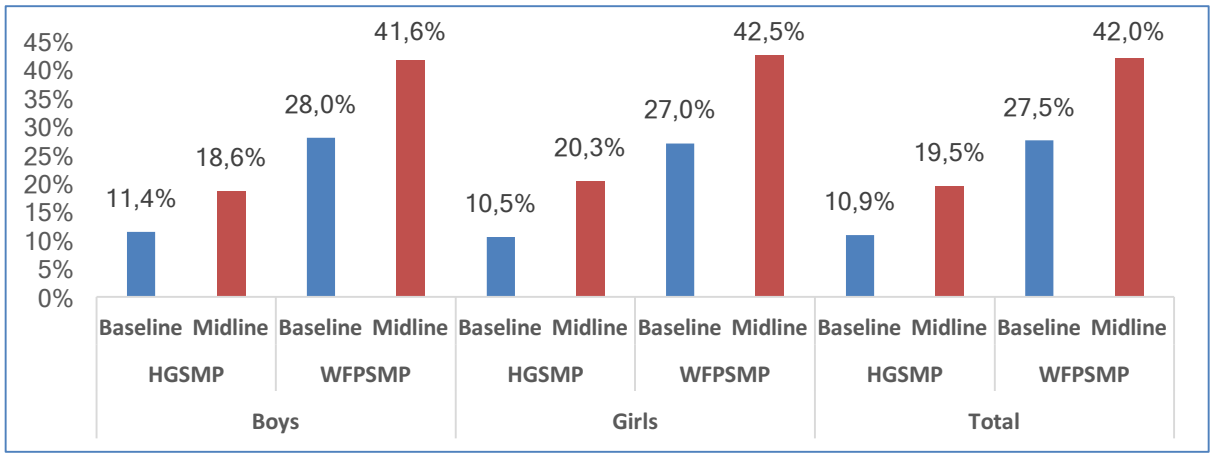
123. There was a significant difference in the proportion of children who responded to the survey who mentioned three most important nutrition efforts in WFPSMP (13.0%) schools, compared to control (14.0%) schools (net change of -1.0%; p<0.001). A significant change in boys (net change of -1.2%; p=0.002) as well as girls (net change of -0.9%; p=0.019). (Figure 17a and Annex 10a (Table 24 and 25)).

**Figure 17a – Percentage of children who mentioned three most important nutrition efforts, compared at baseline and midline for WFPSMP and control schools, stratified by gender**




124. The change in proportion of children who mentioned three most important nutrition efforts, was not significantly different in HGSMP (8.6%) compared to WFPSMP (14.5%) schools (net change of -5.9%; p=0.841). The change was comparable among boys (net change of -6.4%; p=0.854) and girls (net change of -5.7%; p=0.684). (Figure 17b and Annex 10b (Table 33 and 34)).

**Figure 17b – Percentage of children who mentioned three most important nutrition efforts, compared at baseline and midline for HGSMP and WFPSMP schools, stratified by gender**



## MGD 2.6 Increased Access to Requisite Food Prep and Storage Tools

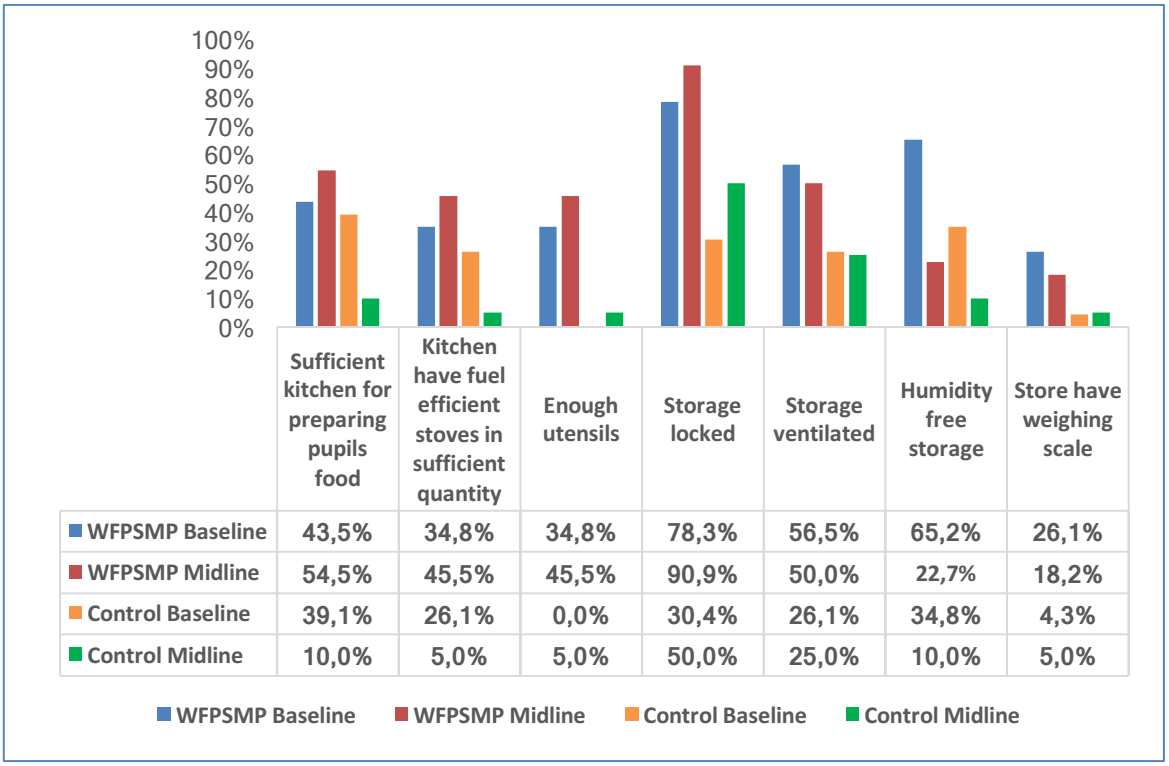
**Summary of main findings**

- There was a significant difference in the change of proportion of schools that had sufficient kitchen for preparing pupils food in WFPSMP (11.0%) schools, compared to control (-29.1%) schools (net change of 40.1%; p=0.036).
- Similarly, there was a significant difference in the change of proportion of schools that had sufficient kitchen for preparing pupils food in HGSMP (-29.1%) schools, compared to WFPSMP (43.5%) schools (net change of -72.6%; p=0.001).
- The change was in favour of WFPSMP schools, compared to control and HGSMP schools.

### Indicator 24: Number of target schools with increased access to improved food preparation and storage equipment (kitchens, storerooms, stoves, kitchen utensils)

125. There was a significant difference in the change of proportion of schools that had a kitchen for preparing pupils food in WFPSMP (11.0%) schools, compared to control (-29.1%) schools (net change of 40.1%; p=0.036). Similarly, though not significantly, there was a remarkable difference in the change of proportion of schools that had kitchens having fuel efficient stoves in sufficient quantity in WFPSMP (10.7%) schools, compared to control (-21.1%) schools (net change of 31.8%; p=0.068). Generally, there was a difference in the change of proportion of target schools with increased access to other improved food preparation and storage equipment in favor of WFPSMP schools, compared to control schools. However, the change was not statistically significant (p>0.05) in the other observed characteristics. (Figure 18a and Annex 10a (Table 26 and 27)).

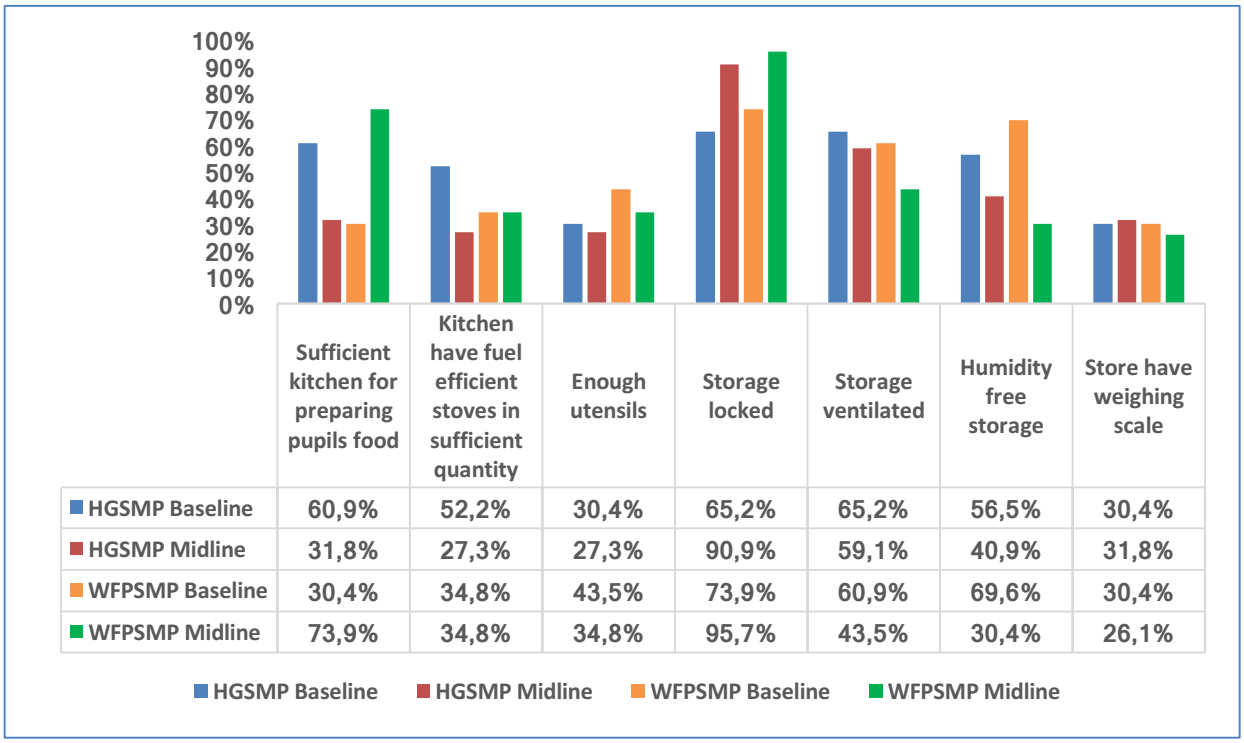
**Figure 18a – Percentage of target schools with increased access to improved food preparation and storage equipment, compared at baseline and midline for WFPSMP and control schools**




| | Sufficient kitchen for preparing pupils food | Kitchen have fuel efficient stoves in sufficient quantity | Enough utensils | Storage locked | Storage ventilated | Humidity free storage | Store have weighing scale |
|---|---|---|---|---|---|---|---|
| WFPSMP Baseline | 43,5% | 34,8% | 34,8% | 78,3% | 56,5% | 65,2% | 26,1% |
| WFPSMP Midline | 54,5% | 45,5% | 45,5% | 90,9% | 50,0% | 22,7% | 18,2% |
| Control Baseline | 39,1% | 26,1% | 0,0% | 30,4% | 26,1% | 34,8% | 4,3% |
| Control Midline | 10,0% | 5,0% | 5,0% | 50,0% | 25,0% | 10,0% | 5,0% |

126. There was a significant difference in the change of proportion of schools that had sufficient kitchen for preparing pupils food in HGSMP (-29.1%) schools, compared to WFPSMP (43.5%) schools (net change of -72.6%; p=0.001).

**Figure 18b – Percentage of target schools with increased access to improved food preparation and storage equipment, compared at baseline and midline for HGSMP and WFPSMP schools**




| | Sufficient kitchen for preparing pupils food | Kitchen have fuel efficient stoves in sufficient quantity | Enough utensils | Storage locked | Storage ventilated | Humidity free storage | Store have weighing scale |
|---|---|---|---|---|---|---|---|
| HGSMP Baseline | 60,9% | 52,2% | 30,4% | 65,2% | 65,2% | 56,5% | 30,4% |
| HGSMP Midline | 31,8% | 27,3% | 27,3% | 90,9% | 59,1% | 40,9% | 31,8% |
| WFPSMP Baseline | 30,4% | 34,8% | 43,5% | 73,9% | 60,9% | 69,6% | 30,4% |
| WFPSMP Midline | 73,9% | 34,8% | 34,8% | 95,7% | 43,5% | 30,4% | 26,1% |

127. Generally, there was a difference in the change of proportion of target schools with increased access to other improved food preparation and storage equipment in favour of WFPSMP schools, compared to HGSMP schools. However, the change was not statistically significant ($p>0.05$) in the other observed characteristics. (Figure 18b and Annex 10b (Table 35 and 36)).

Indicator 25: Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance

128. The results for this indicator have been discussed under Indicator 2, page 18 above.

## 2.3. Evaluation Question 4 - How efficiently was the programme implemented?

**Summary EQ 4**

- The transitioning process on track although with some delays in some of the planned activities.
- WFP monitoring systems are recognized as being strong, but challenges have arisen in terms of the government financial and technical capacity to maintain the same level of support.
- Communication about allocated and disbursed amounts by the GoK to the county and school is weak, and contributes to weak control and accountability
- Delays in the disbursement of funds have meant that food has been purchased at higher prices, and this has reduced number of school feeding days.
- Complex procurement procedures have implications for the level of benefit that the cash based model has for local communities, as only registered larger traders and farmers can qualify.

***Is the programme implemented in a timely way?***

129. At a general level the programme is on track in terms of transitioning the schools to government responsibility. The hand-over has taken place, and all locations visited are aware that the transition to full government management is in progress. However, for the last schools that were handed over, in practice the full transition will only become a reality when the current stocks of food have been cleared as many schools that were visited still have sufficient food until the end of the first quarter of 2019.

130. At a more detailed level, and as is evident from the review of WFP reporting and the interviews at different levels, some of the activities that were scheduled to take place have run into minor delays. This includes the establishment of inter-ministerial county-level committees which remains a priority but have not yet been put in place, and the planned training of BOM which was affected by a Government directive that school teachers would only be trained during school holidays. With the placement of a full time-WFP staff in the MOE it is expected that these activities will be implemented as a matter of priority.

131. In terms of timeliness one of the key issues that emerged from the interviews at sub-county and school level are the frequent delays in terms of transfer of funds to schools under the HGSMP. These delays have various knock-on effects in terms of availability of school meals and increases in costs because food is purchased at a time it is more expensive. The lack of clarity on the timeframes is also reported to makes the school and the BOMs as well as the SMCs efforts in terms of planning a futile exercise. This underscores the fact that while the cash transfers are considered to be an effective way of delivering school feeding, in particular because it also has reported effects on local farmers, the system is not functioning in an efficient manner. In fact, the only school where cash transfers appeared to be functioning correctly is the pilot WFP school in Turkana North, that received cash from WFP.

***Are the activities cost-efficient? Is the programme implemented in the most efficient way compared to alternatives?***

132. Procurement procedures were mentioned as affecting efficiency and cost-effectiveness in all counties visited. HGSMP have to follow government procurement process and are only allowed to procure from prequalified suppliers who are registered with the GoK. Some of these suppliers were reported to take the opportunity to inflate the prices. It was reported (examples from Nyeri and Laikipia) that when parents have to buy food to fill the gap due to delayed funds, they purchase food much more cheaply from the same market, from local traders who are not registered but provide more acceptable prices.

133. The other factor is that the timing of disbursement of funds does not always coincide or take into consideration the harvest season when the food commodity prices are lowest and often times money is received in school when food prices are at the highest. An example was given of schools having to pay KES 6000 for a bag of maize which would ordinarily cost KES 3000 or less. At the time of evaluation data collection in West Pokot for example, a 50kg sack was being sold for KES 1000. Systematic delays in the transfer of funds to the schools may also mean that schools receive funds just before the school term ends and this obliges schools to procure food hastily at times when the food prices are not optimal. It also reduces the impact of the school feeding starts late in the school term and does not – according to interviews with parents, guardians and teachers – attract children to school in the way it does when the food is available early on in the semester.

***Were the project strategies efficient in terms of financial and human resource inputs as compared to outputs?***

134. In general interviewees felt that the programme has made the right choices in terms of financial and human resources and has sought to optimize their use. Various examples were provided including the choice to transition to a cash-based model which is less expensive, the

focus on building capacity and the use of cascade training (although there are some concerns about the effectiveness of this), and the embedding of WFP staff in the MOE structures.

135. In terms of inputs, food diversion was one of the main issues that was mentioned by parents and teachers in one school under the WFPSMP. Information collected at school and community level suggests that the diversion of food happens between the county, sub-county and school level. In one of the schools, teachers (who did not want to be quoted) brought in the issue of 'cartels' who are siphoning food. Parents and teachers explained for example, that their school would be expecting to receive 20 bags of cereals, but could receive 15 bags. Parents also reported weighing the bags of food delivered because they doubted the stated weight of 90 kilos, and there were times when these would weigh as little as 50 kilogrammes.

***Does the monitoring system efficiently meet the requirements of the project?***

136. This question looks both at information flows and monitoring. The evaluation interviews at different levels underscore that there are insufficiencies in the information flow and communication regarding allocation and disbursement of government funding. The central MOE communicates information about allocation of funds from the national government, through the MOE directly to schools. However, interviews with the county officials highlight that this information is not shared with the county education authorities. In addition, instances were noted, during the school visits of funds from MOE being credited to the school general account, and schools not receiving official information to this effect. Some schools reported that although they officially fall under the HGSMP, they were not receiving funds. Head teachers in these schools reported spending a lot of time tracing the money, at times having to travel to the MOE headquarters. . There was also the issueof reliability of data, linked to low monitoring capacity of the MoE at local level. A key issue raised by WFP officials was what was referred to as 'ghost schools' and 'ghost pupils', and exaggerated enrolment data at school and county levels. An example given was results from a spot check on enrolments which indicated that out of 70 percent of the schools sampled, 30 to 40 percent had exaggerated data (WFP, Lodwar).

137. Insufficient levels of funding for transportation of food to schools, are additional challenges of considerable concern to the county and sub-county level. The lack of funding also makes it difficult to carry out supervision and control visits at the level of the schools.

138. The combined effect of lack of information, delayed and lack of funding makes it difficult for the county education officials and the finance staff at this level, to monitor the SMP. Interviewees at county level in particular stressed that this creates challenges in terms of transparency and accountability.

139. In general, the informants at different levels expressed satisfaction with the monitoring system that WFP has put in place. The WFP monitoring system and associated tools are considered very useful. The introduction of joint WFP monitoring visits with MOE officers in 2018 to look at aspects of implementation was considered very valuable in terms of highlighting achievements as well as areas that need attention.

*What are the management strengths, including technical and financial, of this project?*

140. The factor most commonly mentioned by all the informants was WFPs contribution over the years to ensuring school feeding programme was run efficiently and effectively. This contribution has included delivery of food, as reported by informants in areas served by SMP, in the required quantities and at the right time. WFP has provided support in capacity building and technical support, through training and also providing to some schools, kitchen equipment, ensuring food safety and quality. A factor that was acknowledged by schools, sub-county and county informants was the monitoring done by WFP, which was well resourced and was carried out regularly. Indeed, the monitoring visits were identified as the main avenue for schools to air their views and report any issues arising from the school meals programme. Other management strengths include the dedicated school feeding unit in the MOE, which has played a key role over the years in the management and implementation of the programme.

The existence and institutionalisation of the school BOM and the SMC are seen as an important strength. A number of weaknesses also emerged from the analysis. These include, the fact that until very recently there has been no formal country level inter-ministerial coordination, and that county level coordination structures have not yet been established.

## 2.4. Evaluation Question 6 – What progress has been made towards sustainability?

**Summary EQ 6**

- The transitioning process is known and understood by actors at different levels.
- The financial commitment by the government has continued in place, and government staff have been allocated, but funding and staff capacity are still insufficient.
- Inter-sectoral coordination remains weak, and capacity for monitoring is a major concern.
- The policy framework has been strengthened through the approval and launching of Kenya's first National Meals and Nutrition Strategy in May 2018.
- Community engagement is strong, but participation in decision making of women is insufficient.

### *Government taking ownership of the programme*

141. GoK's commitment to the provision of school meals has been evidenced by providing funds for transportation of food in the WFPSMP areas. It has also progressively provided financial resources for the purchasing of food for the HGSMP over the last decade; an indication that the school meals programme has been given priority in areas prone to food insecurity. Additional funding has been made available for the last two years because of the drought in Kenya. Nonetheless, interviews at school level highlighted that for many schools the lack of sufficient financial resources, and in some cases the issues related to food quantities, have meant that in practice the number of school feeding days has been reduced compared to what was in place when WFP was providing food under the WFPSMP.

142. Government ownership is also evident, at all levels, though the deployment of staff for programme management remains a challenge. County level discussion by the evaluation team revealed that there is room to better integrate the school feeding monitoring with the existing monitoring and supervision arrangements for schools; for example, by involving auditors and quality assurance officers in supervising school feeding.

143. Interviews highlight awareness of the objectives and functioning of the school meals programme and of the key dimensions of the transitioning process by most staff and a commitment to 'making the transition work.' However, concerns were expressed about the government technical and financial capacity to fully take over the programme by 2020. Fears were expressed at all levels of the sustainability of the school meals programme. The main fear, as one head teacher in West Pokot put it, was that: "*the SMP could collapse and schools would no longer get food. If the food stops, then enrolment and participation will be reduced.*"

144. The fears raised by various stakeholders, about the transition and handover emanate from the challenges the programme has faced and which have contributed to the non-achievement. Among these challenges is the issue of understaffing at county and sub-county levels, limiting the capacity to support the programme. Some of the services affected are audit services, monitoring of the programme and even providing regular training on financial management at school level. According to the head teachers, chairpersons of the BoMs and parents, the handover was being done too early and that a lot more needed to be done before a full transition to the government.

### *Demonstrated Capacity at Central and Sub-National Levels to Manage the Programme*

145. The HGSMP has been implemented through transfer of funds to schools by the government, based on the same criteria as the Free Primary Education (FPE) funds, i.e. number of pupils enroled. With these funds schools purchase food locally, in adherence to government procurement procedures. By 2016, the GoK had reached the target of 950,000 children under this programme.[25] To effect implementation of the programme, the MOE has designated staff in charge of SMP at sub-county and county level, although they are still faced with problems of inadequate resources. This includes the establishment of School Meals Committees (SMC) which play a key role in the management of school meals at local level, with support from the BOMs.

146. Challenges include capacity at local level for management of processes and funds. This is recognized by all partners as being a concern. Capacity gaps analyses have been conducted by joint WFP and MOE teams in a number of countries in 2018[26] to map out areas that require strengthening to make the programme more responsive to the needs of school children. The capacity gap assessment has identified a significant gap in terms of monitoring and evaluation, managing data, and making sure data informs decisions. In addition, WFP has committed to providing a Technical Assistance Officer to be seconded to MOE for a period at least one year to support the School Health, Nutrition and Meals Unit. This officer had been recently been put in place at the time of the midline data collection. As these initiatives are too recent for the mid-term evaluation to judge their effectiveness.

147. From the evaluation interviews management capacity in terms of SMP knowledge and skills was strong at the county and sub-county levels, reflecting annual training done by WFP. However, capacity at school level is found to be weak and this was made worse by lack of information to schools affecting the preparedness for transition and handover. Officers at sub-county level, from the counties that took part in the evaluation, expressed concern that head teachers' capacity was not adequately developed, in particular in areas related to financial management, accountability, record keeping, project management and procurement.

148. While training at school level, and especially for head teachers is important for capacity building, there were clear indications that there was limited capacity at this level. At the time of the evaluation, one of the issues raised was the mass transfer of head teachers and appointment of new ones, under the delocalisation policy of the MOE. Capacity at school level was identified, not only as an issue of lack of knowledge and skills but also a problem of overburdened roles for head teachers. In the arid areas, this becomes more pronounced, where head teachers have multiple responsibilities including covering for shortage of teachers.

149. Another area identified was inadequate capacity of cooks, where more training was required in kitchen hygiene and nutrition. As expressed clearly by one head teacher in Turkana: *'There is not enough capacity building e.g. cooks have not been trained on the level required on kitchen hygiene … More capacity building is required"* (informant, Turkana).

150. A sustainability road map was drafted in 2017.[27] The purpose of the road map is to guide thinking through some of these operational issues of transitioning including: capacity building in procurement and financial management processes to school management and parents and requirements of transparency and accountability; market assessment with regard to availability of foodstuffs and prices; remapping and retargeting of schools in the program areas; and further work on determining and establishing the supplier base.

*Involvement and Contribution of Local Communities in Programme Implementation*

[25] WFP, Kenya Development Portfolio 2014-2018: Supporting National School Meals Programme.
[26] Capacity needs assessments (3 reports in total) were conducted in Marasabit, Turkana, West Pokot and Barringo (see bibliography).

[27] MoE & WFP (2017). Sustainability roadmap for school meals programme.

151. The roles of the different stakeholders are clearly defined, in particular at the school level. At the school level, SMCs have been established, with representation from teachers and parents. These committees, which are separate from the BoM, have the responsibility of ensuring the right procedures are followed in the procurement process. From FGDs with parents and teachers and KII with BoM chairmen and head teachers, it was evident that representation of parents in these committees gave them a sense of ownership in the programme. Parents in HGSMP and in schools under the CTS reported that they participated fully in the entire process: from budgeting, to tendering, to purchasing and then checking food supplied for quality. Once they are assured the quantity and quality is right, they then authorize the issuance of the cheque to the supplier. According to them, their participation in the process ensures accountability and transparency. The limited presence of women in these groups, and in particular in the decision making was evident from discussions, as almost all head teachers, chairpersons of BoMs, and MOE staff in the evaluation counties are male. This clearly reduces the level of influence that women can have on the decisions.

*152.* At the local level, parents and communities have shown their commitment and ownership by contributing in kind and in cash to support the SMP. They also support the construction of kitchen and stores, provide firewood and water, payment of cooks' salary and NHIF contributions, and at times buying of cooking oil. In some cases, because of limited financial capacity of parents, schools under the HGSMP have allowed parents to provide their contribution in terms of labour and have used parents as cooks for school meals. As noted earlier, while this may provide a solution in terms of the inputs that are required from the community, there are also some evident concerns related to lack of training in food preparation, hygiene and management.

*Adequacy and Timely Disbursement of Funds for the Purchase of Food under HGSMP*

153. Although structures and mechanisms have been put in place, from national to school levels for the implementation of HGSMP, the programme has had challenges in funding, in terms of inconsistency in total allocation for the budget. For example, in the financial year 2014/2015 allocation was KES 2.3b and this rose to KES 2.6b in 2015/2016. However, the allocation declined to KES 2.5b in 2017/18 (which could be linked to national election). It has gone even lower during the financial year 2018/2019 which started in July 2018, reducing to KES 2b.

154. At school level, the government provides money for the food, based on capitation, at KES 11.00 per child per day. Although this amount has increased from KES 9,00 in 2009, across the different counties, schools under HGSMP reported that the problem with this allocation was that the funds are not adequate and reflect the fact that the different contexts are not taken into consideration.

155. The reality according to the informants, was that food prices differ in different locations and are higher in arid counties, due to distances and poor road networks, so while KES 11.00 may be adequate in some areas, it is inadequate to others. This fixed amount also does not take into consideration fluctuations of prices of food, according to the time of the year. The challenge of fluctuations of prices is articulated by an officer in one of the sub-counties in Turkana, who said: *"there will be an allocation of KES 11.00 per child, which is not adequate because of cost of food in the area and issue of transportation. 1 bag costs KES 6,000 and the distances and roads in the county pose a challenge to the cost of food. Too little money to cater for purchase of food, compared to other counties such as Trans Nzoia"*[28] (informant, sub-county Turkana).

156. In addition, schools under the WFSMP and HGSMP experience in-year fluctuations in enrolment, with children migrating from schools that are not implementing the programme. These schools have to stretch their allocation to cover the higher enrolment than what was submitted to the MOE. Parents in some schools then are forced to cover for deficit as the money cannot cover the total number of days in a term. Information from WFP, however,

[28] Trans Nzoia is an agriculturally productive county, known for its high production of maize which is staple food in Kenya.

indicated that there was a banding system that ensured allocation of funding took into account the particular reality and context of the county or location. The evaluation team did not come across the banding system in the schools visited, where none of the interviewees were aware of its existence.

157. Delays and the particular time of the school calendar the national government disburses funds is another factor that affects the regularity and timeliness of the school meals. One of the County Accountants interviewed indicated that money is disbursed from the National Treasury to schools in October, which means three months from the beginning of the financial year which ends in June of every year. The second tranche is disbursed in May of the following calendar year. October happens to be the last month before the end of school calendar as the national examinations take place in October/November, and schools close in November. The schools can only purchase food for a few weeks, since there is very little learning going on in schools during the third term of the school calendar. At school level, the head teachers and chairs of BoM indicated that the money gets to school in the middle or towards the end of the term; meaning that schools go without food for more than a month every term. In some schools where the parents can afford to do so, they provide the food to address the deficit.

158. These issues are recognized by the MOE and WFP as concerning. With the frequency of droughts, the MOE has lobbied for increased funding, to stretch the number of days over which they can provide school feeding as normally they only have sufficient budget for a portion of days. MOE concerns about the price of food, have led to the decision that for some counties the government would do central procurement and distribute the food (rather than using cash transfers). Feedback from informants at county and sub-county level was that this modality is also appreciated. However, the modality does not go in favour of local production/markets and local farmers and traders. Some parents reported that this change was not in all ways seen as positive as it reduces the level of involvement of parents and community.[29] Most schools reported that the cash model is more efficient and considered preferable.

159. Various actions are foreseen in the aforementioned sustainability road map, and through the capacity gap monitoring, to address the overall challenges to sustainability by building capacity of staff at all levels. A gap remains, however, in terms of the government budgeting process which is not aligned with the school calendar. It is not clear what actions are envisioned to address this important area which results in food reaching schools very late and contributes to the inflation of costs because food is procured at times when it is expensive.

*Strengthening of the Policy Framework Supporting HGSMP within the Project Period*

160. WFP has launched a new country strategy for the period 2018 – 2023, which prioritizes technical support to government to take over fully the school meals programme. Within the wider government planning, the Vision for Economic Growth (known as the 'Big Four') was unveiled in 2017, to be implemented over the period 2017-2022. The four key pillars of the strategy include food security and nutrition, alongside manufacturing, universal health coverage housing and affordable housing.

161. The launching of Kenya's first School Feeding and Nutrition strategy in 2018[30] – signed by three ministries (education, agriculture and health) - is considered a very important development as it formalizes a commitment that the GoK has been making to SF. It gives a clear framework and a vision that all counties in Kenya can work towards, and embodies a political commitment to School Feeding as key safety net, as well as its role in achieving educational outcomes. It also provides the framework for involvement of different government ministries in SF by encouraging inter-ministerial coordination, multi-sectoral planning, stable funding and monitoring and evaluation for school meals to all children in Kenya. The strategy envisages a robust, nationally owned, sustainable and cost-effective set of school meal

[29] The MOE is cognisant of this problem and has asked WFP to do a market assessment to look at various options.
[30] MOE & WFP. Report on School Feeding National Conference and Launch of School Meals and Nutrition Strategy (2017-2022) – May 2018

initiatives that will address the key outcomes of different sectors, such as enrolment, retention and transition rates, food and nutrition insecurity, and health and hygiene practices.

The evaluation was able to establish that there is good awareness of the existence of the strategy at national and sub-national levels. It is too early to be able to assess its implementation. However, interviews at national level highlighted continued challenges in terms of commitment by other ministries (with the exception of nutrition) in spite of the strategy being in place.

## 2.5. Evaluation Question 7 – What factors affected the results?

**Summary EQ 7**

- Enhanced policy commitment, strong government ownership and a strong relationship with WFP has facilitated the transition process.
- External factors that have affected the programme include droughts and floods, as well as insecurity related to elections in 2017 and cattle rustling. Poverty, combined with nomadic lifestyle, has also affected enrolment and participation in schools, and has specifically affected participation by girls.
- Food prices have affected capacity of schools to purchase food.
- Delays in transfers of cash grants by the government, complex procurement processes, and capacity challenges have affected timeliness and regularity of school meals.
- Inadequate information about school feeding has negatively affected implementation and accountability. Food sharing has reduced the quantity of the meals for beneficiaries.
- At school level the existence of multiple initiatives, and the effect of the delocalisation of teachers and introduction of a new curriculum in the same period, have created challenges for the management of the education process.

162. External and internal factors have affected the implementation of the intervention. Each are discussed in turn below.

a) **External factors**

163. The school year 2017/2018 has seen some particular external events – different from other years – which will have compounded external factors that were already present.

164. Climate hardship in 2017 and 2018 has affected the regular functioning of schools. In 2017, the effects of a third consecutive year of drought affected food security for families, and contributed to population displacement, in particular for nomadic populations which impacted the amount of time children spent in schools. In 2018 droughts were replaced by severe floods which in many cases led to the interruption of schools as these were used (in some cases for multiple weeks) as temporary shelters.

165. Between August and December 2017, the regular functioning of schools was also affected by the elections (with schools and education staff being used for electoral registration and voting). After the contested election results, insecurity and violence continued to destabilize the functioning of schools, and also disrupted the cash transfers to schools as regular government activity was affected.

166. Insecurity caused by conflict has affected education and livelihoods in some of the counties, in particular in the last two months (May and June 2018). Schools are not a target in most cases, but in some cases have been used as shelters (Marakwet, West Pokot, Turkana). In some schools, children were reported to have been absent for extended periods of time because of insecurity.

167. Distances and difficult transport and road conditions contribute to a hostile environment for transportation of food (for schools receiving in-kind deliveries). Where cash transfers are

used, road conditions may in some cases also affect the transportation of food by farmers and vendors.

168. The pastoralist lifestyle which is specific to the northern area of Kenya (and which does not feature in the control areas) brings with it increased chances of population movement. In these areas food insecurity is higher and coping strategies include taking food home for other siblings. Cultural factors also affect school participation, in particular for girls.

169. Joint WFP/MOE monitoring as well as interviews by the evaluation team identified gender issues affecting enrolment and participation. Thus, in West Pokot and Barringo, girls are more absent from school than boys because of household chores. In the same counties, there are also higher drop-out rates for girls compared to boys – due to early marriages, with a high dowry payment for a less educated girls.

170. Poverty makes it difficult for parents and communities to pay the required monetary contributions to the school feeding activities, and food insecurity, and the aforementioned drought and floods put further stress on parents and guardians' capacity to contribute in kind (through food and labour) as expected in the school feeding programme. These factors featured prominently in the interviews that were done across the different counties.

171. Price fluctuation on the market - which reflect food availability issues - have affected the capacity to purchase food in the quantities needed for school meals. Higher prices reduce the amount that can be purchased and delays in transfer of funds have meant that food is bought at unfavourable prices.

172. Accountability issues lie at the heart of some of the challenges for the school feeding programme as will be discussed below. In addition to internal factors which reduce accountability and which are discussed next, from an external perspective accountability, it is also affected by the fact that teachers, and head teachers, are accountable to the Teacher Service Commission in Kenya, rather than to the Ministry of Education. This is an external factor that makes the management of the education system a complex affair in Kenya.

**b) Internal factors**

173. WFP has a long standing and solid relationship with the MOE and the GoK. Interviews at all levels highlighted the strong linkages that have been built up over time and underscored appreciation for WFPs commitment to making the transition programme work.

174. The process of transition assumes a transitioning of management, monitoring and accountability responsibilities to the local government and school structures. At the level of counties, sub-counties and schools, however, the data collection at mid-term consistently revealed that while ownership is considerable, there is inadequate information about different aspect of the school feeding programme. Many interviewees regretted the lack of clarity on criteria for the selection of beneficiary schools for the HGSMP. In addition, across the different counties and sub-counties there was a lack of information on expected and actual transfers of government funds for purchasing of food, which was perceived as having considerable consequences for the capacity at different levels of the government system to monitor the programme, and also is felt to run counter to efforts to promote accountability (i.e. if school BOM are not aware of the timing and volume of the grants then it is difficult for parents to participate in the monitoring). The delays in transfers also undermine any initiatives that schools (together with sub-county government) might want to take to avoid excessive food prices. In addition, WFP's monitoring reports, as well as this team's visits to schools, highlight that record keeping at school level continues to be poor which also impacts on accountability.

175. WFP scaled up its monitoring of school feeding interventions, doing this jointly with the government. The joint monitoring has provided an opportunity for collective learning and insight into areas that need correction, and have been appreciated by the different parties involved. However, in the assessment of the evaluation team, there is room for the recommendations of these monitoring visit to be less 'inspection oriented' and more learning and solution focussed. The monitoring visits could also more comprehensively involve the

school BOM in seeking solutions to the problems identified, and should involve members of other ministries such as the Ministry of Finance (MoF) given the impact that the delays in funding have for the effectiveness and cost-effectiveness of school feeding.

176. Capacity building is central to the transitioning of responsibilities to the GoK. At central level this has involved the placement of a WFP staff member at the MOE to support the transitioning process. This position is considered very valuable and is appreciated but it is too early to assess the full impact. In terms of the training that WFP has organized ahead of the formal transition, overall beneficiaries of WFP capacity building exercises have been appreciative of the type and quality of these interventions, although training is reported to be shorter than would be desired. There were also some concerns that the use of cascade training – with WFP training government staff who train colleagues at sub-county and school level – reduces the effectiveness and leads to a diluting of content. The interviews with county staff also highlighted that there are opportunities for involving government staff who have supervisory and support functions in the training, but that these officers are currently not systematically integrated. This includes the quality assurance officers who have a role vis-à-vis school feeding, as well as the new created position of government gender officers at county level (recruited by the Ministry of Social Affairs), who have a prominent role in dealing with gender across different sectors.

177. On the other hand, and interestingly, schools that have benefited from the School Improvement Programme (SIP) which is funded by USAID were found to face less problems. The SIP provides strong support to strengthening management and accountability and county officers felt that the type of training and support provided has helped overcome some of the challenges that school face in managing the school feeding programme.

178. Capacity at school level has been affected by the delocalization initiative of the MOE (initiated in January 2018). The initiative has resulted in a substantial number of head teachers rotating away to schools outside the area covered by the school feeding programme. This has meant valuable capacity and continuity in school feeding management has been lost. School reported that this affected the understanding of processes, and reduced the impact of the capacity development and ultimately affected the quality of the interventions.

179. At school level, the management of school feeding is a substantial task. The lack of coordination of different government initiatives which 'descend' on schools in an uncoordinated and often unannounced manner further complicates matters. Head teachers report losing time and not being able to provide adequate attention to their classes. In addition, 2018 saw the introduction of a new curriculum for the education sector. The impact of this introduction is not clear at this stage but the process was perceived as complex by schools, sub-county and county level informants, and has added a further burden on schools.

180. Food sharing is a reality in all schools and affects the amount of food that children consume (and the actual nutritional and calorie content). This encompasses a variety of issues. Budgets allocated to schools by government are based on enrolment numbers in first term. However, the movement of pupils from non-supported to supported schools, means that in reality the grants (and the corresponding food) are distributed over much larger number of pupils. In addition, the pre-primary (ECD) section which exists in all schools is not counted as part of the enrolments although the food is shared with these children, in order to respect cultural practices which, require that younger children should benefit from any food that is available.

181. WFP has invested – as part of the transitioning strategy – in efforts to enhance government and public support for school feeding and to improve the policy environment. WFPs work in this area – for example through the support to the drafting of Kenya's first National School Feeding Strategy[31], and through the organization of a School Feeding National Conference in

[31] Ministry of Education, Ministry of Health, Ministry of Livestock and Fisheries (2018). National School Meals and Nutrition Strategy.

May 2018 is much appreciated by partners. Nonetheless the engagement of other sector ministries continues to be challenging.

# 3. Conclusions and Recommendations

## 3.1. Overall Assessment/Conclusions

182. Across the spectrum, the McGovern-Dole supported interventions have been relevant to the beneficiaries. The programme has also seen WFP successfully engaging at policy level with the government, and has seen a growing financial contribution by the GoK to the HGSMP, although the financial commitment and policy engagement still need considerable further strengthening.

183. The mid-line highlights that school feeding provided under the McGovern-Dole supported SMP has output and outcome level effects for girls and boys. The effects are classified into two main effects; 1) effect of WFPSMP on indicators, 2) sustainability of indicators once the programme transitioned to the HGSMP, and Annex 11 provides summary tables on both.

184. Thus, one year since rollout of the intervention in 2016, the results at midline have shown strong evidence of positive effect of the school meals programme (SMP) on most of indicators. The tables in Annex 11 show that the WFPSMP has had a strong positive effect on highest level of numeracy, concentration in class, parent/guardians reporting children ate before and after school, parent/guardians reporting children consumed school meals in current school year and in the week of the survey, passing scores on safe food preparation, existence of a kitchen for food preparation, and existence of sufficient fuel saving stoves. Conversely for the sustainability of indicators by HGSMP only three indicators had a positive or marginal effect namely: parents/guardians who reported their children ate daily after going to school, parents/guardians in target communities who could name at least three benefits of primary education, and children who responded to the survey who mentioned three most important hygiene methods. Thus, after transitioning of schools from WFP to the government HGSMP, a number of key outcome indicators appear to decline.

185. The assessment at this stage is necessarily partial as the transition process from WFP supported SMP to HGSMP is still on-going, and as noted earlier the full effects of the transitioning will only be clear for some HGSMP schools when the current stock of WFP food runs out. All findings will therefore need to be re-examined at endline.

186. **Relevance and appropriateness (EQ 1 and 2):** At midline, the relevance of school feeding continues to be manifest. The intervention is well aligned with the priorities of the GoK as outlined in the NDP and various sector strategies. It is also well aligned with the priorities of other education development partners and national actors, and with the goals of WFP as stated in its country strategy.

187. The intervention is also relevant to the needs of girls, given evidence of considerable challenges to the participation of girls in schools because of cultural issues and high levels of poverty and food insecurity, which may make it difficult for children to access schools, and may lead girls to be married early. In these contexts school feeding provides an incentive for participation in schools

188. Across the spectrum, interventions have been relevant to the beneficiaries at the time of design and continues to be relevant in implementation as confirmed by the stakeholder interviews and school visits. Dependency on school feeding is, however, a concern. The targeted areas suffer from considerable food insecurity, which has been aggravated by other factors including insecurity and the recent drought, followed by floods in some areas. This makes beneficiaries particularly vulnerable to discontinuation of this kind of support.

Interviews with parents and children underscored that school meals are for many children and families of critical importance, and sometimes is the only full meal they receive in a day.

189. The midline group discussions and informant interviews highlighted that the transition to cash grants to schools is an appropriate choice transfer modality which is also in line with the Government's strategy. The cash-based model SF is reported at community level to be beneficial to local farmers and traders because it provides a ready market, with potential to boost the local economy. However, the government set procurement regulations stand in the way of this benefit extending to the community level farmers/traders who are less organized but for whom the benefits might be greater.

190. The programme appropriately sought to involve communities and parents in the design, identification of priorities and now in the management. Parents contribute to the school meals, although high levels of poverty are a barrier. While women are part of the consultation and decision-making structures, the midline highlights that their relative position in these structures (they are rarely in decision making roles as most structures - community and in the government) - are male dominated which is not conducive to women being able to influence priorities and choices.

191. **Effectiveness and emerging impact (EQ 3 and 5):** At mid-line the quasi-experimental design finds strong support for the importance of school feeding output and outcome level:

- Most of the set output targets were achieved with minimal variations. Compared to the baseline, the midline points to an increased number of children accessing food through school meals programme and more so in WFP supported schools.
- School feeding is associated with higher FCS. Compared to the control schools, more households with children in schools supported by WFP are within the acceptable FCS indication more frequent access to and diverse variety of foods.
- School feeding is also associated with reduced coping strategies. Examined across the three study arms, households with children in WFP supported schools appear to be employing less severe food coping strategies compared to HGSMP and the controls. However, attribution of the findings on higher FCS and reduced coping strategies to the intervention are not possible at this stage, as the improvement could also be due to improved harvests in the year between the baseline and midline, or to other factors.
- The survey comparison of baseline and midline does not show an association with higher enrolment, attendance or improved attentiveness. This is a surprising result which may in part be due to the short time lag between the baseline and midline as well as the external factors that have been identified above (drought, floods, elections, etc.) which are likely to have created significant disturbance in terms of the educational process.
- WFPSMP was significantly associated with improved numeracy. In addition, though not significant, there was improvement on literacy for English and Kiswahili.

192. Analysis by arms shows that the results of the HGSMP appear to be dropping. Across a range of indicators including numeracy and literacy scores, access to food by children before attending HGSMP schools perform less well compared to SMP schools. The reasons for this drop are not entirely clear. The drop may in part be due to less rigor in the application of the school feeding model in the HGSMP (i.e. reduced monitoring, less support, and insufficiently regular funding). The drop in terms of access to food may be associated to the recent drought floods. Though the drought affected most locations in which HGSMP and WFP supported schools are located, more of the drought response was focused to the regions with WFP supported schools which may have left the HGSMP schools disadvantaged.

193. In terms of improving facilities, schools with WFPSMP and HGSMP have experienced improvements in terms of classrooms, kitchens, storerooms, water storage and other conditions, due to a combination of WFP inputs and inputs by government. However, observation visits also underscore the sub-optimal conditions under which meals are often

prepared and served and the on-going challenges in the provision of a coordinated/integrated package of support to schools.

194. **Efficiency (EQ 4):** Qualitative findings suggest that transfers of grants to HGSMP schools are irregular, which results in infrequent feeding, and a smaller number of school feeding days. The evaluation notes that the only school that is 'efficient' in terms of the cash-based model is the WFP pilot school where the regular and timely WFP cash transfer has created conditions for a regular supply of food, and has allowed the school to purchase food at competitive prices. In other schools, delays in the transfer of funds have contributed to food being bought in periods where prices are very high. This suggests that regular transfers, together with consistent support is critical to an effective school meals programme. Efficiency is also reduced by 'loss' of commodities prior to delivery of schools, which are noted to affect some of the WFPSMP schools.

195. In terms of modality, the evidence suggests the cash transfers are better (versus in kind). But there are issues/ loopholes to be solved, in particular in terms of timelines and sufficiency of funds, and also oversight by the community of those who handle the money i.e. the head teacher.

196. HGSMP actors appear not quite conversant with the process of what they need to do to improve programme implementation. WFP has played a significant role in improving the capacity of government to plan and implement school feeding, however, there is a clearly evidenced and expressed need for further capacity building.

197. **Sustainability (EQ 6):** the evaluation is unable to conclude that there are sufficient conditions in place for sustainability. Issues of sustainability are reflected in the fact that after transitioning of school from WFP to government, the anticipated results in terms of learning outcomes, capacity and food consumption show evidence of a negative effect on most of the indicators. While government and beneficiary commitment to school feeding is in evidence and strong, and while government funding has increased over time, there are concerns that the technical capacity still needs considerable strengthening in particular for monitoring and support to schools, and that there are insufficient financial (and technical) resources for oversight and supervision which has traditionally been a strength of WFP and has allowed the programme to function. In addition, the grants by government are not sufficient to cover a full number of school feeding days.

## 3.2. Lessons Learned and Good Practices

198. The evaluation findings highlight the **importance of strong communication and timely information sharing of the flows of funds and disbursement of funds** to the schools. The experience in this programme shows that it is essential to ensure transparency and accountability and to allow communities to take ownership of the programme. The challenges in this respect highlight that the lack of communication makes it impossible for the established oversight structures (at the levels of schools, and at the level of the county management) to supervise and demand accountability.

199. The other key lesson relates to the importance of attention to gender in the design of the programme. As noted earlier in this report there were no specific gender analysis at the start of the programme and no gender indicators were identified at the design phase although it has been picked up in the recent joint monitoring work of WFP and the MOE. **A gender analysis of key aspects of the programme at the start of the intervention** (at the level of possible constraints for beneficiaries, involvement in management and decisions making, and anticipated differential effects on girls and boys) would have allowed the programme to take into account some of the issues that were mentioned in the report such as the characteristics of nomadic communities which affect girls' participation in schools, and the involvement of women in management and decision making (in particular through school structures such as

the SMC, and BOM). It would also have allowed for more systematic monitoring of gender and protection concerns.

## 3.3. Recommendations

200. The findings and conclusions at midline stage – although only one year after the previous measurement, suggest that there are a number of areas that will need attention in the coming phase. Each of the recommendations the evaluation team has a time-frame for implementation and a responsible partner. Recommendations have been placed in order of priority.

201. **Recommendation 1: Support the MOE to strengthen the communication and accountability measures for the HGSMP by reinstating, from next school year (2018/2019) mandatory circulars for information sharing on the details of grants provided to each school.** WFP Kenya and MOE. Timeline: by January 2019, and at the beginning of each school year for subsequent years.

202. This recommendation, together with Recommendation 2 below, targets a key aspect that was identified as a weakness by this evaluation, namely insufficient information sharing about grants to schools, and the need to enhance accountability for the funding.

203. **Recommendation 2: Prioritize the establishment of an independent complaints hotline for the HGSMP and ensure annual reporting on complaints received and how these were addressed.** Responsible entity: MOE and the intersectoral committees at national and county levels, with technical support from WFP Kenya. Timeline: by the first quarter of 2019.

204. This recommendation is complementary to recommendation 1. The hotline should allow concerned citizens to channel their complaints or concerns and improve transparency of the allocation process and reduce malpractice. Information on the availability of the hotline should be shared to county, sub-county, school and community level and communicated to schools and beneficiaries. By integrating information on the hotline in reporting the MOE will be able to envision specific actions at institutional level to address any problems.[32]

205. **Recommendation 3: Commission a review of the current strategy for training SMC and school heads and use this to improve the training approach and content moving forward.** Responsible entity: WFP Kenya, in consultation with MOE. Timeline: by the end of the first semester of 2019.

206. Capacity at school level was identified by the majority of informants, as weak. Capacity building needs to focus on financial management, school strategic planning, procurement and issues around pricing, and understanding of accountability processes and procedures for lodging complaints. The evaluation has highlighted some challenges with the use of the cascade training model, as well as opportunities to learn from the experience of other projects. In particular, WFP and MOE should look closely at the SIP approach and see whether this can be adapted to the WFP provided training.

207. **Recommendation 4: Advocate with the Treasury to: a) increase funding to the monitoring of the HGSMP; and, b) decentralize the disbursement of funds for the HGSMP to the county level to ensure that funds are received in a more regular and timely manner.** Responsible entity: WFP Kenya and MOE. Timeline: End of the first semester of 2019.

208. This recommendation targets the challenges that were noted by this evaluation in timely availability of cash to schools for the HGSMP. Advocacy with central level institutions responsible for budget allocations and funding flows is critical to ensuring that bottlenecks in the system are addressed. The decentralization of funding to the county level should be

[32] The government has had experience using the service of a hotline; with the Helpline – Number 116 which serves the Department of Children Services, operated by Childline Kenya. The line is used for reporting cases of child abuse.

seriously considered. In the transition phase, WFP could also consider providing funds to fill the funding gap which results from delayed transfers by the GoK, through a 'cash advance' to schools. This would ensure timely delivery of food to schools while the GoK reviews its system to ensure timely transfers.

209. **Recommendation 5: Secure strong involvement of audit, quality assurance, and gender staff at county level in the monitoring of the HGSMP programme.** Responsible entity: MOE, with technical support from WFP Kenya. Timeline: by the end of the current project (2020).

210. WFP monitoring of the SMP is highly regarded at all levels. However, with the transitioning to the HGSMP, the regularity and quality of the monitoring has reduced. WFP needs to support the MOE to build capacity in this area by revising terms of reference for staff involved in monitoring, providing additional training on HGSMP monitoring, and ensuring that there are clear and solution oriented guidelines for monitoring the HGSMP schools. Monitoring should also seek to involve county gender officers (see Rec. 7). Finally, staff of the Ministry of Finance could be involved in supervision given the impact that the delays in funding have for the effectiveness and cost-effectiveness of school feeding (see also Rec. 4).

211. **Recommendation 6**: **During the transition phase, enhance technical support provision at county and sub-county levels by placing WFP funded consultant staff at county level to reinforce training at the level of county offices and sub-county offices on HGSMP management and supervision.** Responsible entity: WFP Kenya in partnership with the MOE. Timeline: continuously until the end of the programme.

212. Capacity issues continue to be a considerable constraint for the effectiveness and sustainability of the programme (see also preceding recommendation). WFP should seek additional resources from USDA or another donor to strengthen its approach to capacity development. As part of this process it should conduct a review of the effectiveness of cascade training and consider placing one or more consultants in county education officers to support school level management of school feeding. A similar experience of doing this in a MGD supported programme in Ethiopia produced important results in terms of capacity strengthening. These consultants would provide real-time assistance on issues and would work in liaison with the MOE school feeding unit.

**213. Recommendation 7: Strengthen the integration of gender into the transition by carrying out a gender analysis as a follow up to the midline evaluation and identifying key aspects to include in capacity building and monitoring.** Responsible entity: WFP Kenya, in consultation with MOE. Timeline: By the start of the 2019/2020 school year.

214. It will be important to ensure integration of gender concerns in the planning of the final phase of the MGD SMP, and the transition and handover process. This could be supported by a gender analysis carried out as a follow up to the midline evaluation. Gender should also be an integral part of the capacity building plan and process (and therefore link to Rec 3 and Rec 8), and the SMP monitoring framework should be strengthened to include specific gender indicators which reflect participation of women in priority setting and decision-making.

215. **Recommendation 8: Establish clear targets for female participation and representation in the SMC to ensure gender balance and women representation in decision making and ensure that gender considerations are integrated in all capacity building activities and included in monitoring by WFP and MOE.** Responsible entity: WFP Kenya and MoE. Timeline: By the end of the first quarter of 2019.

216. Decision making for SF at school and community level is mostly in the hands of men because of inadequate representation of women in decision making structures. Adequate

representation of women should be assured in the SMCs to ensure that women are able to participate in decision making and supervision at par with male community members.

217. A review of the composition of the SMC should guide the sub-counties and schools in a review of all SMCs to ensure that women are adequately represented and have an equal say in decision- making. Involvement of county gender officers should be sought to strengthen the involvement of women (see Rec. 5).

218. **Recommendation 9**: **Improve the transparency and rationale of selection of SMP schools by reviewing the criteria for school selection in coordination with communities who have a better knowledge of the challenges that each individual school faces.** Responsible entity: MOE at various levels, with technical support from WFP Kenya. Timeline: by the next school year (2019/2020).

219. There was a general view that it was not clear what criteria were used to select some schools to be in the programme while others within the same geographical area were not selected. The resultant factor was that there was student migration from schools without school meals to those in the SMP. This recommendation aims at establishing - through a consultative process - ways of ensuring that all schools within the same geographical area have the school meals programme.

220. **Recommendation 10: Strengthen the monitoring of HGSMP by linking the monitoring system to the Education Management Information System (EMIS) and to the Free Primary Education (FPE) funding, to reduce the incidence of ghost schools and pupils.** Responsible entity: MOE, with technical support from WFP Kenya. Timeline: by the end of 2019.

221. In parallel with efforts to improve the selection of schools, it will be important to eliminate wastage of resources which arises from the allocation of funds to pupils and schools that do not exist (referred to as 'ghost schools' and 'ghost pupils')The importance of a strengthened monitoring system, linked to the EMIS and to the FPE funding, therefore cannot be over-emphasised. Regular monitoring has to be an integral part of the SMP, if the programme is to be sustained. Of key importance, is regular feedback to the various levels that will contribute to the continuation of the programme, i.e. school level, sub-county and county education offices and the national level, including the MOE and MoF.

# Annexes

**Annex 1 – Agreed terms of reference**

**Terms of Reference**

**MID-TERM evaluation of**

**USDA McGovern -Dole International Food for Education and Child Nutrition Program's Support in Kenya from 2016 to 2020**

**WFP Kenya Country Office**

## Introduction

1. This Terms of Reference (TOR) is for a mid-term activity evaluation of USDA McGovern-Dole International Food for Education and Child Nutrition Program (McGovern-Dole) in Kenya, 2016-2020. This evaluation is commissioned by World Food Programme (WFP) Kenya Country Office. The evaluation objective is to provide an evidence-based, independent assessment of the performance of the school feeding project at mid-term so that WFP and its partners can adjust course as necessary for the remainder of the project term. McGovern-Dole is funded and administered by USDA, and aims to support education, child development and food security in low-income, food-deficit countries around the globe. The program provides U.S. produced agricultural commodities and financial assistance, and supports capacity development and enhanced monitoring and reporting. Sustainability is an important consideration, and the grantees are expected to work to support government and community ownership. School feeding in Kenya is a multi-donor funded project.
2. These TOR were prepared by Beatrice Mwongela, Evaluation Manager (EM) from Monitoring and Evaluation (M&E) unit WFP Kenya based upon an initial document review and consultation with stakeholders and following a standard template. The purpose of the TOR is twofold. Firstly, it provides key information to the evaluation team and helps guide them throughout the evaluation process; and secondly, it provides key information to stakeholders about the proposed evaluation.

## Reasons for the Evaluation

The reasons for the evaluation being commissioned are presented below.

### Rationale

3. USDA is one of the long-standing, key donor to WFP School feeding in Kenya. USDA awarded WFP Kenya a total of US$ 28 million of support for the period 2016-2020. The grant agreement incorporates specific performance indicators and results indicators against which performance of the programme will be measured (Annex 4). In the evaluation plan agreed with USDA, WFP commits to conducting a mid-term evaluation to assess progress so far and feed into plans for the remaining project period.

### Objectives

4. The main objective of the mid-term evaluation is to provide an evidence-based, independent assessment of the performance of the school feeding project so that WFP and its partners can adjust course as necessary for the remainder of the project term. Specifically, the mid-term evaluation will:
    - ❖ review the project's relevance, effectiveness, efficiency, coherence and sustainability;
    - ❖ collect performance indicator data for strategic objectives and higher-level results;
    - ❖ assess whether the project is on track to meet the results and targets;
    - ❖ Identify any necessary mid-course corrections.
5. The mid-term evaluation will also focus on the implementation of the program with the evaluation findings targeted at adjustments or program management decisions aimed at helping improve implementation. As such, the evaluation will look at interim or anticipated results,

partnerships, implementation arrangements and systems, and any factors affecting the results achieved at the mid-point.

6. The evaluation will serve the dual and mutually reinforcing objectives of accountability and learning.

   - **Accountability –** The evaluation will assess and report on the mid-term values of the USDA McGovern-Dole support to WFP School Feeding Programme in Kenya from 2016 to 2020.
   - **Learning –** The evaluation will determine the reasons why certain results occurred or not to draw lessons, derive good practices and pointers for learning as the programme transitions to HGSMP. It will provide evidence-based findings to inform operational and strategic decision-making. Findings will be actively disseminated and lessons will be incorporated into relevant lesson sharing systems. The evaluation will use a quasi-experimental design set up at baseline.

**Stakeholders and Users**

7. A number of stakeholders both inside and outside of WFP have interests in the results of the evaluation and some of these will be asked to play a role in the evaluation process. Table 1 below provides a preliminary stakeholder analysis, which should be deepened by the evaluation team as part of the inception phase. Accountability to affected populations is tied to WFP's commitments to include beneficiaries as key stakeholders in WFP's work. As such, WFP is committed to ensuring gender equality and women's empowerment in the evaluation process, with participation and consultation in the evaluation by women, men, boys and girls.

**Table 1: Preliminary Stakeholders' analysis**

| Stakeholders | Interest in the evaluation and likely uses of evaluation report to this stakeholder |
|---|---|
| **INTERNAL STAKEHOLDERS** | |
| **Country Office (CO) Kenya** | Responsible for the country level planning and operations implementation, it has a direct stake in the evaluation and an interest in learning from experience to inform decision-making for the remaining implementation period. It is also called upon to account internally as well as to its beneficiaries and partners for performance and results of its operation. |
| **Regional Bureau (RB) Nairobi** | Responsible for both oversight of COs and technical guidance and support, the RB management has an interest in an independent account of the operational performance as well as in learning from the evaluation findings to apply this learning to other country offices. |
| **Office of Evaluation (OEV)** | OEV has a stake in ensuring that decentralized evaluations deliver quality, useful and credible evaluations. OEV management has an interest in providing decision-makers and stakeholders with independent accountability for results and with learning to inform policy, strategic and programmatic decisions. |
| **WFP Executive Board (EB)** | The WFP governing body has an interest in being informed about the effectiveness of WFP operations. This evaluation results will not be presented to the EB but its findings may feed into corporate learning processes. |
| **EXTERNAL STAKEHOLDERS** | |
| **Beneficiaries** | As the ultimate recipients of food assistance, beneficiaries have a stake in WFP determining whether its assistance is appropriate and |

| | |
|---|---|
| | effective. As such, the level of participation in the evaluation of women, men, boys and girls will be determined and their respective perspectives will be sought. More specifically, teachers, parent-teacher associations and students should be considered in key informants interviews or focus group discussions. |
| **Government, National and County Levels** | Both county and national governments have a direct interest in knowing whether WFP activities in the country are aligned with its priorities, harmonised with the action of other partners and meet the expected results. The Government has the overall ownership of the school feeding programme, and shares the interest in learning lessons for design of future programmes, including transition to the HGSMP (Home Grown School Meals Program) model. The key line Ministries are: Ministry of Education, Ministry of Agriculture, Ministry of Health, Treasury including relevant Ministries at county level. County and Sub-county Education Officers, School Management Committees are also key as they are involved in programme implementation and policy support. |
| **United Nations and Development Partners** | The Kenya United Nations Development Assistance Framework (UNDAF) should contribute to the realisation of the government developmental objectives. Kenya United Nations Country Team (UNCT) has therefore an interest in ensuring that WFP operation is effective in contributing to the United Nations concerted efforts. WFP implements the programme within a wider UN system of support to government priorities. The partner agencies are interested in learning to what extent WFP interventions are contributing to the overall outcomes committed to in the UNDAF particularly UNICEF, UNESCO, FAO, UNDAF thematic working groups, the Education Sector Development Partners Group. |
| **Non-Governmental Organizations (NGO)** | Some NGO's like Feed the Children, are members of the national school feeding technical committee where coordination and joint monitoring of the overall national programme - of which this project fits within, is done. |
| **USDA** | This evaluation is focused on schools meals programme activities funded by USDA. As such, USDA has an interest in knowing whether their funds have been spent efficiently and if funded activities have been effective and contributed to the expected results. |
| **Other donors (Australia, Germany, Russia, Private donors)** | WFP operations are voluntarily funded by a number of donors. The school feeding programme is a multi-donor initiative in which USDA's support is complemented by other donors. As such, other donors will have an interest in knowing if WFP's work on school meals programme has been effective and contributed to their strategies and programmes. |

8. The primary users of this evaluation will be:
   - The Kenya country office and its partners in decision-making, notably related to programme implementation and/or design, Country Strategy and partnerships
   - This mid- term evaluation and subsequently the final evaluation will contribute to the body of knowledge on McGovern-Dole. USDA, as the funder of the evaluation, will use findings and lessons learned to inform program funding, design, and implementation decisions

- Given the core functions of the Regional Bureau (RB), the RB is expected to use the evaluation findings to provide strategic guidance, programme support, and oversight
- WFP HQ may use evaluation for wider organizational learning and accountability

## Context and Subject of the Evaluation

### Context

9. Kenya has a population of 44 million people. It has diverse natural resources and highly varied terrain. The country's highlands comprise one of the most successful farming regions in Africa; the port of Mombasa is a major regional hub; and the unique geography supports abundant and diverse wildlife of great economic value. In September 2014, the World Bank reclassified Kenya's economy as lower-middle income. However, poverty, food insecurity, under-nutrition and income inequality remain high; 45.6 percent of Kenyans live below the national poverty line. The most severe conditions exist in the arid north, which is underdeveloped, drought-prone and is often disrupted by local conflicts. Food availability is constrained by poor transport infrastructure and long distances to markets. Kenya is a food-deficit country, ranking 145 of 188 countries in the 2015 Human Development Index (two positions up from previous year).[33] The country's 2015 Global Hunger Index was 24, ranking 67th out of 117 assessed countries. Many parts of the county, especially the arid and semi-arid lands which comprise 80 percent of Kenya's land area, are characterized by undernourishment, wasting, stunting, and child mortality. Global acute malnutrition among children aged 6 - 59 months in arid areas often exceeds 15 percent while micronutrient deficiencies are above 50 percent.
10. Poverty is linked with worsening droughts and flooding that force poor households to resort to negative coping mechanisms such as withdrawing children from school and selling productive assets. Kenya has a ten-year Ending Drought Emergencies plan (2013-2022) which aims to create “a more conducive environment for building drought resilience” by investing in infrastructure, security, human capital and improved financing for drought risk management.
11. Kenya has several social-assistance programmes which cover only 27 percent of the poor; 90 percent of the funding comes from development partners. In the 2012 Government of Kenya (GOK) formulated a social-protection policy that aims at increasing access to services for vulnerable populations, incorporating school feeding as a major social safety net.
12. Education is fundamental to the Government’s strategy for socio-economic development. In 2010, national net enrolment in primary education was 93 percent for boys with 88 percent completion, and 92 percent for girls with 78 percent completion.[34] In the north-eastern counties net enrolment dropped to 40 percent with 35 percent completion, and adult literacy was 8 percent;[35] education in these areas is frequently disrupted by conflict, drought and flooding. Girls’ enrolment improved from 0.96 in 2008 to 1.0 in 2012, but gender disparities persist.[36] Retention and educational quality are ongoing challenges. Early childhood development (ECD), education and care are weak and reach only half of pre-school-age children.
13. The National Education Sector Support Programme (2013–2018)[37] aims to enhance basic education in terms of access and quality. The 2010 National School Health Strategy includes access to safe water and sanitation components.
14. Of children under 5, 84 percent are deficient in vitamin A, 73 percent in iron and 51 percent in zinc; a quarter of children have inadequate iodine intake. Iron deficiency affects 55 percent of pregnant women[38]. Many households cannot afford a nutritious diet, and an estimated 1.8 million children are chronically undernourished.

[33] United Nations Development Program (2014). “Human Development Report 2015”.
[34] MOE administrative data.
[35] Government of Kenya (2015). “National Education Sector Plan: Volume One”. Nairobi: MOE.
[36] Government of Kenya. (2012). “Second Medium Term Plan, 2013–2017” Nairobi.
[37] Government of Kenya (2015). “National Education Sector Plan: Volume One”. Nairobi: MOE.
[38] Kenya National Micronutrient Survey (2011), Ministry of Health

15. The nutritional status of under-five children with respect to stunting, wasting and underweight has improved over time (1998 – 2018)39. High stunting levels persist; 26 percent of Kenya's children (6-59 months) are stunted. Stunting is higher in rural (29 percent) than in urban areas (20 percent). The highest rate is in West Pokot County (45.9 percent) and Kitui County (45.8 percent) whereas the lowest rates are recorded in Nyeri and Kiambu Counties at 15.1 percent and 15.7 percent, respectively. National wasting prevalence is at 4% and Turkana County has the highest prevalence of wasting at 22 percent followed by Mandera at 14.8 percent and Wajir County at 14.2 percent. The lowest rates of wasting and in Siaya and Kisumu Counties at 0.2 percent and 0.8 percent, respectively[40].
16. Immediate causes of malnutrition in Kenya, particularly for children under five, are inadequate food intake and presence of diseases. In addition, a host of poverty-related underlying factors contribute to malnutrition, including food insecurity, poor water and sanitation, as well as limited access to health services. Not least, food safety plays an important role, as large amounts of food are produced, stored and traded in informal settings with limited capacity for ensuring that food is safe to consume. This, matched by limited consumer awareness of food safety, leads to disease and unhealthy lifestyles. The roots of the underlying factors can vary from conflict to climate change and scarce natural resources to high and volatile food prices and have different influence on different indicators of malnutrition.
17. The connection of nutrition to other targets and SDGs is highlighted below[41]:
    - Target 2.1: good nutrition requires access to sufficient quantity and quality of food; as access is linked to affordability, there are also links to employment and income generation, and not least social protection programmes which integrate nutritional outcomes (cash plus agenda, soft conditionalities).
    - Target 2.2 is directly linked with poverty (SDG 1), which limits access to adequate food and also has direct effects on hygiene, meal preparation, and the micronutrient context.
    - Target 2.3 (production) is linked with nutrition by defining the quantity, quality and diversity of food being produced and consumed. Nutrition sensitive agriculture could be promoted through education and skills training to produce more diversified food, potentially complemented by institutional procurement programmes (for example school meals) enhancing the stable demand of such food to reduce risks and enable investments.
    - Target 2.4: better performing food systems improve people's access to food by improving market functioning and integration. Food quality and safety standards, as well as the capacity to adhere to them, and their enforcement are important to avoid the contamination of food with, for example aflatoxins and pesticides. The inputs used for food production, as well as the processes and infrastructure used for post-harvest handling have a direct bearing on non-communicable diseases.
    - Target 2.5: Genetic diversity - increased knowledge, skills, and more systematic use of traditional crops adapted to conditions in Kenya can improve food security, help households diversify diets, and make important micronutrients better available at low cost and effort.
18. The 2012 National Food and Nutrition Security Policy aims to: i) improve nutrition; ii) ensure that adequate food is accessible and affordable; and iii) protect vulnerable populations through safety nets linked to long-term development. It prioritizes the prevention of nutrition-related vulnerabilities in the first 1,000 days of life and links nutrition education with targeted nutrition interventions. Kenya joined Scaling Up Nutrition (SUN) in 2012, and is developing its second National Nutrition Action Plan (2018 – 2022).

**Subject of the evaluation**

19. This program provides daily school lunch to a total of 358,000 primary school children in targeted arid and food insecure counties of Kenya as shown in the table 2 below. Details of actual numbers reached are provided in annex 8.

[39] Kenya Demographic Health Survey, 2003, 2008 and 2014
[40] Kenya Demographic Health Survey, 2014
[41] Toward zero hunger strategic review, 2018 (draft)

Table 2: Target Numbers per County

| No. | Name of County | Number of schools | Boys | Girls | Total |
|---|---|---|---|---|---|
| 1. | Baringo | 114 | 8,174 | 6,394 | 14,568 |
| 2. | Garissa | 163 | 32,782 | 20,598 | 53,379 |
| 3. | Mandera | 211 | 58,574 | 28,232 | 86,806 |
| 4. | Turkana | 248 | 60,284 | 54,702 | 114,986 |
| 5. | Wajir | 218 | 37,785 | 22,407 | 60,191 |
| 6. | West Pokot | 120 | 15,003 | 12,941 | 27,944 |
| | **Total** | **1,074** | **212,602** | **145,274** | **357,874** |
| | **Figures rounded off** | | **213,000** | **145,000** | **358,000** |

It builds on more than three decades of joint WFP-Government of Kenya school feeding efforts and over nearly two decades of USDA support that has been provided in a series of distinct programs . USDA funding to WFP Kenya between 2004 and 2018 is approximately USD 130 million.

20. The current programme commenced in October 2016 and end in September 2021. In the first three years of the 2016-2020 program, WFP will combine the direct provision of meals in the arid lands with technical assistance to support the Government to sustainably expand the Government-financed and -managed HGSMP in these areas; and in the last two years, after full hand-over of the project areas to the HGSMP, WFP will fully shift to technical assistance to strengthen institutional structures and capacities required for quality home-grown school meals in Kenya.
21. The five years (FY2016 to FY2020) will cover a total of eight counties i.e. Baringo, Garissa, Mandera, Turkana, Wajir and West Pokot, Marsabit with Tana River not receiving food but benefitting from complementary activities. Hot lunch with food from McGovern-Dole funds is served for 120 out of the 190 school days, comprising 150 grams of bulgur wheat, 40 grams of green split peas, 5 grams of vegetable oil (fortified with vitamin A and D), and 3 grams of iodized salt –procured separately by WFP. The number of children reached is progressively decreasing as counties are handed over and by the end of 2019, all the counties will have fully transitioned to the Government's HGSMP.
22. Throughout the five-year program, WFP is collaborating with literacy actors and other partners to ensure that the meals contribute to tangible learning results. Specifically, Kenya is implementing Tusome, a nation-wide early grade literacy and numeracy programme (2014 - 2018)[42] that is supported by USAID and other donors that targets all the schools that WFP reaches through school feeding (100% overlap). WFP is facilitating the development of the revised School Health Policy and of the policy framework and operational guidelines for the use of micronutrient powders in school meals, as well as on the integration of nutrition into the school curriculum. WFP and UNICEF jointly work to contribute to the UN Development Assistance Framework (UNDAF) (2014-2018) for Kenya, Strategic Result Area on Human Capital (Education), [43] and UNDAF 2018- 2022 which is currently under development.

[42] The Tusome Early Grade Reading Activity is implemented by Ministry of Education (MOE) and RTI International, and supported by USAID and DIFD. For a project overview, see http://www.education.go.ke/home/images/Project-KPED/Brief%20on%20TUSOME%20.pdf

[43] https://www.unops.org/SiteCollectionDocuments/Information-disclosure/UNDAFs/Kenya-UNDAF-2014-2018.pdf

23. The program uses McGovern-Dole commodities and cash funding to contribute directly towards both of the McGovern-Dole's highest-level Strategic Objectives, McGovern-Dole SO1: Improved Literacy of School-Aged Children; and, McGovern-Dole SO2: Increased Use of Health and Dietary Practices.[44] The following activities (See Annex 3 for activity details) contribute toward the achievement of McGovern-Dole SO1: Providing school meals; building capacity of national and county-level actors to manage school feeding; raising awareness on the importance of education; advocacy for increased government support and investments; and, supporting the increased engagement of local organizations and communities.
24. To contribute towards the achievement of McGovern-Dole SO2, the following activities are being /planned to be undertaken: conducting on-job training to increase knowledge of safe food preparation and storage practices; conducting nutrition and hygiene education activities; carrying out information, education and communication on nutrition, sanitation and hygiene; building/rehabilitating 24 model kitchens with storage and energy saving cooking stoves in six target counties; strengthening the beneficiary complaints and feedback mechanisms; and, promoting food safety and quality in HGSMP through supply chain analysis, training, monitoring and coaching, and provision of blue boxes.
25. WFP has also incorporated a strong focus on capacity building to ensure sustainability by targeting the following McGovern-Dole Foundational Results: McGovern-Dole 1.4.1/2.7.1: Increased Capacity of Government Institutions; McGovern-Dole 1.4.2/2.7.2 Improved Policy and Regulatory Framework; McGovern-Dole 1.4.3/2.7.3: Increased Government Support and McGovern-Dole 1.4.4/2.7.4 Increased Engagement of Local Organizations and Community Groups. Activities that contribute to these Foundational results include: strengthening governance and multi-sectoral coordination and collaboration for the school meals programme; advocacy and dialogue to ensure adequate and regular budget allocations and to maintain political commitment to the programme; strengthening oversight and management functions; empowering communities to manage school feeding activities through trainings for school managers, teachers, and parents in order to ensure a solid level of awareness about school feeding implementation principles. At the school-level, WFP will train education officials to monitor school feeding and train trainers among local education, health and agriculture officers, equipping them to facilitate school feeding management trainings at the sub-county level.
26. WFP and the MOE, building upon three decades of excellent partnership, jointly implement the project. WFP continues to manage the commodity pipeline and ensure timely delivery of food from WFP's central warehouse in Mombasa to extended delivery points within the target counties. MOE then transport commodities from sub county (former District Education Officers' (DEO)) warehouses to the schools. In this manner, transportation costs are shared between the two organisations.
27. At the school level, Boards of Management, head teachers and school meals program teachers manage commodity storage, meal preparation and serving. With support from WFP field monitors, MOE officers at the county level are responsible for monitoring the program, mobilizing communities, and supervising day-to-day implementation.
28. Several evaluations were undertaken during the period under the FFE-615-2013/041-00 agreement (2013-2016). A baseline was conducted from May to July 2014, a mid-term evaluation in October 2015[45] covering the period September 2013 to Dec 2014 and the final evaluation was launched in June 2016 . In addition to this, an evaluation of the transitional Cash Transfer to Schools (CTS) pilot in Isiolo County was done in 2015[46]. In 2017, a baseline was done for this current grant. The substantive findings and methodological lessons generated from the above evaluations and baseline will feed into the midterm and final evaluation. The midterm

[44] See Annex 1: Results framework
[45] https://www.wfp.org/sites/default/files/Kimetrica%20%20-%20SFP%20Kenya%20Mid%20Term%20Evaluation%20final%20final%2016%20Oct%20%2715%20Final.pdf
[46]https://www.wfp.org/sites/default/files/External%20Evaluation%20of%20WFPs%20Cash%20Transfers%20to%20Schools%20Pilot%20Project.pdf

evaluation will be guided by the WFP Evaluation Policy 2016-2021[47] and the USDA Monitoring and Evaluation Policy 2013[48].

## Evaluation Approach

### Scope

29. This evaluation will focus on McGovern-Dole-supported, WFP School feeding activities implemented from 2016 to 2020 in the arid counties of Baringo, Garissa, Mandera, Turkana, Wajir, West Pokot, Marsabit and Tana River. The evaluation team will use quasi experimental design developed during the projects baseline. The detailed methodology can be found in Annex 1. The methodology clearly outlines the sample design, sample size calculations that incorporates sex and age considerations, counterfactual group and method of analysis.
30. The evaluation will provide an evidence-based, independent assessment of the performance of the school feeding project so that WFP and its partners can adjust course as necessary for the remainder of the project term. Specifically, the mid-term evaluation will (1) review the project's relevance, effectiveness, efficiency, coherence and sustainability; (2) collect performance indicator data for strategic objectives and higher-level results; (3) assess whether the project is on track to meet the results and targets and (4) identify any necessary mid-course corrections. The evaluation will be conducted during the 2018 second school term, while schools are in session i.e. from May 2018, the same time period as the baseline
31. The evaluation will also focus on the implementation of the program with the evaluation findings targeted at adjustments or program management decisions aimed at helping improve implementation. As such, the evaluation will look at interim or anticipated results, partnerships, implementation arrangements and systems, and any factors affecting the results achieved at the mid-point.

### Evaluation Criteria and Questions

32. The evaluation will assess the project for relevance, effectiveness, efficiency, impact and sustainability, appropriateness, coherence, coverage and connectedness. In all applicable areas, the assessment will consider gender elements through collection of sex disaggregated data, as far as possible. The table below provides key evaluation questions relevant to these focus areas, and the relevant data sources:

**Table 3: Preliminary Key Mid-term Evaluation Questions**

| Focus Area | Key Questions | Data Source |
|---|---|---|
| Relevance | To what extent is the programme approach and activities relevant to the Government and other key stakeholders?<br>To what extent is the activity aligned with WFP, partner UN agency and donor policies and priorities?<br>Is the package of interventions coherent and relevant?<br>Is the investment in the right, relevant areas?<br>To what extent is WFP's activity coherent with key policies/programming of other partners operating in the context? | Document review, key informant interviews with stakeholders, focu group discussions with communities |

[47] http://documents.wfp.org/stellent/groups/public/documents/eb/wfp277482.pdf
[48] http://www.fas.usda.gov/sites/default/files/2014-03/evalpol.pdf

| | | |
|---|---|---|
| Effectiveness | To what extent are the outcomes or objectives of the intervention likely to be achieved?<br>What are the major factors influencing progress in achievement or non-achievement of the outcomes/objectives of the intervention?<br>To what extent does the intervention deliver results various groups of beneficiaries | Monitoring data<br>Document review<br>key informant intervie with stakeholders |
| Efficiency | Is the programme implemented in a timely way?<br>Are the activities cost-efficient? Is the programme implemented in the most efficient way compared to alternatives? Were the project strategies efficient in terms of financial and human resource inputs as compared to outputs?<br>Does the monitoring system efficiently meet the needs and requirements of the project?<br>What are the management strengths, including technical and financial, of this project? | Monitoring data<br>Document review<br>key informant intervie with stakeholders |
| Impact | What are the medium term effects?<br>What are the medium term effects of transition and handover? | Document review, key informant interviews with stakeholders, focu group discussions with communities |
| Sustainability | To what extent is the government taking ownership of the programme? (e.g. demonstrated commitment and contribution to the programme);<br>What is the demonstrated capacity at central and sub-national levels to manage the programme?<br>How are local communities involved in and contributing to the implementation of the programme?<br>Is the HGSMP adequately funded? Was disbursement of cash to schools for the purchase of food under HGSMP done in a timely manner and at an adequate level?<br>Has the policy framework supporting the HGSMP been strengthened within the project period?<br>What are the major factors influencing the achievement or non-achievement of sustainability of the program? | Document review, key informant interviews with stakeholders, focu group discussions with communities<br>Monitoring data<br>Complaints and Feedback Mechanism data |
| General | What are lessons learned from the project up to this point?<br>Are there any recommendations for mid-course corrections to improve the project's relevance, efficiency, effectiveness, impact, and sustainability? | Document review, key informant interviews with stakeholders, focu group discussions with communities |
| Appropriateness | Is the intervention approach chosen the best way to meet the food security/nutrition needs of beneficiaries and the capacity gaps of key institutions?<br>Are the adopted transfer modalities and choice of complementary activities the best way of meeting beneficiary needs?<br>Are protection needs met? | Document review, key informant interviews with stakeholders, focu group discussions with communities |

| | | |
|---|---|---|
| | To what extent is the intervention based on a sound gender analysis? To what extent is the design and implementation of the intervention gender-sensitive? | |
| Connectedness | To what extent has the programme been situated within an analysis of longer-term and interconnected problems of the context?<br>To what extend has the project successfully coordinated and collaborated with key stakeholders including the Government of Kenya, NGOs, other international organizations and the private sector?<br>To what extend had the project collaborated with partners and leveraged complementary resources by collaborating with the USAID-supported MOE-led literacy program Tusome, UNICEF's child friendly schools and school infrastructure activities and the Ministry of Health's de-worming programs? What impact have these collaborations had, if any, on the implementation of the school feeding programme, the school environment and on learning? | Document review, key informant interviews with stakeholders, focu group discussions with communities |

**Data Availability**

33. The evaluation will entail qualitative and quantitative primary data collection that the evaluation team will be responsible for as per the PMP (See annex 4 and annex 1). The primary data will be complemented by available secondary information and data. The following is a list of data and or information available for the evaluation team. It is expected that the team will expand this at inception phase.

    - Baseline study report for the USDA Word Food Programme McGovern -Dole International Food for Education and Child Nutrition Program's Support in Kenya from 2016 to 2020
    - Evaluation, mid-term and final evaluation reports for FFE-615-2013/041-00 Kenya
    - Kenya Country Programme 200680 (2014-2018) project document and log frame
    - School feeding handbook
    - WFP School feeding policy
    - 2016 and 2017 Standard Project Reports (SPRs).
    - Strategy to Strengthen & Expand the Home Grown School Meals (HGSM) Programme into the Arid Lands of Kenya (Validated version 2013)
    - USDA commitment letter for Agreement
    - Evaluation Plan
    - Government of Kenya Education related policies and strategies
    - UWEZO annual reports
    - Process monitoring reports

34. Concerning the quality of data and information, the evaluation team should:

- Assess data availability and reliability as part of the inception phase expanding on the information provided in section 4. This assessment will inform the data collection
- Systematically check accuracy, consistency and validity of collected data and information and acknowledge any limitations/caveats in drawing conclusions using the data.

**Methodology**

35. This evaluation will build on the methodology including a quasi-experimental design developed and used for the baseline study included in this TOR as Annex 1 and detailed in the baseline inception report that will be provided to the evaluation team. The Research question and testable hypotheses that underpin the quasi –experimental design will allow WFP, USDA and its partners to examine whether the baseline, mid-term and end-term primary education outcomes (literacy and numeracy levels) and other educational indicators (enrolment, attendance, completion, parental involvement, etc.) are the same in schools included in WFP/USDA-McGovern-Dole school meals programme (2016 -2020) as those not included. This will be done through testing of four different hypotheses at Mid-term and End term evaluation for each indicator (see detailed baseline methodology in annex 1)
36. The evaluation team will enhance the methodology during inception phase to ensure it addresses additional data requirements for this evaluation.

37. The evaluation will also take a programme theory approach[49] based on the results framework. This will ensure that the follow up results for all the indicators contained in the results framework are obtained. This is important as it will show progress in achieving set results at mid-term.
38. The evaluation will use mixed methods and triangulate information from different methods and sources to enhance the reliability of findings. In particular, the evaluation will combine qualitative and quantitative approaches to collect data and information from both treatment and comparison groups. Separate questionnaires will be applied to the different primary sources of information, focusing on infrastructure, staff, enrolment and attendance, exam scores, completion rates and community involvement in the programme.
39. The qualitative component of the evaluation will seek to maximize participation of local stakeholders. This should be done through key informant interviews and focus groups with head teachers, school management committee members, pupils, and education and other government officers.
40. The methodology will be enhanced and fully developed by the evaluation team at inception phase. In doing this, the evaluation team consider challenges and or risks and their mitigation measures for the evaluation e.g. access challenges to some of the project areas due to security related issues. The final methodology will be expected to:

- Demonstrate impartiality and lack of bias by relying on a cross-section of information sources (stakeholder groups, beneficiaries, etc.) The selection of field visit sites will also need to demonstrate impartiality.
- Using mixed methods (quantitative, qualitative, participatory etc.) to ensure triangulation of information.
- Ensure through the use of mixed methods that women, girls, men and boys from different stakeholder's groups participate and that their different voices are heard and incorporated into the evaluation process. This may include, for example conducting female-only focus groups so that women feel comfortable and encouraged to participate.
- Take into account data availability challenges, budget and timing constraints.
- Mainstream gender equality and women's empowerment as per WFP's evaluation principle of Gender equality.[50]

**Quality Assurance and Quality Assessment**

[49] A programme theory explains how an intervention (a project, a programme, a policy, a strategy) is understood to contribute to a chain of results that produce the intended or actual impacts. It is represented by a log frame, results framework or theory of change. The approach looks into how the intervention is contributing to the chain of results presented in the results framework.
[50] http://documents.wfp.org/stellent/groups/public/documents/reports/wfp279331.pdf (pg 11)

41. WFP's Decentralized Evaluation Quality Assurance System (DEQAS) defines the quality standards expected from this evaluation and sets out processes with in-built steps for Quality Assurance. DEQAS is closely aligned to the WFP's evaluation quality assurance system (EQAS) and is based on the UNEG norms and standards and good practice of the international evaluation community and aims to ensure that the evaluation process and products conform to best practice.
42. DEQAS will be systematically applied, to this evaluation. The evaluation Manager will be responsible for ensuring that the evaluation progresses as per the DEQAS Step by Step Process Guide and for conducting a rigorous quality control of the evaluation products ahead of their finalization.
43. WFP has developed a set of Quality Assurance Checklists for its decentralized evaluations. This includes Checklists for feedback on quality for each of the evaluation/evaluation products. The Checklist will be applied at each stage, to ensure the quality of the evaluation process and outputs.
44. In addition, to enhance the quality and credibility of this evaluation, an external reviewer directly managed by WFP's Office of Evaluation in Headquarter will provide:
    a) systematic feedback on the quality of the draft inception and evaluation reports; and
    b) Recommendations on how to improve the quality of the evaluation.
45. This quality assurance process does not interfere with the views and independence of the evaluation team, but ensures the report provides the necessary evidence in a clear and convincing way and draws its conclusions on that basis.
46. The evaluation team will be required to ensure the quality of data (validity, consistency and accuracy) throughout the analytical and reporting phases. The evaluation team should be assured of the accessibility of all relevant documentation within the provisions of the directive on disclosure of information. This is available in WFP's Directive (#CP2010/001) on Information Disclosure.

**Phases and Deliverables**

47. The evaluation will proceed through the 5 following phases.

| Date | Mid-term Evaluation Activity |
|---|---|
| January –April2018 (First term) | Prepare phase:<br>▪ Draft terms of reference (WFP)<br>▪ finalize provisions for impartiality/independence (WFP)<br>▪ Quality assure, consult (WFP, USDA, GOK) and finalize TOR<br>▪ Select and Recruit evaluation team (WFP). |
| April –May 2018 (First term school holiday) | Inception phase:<br>▪ Conduct evaluation team orientation (EM)<br>▪ Desk review of key project documents (evaluation team)<br>▪ Conduct inception meetings (Evaluation team)<br>▪ Prepare draft inception report (Evaluation team)<br>▪ Quality assure the inception report (EM)<br>▪ Circulate, finalize and approve inception report (WFP) |
| May -June 2018 (Second term) | Data collection phase:<br>▪ Prepare evaluation field work (evaluators/WFP)<br>▪ Conduct field work and preliminary analysis (evaluators)<br>▪ Present end of fieldwork debriefing (evaluators) |
| July – August 2018 (Second term) | Data analysis and reporting phase:<br>▪ Prepare draft evaluation report (evaluators)<br>▪ Quality assure draft evaluation report (EM)<br>▪ Circulate draft ER to stakeholders for comments (EM) |

| | |
|---|---|
| | ▪ Finalize the evaluation report (Evaluators)<br>▪ Submit the final report for approval (EM) |
| September onwards | Dissemination follow-up:<br>▪ Conduct workshop to share evaluation findings with key stakeholders (WFP)<br>▪ Share evaluation findings with USDA (WFP)<br>▪ Prepare management response (WFP)<br>▪ Implement any required project changes (WFP)<br>▪ Publish report and management response (WFP)<br>▪ Track the implementation of follow up actions to the evaluation recommendations (WFP , M&E unit/RB) |

**48.** WFP anticipates finalizing the evaluation data collection by June 2018 and submitting the final report by the 17th August as detailed in Annex 5. **This timeline is very tight, and does not include any flexibility or delays by any party. It will also require both the Evaluation committee and the Reference Group to provide their comments in a week as opposed to the required two weeks. Should there be required changes to timelines for report submission due to unforeseen issues, WFP will contact USDA to discuss a revised timeline.**

The expected deliverables from the evaluation are the following:

a) Inception report written following WFP recommended template. The report should include but not limited to:
   - Detailed evaluation design, sampling methodology, and sample size calculations.
   - Quality Assurance Plan
   - Detailed work plan, including, timeline and activities
   - Bibliography of documents/secondary data sources utilised;
   - Final data collection tools, data bases, analysis plan

b) Power-point on methodology, overall survey plan, timeline and activities

c) Final report, including a first draft, and a final report using WFP recommended template which gives guidance on what to be included in each of the following report sections : Executive summary, Introduction, Evaluation findings, conclusions and recommendations. Annexes to the final report include but not limited to a copy of the final ToR, bibliography, list of sampled schools, detailed sampling methodology, Maps, A list of all meetings and participants, final survey instruments etc.

d) Clean data sets

e) Transcripts from key informant interviews, focus group discussions, etc.

f) Table of all standard and custom indicator follow up values

g) List of supported schools

h) Power-point presentation of main findings and conclusions for de-briefing and dissemination purposes

## Organization of the Evaluation

### Evaluation Conduct

49. The evaluation team will conduct the evaluation under the direction of its team leader (See annex 8 on evaluation team organization) and in close communication with the evaluation manager appointed by WFP senior deputy country director in accordance to the WFP evaluation guidelines.

50. The team members will not have been involved in the design or implementation of the subject of evaluation or have any other conflicts of interest. Further, they will act impartially and respect the code of conduct of the evaluation profession.

**Team composition and competencies**

51. The Team Leader should be a senior evaluator with at least 20 years of experience in research, evaluation and or evaluation with demonstrated expertise in managing multidisciplinary and mixed quantitative and qualitative method evaluations, complemented with good understanding of School Meals programme, experience in implementing evaluations with a quasi-experimental designs and additional significant experience in other development and management positions. Where possible the same team as that of evaluation will be maintained. The team leader should have experience working in Kenya.
52. The Team leader will also have expertise in designing methodology and data collection tools and demonstrated experience in leading similar studies or evaluations. She/he will also have leadership and communication skills, including a track record of excellent writing and presentation skills. Her/his primary responsibilities will be: i) refining the evaluation approach and methodology; ii) guiding and managing the team; iii) leading the evaluation mission and representing the evaluation team; iv) drafting and revising, as required, the inception report, the end of field work i.e. (exit)debriefing presentation and evaluation report.
53. The team must include strong demonstrated knowledge of qualitative and quantitative data, statistical analysis and experience with quasi experimental designs. It should include both women and men and at least one team member should be familiar with McGovern-Dole and with USDA's M&E Policy.
54. The team will be multi-disciplinary and include members who together include an appropriate balance of expertise and practical knowledge in the following areas:
    - Education
    - Quantitative methods specifically quasi experimental designs (Statistician)
    - Nutrition
    - Food security
    - Gender
    - Capacity development
55. The team will be able to communicate and write in English and have team members with ability to communicate in Swahili.
56. All team members should have strong analytical and communication skills, evaluation experience and familiarity with Kenya or the Horn of Africa and at least 5 years' experience in evaluation /research work.
57. The team members will bring together a complementary combination of the technical expertise required and have a track record of written work on similar assignments.
58. Team members will: i) contribute to the methodology in their area of expertise based on a document review; ii) conduct field work; iii) participate in team meetings and meetings with stakeholders; iv) contribute to the drafting and revision of the evaluation products in their technical area(s).
59. All members of the evaluation team will abide by the Code of Conduct for evaluators (Attached to individual contracts), ensuring they maintain impartiality and professionalism, adhere to the UNEG ethical guidelines and other ethical consideration as detailed in Annex 1.

**Security Considerations**

60. Security clearance: where required is to be obtained from WFP Kenya office.
    - Since the consultants will be hired through the HR option, they will be covered by the UN Department of Safety & Security (UNDSS) system for UN personnel which cover WFP staff and consultants contracted directly by WFP.

- The consultants will be required to obtain UNDSS security clearance for travelling from designated duty station and complete the UN system's Basic and Advance Security in the Field courses in advance, print out their certificates and take them with them.[51]

61. However, to avoid any security incidents, the evaluation Manager is requested to ensure that:

- The WFP Country Office (CO) registers the team members with the Security Officer on arrival in country and arranges a security briefing for them to gain an understanding of the security situation on the ground.
- The team members observe applicable UN security rules and regulations.

**Roles and Responsibilities of Stakeholders**

**The Kenya Country Office:**

The Kenya country Office management (Senior Deputy Country director) will take responsibility to:

- Appoint an Evaluation Manager in line with WFP evaluation guidelines
- Compose the internal evaluation committee and the reference group
- Approve the final TOR, inception and evaluation reports
- Ensure the independence and impartiality of the evaluation at all stages
- Participate in discussions with the evaluation team on the evaluation design and the evaluation subjects with the evaluation Manager and the evaluation e team
- Organise and participate in two separate debriefings, one internal and one with external stakeholders
- Oversee dissemination and follow-up processes

**Evaluation Manager:** This evaluation is managed by WFP Kenya. Beatrice Mwongela, head of M&E unit has been appointed EM. The EM has not managed or implemented subject of evaluation in the past.

- Manages the evaluation process through all phases including drafting this TOR
- Ensure quality assurance mechanisms are operational
- Consolidate and share comments on draft TOR, inception and evaluation reports with the evaluation team
- Ensures expected use of relevant quality assurance mechanisms (checklists, quality support etc.)
- Ensure that the team has access to all documentation and information necessary to the evaluation; facilitate the team's contacts with local stakeholders; set up meetings, field visits; provide logistic support during the fieldwork; and arrange for interpretation, if required.
- Organise security briefings for the evaluation team and provide any materials as required

62. **An Internal Evaluation Committee** has been formed as part of ensuring the independence and impartiality of the evaluation. The membership includes evaluation manager, technical unit in charge of school feeding programme, VAM, Senior deputy country director (Chair), and WFP Nairobi Regional Bureau Evaluation officer. The key roles and responsibilities of this team, includes providing input to evaluation process and commenting on evaluation products.

[51] Field Courses: Basic https://dss.un.org/bsitf/; Advanced http://dss.un.org/asitf

63. **An evaluation reference group** has been formed, as appropriate, with representation from USDA/FAS, Ministry of Education , WFP Regional office and WFP Country office and will review the evaluation products as further safeguard against bias and influence.
64. **Independent evaluation team:** Under the leadership of the evaluation team leader, the evaluation team will be responsible for undertaking the evaluation, as per this TOR, independently. The evaluation team will select and interview staff from the Country Office. The team will also have contact with CO staff who are members of the Reference Group (RG) during inception and dissemination. The CO staff who are members of the RG will be required to provide comments on the evaluation products. The responsibilities of the evaluation manager are clearly stated above and will, in addition to other provisions for impartiality already put in place, ensure the evaluation is implemented as per the WFP decentralized evaluation quality assurance system. Any support e.g. logistical support, that will be required from by the evaluation team from the CO will be discussed with evaluation manager who will in turn follow up and organize with CO.
65. **Other Stakeholders** (Government, NGOs, and UN agencies) will be identified for interviews by the evaluation team in addition to the list provided by WFP Kenya which will be based on the preliminary stakeholder analysis detailed in table 1.

## Communication and Budget

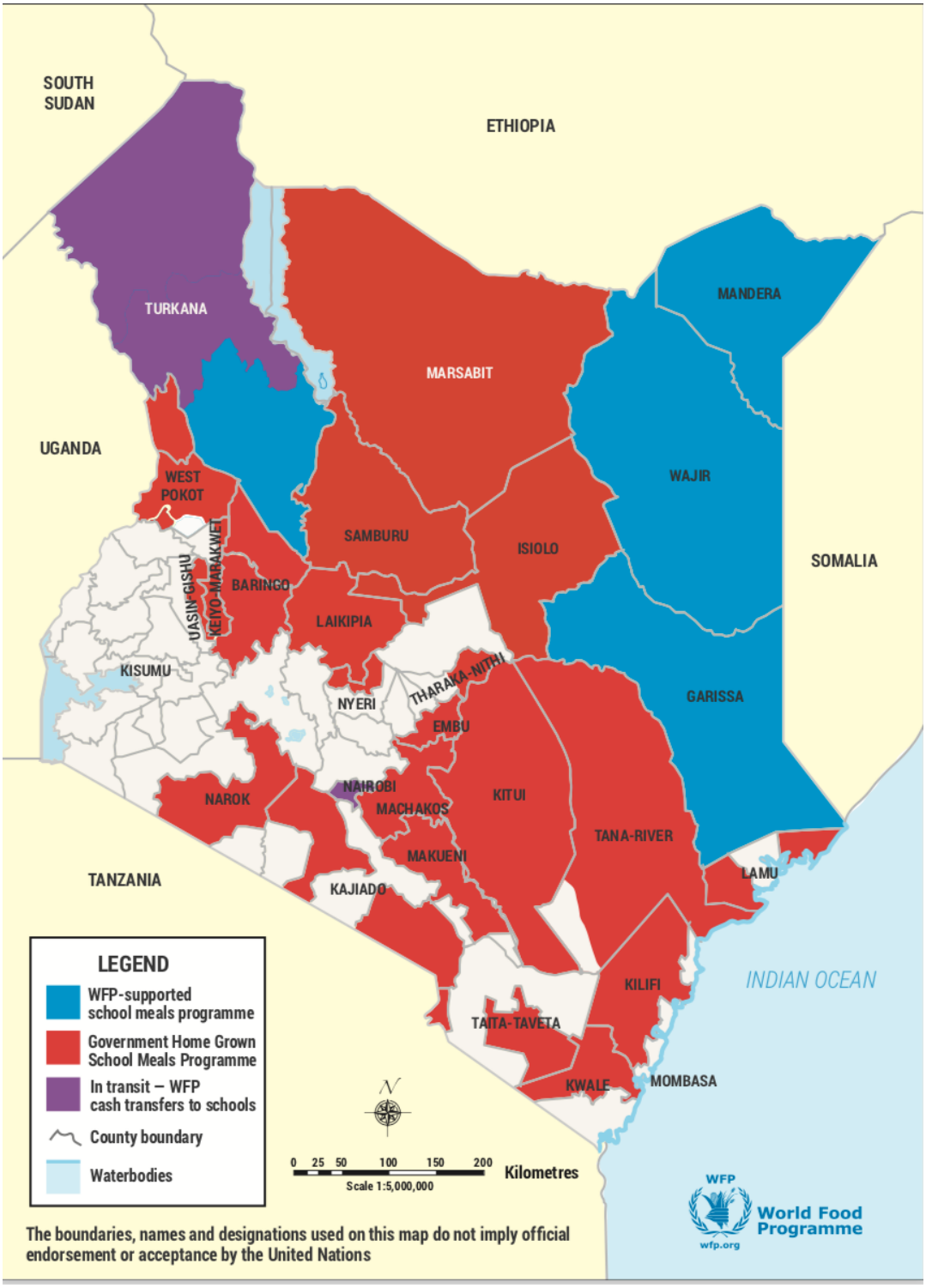
### Communication

66. To enhance the learning from this evaluation, the evaluation team should place emphasis on transparent and open communication with key stakeholders. These may for example take place by ensuring a clear agreement on channels and frequency of communication with and between key stakeholders.
67. Communication with evaluation team and stakeholders should go through the evaluation manager.
68. WFP will discuss the report with USDA and disseminate the findings and recommendations in various ways, including through discussions with WFP senior management and staff as well as with the key partners including the Ministry of Education, non-governmental partners and United Nations agencies and publication of both the report and management response.
69. The midterm evaluation report will be made public, per the USDA Monitoring and Evaluation Policy and WFP evaluation policy. The published version will be free from proprietary and personal identifying information.

### Budget

70. The evaluation will be financed from WFP's Country Programme (CP) 200680 budget under the line item USDA Mid-term Evaluation budget. The budget is sufficient for the evaluation.

## Annex 2 – Map


SOUTH SUDAN
ETHIOPIA
UGANDA
TANZANIA
SOMALIA
INDIAN OCEAN
TURKANA
MARSABIT
MANDERA
WAJIR
WEST POKOT
SAMBURU
ISIOLO
BARINGO
UASIN GISHU
KEIYO-MARAKWET
LAIKIPIA
KISUMU
NYERI
THARAKA-NITHI
EMBU
GARISSA
NAROK
NAIROBI
MACHAKOS
KITUI
TANA-RIVER
MAKUENI
LAMU
KAJIADO
KILIFI
TAITA-TAVETA
KWALE
MOMBASA
LEGEND
WFP-supported school meals programme
Government Home Grown School Meals Programme
In transit – WFP cash transfers to schools
County boundary
Waterbodies
0 25 50 100 150 200
Kilometres
Scale 1:5,000,000
The boundaries, names and designations used on this map do not imply official endorsement or acceptance by the United Nations
WFP
World Food Programme
wfp.org

**Annex 3 – Agreed Performance Monitoring Framework**

# DRAFT Performance Monitoring Plan (PMP)

***Kenya FY 16 Award***

***NOTE: The first section includes results and performance indicators. The second section includes activities and activity output indicators. There is some overlap between the two sections where output indicators are also result indicators.**

| ***Performance Indicator and Activity output Indicator*** | ***Indicator Definition and Unit of Measurement*** | ***Data Source*** | ***Method/ Approach of Data Collection or Calculation*** | ***Data Collection*** | | ***Analysis, Use and Reportin*** | |
|---|---|---|---|---|---|---|---|
| | | | | ***When*** | ***Who*** | ***Why*** | ***Who*** |
| ***Result: MGD SO1 Improved Literacy of School-Age Children*** | | | | | | | |
| *Proportion of 7-13 years olds that can solve Class 2 numeracy and literacy problems*<br>*(Outcome Indicator: Custom; Responsible Organization:* UWEZO, USAID, Tusome Project Participants) | *This indicator measures the proportion of children ages 7-13 that have attained literacy and numeracy at a Standard 2 level*<br>*Unit of measure: Percentage*<br>*Disaggregation: TBD* | *UWEZO annual reports* | Review of UWEZO data | *Baseline, Midterm, and final evaluation* | *External evaluators* | *Indicates whether children's' literacy and numeracy learning outcomes are being achieved through the USAID-funded Tusome project. This project overlaps with USDA McGovern-Dole-targeted counties and the schools are being co-located for the achievement of MGD SO1* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| Number of individuals benefiting directly from USDA-funded interventions | *This indicator measures the number of individuals directly benefitting from USDA-funded interventions.* | *WFP standard Project reports,* | Review and analysis of project records and reports | *Annually and quarterly* | *WFP and MOE* | *Indicates the breadth and scale of the project's* | *WFP, MOE, Don development an NGO partners ,* |

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| Output Indicator: Standard; Responsible Organization: WFP and MOE) | *These individuals must come into direct contact with project interventions (i.e. goods or services).*<br>*Direct beneficiaries include: children, teachers, school administrators, parents, cooks, storekeepers, farmers, and government staff.*<br>Unit of measure: individuals<br>Data will be disaggregated by gender, new and continuing. | *School termly reports* | | | | *impact in the target districts*<br>*To inform annual review meetings with education stakeholders*<br>*To inform annual reporting to USDA and WFP HQ* | *other Governme of Kenya institutions* |
| Number of individuals benefiting indirectly from USDA-funded interventions<br>*Output Indicator: Standard; Responsible Organization:* WFP and MOE) | *This indicator measures the number of individuals indirectly benefitting from USDA-funded interventions. These individuals will not come into direct contact with project interventions but will benefit tangentially.*<br>*Indirect beneficiaries assumed for this project are siblings of children receiving school meals and parents of children who are not direct beneficiaries through PTA training*<br>Unit of measure: individuals<br>Data will be disaggregated by gender | *Survey: Household/parent interviews* | Interviews with parents to determine the average number of children per household going to school. The average household size in target areas is known. Indirect beneficiaries=Number of HH * (HH size- average number of children per HH going to school) | *Baseline, midterm, and final evaluation* | *Independent consultants* | *Indicates the breadth and scale of the project's impact.*<br>*To inform annual review meetings with education stakeholders*<br>*To inform annual reporting to USDA and WFP HQ* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.2 Improved Attentiveness*** | | | | | | | |

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| *Percent of students in classrooms identified as inattentive by their teachers*<br><br>Outcome Indicator: Custom; Responsible Organization: WFP, MOE) | This indicator measures the percentage of students in any given classroom that is identified as inattentive by the teacher.<br><br>*Unit of measure: percent* | Survey: Teachers interviews | Primary data collection by asking teachers of the sampled schools their perception of the share of students that appeared inattentive in classes | *Baseline, midterm, and final evaluation* | *Independent consultants* | To determine whether the interventions have had an effect on students' ability to be attentive. | *WFP, MoE, Don development an NGO partners, other Governme of Kenya institutions* |
| ***Result: MGD 1.2.1 Reduced Short-Term Hunger*** | | | | | | | |
| *Number of daily school meals (breakfast, snack, lunch) provided to school-age children as a result of USDA assistance*<br><br>Output Indicator: Standard; Responsible Organization: WFP, MOE) | This indicator measures the total number of school meals provided to students in MGD-supported schools, as reported by school managers and cooperating partners.<br><br>*Unit of measure: no. of meals* | *WFP and MOE project records, School Termly Reports* | *Review and analysis of project records and reports* | *Bi annual and Annual, monthly reports by MOE, daily school records* | *School Administrators, WFP* | To measure the number of school meals given to students. | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance*<br>Output Indicator: Standard; Responsible Organization: WFP,MOE) | *This indicator measures the total number of students receiving a daily cooked meal per year over the life of the project, as reported by school managers and CPs*<br>Unit of measure: individuals<br>Data will be disaggregated by gender, new and continuing | *WFP and MOE project records, School records* | *Review and analysis of project records and reports* | *Bi annual and Annual, monthly reports by MOE, daily school records* | *School Administrators, WFP* | *To measure the percentage of students reached with a daily school meal* | *WFP, MOE Don development an NGO partners , other Governme of Kenya institutions* |
| *Percent of students in target schools who regularly consume a meal before the school day* | *This indicator measures what percentage of children receive a meal at home prior to the school meal at lunch time.* | Survey: Parent interviews | Primary data collection by asking parents from sampled schools if their children eat before going to | *Baseline, midterm, and final evaluation* | *Independent consultants* | *To measure the percentage of children who may experience short-* | *WFP, MOE Don development an NGO partners , other Governme* |

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| Outcome Indicator: Custom; Responsible Organization: WFP) | Unit of measure: percent | | school and if yes, how often i.e. always, sometimes or never. | | | *term hunger resulting in lack of concentration as a result of not taking a meal before going to school* | *of Kenya institutions* |
| *Percent of students in target schools who regularly consume a meal during the school day*<br>Outcome Indicator: Custom; Responsible Organization: WFP) | *This indicator measures what percentage of children receive a meal during the school day.*<br>Unit of measure: percent | *WFP and MOE project records, School records* | *Review and analysis of project records and reports complemented by monitoring reports* | *Bi annual and Annual, monthly reports by MOE daily collection by school* | *School Administrators* | *To measure percentage of students regularly reached with a daily school meal* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.2.1.1/1.3.1.1.Increased Access to Food (School Feeding)*** | | | | | | | |
| *Number of social assistance beneficiaries participating in productive safety nets as a result of USDA assistance*<br>Output Indicator: Standard; Organization: WFP) | *This indicator measures the number of students who consume a daily meal at school*<br>Unit of measure: individuals<br>Data will be disaggregated by new, continuing and gender. | *WFP and MOE project records, School records* | *Review and analysis of project records and reports* | *Bi annual and Annual, monthly reports by MOE, daily collection by school* | *School Administrators, WFP* | *To measure the number of students reached with a daily school meal* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Total quantity of commodities provided to students as a result of USDA assistance.*<br>Output Indicator: Custom; Organization: WFP) | *This indicator measures the total amount of commodities that have been provided as a part of this USDA-funded intervention.*<br>Unit of measure: MT | *WFP Logistics Data* | *WFP analysis of reports* | *Bi-annual report; quarterly* | *WFP* | *To measure the quantity of commodities that have been imported and are to be distributed.* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.3 Improved Student Attendance*** | | | | | | | |
| *Number of students regularly (80%) attending USDA supported classrooms/schools* | *This indicator measures the number of students in MGD-supported schools who attend classes at least 80 percent of the time that school is in* | *School records* | *Collection and analysis of students attendance data from school attendance records for a* | *Baseline, midterm, and final evaluation* | *Independent consultants* | *To track progress towards improved student attendance* | *WFP, MOE, Don development an NGO partners ,* |

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| Performance Indicator: Standard; Organization: WFP) | *session, as reported by school directors*<br>Unit of measure: individuals<br>Data will be disaggregated by gender. | | *sample of students in sampled schools* | | | | *other Governme of Kenya institu* |
| ***Result: MGD 1.3.4 Increased Student Enrolment*** | | | | | | | |
| *Number of students enrolled in schools receiving USDA assistance*<br><br>Output Indicator: Standard; Responsible Organization: WFP) | *This indicator measures the number of students officially registered in MGD-supported primary schools in a given school year.*<br><br>*Unit of measure: individuals*<br><br>*Data will be disaggregated by gender.* | *School records* | *Collection and analysis of school records on enrolment* | *Baseline, midterm, and final evaluation. Termly by schools, termly by WFP through mVAM* | *Independent consultants, WFP, MOE* | To track progress towards increasing student enrolment | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institu* |
| ***Result: MGD 1.3.5 Increased Community Understanding of Benefits of Education*** | | | | | | | |
| *Percent of parents in target communities who can name at least three benefits of primary education*<br><br>Performance Indicator: Custom; Organization: WFP) | This indicator measures the percentage of parents who can name at least three benefits of primary education<br><br>*Unit of measure: percent* | Survey: Parent interviews | Primary data collection by asking parents from sampled schools to name at least three benefits of primary education | *Baseline, midterm, and final evaluation* | *Independent consultants* | To track communities understanding of engagement with their communities education system and services. | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.4.1 Increased Capacity of Government Institutions*** | | | | | | | |

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| *Number of county-level inter-ministerial committees for HGSMP established*<br><br>Output Indicator: Custom; Organization: WFP) | *This indicator will measure the Number of county-level inter-ministerial committees for HGSMP established at county level*<br><br>*Unit of measure: Number of committees* | *Committee meetings minutes* | *Review of committee minutes* | *midterm, and final evaluation* | *Independent consultants* | To track progress of strengthening governance and multi-sectoral coordination and collaboration for the school meals programme at county level | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of national-level inter-ministerial coordination committees for HGSMP established*<br><br>Output Indicator: Custom; Organization: WFP) | *This indicator will measure the Number of county-level inter-ministerial committees for HGSMP established at national level*<br><br>*Unit of measure: Number of committees* | *Committee meetings minutes* | *Review of committee minutes* | *midterm, and final evaluation* | *Independent consultants* | *To track progress of strengthening governance and multi-sectoral coordination and collaboration for the school meals programme at national level* | *WFP, MOE Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.4.2/2.7.2 Improved Policy and Regulatory Framework*** | | | | | | | |
| *Number of educational policies, regulations, and/or administrative procedures in each of the following stages of development as a result of USDA assistance (Stage 5)*<br><br>Performance Indicator: Standard; Organization: WFP, MOE) | This indicator measures the number of policies/regulations/administrative procedures in the various stages of progress towards an enhanced enabling environment for education. Specifically, this includes:<br><br>1. School Nutrition and Meals Strategy<br>2. Revised HGSMP Guidelines<br><br>*Unit of measure: no. of policies in process and relevant stage* | *Government of Kenya policy related reports* | *Review and analysis of GOK policy related documents* | *Annual, Baseline, Midterm and final evaluations* | *Independent consultants, WFP; MOE* | To track progress made following advocacy and dialogue related activities to ensure adequate and regular budget allocations and maintain political commitment to the programme | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |

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| *Number of child health and nutrition policies, regulations, and/or administrative procedures in each of the following stages of development as a result of USDA assistance (Stage 5)*<br><br>Performance Indicator: Standard; Organization: WFP, MOE) | This indicator measures the number of policies/regulations/administrative procedures in the various stages of progress towards an enhanced enabling environment for education. Specifically, this includes:<br><br>1. School Health Policy (revised)<br><br>*Unit of measure: no. of policies in process and relevant stage* | *Government of Kenya policy related reports* | *Review and analysis of GOK policy related documents* | *Annual, Baseline, Midterm and final evaluations* | *Independent consultants, WFP; MOE* | To track progress made following advocacy and dialogue related activities to ensure adequate and regular budget allocations and maintain political commitment to the programme | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 1.4.3/2.7.3 Increased Government Support*** | | | | | | | |
| Value of new public and private sector investments leveraged as a result of USDA assistance<br><br>Performance Indicator: Standard; Organization: WFP, MOE) | This indicator measures the value of public sector resources intended to complement USDA-funded activities – specifically the increased government investment in the HGSMP.<br><br>*Unit of measure: US Dollar*<br><br>*Data will be disaggregated by type of investment* | *WFP and GOK project reports* | *Review and analysis of project reports* | *Baseline, Midterm and final evaluations, Annual* | *Independent consultants, WFP* | To measure level of complementary support of the project outside of USDA funding. | *WFP, MOE Don development an NGO partners , other Governme of Kenya institutions* |
| Number of public-private partnerships formed as a result of USDA assistance<br><br>Performance Indicator: Standard; Organization: WFP, MOE) | This indicator measures the number of private partnerships generated in CTS counties during the transition year.<br><br>*Unit of measure: no of partnerships (suppliers/small traders, farmer organisations)* | *WFP reports; school tender data* | *Review and analysis of project records and reports* | *Annual* | *WFP* | To measure level of complementary support of the project outside of USDA funding. | *WFP, MOE Don development partners, county governments; communities.* |
| ***Result: MGD 1.4.4/2.7.4 Increased Engagement of Local Organizations and Community Groups*** | | | | | | | |

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| Number of Parent-Teacher Associations (PTAs) or similar "school" governance structures supported as a result of USDA assistance<br><br>*(Performance Indicator: Standard; Organization: WFP)* | This indicator measures the number of schools that benefit from the establishment and training of PTAs<br><br>*Unit of measure: No. of school governance structures* | *School and project records* | *Review and analysis of project reports* | *Bi-annual* | *WFP and MOE* | *To measure the effects of the project on promoting the capacity of organizations at school level* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: SO 2 Increased Use of Health and Dietary Practices*** | | | | | | | |
| *Percent of schools in target counties that store food off the ground*<br><br>(Performance Indicator: Custom; Responsible Organization: WFP) | *This indicator will measure the number of schools where food is stored off the ground*<br><br>*Unit of measure: No. of school* | *Survey reports, Monitoring reports* | School stores will be observed to check if food has been stored off the ground. | Baseline, Midterm and final evaluations, monthly through monthly monitoring visits at school level | Independent Consultants, WFP and MOE | To measure the effects of promoting good hygiene and health practises, | WFP, MOE, Donc development and partners , other Government of Ke institutions |
| ***Result: MGD 2.2 Increased Knowledge of Safe Food Prep and Storage Practices*** | | | | | | | |
| *Percent of food preparers at target schools who achieve a passing score on a test of safe food preparation and storage*<br><br>(Outcome indicator: Custom; Responsible Organization: WFP) | *This indicator will measure the percentage of food preparers (cooks) at school who achieve a passing score on a test of safe food preparation and storage*<br><br>Unit of measure: individuals<br>Data will be disaggregated by gender. | Survey report: Results of tests administered to cooks | Primary data collection by administering a test on safe food preparation and storage to cooks in representative sampled schools | *Baseline, midterm, and final evaluation* | *Independent consultants* | To measure effects of promoting safe food preparation and storage practices | WFP, MOE, Donc development and partners , other Government of Ke institutions |
| ***Result: MGD 2.3 Increased Knowledge of Nutrition*** | | | | | | | |

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| Number of schools benefitting from nutrition and hygiene education<br><br>Output indicator: Custom; Responsible Organization: WFP) | This indicator will measure the number of schools benefitting from nutrition and hygiene education<br><br>*Unit of measure: No. of school* | *project reports* | *Review and analysis of project reports* | *Quarterly, Bi-annual* | *WFP and MOE* | To measure number of schools that have received nutrition and hygiene related education | WFP, MOE, Donc development and partners , other Government of Ke institutions |
| *Number of individuals trained in child health and nutrition as a result of USDA assistance*<br><br>Output Indicator: Standard; Responsible Organization: WFP) | *Total number of individuals trained in health and nutrition in MGD-supported schools and communities, including Canteen Management Staff and School Management Committee members.*<br><br>Unit of Measure: Individuals<br>Data will be disaggregated by gender | *Project reports* | *Review and analysis of project training reports* | *Termly Bi-annual* | *WFP and MOE* | *Enables to know the number of people in communities' target who have knowledge in health and nutrition. Sentinel indicator for project theory of change: people trained shared nutrition and health information through communities* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| ***Result: MGD 2.6 Increased Access to Requisite Food Prep and Storage Tools*** | | | | | | | |
| *Number of target schools with increased access to improved food prep and storage equipment (kitchens, storerooms, stoves, kitchen utensils)*<br><br>Output indicator: Custom; Organization: WFP) | This indicator measures the number of schools fully supplied with new or rehabilitated kitchens, storerooms, fuel-efficient stoves and kitchen utensils<br><br>*Unit of measure: no. of schools* | *Project reports* | *Review and analysis of project reports* | *Quarterly, Bi-annual* | *WFP and MOE* | To track s progress towards improving access to food prep and storage equipment | *WFP, MOE, Don , development a NGO partners , other Governme of Kenya institutions* |
| **Activity 1: Provide School Meals** | | | | | | | |

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| *Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance*<br>(Output Indicator: Standard; Organization: WFP, MOE) | This indicator measures the total number of students receiving a daily cooked meal per year over the life of the project, as reported by school managers and CPs<br><br>*Unit of measure: individuals*<br><br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project reports* | *Monthly, quarterly Bi-annual* | *WFP and MOE* | To measure the success of school meals at reducing short term hunger | *WFP, MOE Dono development and partners , other Government of Ke institutions* |
| **Activity 2: Build the Capacity of National and County-level Actors to Manage School Feeding Programs** | | | | | | | |
| *Number of parents trained or certified as a result of USDA assistance*<br><br>(Output Indicator: Custom; Organization: WFP) | This indicator measures the number of parents that have been trained as a result of USDA assistance<br><br>Unit of measure: individuals<br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project training reports* | *Bi-annual* | *WFP and MOE* | To track progress in building capacity of school –level actors (BoM members) to manage school feeding programs | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of school administrators and officials in target schools trained or certified as a result of USDA assistance*<br>(Output Indicator: Standard; Responsible Organization: WFP) | This will measure the number of school head teachers trained on school meals programme management<br><br>*Unit of measure: individuals*<br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project training reports* | *Bi-annual* | *WFP and MOE* | To track progress in building capacity of school head teachers to manage school feeding programs | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |

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| *Number of county-level officials trained or certified as a result of USDA assistance*<br>Output Indicator: Standard; Responsible Organization: WFP) | This will measure the number of education officials trained on school meals programme management<br><br>*Unit of measure: individuals*<br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project training reports* | *Bi-annual* | *WFP and MOE* | To track progress in building capacity of school head teachers to manage school feeding programs | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of school administrators and officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance*<br><br>Output Indicator: Standard; Responsible Organization: WFP) | This will measure the number of school head teachers trained on school meals programme management<br><br>*Unit of measure: individuals*<br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project training reports* | *Bi-annual* | *WFP and MOE* | To track progress in building capacity of school head teachers to manage school feeding programs | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of county-level officials in target schools who demonstrate use of new techniques or tools as a result of USDA assistance*<br>Output Indicator: Standard; Responsible Organization: WFP) | This will measure the number of education officials trained on school meals programme management<br><br>*Unit of measure: individuals*<br>*Data will be disaggregated by gender.* | *Project reports* | *Review and analysis of project training reports* | *Bi-annual* | *WFP and MOE* | To track progress in building capacity of school head teachers to manage school feeding programs | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| **Activity 3: Raise Awareness on the importance of Education** | | | | | | | |
| *Number of radio spots held*<br><br>Output Indicator: Custom; Organization: WFP) | This indicator will measure the number of radio spots held to pass messages on benefits of education. These will target communities where the programme is implemented | *Project reports* | *Review and analysis of project reports* | *Monthly, Quarterly, Bi-annual* | *WFP and MOE* | To track the number of radio spots held | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |

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| | *Unit of measure: number of radio spots* | | | | | | |
| *Number of community members benefiting from radio spots* (Output Indicator: Custom; Organization: WFP) | This indicator will measure the number of community members in targeted counties (Baringo, Garissa, Mandera, Turkana, Wajir and West Pokot) reached through radio spots with messages on benefits of education. | *Project reports* | *Review and analysis of project reports* | *Monthly, Quarterly, Bi-annual* | *WFP and MOE* | To track the number of community members reached through the radio spots | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of posters, fliers, leaflets distributed* (Output Indicator: Custom; Organization: WFP) | This indicator will measure the number of posters, fliers, leaflets distributed<br>*Unit of measure: number of posters, fliers, leaflets* | *project reports* | *Review and analysis of project reports* | *Termly Bi-annual* | *WFP and MOE* | To track number of posters, fliers, leaflets distributed | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| **Activity 4: Build/Rehabilitate: Kitchens, Cook Areas and Other School Grounds or Buildings** | | | | | | | |
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| *Number of educational facilities (i.e. school buildings, classrooms, and latrines) rehabilitated/constructed as a result of USDA assistance* (Output Indicator: standard; Organization: WFP) | *This indicator will measure the number of kitchens and /or storage facilities constructed as a result of USDA assistance*<br>Unit of measure: number of kitchens | *project reports complemented by monitoring reports* | *Review and analysis of project reports* | *Bi-annual, monthly monitoring reports* | *WFP and MOE* | To track number of kitchens constructed | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| **Activity 5: Provide Energy-Saving Stoves to Schools** | | | | | | | |

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| *Number of energy saving jikos installed in schools as a result of USDA assistance*<br>Output indicator: Custom; Responsible Organization: WFP) | *This indicator will measure the Number of energy saving jikos installed in schools as a result of USDA assistance*<br>Unit of measure: number of energy saving jikos | *project reports complemented by monitoring reports* | *Review and analysis of project reports* | *Bi-annual, monthly monitoring reports* | *WFP and MOE* | To track number of energy saving jikos installed at school level | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| **Activity 6: Conduct Awareness Campaigns and Trainings on Nutrition and Hygiene** | | | | | | | |
| *Number schools benefitting from nutrition education and hygiene*<br>Output Indicator: Custom; Responsible Organization: WFP) | *This indicator measures the number of schools benefitting from nutrition and hygiene education*<br>Unit of measure: number of schools | *project reports complemented by monitoring reports* | *Review and analysis of project reports* | *Bi-annual, monthly monitoring reports* | *WFP and MOE* | *To track the number of schools benefitting from nutrition education and hygiene* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| *Number of children benefitting from nutrition education and hygiene*<br>Output Indicator: Custom; Responsible Organization: WFP) | *This indicator measures the number of children benefitting from nutrition and hygiene education*<br>Unit of measure: individuals<br><br>Data will be disaggregated by gender | *project reports complemented by monitoring reports* | *Review and analysis of project reports* | *Bi-annual, monthly monitoring reports* | *WFP and MOE* | *To track the number of children benefitting from nutrition education and hygiene* | *WFP, MOE, Don development an NGO partners , other Governme of Kenya institutions* |
| **Activity 7: Empower the Community to Manage School Feeding Programs** | | | | | | | |
| *Number of counties where beneficiary feedback has been has been incorporated into community training and awareness activities*<br><br>Output Indicator: Custom; Organization: WFP) | This indicator will measure the number of counties where beneficiary feedback has been rolled out<br><br>*Follow up to increase awareness on the helpline will include radio spots, public meetings and distribution of posters and leaflets*<br><br>Unit of measure: Number of counties | *project reports complemented by monitoring reports* | *Review and analysis of project reports* | *Quarterly, Bi-annual, monthly monitoring reports* | *WFP and* MOE | To track the number of counties with beneficiary feedback mechanism in place | *WFP, MOE Don development an NGO partners , other Governme of Kenya institutions* |

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| **Activity 8: Promote Food Safety and Quality in the HGSMP** | | | | | | | |
| Number of officials trained on food quality in HGSMP supply chain<br><br>*(Output Indicator: Custom; Organization: WFP, MOE)* | *This indicator measures the number of officials (County Public Health Officers, County School Meals Programme Officers, School Meals Procurement Committee and traders )trained on food quality in HGSMP supply chain*<br>Unit of measure: individuals<br><br>Data will be disaggregated by gender | *project reports* | *Review and analysis of project training reports* | *Bi-annual,* | *WFP and* MOE | To track to the number of officials trained on food quality in HGSMP supply chain. | WFP, MOE, Donc development and partners , other Government of Ke institutions |
| Number of farmer organizations trained on food quality<br><br>*(Output Indicator: Custom; Organization: WFP)* | This indicator measures the number of farmer organizations trained on food quality<br><br>Unit of measure: farmer organizations | *project reports* | *Review and analysis of project training reports* | *Bi-annual,* | *WFP and* MOE | To track to the number of farmer organizations trained on food quality | WFP, MOE, MOA Donors, developm and NGO partners other Government Kenya institutions |
| Number of traders trained on food quality<br><br>*(Output Indicator: Custom; Organization: WFP)* | This indicator measures the number of traders trained on food quality<br><br>Unit of measure: individuals<br><br>Data will be disaggregated by gender | *project reports* | *Review and analysis of project training reports* | *Bi-annual,* | *WFP and* MOE | To track to the number of traders trained on food quality | WFP, MOE, MOH Donors , developn and NGO partners other Government Kenya institutions |

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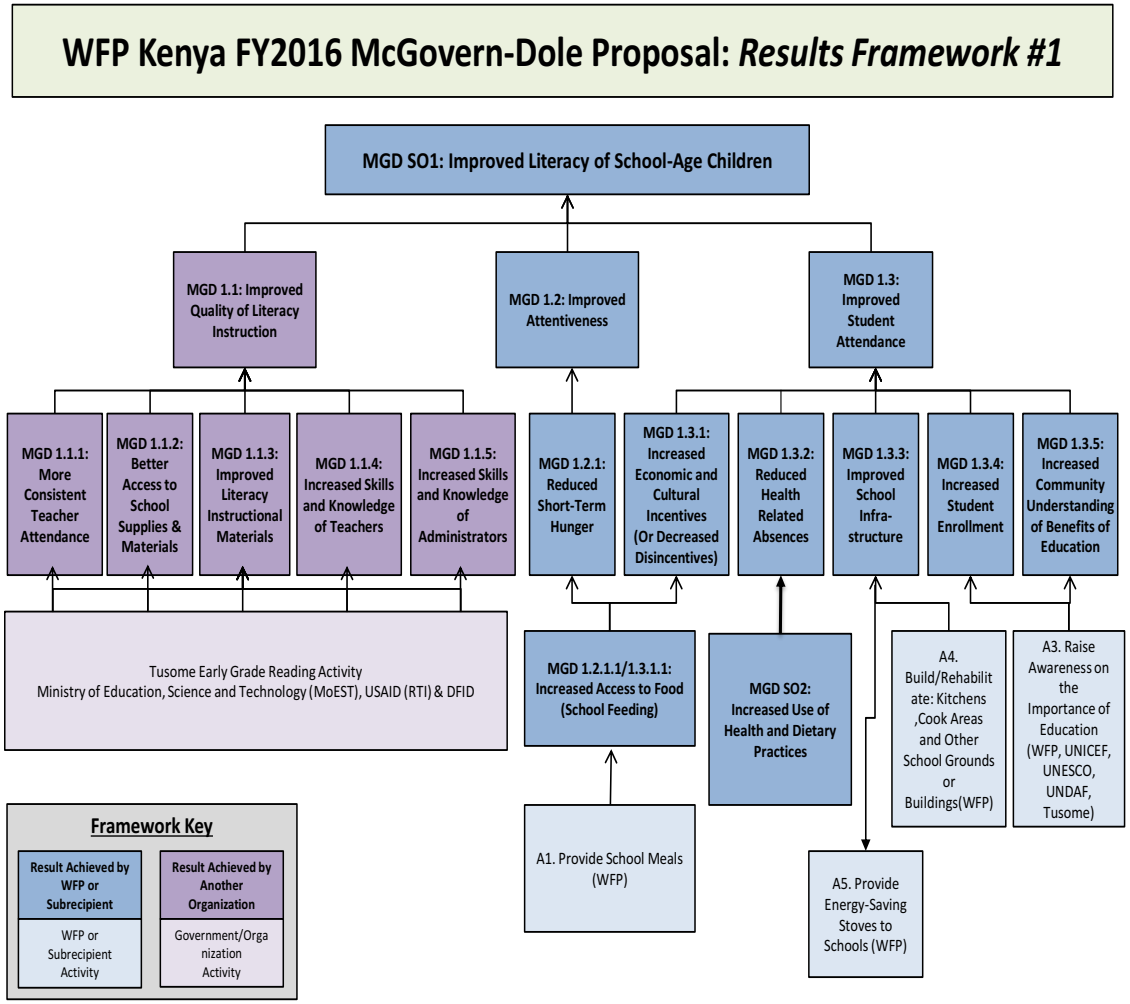
|---|---|---|---|---|---|---|---|
| Number of individuals who demonstrate use of new safe food preparation and storage practices as a result of USDA assistance<br><br>*(Outcome Indicator: Standard ; Organization: WFP)* | This indicator measures the number of farmer organization, officials and traders applying improved food quality practises after undergoing training on food quality.<br><br>Unit of measure: Number of farmer organizations , officials and traders<br><br>Data will be disaggregated by farmer organizations, officials and traders | *Survey reports complemented by project reports* | *Primary data collection through observation and interviewing traders and farmer organization representatives on what improved food quality practises they are applying that they did not before the training* | *Baseline, midterm, and final evaluation* | *Independent consultants* | To measure effectiveness of the training | WFP, MoE, Dono development and partners, other Government of Ke institutions |
| Number of testing kits (Blue Boxes) distributed to public health officials<br><br>*(Output Indicator: Custom; Organization: WFP)* | This indicator will measure the number of testing kits (Blue Boxes) distributed to public health officials<br><br>Unit of measure: Number of blue boxes | *project reports* | *Review and analysis of project reports and blue boxes distribution reports* | *Bi-annual, annual* | *WFP and MOH* | To track to the number of testing kits (Blue Boxes) distributed to public health officials | WFP, MOE,MOH MOALF, Donors, development and partners, other Government of Ke institutions |

## Annex 4 – Logical framework



**Annex 5 – Evaluation matrix**

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| KQ 1 – Relevance: How relevant is the programme? | | | |
| 1. To what extent is the programme approach and activities relevant to the Government? | • Degree of alignment of programme choices and approaches with strategies and approaches of Government | Interviews of education staff at national and county and sub-county levels<br>WFP staff<br>Documentation review | • Compare needs as interpreted in the design and implementation of the programme with the interpretation of expert analytical informants and with normative documents of the Government<br>• Strength of evidence: good |
| 2. To what extent is the activity aligned with WFP, partner UN agency and donor policies and priorities? | • Degree of alignment with strategies and normative guidance of WFP, UN agencies and donors | Interviews national level with WFP, other UN agencies, USDA<br>Documentation review including UNDAF planning and reporting | • Compare needs as interpreted in the design and implementation of the programme with the interpretation of expert analytical informants and with normative documents of this group of stakeholders<br>• Strength of evidence: good |
| 3. Is the package of interventions coherent with the needs of boys, girls, and parents of school-age children? | • Extent the programme has been situated within an analysis of longer-term and interconnected problems of the context<br>• Quality of the design in light of the context, policies and priorities | Interviews national level<br>Documentation review | • Compare needs as summarised in formal documentation with those expressed by target group.<br>• Strength of evidence: good |
| 4. Is the investment in the right, relevant areas? | • Degree of satisfaction of different stakeholders with the priority areas of funding and intervention of the programme | Interviews at national, county, sub-county and school levels (KII's) | • Triangulation among the views of different categories of stakeholders, including beneficiaries.<br>• Strength of evidence: good |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| KQ 2 - Appropriateness: How Appropriate is the programme? | | | |
| 5. Is the intervention approach chosen the best way to meet the food security/nutrition needs of male and female beneficiaries and the capacity gaps of key institutions | • Choice of transfer modalities against analysis of the context and needs of beneficiaries<br>• Logic of complementarity between transfer modalities and other activities | Survey<br>School management, sub county officials (education and maybe nutrition and agriculture)<br>Beneficiaries (FGD's)<br>Beneficiary and household interviews | • Triangulation among the views of different categories of stakeholders, including beneficiaries.<br>• Strength of evidence: good |
| 6. Are protection needs met for male and female beneficiaries? | • Analysis of programme design against WFP and UN policies on protection and accountability of affected populations<br>• Existence of a complaints mechanism for beneficiaries<br>• Evidence that beneficiaries are not harmed by the intervention | *Programme documents*<br>*WFP and UN corporate documents*<br>*Survey for existence of complaints mechanism*<br>*School Management*<br>*Beneficiary interviews* | • Triangulation between beneficiary views and with norms and standards of WFP and UN<br>• Strength of the evidence: good. |
| 7. To what extent is the intervention based on a sound gender analysis? To what extent is the design and implementation of the intervention gender-sensitive? | • Analysis of programme priorities for attention to gender and equity<br>• Quality of gender and equity strategies compared to accepted standards (national, international and WFP)<br>• Interviews with Key Informants (KI) at county, sub-county and school level<br>• *Survey population sample and participation reflects gender equality* | *Documentation review (programme documents, WFP and UN corporate documents)*<br>*School management*<br>*Survey (for the role of girls and boys and men and women in the* | • Compare issues as summarised in formal documentation with those expressed by target group.<br>• Compare the views of GoK, WFP, other UN and donor informants<br>• Strength of evidence: Good, documentation mostly available. Remaining information to be collected through interviews. |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| | | *implementation of the SMP)* | |
| KQ 3 – Effectiveness: What are the results of the programme? | | | |
| 8. To what extent are the outcomes or objectives of the intervention likely to be achieved and what have been the gender and equity dimensions of the programme's results? | • Comparison of outcome data (achievements) at midline with baseline values | Survey | • Cross-check recorded output and outcome data with programme/government documentation and informants in GoK and at schools visited in field<br>• Triangulate views on the key outcomes between different informant groups<br>• WFP monitoring data and survey results will be triangulated to evaluate data reliability and consistency<br>• Strength of evidence: good |
| 9. What are the major factors influencing progress in achievement or non-achievement of the outputs outcomes/objectives of the intervention? | Analysis of:<br>• Internal factors (within control of programme) e.g. processes, systems, tools, capacity etc.<br>• External factors: the external environment, funding climate, etc. | Interviews at national, county, sub-county levels and school management (including PTA) | • Cross-check views of different informants against performance of the programme<br>• Strength of evidence: good |
| 10. To what extent does the intervention deliver results various groups of beneficiaries? | Analysis of beneficiary views on the results of the programme | Survey<br>Interviews and FGDs | • Cross-check recorded output and outcome data with programme/government documentation and informants in GoK and at schools visited in field<br>• Triangulate views on the key outcomes between different informant groups |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| | | | • Strength of evidence: good |
| KQ 4: Efficiency – How efficiently was the programme implemented? | | | |
| 11. Is the programme implemented in a timely way? | Analysis of:<br>• Timely availability of programme resources<br>• Timeliness of delivery<br>• Pipeline breaks | Project reporting<br>Survey (pipeline breaks)<br>School management | • Compare WFP data with records at school and county levels<br>• Strength of evidence: good |
| 12. Are the activities cost-efficient? Is the programme implemented in the most efficient way compared to alternatives? Were the project strategies efficient in terms of financial and human resource inputs as compared to outputs? | Analysis of:<br>• Extent to which programme management practices and tools were adequate to implement the programme<br>• Cost-efficiency (relevant unit costs comparisons)<br>• Value for Money | Unit cost data<br>Value for Money (VfM analysis) | • Compare assessment by responsible WFP personnel and views of external stakeholders and observers and compare views at different levels<br>• Strength of evidence: Moderate as a full assessment of the cost data still needs to be done. |
| 13. Does the monitoring system efficiently meet the needs and requirements of the project? | • Review quality of WFP, MGD monitoring and reporting against key objectives of the programme and standards of good practice<br>• Assess to what extent M&E was used to adapt/modify approaches or implementation | Documentation review (M&E system and reporting)<br>Interviews | • Compare assessment by WFP staff and GoK<br>• Strength of evidence: Good |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| 14. What are the management strengths, including technical and financial, of this project? | • Extent to which programme and financial management was part of design<br>• Evidence of good technical and financial management practices | Documentation review<br>Interviews with MOE (national and county level) and WFP, school management interviews<br>Survey | • Compare and contrast the assessment by WFP staff and GoK at different levels (central and decentralized)<br>• Strength of evidence: Good |
| KQ 5 – Impact: What are the impact level results of the programme so far? | | | |
| 15. What are the medium-term effects? | • Comparison of outcome data (effects) with baseline | *Survey results at outcome level*<br>*KII* | • Comparison of survey and KII results |
| KQ 6 – Sustainability: To what extent are the project results sustainable? | | | |
| *16.* To what extent is the government taking ownership of the programme? | • Qualitative analysis of views expressed by government staff at national, county and sub-county levels | *Interviews at national, county and sub-county levels*<br>*WFP views* | • Compare the views of WFP, GoK and other policy and programme observers<br>• Strength of evidence: Good |
| 17. What is the demonstrated capacity at central and sub-national levels to manage the programme? | • Qualitative analysis of views expressed by government staff at national, county and sub-county levels | *Interviews at national, county and sub-county levels*<br>*WFP views*<br>*and FGDs at school level* | • Compare the views of WFP, GoK and other policy and programme observers at different levels<br>• Strength of evidence: Good |
| 18. How are local communities involved in and contributing to the implementation of the programme? | • Extent of food and non-food contribution (e.g. firewood, money) | *Survey*<br>*Sub-county and school management interviews* | • Compare the evidence from interviews and survey of the community contribution.<br>• Strength of evidence: Good |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| | • Integration of the programme into other community structures and programmes | *Secondary Data: Document review*<br>*HGSM reports and evaluation reports*<br>*Control group comparison* | |
| 19. Is the HGSMP adequately funded? | • Evolution of funding by Government and donors<br>• Timeliness of disbursement of cash to schools<br>• Number of school feeding days and evolution over last years | *Government data on funding levels and flows*<br>*Schools management*<br>*Sub- county officials* | • Document review and analysis of financial data to judge the trajectory of sector funding against components with commitments, track record, political outlook…<br>• Strength of evidence: Weak/moderate |
| KQ 7 – General: What factors affected the results and what lessons can be learned from the implementation so far? | | | |
| 20. What are the major factors influencing the achievement or non-achievement of sustainability of the program? | • Qualitative analysis of views expressed by informants | *Interviews and focus groups at national, county, sub-county, and school levels* | • Compare assessment of factors by WFP CO and field staff<br>• Compare assessment of factors by WFP and GoK staff<br>• Compare assessment of factors by WFP staff and community/school level informants<br>Strength of evidence: Good |
| 21. What are lessons learned from the project up to this point? | • Analysis of evidence at mid-point and of views expressed by informants | Interviews and survey<br>WFP<br>County, sub-county, school level management | • Compare and contrast points of view offered by different stakeholders<br>• Strength of evidence: Good |

| Sub - Questions | Indicators | Main data source (s) | Triangulation approach and strength of evidence |
|---|---|---|---|
| 22. Are there any recommendations for mid-course corrections to improve the project's relevance, efficiency, effectiveness, impact, and sustainability? | • Analysis of evidence at mid-point and of views expressed by informants, and comparison with lessons from other SF programmes | *Interviews and survey*<br>*County and sub-county interviews* | |

## Annex 6: Details of quantitative methodology including hypotheses

### A quasi-experimental design

1. Mirroring the baseline, a quasi-experimental design (for which the rationale was explained in the Inception Report (IR) for the baseline) will be employed in this study to demonstrate the theory of change attributable to the intervention. In the approach, the 'double difference' will be measured as a more accurate measure of effect size as opposed to the single difference. This approach will measure both the difference before and after the intervention at midline in the treatment and control groups, and also the difference-in-differences between control and treatment groups.
2. The quasi experimental design as proposed in this survey is feasible in situations where it is practically impossible to randomize units to a particular group and therefore impractical to employ a pure experimental design. In a situation like the WFP/USDA-MGD midline in question - where one or more intervention groups are pre-selected (in this case WFP SMP and HGSMP) - it is feasible to identify a comparable control that is theoretically known to account for any extraneous factors. The control helps in removing the effect due to factors other than the intervention.
3. **The Research question & testable hypotheses that will underpin the quasi – experimental design will be:** Are baseline vs. mid-term, and end term primary education outcomes (literacy and numeracy levels) in the ASAL areas of Kenya the same in schools included in WFP/USDA-MGD School meals programme (2016 -2020) as those not included (controls and those transitioning to HGSMP)?
4. Differences between baseline, and mid-term and end term measures will be analysed for the following indicators:
   - Enrolment
   - Attendance rate
   - Primary school completion rate
   - Literacy and numeracy
5. Hence, four different hypotheses are formulated and proposed for testing at Mid-term and End term evaluation for each indicator:

**Indicator 1:**

- **H0**: Enrolment in schools included in WFP/USDA-MGD SMP ≠ Enrolment in schools not included in WFP/USDA-MGD SMP
- **H1:** Enrolment in schools included in WFP/USDA-MGD SMP= Enrolment in schools not included in WFP/USDA-MGD SMP

**Indicator 2:**

- **H0:** Attendance rate in schools included in WFP/USDA-MGD SMP≠ Attendance rate in schools not included in WFP/USDA-MGD SMP
- **H1:** Attendance rate in schools included in WFP/USDA-MGD SMP = Attendance rate in schools not included in WFP/USDA-MGD SMP

**Indicator 3:**

- **H0:** Primary school completion rate in schools included in WFP/USDA-MGD SMP ≠ Primary

school completion rate in schools not included in WFP/USDA-MGD SMP

- **H1:** Primary school completion rate in schools included in WFP/USDA-MGD SMP = Primary school completion rate in schools not included in WFP/USDA-MGD SMP

**Indicator 4:**

- **H0:** Literacy/numeracy rate in schools included in WFP/USDA-MGD SMP ≠ Literacy/numeracy rate in schools not included in WFP/USDA-MGD SMP
- **H1:** Literacy/numeracy rate in schools included in WFP/USDA-MGD SMP = Literacy/numeracy rate in schools not included in WFP/USDA-MGD SMP

6. The Midline evaluation will compare baseline with midline values. The comparison will involve an intervention, control, and a HGSMP group.

**Design of the study**

7. The study will adopt a quasi-experimental design, with three comparison groups namely;
    - WFPSMP: Selected schools located in counties where WFPSMP under the USDA – MGD funding is currently being implemented.
    - HGSMP: Selected schools located in counties where WFPSMP was being implemented but now transitioned to HGSMP.
    - Control: Selected schools located in counties where neither WFPSMP nor HGSMP is to be implemented.
8. The three-arm approach involving schools targeted by WFP school feeding programmes, the HGSMP, and the controls where there is no form of school feeding programmes will allow for the measurement of the impact of the WFP school feeding programmes in targeted schools against a control. It will also allow for the measurement of sustainability of numeracy and literacy indicator estimates after the transition of the WFP run SMP to the HGSMP.
9. Since the WFPSMP was running in all schools located within the six selected ASAL counties (Baringo, Garissa, Turkana, Mandera, West Pokot, and Wajir)[52], the control schools were selected from the neighboring counties with comparable socio-economic activities - livelihood zones - so as to ensure similarity in terms of vulnerability and food insecurity. Similarly, the HGSMP schools were selected from the neighboring counties with comparable socio-economic activities. Selected control and HGSMP schools were matched against WFPSMP schools. This process was done at baseline before intervention was commenced.
10. *Group comparison based on schools:* The process took place before data collection where propensity score matching (PSM) was used to compare and match schools using selected school characteristics derived from the EMIS tool. Selection of matching characteristics was based on theoretical background knowledge of confounders of the measurement indicator(s). Theoretical background knowledge refers to knowledge about factors that are plausible or known to confound the relationship between the outcome(s) and the intervention. They are potential or are confirmed to be independently related to the outcome(s). The matching characteristics are unrelated (unaffected) by the proposed

[52] Isiolo, Nairobi, Samburu, and Tana River which were targeted under the previous phases of the USDA support will not be included. These counties were excluded from the HGSMP group for the following reasons. Nairobi was excluded because of urban context issues. The majority of the counties of focus are in the Arid, rural areas, consequently, there were hardly any common contextual similarities that will match Nairobi with them. The other three have been beneficiaries of the Cash Transfers to schools Model developed and implemented by WFP before being handed over to HGSMP – consequently their evolution modality and short history of the same does not approximate to a pure HGSMP modality of government that has been going on in some of the counties selected since 2009.

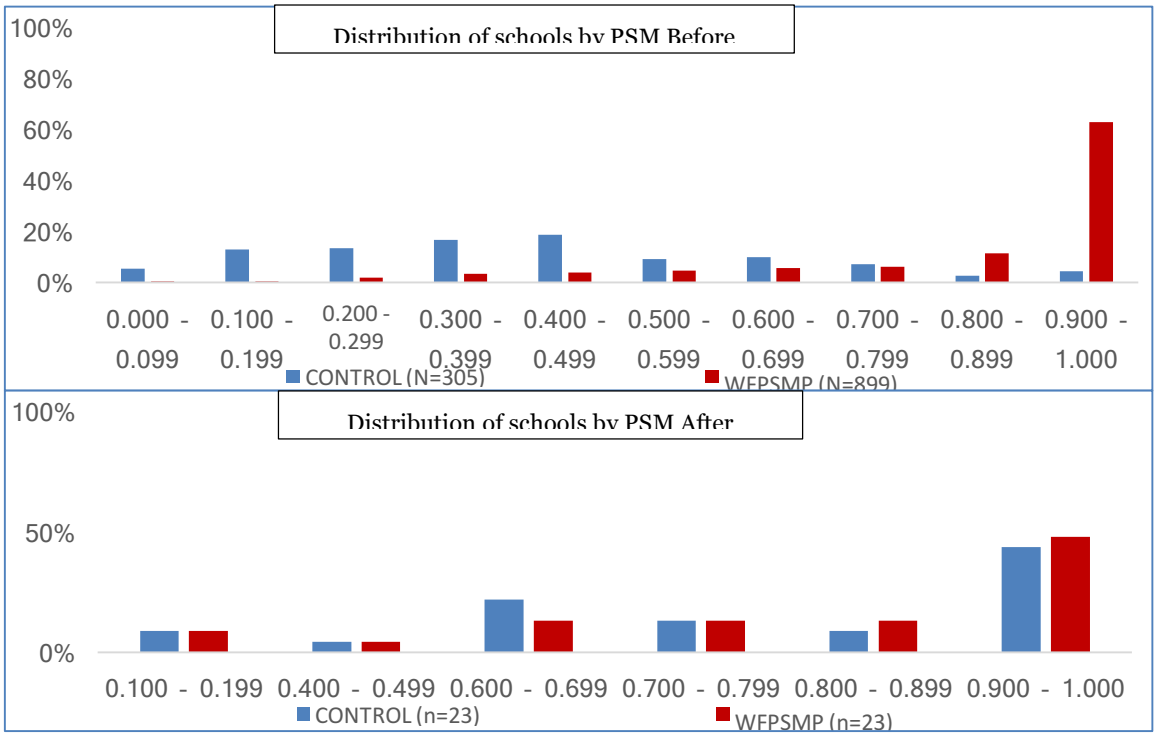
intervention (WFPSMP or HGSMP). The propensity scores was constructed using the 'participation equation', derived from a logit regression[53] with programme participation as the dependent variable coded as follows:

- WFPSMP school = 1, versus Control school = 0, and
- HGSMP school = 1, versus WFPSMP school = 0.

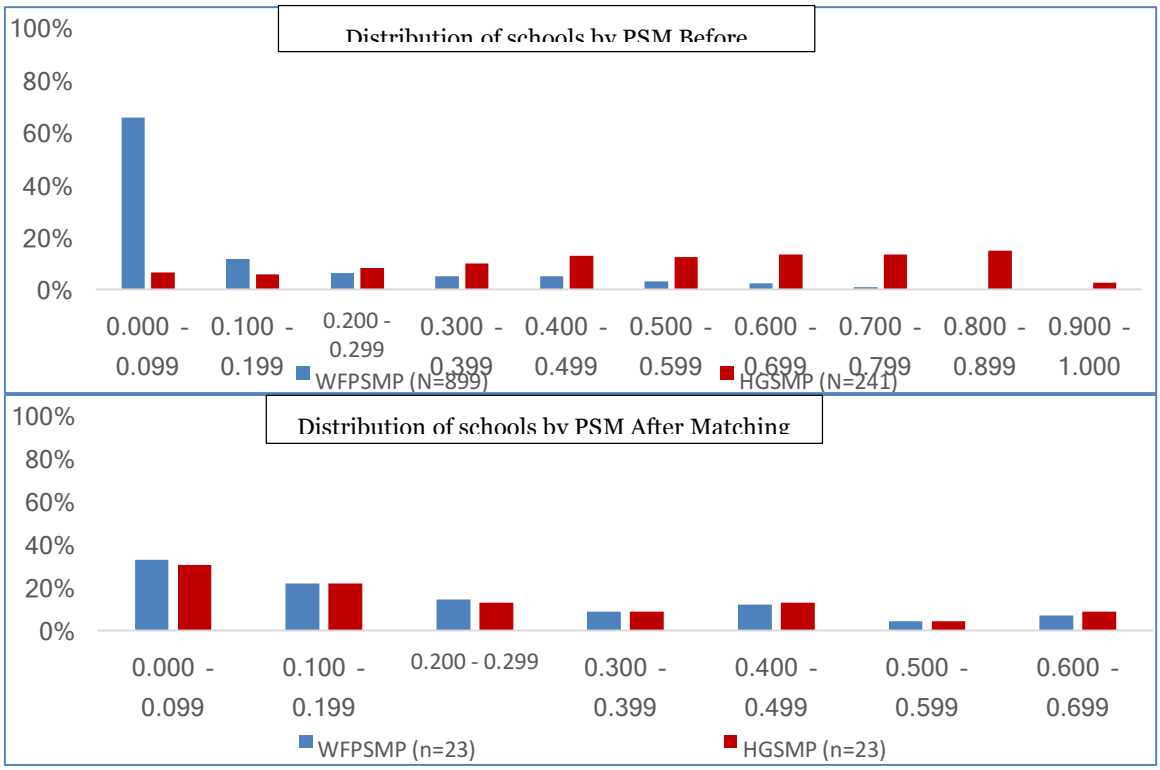
11. Each school belonging to a specific group was matched to one school of the comparison group by matching each to their 'nearest neighbor' using propensity score.
12. Control and HGSMP schools were matched against WFPSMP schools using PSM. Selected school characteristics derived from the MOE Education Management Information System (EMIS) tool assisted in facilitating matching of schools using PSM. Characteristics (covariates) that were used in matching included: boy to girl ratio; average pupils/class; pupils to teacher ratio; and residence type (rural/urban). These characteristics are generally known to influence academic performance in schools and thus were identified and/or computed to carry out the PSM.
13. Schools in the first group with a propensity score lower than the lowest observed value in the second group were discarded. Similarly, schools in the second group with a propensity score higher than the highest observed value in the first group were also discarded. The same approach was used for the control group. The remaining schools were in the 'region of common support' from which participating schools were selected. This process resulted in the identification of three groups of schools that were as similar as possible in terms of characteristics that influence academic performance.
14. Figure 1 and 2 demonstrate comparison of schools before and after matching.

[53] A **Logistic regression** is a statistical method for analyzing a dataset in which there are one or more independent variables that determine an outcome. The outcome is measured with a dichotomous variable (in which there are only two possible responses).

15. *Figure 1 - Selection of Control and WFPSMP schools using PSM*

16. 


17. *Figure 2 - Selection of WFPSMP and HGSMP schools using PSM*

18. 


19. *Group comparison based on children*: This process will take place after midline data collection where different variables will be compared between the groups to identify those which are significantly different. A propensity score will be constructed using those variables. This score will be used to leverage and ensure comparability of pupils (between the groups), therefore eliminating selection bias

(the possibility that those enrolled in a particular group are systematically different from those enrolled in another group). The variables to be used for computing the propensity score are unaffected by the intervention (WFPSMP or HGSMP). Like in school comparison, the propensity scores for children comparison will be computed using the 'participation equation', derived from a logit regression with programme participation as the dependent variable coded as follows;

- WFPSMP = 1, versus Control = 0.
- HGSMP = 1, versus WFPSMP = 0.

The same technique will apply at final evaluation. The computed propensity score will be used as a an adjustment factor that will leverage the comparison during analysis.

**Survey sample size**

20. The envisages realization of two results as follows:

    1. Results framework #1: *MGD Strategic Objective (SO)1 Improved Literacy of School-Age Children*.
    2. Results framework #2: *MGD SO2 Increased Use of Health and Dietary Practices*.

21. Since *MGD SO2* is a function of *MGD SO1,* the sample size is calculated based on *MGD SO1* that seeks to address the overall programme outcome. The midline estimate aligned to *MGD SO1* is *the proportion of children ages 7-13 that have attained literacy and numeracy of a Standard 2 level*. Other quantitative indicators to be estimated using children sample size include:
    - Number of individuals benefiting indirectly from USDA-funded interventions – *Source parents*
    - Percent of students in target schools who regularly consume a meal before the school day – *Source children*
    - Percent of students in target schools who regularly consume a meal during the school day – *Source children*
    - Percent of parents in target communities who can name at least three benefits of primary education (disaggregated by male and female) – *Source parents*
    - Number of school-aged children receiving daily school meals (breakfast, snack, lunch) as a result of USDA assistance – *Source WFP, MOE and school records*
    - Number of radio spots held – WFP
    - Number of community members benefiting from radio spots– *Source parents*
    - Number of posters, fliers, leaflets distributed– *Source WFP*
22. The midline evaluation is anchored on the baseline sample design. Calculation of baseline sample size was informed by UWEZO[54] Kenya Sixths Learning Assessment Report December 2016, which outlines the learning outcome by selected counties on Class 3 who can do Class 2/Standard 2 level work. The estimated proportions in the proposed intervention areas range as follows; Wajir – 9.9%, Mandera – 10.1%, Turkana – 11.4%, Garissa – 12.9%, West Pokot – 15.4%, and Baringo – 16.6%.
23. Due to variation in estimates across selected counties and with potential variation in other measurement indicators, we proposed to use a 50% conservative estimate as the proportion of *children ages 7-13 that have attained literacy and numeracy of a Standard 2 level*- Standard 2 competencies in literacy and numeracy. The UWEZO tests are set according to the Standard 2 level

[54] Uwezo is a five year initiative that aims to improve competencies in literacy and numeracy among children aged 6-16 years old in Kenya, Tanzania and Uganda, by using an innovative approach to social change that is citizen driven and accountable to the public.

curriculum, which is the level attained after two years of primary education. Thus, assuming education quality standards are maintained, one should expect pupils at Standard 3 or above to correctly answer all test questions. This is termed as a "pass" in the presentation of the results. The 50% proportion optimizes the sample size to allow for estimation of all indicators devoid of the risk of low sample size calculation. The study presumes a 20% effect size on the primary indicator.

24. The minimum sample size was calculated using *Fleiss, et al* (15) formula as follows:

$$n = D * \frac{(Z_{1-\alpha/2} + Z_{1-\beta})^2 * (P_1(1-P_1) + P_2(1-P_2))}{(P_2 - P_1)^2}$$

25. Where;

| | | |
|---|---|---|
| Performance indicators presented as percentages ($P_1$, $P_2$) | | |
| $P_1$ | (estimated value of indicators at baseline) | 50% |
| $P_2$ | (estimated value of indicators at final evaluation) | 70% |
| $P_2$-$P_1$ | (estimated change over time) | 20% |
| α | (Type 1 error) | 0.05 |
| β | (Type 2 error) | 0.10 |
| $Z_\alpha$ | (Z score at desired statistical significance) 0.975 | 1.96 |
| $Z_\beta$ | (Z score at desired statistical power) 0.90 | 1.28 |
| D (design effect = 1 + $\delta$ ($m$ – 1); where $m$ is the average enrolment per school (200) and $\delta$ is the estimated intra-class correlation coefficient, referenced from literature (0.02)) | | 5.0 |
| The sample size (n) of measurement unit - number of sampled *children ages 7-13 in Standard 3 to 8* | | 620 |
| Allowing for 10% non-response, the sample size is adjusted upwards (n/ (1-L) where L is the provision of 10% non-response). | | |
| Adjusted sample size = 620/ (1-0.1) = 688.88889, rounded upwards to 689 children. | | |
| Therefore; number of sampled children per study arm (without replacement) | | 689 |
| Overall sample size in both intervention and control arms | | 2,067 |

26. In order to address gender mainstreaming and women's empowerment as per WFP's evaluation principle of gender equality, the evaluation will be conducted with a view to elucidating the effect of the intervention (WFPSMP or HGSMP) among boys and girls. To the greatest extent possible, the consultants will ensure both men and women are targeted as respondents. Therefore, the overall

sample size in both interventions (WFPSMP and HGSMP) and control arms will triple to 4,134 (2067 boys (689 HGSMP, 689 WFPSMP, 689 Controls); 2,067 girls (689 HGSMP, 689 WFPSMP, and 689 Control). As each pupil questionnaire also includes questions for a corresponding parent (see Annex 6), there will be an equal number of parental responses.

27. While the documentation reviewed for the baseline and midline suggest that the programme was not designed with a strong gender focus, the evaluation will explore how each of the interventions have benefitted girls and boys and women and men. Questioning will be particularly focussed on any differences in terms of access, results and impact on girls and boys. This is particularly important because some of the interventions (e.g. increasing the availability of latrines in schools) can make a difference to girls' education. Care will be taken to have at least 40 percent female parents participating in the study. At community level, due efforts will be made to reflect gender considerations both in terms of questioning and in the targeting of beneficiaries, while interviewing direct and indirect beneficiaries.

**Survey sample design**

28. A two-stage sampling procedure will be employed at the WFPSMP sites as follows:

- *First stage:* will involve selection of 46 primary sampling units (PSUs) which are schools, across the five selected counties (Garissa, Turkana, Mandera, West Pokot, and Wajir).[55] Using probability proportionate to size (PPS) method, the 46 PSUs will be distributed across the -five counties. Selection of schools within counties will be done using simple random sampling, with application of a random number generator.
- *Second stage:* will involve selection of secondary sampling units (SSUs) which are *children ages 7-13 years in class 3 to 8,* across the forty-six selected schools. Total number of males and females will be determined per school. Distribution of school specific sample size allocation will be done across gender and school grade using PPS, where gender specific samples across school grade will be drawn. Selection of children within gender and across school grade will be done using simple random sampling, with application of a random number generator.

29. The selection of a matching HGSMP and control for the WFPSMP schools (PSUs) will be picked from the neighbouring counties with comparable socio-economic activities – same livelihood zones. A total of twenty-three (23) schools across 9 counties (Elgeyo Marakwet, Embu, Kajiado, Kitui, Laikipia, Machakos, Makueni, Nyeri and Taita Taveta) will be selected to represent HGSMP and twenty-three schools (23) across another 8 counties (Elgeyo Marakwet, Kajiado, Kitui, Laikipia, Machakos, Makueni, Nyeri and Taita Taveta) will be selected to represent the control arm of the study. The Selection of PSUs (schools) and SSUs (*children ages 7-13 years in class 3 to 8*) will be done as described in the first and second stage sampling.

30. Annexes 8a and 8b illustrate the sample design structure to be applied in both interventions (WFPSMP and HGSMP) and control sites.

**Statistical analysis plan**

31. Data analysis will be done using IBM SPSS version 24.0 and any other relevant data analysis software.

[55] Isiolo, Nairobi, Samburu, and Tana River counties were excluded from the HGSMP group for the following reasons. Nairobi was excluded because of urban context issues. The majority of the counties of focus are in the arid, rural areas, consequently, there were hardly any common contextual similarities that will match Nairobi with them. The other three have been beneficiaries of the Cash Transfers to schools Model developed and implemented by WFP before being handed over to HGSMP – consequently their evolution modality and short history of the same does not approximate to a pure HGSMP modality of government that has been going on in some of the counties selected since 2009.

MS-Excel will be used to generate graphical presentation of specific findings.

32. ***Univariate analysis:*** Descriptive statistics such as measures of central tendency (mean, standard deviations, median, and range) will be used for analysis of continuous variables, while frequencies and percentages for categorical variables.

33. ***Bivariate analysis:*** Pearson's Chi-square or Fisher Exact test (depending on the mean expected count) will be used to compare the distribution of indicator variables and other observable characteristics between interventions and control groups. T-test will be used to compare mean difference between intervention and control groups. Where normality assumptions are violated, appropriate non-parametric methods will be used.

34. ***Multiple regression analysis:*** Binary logistic regression will be used to estimate the difference in *the proportion of children ages 7-13 that have attained literacy and numeracy for a Standard 2 level* adjusting for midline characteristics, identified to be significantly different between intervention and control groups at bivariate analysis. Threshold for statistical significance will be set at $p<0.05$.

35. **Estimation of programme effects:** Difference-in-differences (DID), also known as the 'double difference' method, will be used to compare the changes in outcome (effect size) *over time* between specific intervention (HGSMP and WFPSMP) and control group. Applying the Difference in Differnce (DID) method will remove the difference in the outcome between both interventions (HGSMP and WFPSMP) and control group at baseline.

36. Effect of WFPSMP: In order to identify the effects of WFPSMP at midterm and final evaluation, the difference in the measurement indicator between WFPSMP and control groups will first be calculated at baseline, midterm and final evaluation. The calculated baseline difference will then be differenced from the midterm and final evaluation differences to ascertain the accurate difference attributable to the WFPSMP at midterm and final evaluation.

37. Evaluating sustainability of SMP: In order to determine whether transitioning schools from WFPSMP to HGSMP sustains school performance, the comparison of HGSMP and WFPSMP will be done. The indicators were measured at baseline, this will be measured and compared again at midterm and final evaluation. Owing to its rigorous programme implementation, the bench mark will be WFPSMP. Propensity score matching will be used as an adjustment factor at every step of analysis.

38. An overview of the sampled locations and the needs in terms of supervisors and enumerators is provided in the table.

***Table 2 - Overview of counties, sampled locations by interventions and needs in terms of supervisors, enumerators***

| County | Sub county (ies) | Number of schools |
|---|---|---|
| **WFP School meals Programme** | | |
| Garissa | Lagdera, Garissa and Ijara | 6 |
| Wajir | Wajir East, Wajir West, Habaswein, Wajir South | 10 |
| Turkana | Loima, Turkana East, Turkana West, Turkana Central, Turkana South, Turkana North | 11 |
| Mandera | Mandera West | 8 |

| | | |
|---|---|---|
| West Pokot | Pokot North | 11 |
| **Home Grown School Meals Programme** | | |
| Elgeyo Marakwet | Marakwet East | 4 |
| Embu | Embu East | 3 |
| Kajiado | Kajiado West | 4 |
| Kitui | Tseikuru | 3 |
| Laikipia | Laikipia East | 2 |
| Machakos | Matungulu | 2 |
| Makueni | Mbooni East | 1 |
| Nyeri | Kieni East/West | 3 |
| Taita Taveta | Taveta | 1 |
| **None WFP SMP/HGSMP** | | |
| Kajiado | Kajiado West | 3 |
| Elgeyo Marakwet | Keiyo South/North | 4 |
| Kitui | Tseikuru | 3 |
| Laikipia | Laikipia East | 1 |
| Machakos | Matungulu | 4 |
| Makueni | Mbooni East | 6 |
| Nyeri | Kieni East | 1 |
| Taita Taveta | Taveta | 1 |

***Table 3 – logistics requirements***

| Team | No of schools | Supervisor(s) | Enumerators | Vehicles | # of tablet required | Note |
|---|---|---|---|---|---|---|
| Turkana | 11 | 1 | 7 | 1 | 8 | |
| Wajir | 10 | 1 | 6 | 1 | 7 | |
| Mandera | 8 | 1 | 4 | 1 | 5 | |
| West Pokot | 11 | 1 | 7 | 1 | 8 | |
| Garissa | 6 | 1 | 4 | 1 | 5 | |
| Elgeyo Marakwet | 8 | 1 | 6 | 1 | 7 | |
| Embu/Nyeri/Laikipia | 10 | 1 | 7 | 1 | 8 | |
| Machakos/Kitui | 12 | 1 | 7 | 1 | 8 | |
| Kajiado/Taita Taveta | 9 | 1 | 5 | 1 | 6 | |
| Makueni | 7 | 1 | 4 | 1 | 5 | |

| Team | No of schools | Supervisor(s) | Enumerators | Vehicles | # of tablet required | Note |
|---|---|---|---|---|---|---|
| Qualitative Date team (Muriel and Warue) | Various | 0 | 3 | 2 | | One vehicle to Warue and another to Muriel (for week of 11th June) |
| Study team (Moses and Ernest) | Various | 0 | 0 | 2 | | Supervision schedule will be provided for availability of vehicles |
| **Totals** | | **10** | **60** | | **67** | |

## Annex 7 : Procedure and criteria for selection of enumerators

1. Enumerators will be will be drawn from the WFP established pool of enumerators. The consultant team will do the selection and WFP will support with the contracting. Care will be taken to ensure that recruitment conforms to the criteria that have been drawn up and training focused on ensuring objectivity and independence of data collection. Where possible the team will work with enumerators that participated in the baseline although it is anticipated that there will be some new recruits. For the new recruits, key criteria for selection will be identical to those at baseline, namely:
    - Post-secondary education qualifications in education or social sciences will be preferable.
    - Good interpersonal skills – in particular ability to create rapport with learners and other stakeholders at the school level.
    - A track record of participation in at least 2 similar surveys with one targeting ASALS in particular.
    - Language skills in alignment with the areas where data is being collected.
    - Availability during data collection.
2. Teams of enumerators will need to be gender balanced to ensure that interviews with girl pupils can be done by female enumerators to the extent possible.
3. Each team of enumerators will be headed by a supervisor. In addition to overseeing the data collection process and quality assurance the supervisors will also provide technical guidance to the teams and do any trouble shooting on digital data gathering technology.
4. Given the critical importance of the supervisors for the overall quality of the study the evaluation team will identify and propose candidates for these positions. The following criteria will be used for the selection of the supervisors (these too are identical to the baseline phase):
    a. Completed or currently in a University.
    b. Having had at least 3 data collection experiences
    c. Comfortable with use of mobile devises using an Android application
    d. Have had an experience with mobile data collection using Kobo collect or ODK (Must have knowledge of ODK configuration and troubleshooting)
    e. Have had an experience in facilitating focused group discussions
    f. Have had experience in team leadership and planning on behalf of the team.
    g. Keen on details and have excellent communication abilities
    h. Ability to work under pressure and maintain professional relationships

## Annex 8 – Characteristics of respondents

In this part of the report, an overall picture of population and school characteristics for the three-arm target population baseline and midline survey is presented.

**Table 1 - Study population in the three arm target counties**

| Characteristic | Baseline | Midline |
|---|---|---|
| Number of Counties | 14 | 14 |
| Number of Schools | 90 | 90 |
| WFSMP schools | 44 | 44 |
| Control Schools | 23 | 23 |
| HGSMP Schools | 23 | 23 |
| Number of Pupils sampled for the survey | 5130 | 5301 |
| Boys | 2558 | 2550 |
| Girls | 2572 | 2751 |
| Head Teachers Interviewed | 34 | 90 |
| Male | 25 | 71 |
| Female | 9 | 19 |
| Teachers Interviewed | 56 | 188 |
| Male | 34 | 105 |
| Female | 22 | 83 |
| Parents Interviewed | 5130 | 5301 |
| Male | 1446 | 1667 |
| Female | 3684 | 3634 |
| Parent Teacher Associations (PTA) and BoMs reached | 90 | 9 |

Table 2 presents the distribution of study pupils by study arm and grade. Enrolment per study arm at baseline (control (1396), WFPSMP (2221), and HGSMP (1513)) was approximately in the ratio of 1:2:1, while that of gender (boys (2558), girls (2572)) was approximately 1:1. Enrolment by grade was almost equal across class 3 to 7, with class 8 slightly lower. Similarly, enrolment per study arm at midline (control (1396), WFPSMP (2221), and HGSMP (1513)) was approximately in the ratio of 1:2:1, while that of gender (boys (2558), girls (2572)) was approximately 1:1. Enrolment by grade was almost equal across class 3 to 7, with class 8 slightly lower. Overall distribution structure was comparable between baseline and midline.

**Table 2 - Study pupils' characteristics**

| Variable | Boys | | Girls | | Total | |
|---|---|---|---|---|---|---|
| | **Baseline (n=2558)** | **Midline (n=2550)** | **Baseline (n=2572)** | **Midline (2751)** | **Baseline (n=5130)** | **Midline (n=5301)** |
| **Study arm** | | | | | | |
| Control | 675(26.4%) | 675(26.5%) | 721(28.0%) | 722(26.2%) | 1396(27.2%) | 1397(26.4%) |
| WFPSMP | 1146(44.8%) | 1143(44.8%) | 1075(41.8%) | 1110(40.3%) | 2221(43.3%) | 2253(42.5%) |
| HGSMP | 737(28.8%) | 732(28.7%) | 776(30.2%) | 919(33.4%) | 1513(29.5%) | 1651(31.1%) |
| **Grade** | | | | | | |
| Class 3 | 438(17.1%) | 416(16.3%) | 459(17.8%) | 457(16.6%) | 897(17.5%) | 873(16.5%) |
| Class4 | 443(17.3%) | 434(17.0%) | 464(18.0%) | 496(18.1%) | 907(17.7%) | 930(17.5%) |
| Class 5 | 472(18.5%) | 462(18.1%) | 428(16.6%) | 485(17.6%) | 900(17.5%) | 947(17.9%) |
| Class 6 | 455(17.8%) | 441(17.3%) | 439(17.1%) | 485(17.6%) | 894(17.4%) | 926(17.5%) |
| Class 7 | 442(17.3%) | 457(17.9%) | 438(17.0%) | 453(16.5%) | 880(17.2%) | 910(17.2%) |
| Class 8 | 308(12.0%) | 340(13.3%) | 344(13.4) | 375(13.6%) | 652(12.7%) | 715(13.5%) |

Overall distribution structure was comparable between baseline and midline. A detailed comparison of background and other characteristics of parents and children is presented in Annexes 7a, 7b, 8a and 8b. Annex 10a examines **the effect of WFPSMP on specific indicators**, while Annex 10b examines **the sustainability of specific indicators after transitioning schools to HGSMP**. The analysis of change across target arms both at baseline and midline using difference-in-difference method elucidates the findings.

## Annex 9: Data collection tools

### Tool 1 – Individual interview: classroom teacher

**Suggested introduction:** Hello my name is _____. I am seeking information that will facilitate the implementation of the forthcoming school meals project. The purpose of this interview is to determine what the conditions are like prior to the start of the project. This will allow the Ministry of Education, WFP and the donor to measure what changes take place during the project. I would like to ask you some questions that will help in understanding what the situation is like in the school today. Your answers will be kept confidential in that we will not be reporting who said what in any of our reports. The interview will take about 45 minutes. You may refuse to participate in the interview, or you may choose at any time not to answer one or more of the questions.

***Important prior instruction to interviewee****: if the teacher teaches more than one class then ask him/her to identify one class (e.g. Std 5 Science) and then to reply to all the questions as if they were referring only to this particular group of pupils.*

*Please make sure to interview teachers separately and to obtain responses for each of the questions.*

**Basic information about the interview:**

Name/code of interviewer:

Date of interview:

Name of school:

Name of sub-county:

Name of country:

**Information about the interviewee:**

a) Gender of the teacher:
   - Male
   - Female

b) Grade/class taught:

c) Educational level of the teacher:
   Completed primary school
   Did not complete secondary school/undertaking secondary education
   Completed secondary school
   Did not complete certificate course/undertaking certificate course
   Completed certificate course
   Did not complete diploma course/undertaking diploma course
   Completed diploma course
   Did not complete degree course/undertaking degree course
   Completed degree course
   Did not complete post graduate course/undertaking post graduate course
   Completed post graduate course
   Others

d) Number of years of teaching experience:

**Questions**

From your assessment as a class teacher, do you feel attentiveness/inattentiveness is an issue in your class?
Yes
Somehow
No

1. What is the % (proportion) of children in class you would confidently consider to be paying attention in class in your last lesson you have just taught?

_____

In your observation between boys and girls, which is commonly inattentive in class?
Boys
Girls
Both

2. In your observation, on averare what percentage of students in your classes would you confidently say were inattentive in class last term (term 1 2018)?

_____

3. What are some of the factor you think could be contribution to inattentiveness in among children in your class?
   - The class work is too difficult
   - The class work is too easy
   - Pupils don't find the material/topic interesting
   - Pupils are hungry
   - Pupils are worried about some other family issues
   - External activities that take their attention away from class
   - When the pupil is sickness
   - Pupils are tired from work or domestic chores
   - They can't hear/see what the teacher is explaining/children with disability
   - Other (please specify) _____

4. In your teaching experience, during which time of day is pupil attentiveness in class lowest?
   - Early Morning
   - Mid-Morning
   - Early after noon
   - Mid after noon
   - Early evening
   - Late evening
   - There is no difference

5. What in your view are some of the factors that promote attentiveness in class?
   - The children not hungry or not worried about what they will eat
   - The children coming to school after having enough rest at home.
   - Interesting topics for the children
   - Good educational content delivery methods
   - Appropriate support from the teachers
   - Quiet and conducive school environment
   - The children are not required to work at home/in the field
   - The class size is not too big
   - Other (please specify) _____

6. During the last term (1st term of 2018), are you aware of students who dropped out of this school, left or joined this school from other schools
   - Yes
   - I am not sure
   - No

The largest proportion of leaving or drop puts were boys or girls?

- Boys
- Girls
- No difference between boys and girls

7. If yes, what are the reasons why students left this school for another school or dropped out of school?
   - They had problems at home
   - Hunger/ No food to eat
   - School fees/lack of money
   - Sickness of the child
   - Insecurity in the village or the area
   - Distance of the school was too long
   - The school performed poorly in exams
   - The child was withdrawn from school by the parent
   - Not applicable
   - Other (please specify) _____

8. If some students joined this school from other schools, what we were some of the reasons why they

joined this school?

- This school serves school meals
- This school offers better safety
- The school performed well in the last examination more than other schools in the area
- The school is closer to the students
- The parents decided that the children to join this school
- The teachers are friendly and knows how to teach.
- This school has better facilities (buildings, etc.)
- The school offers higher grades than other schools in the vicinity
- For personal reasons (family moving etc.)
- Other (please specify) _____

9. What proportion of pupils in your class would you confidently say attends school regularly?

_____

10. Between boys and girls, which groups are more consistent with attendance of school??
    - Girls
    - Boys
    - There is no difference
    - I am not able to assess

11. Have you received any training on health and hygiene promotion??
    - Yes
    - No

How long ago did you receive the training?

- This year
- Within the past one year
- 1 -3 three years ago
- More than three years ago

12. Do you hold discussions with pupils on issues related to health and hygiene?
    - Yes
    - No

13. If yes, what did you talk about?
    - Deworming
    - Hand washing
    - General bodily hygiene/cleanliness
    - How to use the latrine properly
    - How to keep the environment clean
    - Importance and water treatment methods
    - Causes of diarrhoea
    - Other (please specify)

14. How often do you discuss hygiene with your pupils?
    - Frequently – Every week
    - Occasionally (less than every week but more than once a month)
    - Rarely (once a month or less)
    - Never

15. Do you hold discussion with your pupils on nutrition?
    - Yes
    - No
    - sometimes

16. If yes, what did you talk about?
    - Food types
    - Food sources
    - Nutrients and their functions
    - Common signs of poor nutrition
    - Common consequences of poor nutrition
    - Balanced diet
    - Anemia
    - Other (please specify) _____

17. How often do you discuss nutrition with your pupils?
    - Frequently – Every week
    - Occasionally (less than every week but more than once a month)
    - Rarely (once a month or less)
    - Never

What in your view are the main barriers to learning/ seeking education in this community?

- Ignorance in general
- Ignorance of the importance of girl's education
- Hunger
- Poverty
- Insecurity
- Distance to the school
- Cultural barriers
- Other (please specify)

In your view what are the promoters to seeking education in this community

- Better future for the children
- Need for certificate to get a job
- It's a government policy
- There is nothing children are doing at home so they go to school
- It is the trend of nowadays

**Thank you for your collaboration/assistance in this interview.**

## Tool 2 – Individual interview - head teacher

**Suggested introduction:** Hello my name is _____. I am seeking information that will facilitate the implementation of the forthcoming school meals project. The purpose of this interview is to determine what the conditions are like prior to the start of the project. This will allow the Ministry of Education, WFP and the donor to measure what changes take place during the project. I would like to ask you some questions that will help in understanding what the situation is like in the school today. Your answers will be kept confidential in that we will not be reporting who said what in any of our reports. The interview will take about 45 minutes. You may refuse to participate in the interview, or you may choose at any time not to answer one or more of the questions.

***Important prior instruction to interviewee****: to be inserted as necessary ….*

**Basic information about the interview:**

Name/code of interviewer:

Date of interview:

Name of school:

Name of sub-county:

Name of country:

**Information about the interviewee:**

a) Gender of the respondent:
   - Male
   - Female

How many years have you been employed as a teacher?
How many years have you been a head teacher?

b) Have you been trained or learnt on the management of school meals program?
   - Yes
   - No

c) How long ago was the training?
   - Within this year 2018
   - Within the past 1 year
   - Between 2 – 3 years ago
   - More than 3 years ago

Who offered the training?
   - The central government
   - The county government
   - World Food programme (WFP)
   - Non-governmental organization
   - Other organizations
   - I taught myself
   - Others

d) Are you aware of any policies and guidelines relating to school feeding programme?
   - Yes
   - No

If yes, which guidelines or policies are you aware of?
- SFP financial management
- Procurement of commodities guidelines
- Food rations and preparation guidelines
- Others

Has your school had school feeding programme for primary pupils in the past?

- Yes
- I am not sure /I am new in this school
- No

How long ago was the school feeding program active?

- The programme is currently active
- Last term
- Third term 2017
- Second term 2017
- First term 2017
- In 2016
- Others (2015 and beyond)

If yes, what was or is the current source of the support for the school meals programme?

- The central government
- County government
- World food program (even if implemented by partners)
- Non-Governmental organization
- Well wishers
- Parents
- Religious organizations
- Others

If the school meals programme is currently active, what is the modality of main support?

- Cash
- Commodities
- Both cash and commodities

Do you feel the current modality of SMP support is the best model for your school?

- Yes
- I am not sure
- No

Do the parents make any contribution to the school meals programme?

- Yes regurlaly
- Yes but not regularly
- No

Of the total budget requirement of the school meals program, what proportion if contributed to by the

parents (whether in cash/in kind/or by work force)

What contribution do the parents make?

- Money
- Labor
- Commodities (Maize, beans, etc)
- Firewood and water
- Utensils
- Others

Does your school benefit from the books funds provided by the government?

- Yes
- No

Are the books currently available in school sufficient for the pupils?

- 100% sufficient
- 75% sufficient
- 50% sufficient
- 25% sufficient
- Not sufficient

Are there any activities carried out by any organization or entity in your school that complements primary school feeding programme?

- Yes
- No

What are the activities are implemented?

- Water support
- School garden
- Health and hygiene promotion
- Nutritional promotion
- Others

During the start of the year (2018) are there pupils who were supposed to be in school but dropped out?

- Yes
- No

Approximately what proportion of pupil's population dropped out of this school?

Were the pupils who dropped out predominantly boys or girls?

- Boys
- Girls
- Both

If yes, what are the reasons why students left this school for another school or dropped out of school?

- They had problems at home
- Hunger/ No food to eat
- School fees/lack of money
- Sickness of the child
- The pupil was pregnant
- Insecurity in the village or the area
- Distance of the school was too long
- The school performed poorly in exams
- The child was withdrawn from school by the parent
- Not applicable
- Other (please specify) _____

At the beginning of this school year, did you receive new students to your school?

- Yes
- No

Approximately what proportion of the student's population are new admissions for this school year?

If some students joined this school from other schools, what we were some of the reasons why they joined this school?

- This school serves school meals
- There were attending nursery in this school
- This school offers better safety
- The school performed well in the last examination more than other schools in the area
- The school is closer to the students
- The parents decided that the children to join this school
- The teachers are friendly and knows how to teach.
- This school has better facilities (buildings, etc.)
- The school offers higher grades than other schools in the vicinity
- For personal reasons (family moving etc.)
- Other (please specify) _____

Is this school's PTA involved in any way in the school meals programme (if the school meals is currently active)?

- Yes
- Somehow
- No

How would you rate their level of involvement in the school meals programme (very high being 5 and

very low being 1)?

- Very high
- High
- Medium
- Low
- Very low

What activities are the PTA members mainly involved in?

- Mobilizing contributions from parents
- Preparation so schedules of school feeding programme (including cooking)
- Receiving /procuring of commodities
- Management of SFP funds
- Others

Is this school's board of management involved in the management of the school meals programme?

- Yes
- Somehow
- No

How would you rate their level of involvement in the school meals programme (very high being 5 and very low being 1)?

- Very high
- High
- Medium
- Low
- Very low

What are the major activities the schools board of management are involved in?

- Receiving of cash or commodities from the supporting organization
- Mobilization of resources including from the government
- Procurement of commodities
- Financial management of the school meals programme
- Audit of the school meals programme
- Structural improvement for the school meals programme
- Others

Complaints management

Does this school have in place a mechanism in which any parent or child not happy with how the school

meals programme is handled can raise their concerns or complaints?

- Yes
- No

If yes, what is the channel?

- Suggestion box
- School complaints committees
- Telephone line
- Walk in to the office/dedicated school staff
- Dedicated PTA/BOM member
- Children's parliament
- Sub county education office
- Others

School population

| | Males | Females | Totals | Number of streams | |
|---|---|---|---|---|---|
| Class 1 | | | | | |
| Class 2 | | | | | |
| Class 3 | | | | | |
| Class 4 | | | | | |
| Class 5 | | | | | |
| Class 6 | | | | | |
| Class 7 | | | | | |
| Class 8 | | | | | |
| Number of teachers | | | | | |
| | PTA teacher | Tsc teacher | volunteers | | |
| Males | | | | | |
| Female | | | | | |
| Average termly Teacher attendance rates | | | | | |
| Average termly Pupil attendance rates | | | | | |
| Approximate proportion of pupils starting school who complete the last grade of primary school? | | | | | |
| How new pupils were enrolled in this school at the start of this year? | | | | | |
| **Storage facility** | | | | | |
| Does the school have a dedicated storage facility for the school meals programme?<br>1) Yes<br>2) No | | | | | |

| | |
|---|---|
| Is this a separate room/store, or is one of the classrooms being used for storage for all items?<br>1) Separate room<br>2) Classroom converted to storage<br>3) Another building converted to a store | |
| If yes, what is the condition of the storage facility?<br>1) In a good condition<br>2) Needs slight repair<br>3) Needs major repairs<br>4) There is need for a new as it cannot be repaired | |
| What is the roof made of?<br>• Grass<br>• Iron sheets<br>• Asbestos<br>• Tiles<br>• Others | |
| What are the walls of the store made of<br>• Mud<br>• Bricks<br>• Stones<br>• Blocks<br>• Iron sheet<br>• Wood/timber<br>• Others | |
| What is the floor of the store made of<br>• Cement<br>• Stones<br>• Mud<br>• Timber<br>• Tiles<br>• Others | |
| Is the storage room lockable?<br>1) Yes<br>2) No | |
| How is the ventilation of the store?<br>• Well ventilated<br>• Averagely ventilated<br>• Poorly ventilated<br>• Not ventilated at all | |
| Is the storage room free of humidity/water?<br>1) Yes<br>2) No | |

| | |
|---|---|
| Does the storage room have pallets for stacking the stored items?<br>1) Yes –enough for commodities in store<br>2) Yes but not enough for commodities in store<br>3) No | |
| Does the storage facility have a weighing scale?<br>1) Yes<br>2) No | |
| **a) <u>Kitchen</u>** | |
| Does the school have a kitchen for pupil's school meals program?<br>• Yes –Dedicated to pupil's meals only<br>• Yes – Used for all cooking's in the school<br>• No | |
| If yes, what is the condition of the kitchen?<br>• In a good condition<br>• Needs slight repair<br>• Needs Major repairs<br>• There is need for a new as it cannot be repaired | |
| Does the kitchen have fuel efficient stoves?<br>• Yes – enough quantity<br>• Yes – but the quantity is not enough<br>• No | |
| Which fuel does the school use to cook the pupils school meals?<br>• Wood<br>• Charcoal<br>• Cow dung<br>• electricity<br>• Others (please specify) | |
| What is the main source of water used for cooking in the school?<br>• Water tank/tap in the school<br>• Children carry water from home<br>• A water source around the school (well, spring, dam)<br>• Water tracking to the school<br>• Public tap within the community<br>• Others | |
| Does the kitchen have sufficient utensils and pans to prepare meals for the pupils in the school?<br>• Yes – sufficient<br>• Yes but not sufficient<br>• No – The utensils and pans are brought by parents/pupils | |
| **<u>Latrines</u>** | |
| Does the school have latrines/toilets for pupils? | |

| | |
|---|---|
| • Yes enough<br>• Yes but not enough<br>• No | |
| Do girls have separate toilets from boys?<br>• Yes<br>• No | |
| How many latrines/toilets are available for use by:<br>1) Female pupils _____<br>2) Male pupils _____ | |
| Is there a dedicated hand washing station for children to wash their hands after using the latrines?<br>• Yes –functional<br>• Yes – But not functional<br>• No | |
| <u>School garden</u> | |
| Does the school have a school garden?<br>• Yes<br>• No | |
| How many acres is the school garden area? | |
| • What are the food items that were harvested from the school garden last harvest season?<br>• Maize<br>• Beans<br>• Sorghum<br>• Fruits<br>• Potatoes<br>• Onions and tomatoes<br>• Others | |
| What is the main use of the food produced in the school garden?<br>• The food is sold<br>• The food is used for school feeding<br>• The food is used for teachers<br>• Other use (please specify) | |
| <u>Other observations</u> | |
| **Instructions for interviewee: please interview one cook per kitchen. If there is a female cook then please make sure you interview the female cook.** | |
| Sex of respondent:<br>1) Male<br>2) Female | |
| For how long have you been a cook? | |

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|---|---|
| Have you been trained in safe food preparation?<br>1) Yes<br>2) No | |
| If yes how long ago year?<br>1) Less than 1 month ago<br>2) Less than 3 months ago<br>3) Less than 6 months ago<br>4) Less than one year ago<br>5) More than one year ago | |
| Have you been trained in food storage and handling?<br>1) Yes<br>2) No | |
| If so in what year?<br>1) Less than 1 month ago<br>2) Less than 3 months ago<br>3) Less than 6 months ago<br>4) Less than one year ago<br>5) More than one year ago | |
| Do you have a valid health certificate?<br>1) Yes<br>2) No | |
| If not what is the reason?<br>1) Cannot afford the fee<br>2) Did not have time to go to the health sector<br>3) Do not know how to get one<br>4) Do not think I need one<br>5) No-one told me to get one<br>6) Other (specify) | |
| To your knowledge, do children always wash their hands before the meals?<br>1) Yes all<br>2) Yes most<br>3) Yes a few<br>4) No | |
| Do you have a uniform or apron to use in the kitchen?<br>1) Yes<br>2) No | |
| At what times do you clean the kitchen? (multiple options possible)<br>1) Every morning before food preparation<br>2) After food preparation<br>3) At the end of the week<br>4) Whenever there is water<br>5) Other (please specify) | |
| Do you wash your hands in the process of food preparations? | |

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| Yes<br>No<br>Sometimes | |
| At what points in the food preparation process do you wash your hands?<br>1) Before handling food<br>2) During food preparation whenever necessary<br>3) After using the latrine<br>4) After finishing food preparation<br>5) Before serving food<br>6) After serving food<br>7) Whenever I have water<br>8) Never<br>9) Other (please specify) | |
| Do you ensure that the food commodities are clean before cooking?<br>Yes<br>No<br>Sometimes | |
| How do you ensure the food is clean before cooking?<br>1) If the food looks clean I will cook it<br>2) Rinse in water and cook<br>3) Remove foreign matters and cook<br>4) Use clean containers to collect food from store, remove foreign matters and then wash with clean water thoroughly before cooking<br>5) Others | |
| Do you verify that the food is of quality before or in good condition before cooking?<br>Yes<br>No<br>Sometimes | |
| How do you verify that food is in good condition/quality for cooking?<br>1) Look at expiry date<br>2) Smell the food<br>3) Color of food<br>4) Check if there are signs of infestation by pests<br>5) Other (please specify) | |
| Do you keep food for some period before serving to the pupils?<br>Yes<br>No<br>Sometimes | |
| How do you store food prior to serving it?<br>1) Store cooked food in covered cooking pots in a clean, safe place before serving the pupils<br>2) Store cooked food in open containers<br>3) Store cooked food outside the kitchen without covers | |

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| 4) Other (please specify) | |

## Tool 1 - Parent/child questionnaire

| | |
|---|---|
| **Suggested introduction:** Hello my name is _____. I am seeking information that will facilitate the implementation of the forthcoming school meals project. The purpose of this interview is to determine what the conditions are like prior to the start of the school meals project. I would like to ask you some questions that will help in understanding what the situation is like in the school today and what challenges families face in supporting their children's education. Your answers will be kept confidential; we will not be reporting who said what in any of our reports. The interview will take about 45 minutes. If you don't want to you participate you may refuse or you may choose at any time not to answer one or more of the questions. | |
| **Basic information about the interview:** | |
| Name/code of interviewer: | |
| Study arm<br>1. Intervention<br>2. HGSMP<br>3. Control | |
| Name of county: | |
| Name of sub-county: | |
| Name of school: | |
| Date of interview: | |
| **Information about the interviewee:** | |
| What is the gender of the respondent?<br>1) Male<br>2) Female | |
| What is your relationship to the child?<br>Parent<br>Guardian<br>Brother/sister<br>Aunt/Uncle<br>Grand parent<br>Neighbor<br>Others | |
| How old are you? | |
| What is your main occupation?<br>1) Too old to work<br>2) Student<br>3) Farmer<br>4) Pastoralist<br>5) Salaried Employee<br>6) Casual Laborer<br>7) Business person | |

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| 8) Currently not doing any work<br>9) Fisherman<br>10) Other | |
| What is the highest educational level you have achieved?<br>1) Never attended formal school school/attended Madrassa<br>2) Did not complete primary school<br>3) Completed primary school<br>4) Did not complete secondary school<br>5) Completed secondary school<br>6) Did not complete technical college/undertaking certificate/diploma<br>7) Completed technical college (certificate/diploma)<br>8) Did not complete or undertaking university degree<br>9) Completed university (degree)<br>10) Did not complete or undertaking graduate course (Master/PhD)<br>11) Completed graduate school (master/PhD) | |
| How many male and female children (18 years and below) currently live in your household?<br>1) Males<br>2) Females | |
| Of the children 18 years and below who currently live in your household, how many are currently in school?<br>1) Males<br>2) Females | |
| If some of your children who are school going age are not going to school, what is the reason why?<br>1) Parents/family don't think they should go to school<br>2) There is no money to send them to school<br>3) They are working<br>4) They are taking care of sick family members<br>5) They are sick<br>6) They failed school last year and did not return<br>7) They are helping with household tasks<br>8) Others | |
| **Questions** | |
| In the past 5 school days how many days did your child (the one who is present at the interview) eat BEFORE going to school? (enter number of days) | |
| In the past 5 days, how many days did you child (the one who is present at the interview) take lunch during the school day? | |
| Did your child have a meal/take breakfast today before going to school?<br>1) Yes<br>2) No | |
| Did your child have lunch/or is going to have lunch to day?<br>Yes<br>Not sure<br>No | |

| Food consumptions score:<br>In the past 7 days, Could you please tell me how many days your household has eat any of the following foods: | # of days |
|---|---|
| *Main staples (Maize , maize porridge, rice, sorghum, millet pasta, bread and other cereals, Cassava, potatoes and sweet potatoes, other tubers, plantains)* | |
| *Pulses (Beans. Peas, groundnuts and cashew nut)* | |
| *Vegetables (Vegetables, leaves)* | |
| *Fruits (any fruit)* | |
| *Meat (Beef, goat, poultry, pork,)* | |
| *Fish (any type)* | |
| *Eggs* | |
| *Milk (Milk yogurt and other diary)* | |
| *Sugar (Sugar and sugar products, honey)* | |
| *Oil (Oils, fats and butter)* | |
| *Condiments (spices, tea, coffee, salt, fish power, small amounts of milk for tea)* | |
| Has your child been receiving school meals at school in the current school year (2018)?<br>• Yes - regularly<br>• Yes - not regularly<br>• I am not sure<br>• No | |
| Is the school currently (this week) serving food?<br>• Yes<br>• No<br>• I am not sure | |
| Do you feel the method through which support is given for school meals programme (either homegrown/government support or WFP school meals programme) is the best way the school meals program could be given?<br>• Yes<br>• I am not sure<br>• No | |
| If yes, why,<br>• The food does not come late<br>• There is no a lot of requirements from the parents<br>• The food is purchased from the local community and thus is beneficial to us<br>• There is minimal cost involved in transporting the food<br>• The food commodities received/purchased are of high quality<br>• The parents are actively engaged in the SMP and they own it<br>• Other reasons | |

| | |
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| In not why?<br>• There is delays in delivery of food or cash<br>• It is very involving for the parents<br>• There commodities supplies is not enough<br>• There are a lot of other costs involved<br>• There is no ownership for the parents<br>• There is a lot of responsibilities to the parents<br>• Other reasons | |
| If you are not happy or you have a suggestion about the school meals program, is there any means/channel through which you can raise your concerns on air your opinions?<br>• Yes<br>• I am not sure<br>• No | |
| What are the channels?<br>• Through the teachers<br>• Through suggestion box<br>• Through a representative in the PTA<br>• Through the sub county education office<br>• Through calling<br>• Though politician<br>• Through WFP staff<br>• Others | |
| Do you make any contribution in any form to the school meals programme?<br>• Yes - regularly<br>• Yes - sometime<br>• No | |
| What do you contribute<br>• Utensils<br>• Labor (cooking/offloading food items)<br>• Money<br>• Firewood/cooking fuel<br>• Water<br>• Food commodities<br>• Others | |
| If you contribute money to the school meals programme, how much do you pay per child per month? (Kshs) | |
| *Reduced Coping strategies*<br>Behaviors:<br>In the past 7 days, if there have been times when you did not have enough food or money to buy food, how many days has your household had to: | # of days: |
| *a. Rely on less preferred and less expensive foods?* | |
| *b. Borrow food, or rely on help from a friend or relative?* | |

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| *h. Limit portion size at mealtimes?* | |
| *i. Restrict consumption by adults in order for small children to eat?* | |
| *k. Reduce number of meals eaten in a day?* | |
| In the last term of this year (term 1 of 2018) apart from the known public holidays, Did this child (one present for interview) miss a complete day of school?<br>• Yes<br>• I am not sure<br>• No | |
| If Yes, approximately how many days was the child absent from school? | |
| Why did the child miss school?<br>• Insecurity<br>• Environmental challenges including flooding<br>• No food/the child was hungry<br>• The child had to support in other household chores<br>• Because the school was not serving food<br>• The child was sick<br>• The parent traveled so the child had to stay home to look after the animals and other children<br>• The child attended other social/family functions<br>• I just decided he/she don't go to school<br>• Other reasons | |
| Do you think education is beneficial to your children including the one in the interview?<br>• Yes<br>• Sometimes<br>• No | |
| Between boys and girls, which group do you think education is most important to?<br>• Boys<br>• Girls<br>• Both | |
| What in your view are the most important benefits of education? (multiple select)<br>• Improves literacy<br>• Develops social skills<br>• Increases ability to learn new skills (adoption of technology)<br>• Girls remain more in school and early marriages are delayed<br>• Improves cohesion in the community<br>• The children are able to get jobs<br>• It helps children to be better people in the community<br>• Helps break the cycle of poverty<br>• Increases the chances of the pupils' future economic self-reliance<br>• Through girls' education, improves the general wellbeing of households (nutrition, health etc)<br>• Other (please specify | |

| | |
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| Where did you get this information on the benefits of education?<br>• I am learned so I know<br>• From spouse and other family members<br>• From the schools<br>• From the radio<br>• From Television<br>• From the local leaders<br>• From friends and other community members<br>• From politicians<br>• From the government and other government agencies<br>• From UN agencies<br>• From other NGO's<br>• From the church<br>• From print media including fliers, posters, billboards<br>• From online platforms<br>• From other channels | |
| Have you received any information on health, good hygiene and nutritional practices?<br>• Yes<br>• No | |
| If yes, how long ago did you receive such information?<br>• Less than a month ago<br>• Between 1-3 months ago<br>• Between 3- 6 months ago<br>• Between 6-9 months ago<br>• Between 9 months and 1 year ago<br>• More than 1 year ago | |
| If yes, from what source did you receive the message?<br>• I am learned so I know<br>• From spouse and other family members<br>• From the schools<br>• From the radio<br>• From Television<br>• From the local leaders<br>• From friends and other community members<br>• From politicians<br>• From the government and other government agencies<br>• From UN agencies<br>• From other NGO's<br>• From the church<br>• From print media including fliers, posters, billboards<br>• From online platforms<br>• From other channels<br>• Others | |
| **Thank you for your collaboration/assistance in this interview.** | |

| Student section | |
|---|---|
| **Suggested introduction:** Hello my name is _____. I am seeking information that will facilitate the implementation of the forthcoming school meals project. The purpose of this interview is to determine what the conditions are like prior to the start of the project. I would like to ask you some questions that will help in understanding what the situation is like in the school today and what your family life is like. Your answers will be kept confidential in that we will not be reporting who said what in any of our reports. The interview will take about 45 minutes. If you don't want to you participate you may refuse or you may choose at any time not to answer one or more of the questions. | |
| ***Important prior instruction to interviewee****: Please conduct each interview separately and try to ensure that the interview is done in a quiet place where the pupil can feel comfortable and where you are not interrupted or observed by other students.*<br>*NOTE: Girls be interviewed by lady enumerators/ boys by male enumerators.* | |
| **Basic information about interviewee:** | |
| What is the gender of the child?<br>1) Male<br>2) Female | |
| What is your age: | |
| What grade/class are you in this year: | |
| Have you repeated any classes during your learning years?<br>• Yes<br>• No | |
| If years how many years have you repeated? | |
| Most school days, by what means do you go to school?<br>• On foot<br>• By bicycle<br>• By car<br>• By bus/school bus<br>• By motorbike<br>• Other (please specify) | |
| How many minutes does it take you to go to school? | |
| Did you have a meal/breakfast today BEFORE coming to school?<br>1) Yes<br>2) No | |
| Have you eaten lunch or will you be eating lunch today?<br>Yes<br>Not sure<br>No | |
| How many times do you normally eat per day?<br>• 1 time<br>• 2 times<br>• 3 times | |

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| • More than three times | |
| Do you have brothers and sisters who need to be in school but are currently out of school?<br>• Yes<br>• I am not aware<br>• No | |
| If you have brothers and sisters at home, why are they not going to school? (multiple response)<br>• Parents/family don't think they should go to school<br>• There is no money to send them to school<br>• They are working<br>• They are taking care of sick family members<br>• They are sick<br>• They failed school last year and did not return<br>• They are helping with household tasks<br>• Other (please specify)_____ | |
| In the past month or past school term, did any of your teachers talk to you and your class mates about hygiene?<br>• Yes<br>• I cannot remember/not sure<br>• No | |
| In the past month or the past school term, did your teacher talk to you and your class mates about nutrition?<br>• Yes<br>• I cannot remember/not sure<br>• No | |
| Do you know any important hygiene and sanitation habits?<br>• Yes<br>• No | |
| What are some of the important hygiene and sanitation habits that you know? (multiple response)<br>• Regular deworming and its importance<br>• Hand washing, importance of handwashing and how to wash hands<br>• Importance of general bodily hygiene/cleanliness<br>• Importance of using toilets and how to use toiles.<br>• Importance of environmental cleanliness<br>• Ways of treating water and importance of drinking clean water<br>• Causes of diarrhoea<br>• Other (please specify) | |
| Do you know any good nutrition habits or practices?<br>Yes<br>No | |
| What are some of the nutrition habits or practices that you know about? (multiple response)<br>1) Different food types and their importance to the body | |

| | |
|---|---|
| 2) Sources of different nutrient for the body<br>3) Common signs of poor nutrition<br>4) Common consequences of poor nutrition<br>5) Dietary needs of individuals<br>6) Balanced diet and the importance of the same<br>7) Signs of anaemia and how it can be treated<br>8) Other (please specify) | |
| Do you think it is important to go to school?<br>1) Yes<br>2) I am not sure<br>3) No | |
| Between girl's boys, who do you think going to school is important to?<br>Girls<br>Boys<br>Both | |
| Why do you think it is important to go to school? (multiple response)<br>1) Improves literacy<br>2) Develops social skills<br>3) Increases ability to learn new skills (adoption of technology)<br>4) Girls remain more in school and early marriages are delayed<br>5) Improves cohesion in the community<br>6) Helps break the cycle of poverty<br>7) Increases the chances of the pupils' future economic self-reliance<br>8) Through girls' education, improves the general wellbeing of households (nutrition, health etc.)<br>9) Other (please specify) | |
| If no, why do you feel it is not important to go to school?<br>• It wastes time<br>• It gives teachers an opportunity to harm the children<br>• Those who have gone to school have no difference in their life<br>• Those who have not gone to school are doing better in life than those who have gone to school<br>• It is not enjoyable<br>• Children do not get food in school<br>• Because parents say it is not important<br>• Because if fail in school<br>• others | |
| During last term of this year (term 1 of 2018), did you miss full day of school?<br>1) Yes<br>2) No | |
| How many days in the last term did you miss school? | |
| Why did you miss school?<br>1) I was sick<br>2) Someone else in the house was sick | |

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| 3) I had to work<br>4) My parents did not want me to go<br>5) The teacher was not there<br>6) It was dangerous to come to school/security issues<br>7) I did not have any transportation<br>8) Other (please specify) | |
| Do you find it easy to concentrate in class?<br>Yes - always<br>Yes - sometime<br>No | |
| Whenever you don't concentrate in class, what is it that is bothering you? (Multiples select)<br>1) The work is too difficult<br>2) The work is too easy<br>3) I don't find the material/topic interesting<br>4) I am worried about some other things like how to get money<br>5) I am hungry<br>6) When I am feeling sick<br>7) I am tired from work or domestic chores<br>8) I can't hear/see what the teacher is explaining<br>9) When some other children are making noise<br>10) When the environment around the school is not peaceful<br>11) When there is insecurity in my village<br>12) Other (please specify) _____ | |
| *Learners assessment (to be carried out using the UWEZO learner's assessment booklet and administered to pupils between 6 – 16 years)* | |
| What is the English literacy level if the child? (Please choose the highest level)<br>1) Nothing<br>2) Letter<br>3) Word<br>4) Paragraph<br>5) Story | |
| What is the comprehension level of child in English Q1 (administer only if the child can read story)?<br>1) Can do<br>2) Cannot do | |
| What is the comprehension level of child in English Q2 (administer only if the child can read story)?<br>1) Can do<br>2) Cannot do | |
| What is the Kiswahili literacy level if the child? (Please choose the highest level)<br>1) Nothing<br>2) Letter<br>3) Word<br>4) Paragraph<br>5) Story | |

| | |
|---|---|
| What is the comprehension level of child in Kiswahili Q1 (administer only if the child can read story)?<br>1) Can do<br>2) Cannot do | |
| What is the comprehension level of child in Kiswahili Q2 (administer only if the child can read story)?<br>1) Can do<br>2) Cannot do | |
| Please record the child numeracy level (tick the highest level)<br>1) Nothing<br>2) Counting and matching<br>3) Numerical rec. between 10-99<br>4) Which one is greater<br>5) Addition<br>6) Subtraction<br>7) Multiplication<br>8) Division | |
| Can the child do the bonus question 1<br>1) Yes<br>2) No | |
| Can the child do the bonus question 1<br>1) Yes<br>2) No | |
| Can the child do the bonus question 1<br>1) Yes<br>2) No | |
| **Thank you for your collaboration/assistance in this interview** | |

**Annex 10: Annexes for Quantitative analyses**

# Midline Data analysis – Annexures

**Annex 10a: Comparing distribution of specific variables between study arms stratified by gender of child at Baseline**

**Table 1a: Socio-demographic of parents/guardians distributed by CONTROL and WFPSMP stratified by gender of the child**

| | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | **CONTROL (n=675)** | | **WFPSMP (n=579)** | | **p value** | **CONTROL (n=721)** | | **WFPSMP (n=565)** | | **p value** | **CONTROL (n=1396)** | | **WFPSMP (n=1144)** | | **p value** |
| **Age of guardian in years** | | | | | | | | | | | | | | | |
| <20 | 1 | 0.1% | 3 | 0.5% | 0.534 | 1 | 0.1% | 2 | 0.4% | 0.593 | 2 | 0.1% | 5 | 0.4% | 0.183 |
| 20 - 29 | 71 | 10.5% | 70 | 12.1% | | 90 | 12.5% | 82 | 14.5% | | 161 | 11.5% | 152 | 13.3% | |
| 30 - 39 | 279 | 41.3% | 227 | 39.2% | | 290 | 40.2% | 208 | 36.8% | | 569 | 40.8% | 435 | 38.0% | |
| 40 - 49 | 192 | 28.4% | 177 | 30.6% | | 200 | 27.7% | 169 | 29.9% | | 392 | 28.1% | 346 | 30.2% | |
| 50 - 59 | 84 | 12.4% | 70 | 12.1% | | 87 | 12.1% | 69 | 12.2% | | 171 | 12.2% | 139 | 12.2% | |
| 60 and above | 48 | 7.1% | 32 | 5.5% | | 53 | 7.4% | 35 | 6.2% | | 101 | 7.2% | 67 | 5.9% | |
| **Gender of the guardian** | | | | | | | | | | | | | | | |
| Male | 195 | 28.9% | 200 | 34.5% | **0.032** | 171 | 23.7% | 163 | 28.8% | **0.037** | 366 | 26.2% | 363 | 31.7% | **0.002** |
| Female | 480 | 71.1% | 379 | 65.5% | | 550 | 76.3% | 402 | 71.2% | | 1030 | 73.8% | 781 | 68.3% | |
| **Relationship of guardian to the child** | | | | | | | | | | | | | | | |
| Mother/Father | 582 | 86.2% | 486 | 83.9% | **0.001** | 620 | 86.0% | 458 | 81.1% | **0.002** | 1202 | 86.1% | 944 | 82.5% | **<0.001** |
| Brother/Sister | 11 | 1.6% | 25 | 4.3% | | 19 | 2.6% | 25 | 4.4% | | 30 | 2.1% | 50 | 4.4% | |
| Uncle/Aunt | 19 | 2.8% | 24 | 4.1% | | 19 | 2.6% | 34 | 6.0% | | 38 | 2.7% | 58 | 5.1% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grand parent | 49 | 7.3% | 22 | 3.8% | | 45 | 6.2% | 25 | 4.4% | | 94 | 6.7% | 47 | 4.1% | |
| Guardian | 14 | 2.1% | 22 | 3.8% | | 18 | 2.5% | 23 | 4.1% | | 32 | 2.3% | 45 | 3.9% | |
| **Guardian was the household head** | | | | | | | | | | | | | | | |
| Yes | 395 | 58.5% | 354 | 61.1% | 0.345 | 447 | 62.0% | 348 | 61.6% | 0.882 | 842 | 60.3% | 702 | 61.4% | 0.590 |
| No | 280 | 41.5% | 225 | 38.9% | | 274 | 38.0% | 217 | 38.4% | | 554 | 39.7% | 442 | 38.6% | |
| **Main occupation of the guardian** | | | | | | | | | | | | | | | |
| Too old to work | 18 | 2.7% | 22 | 3.8% | **<0.001** | 14 | 1.9% | 20 | 3.5% | **<0.001** | 32 | 2.3% | 42 | 3.7% | **<0.001** |
| Student | 4 | 0.6% | 2 | 0.3% | | 6 | 0.8% | 2 | 0.4% | | 10 | 0.7% | 4 | 0.3% | |
| Farmer | 274 | 40.6% | 40 | 6.9% | | 293 | 40.6% | 49 | 8.7% | | 567 | 40.6% | 89 | 7.8% | |
| Pastoralist | 31 | 4.6% | 87 | 15.0% | | 19 | 2.6% | 87 | 15.4% | | 50 | 3.6% | 174 | 15.2% | |
| Salaried employee | 19 | 2.8% | 27 | 4.7% | | 25 | 3.5% | 12 | 2.1% | | 44 | 3.2% | 39 | 3.4% | |
| Casual laborer | 154 | 22.8% | 60 | 10.4% | | 183 | 25.4% | 57 | 10.1% | | 337 | 24.1% | 117 | 10.2% | |
| Self-employed business | 51 | 7.6% | 42 | 7.3% | | 42 | 5.8% | 56 | 9.9% | | 93 | 6.7% | 98 | 8.6% | |
| Not currently working | 110 | 16.3% | 234 | 40.4% | | 115 | 16.0% | 216 | 38.2% | | 225 | 16.1% | 450 | 39.3% | |
| Others | 14 | 2.1% | 65 | 11.2% | | 24 | 3.3% | 66 | 11.7% | | 38 | 2.7% | 131 | 11.5% | |
| **Education level of the guardian** | | | | | | | | | | | | | | | |
| Never attended school | 114 | 16.9% | 447 | 77.2% | **<0.001** | 95 | 13.2% | 454 | 80.4% | **<0.001** | 209 | 15.0% | 901 | 78.8% | **<0.001** |
| Madrasa/Adult learning center | 0 | 0.0% | 25 | 4.3% | | 0 | 0.0% | 18 | 3.2% | | 0 | 0.0% | 43 | 3.8% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Did not complete primary school | 206 | 30.5% | 41 | 7.1% | 228 | 31.6% | 42 | 7.4% | 434 | 31.1% | 83 | 7.3% |
| Completed primary school | 228 | 33.8% | 20 | 3.5% | 252 | 35.0% | 19 | 3.4% | 480 | 34.4% | 39 | 3.4% |
| Did not compete secondary | 37 | 5.5% | 11 | 1.9% | 58 | 8.0% | 9 | 1.6% | 95 | 6.8% | 20 | 1.7% |
| Completed secondary school | 59 | 8.7% | 17 | 2.9% | 59 | 8.2% | 11 | 1.9% | 118 | 8.5% | 28 | 2.4% |
| Completed technical college | 30 | 4.4% | 15 | 2.6% | 19 | 2.6% | 12 | 2.1% | 49 | 3.5% | 27 | 2.4% |
| Completed university/graduate school | 1 | 0.1% | 3 | 0.5% | 10 | 1.4% | 0 | 0.0% | 11 | 0.8% | 3 | 0.3% |

**Table 1b: Socio-demographic of parents/guardians distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Age of guardian in years** | | | | | | | | | | | | | | | |
| <20 | 5 | 0.8% | 2 | 0.3% | **0.004** | 4 | 0.7% | 2 | 0.3% | 0.212 | 9 | 0.8% | 4 | 0.3% | **0.001** |
| 20 - 29 | 61 | 10.3% | 77 | 10.8% | | 63 | 11.6% | 75 | 10.1% | | 124 | 10.9% | 152 | 10.4% | |
| 30 - 39 | 225 | 37.9% | 297 | 41.7% | | 211 | 39.0% | 325 | 43.7% | | 436 | 38.4% | 622 | 42.7% | |
| 40 - 49 | 204 | 34.4% | 183 | 25.7% | | 164 | 30.3% | 202 | 27.2% | | 368 | 32.5% | 385 | 26.4% | |
| 50 - 59 | 66 | 11.1% | 91 | 12.8% | | 69 | 12.8% | 84 | 11.3% | | 135 | 11.9% | 175 | 12.0% | |
| 60 and above | 32 | 5.4% | 63 | 8.8% | | 30 | 5.5% | 55 | 7.4% | | 62 | 5.5% | 118 | 8.1% | |
| **Gender of the guardian** | | | | | | | | | | | | | | | |
| Male | 211 | 35.6% | 180 | 25.2% | **<0.001** | 156 | 28.8% | 177 | 23.8% | **0.043** | 367 | 32.4% | 357 | 24.5% | **<0.001** |
| Female | 382 | 64.4% | 533 | 74.8% | | 385 | 71.2% | 566 | 76.2% | | 767 | 67.6% | 1099 | 75.5% | |
| **Relationship guardian to the child** | | | | | | | | | | | | | | | |
| Mother/Father | 487 | 82.1% | 606 | 85.0% | **<0.001** | 434 | 80.2% | 627 | 84.4% | **<0.001** | 921 | 81.2% | 1233 | 84.7% | **<0.001** |
| Brother/Sister | 23 | 3.9% | 12 | 1.7% | | 35 | 6.5% | 14 | 1.9% | | 58 | 5.1% | 26 | 1.8% | |
| Uncle/Aunt | 29 | 4.9% | 16 | 2.2% | | 27 | 5.0% | 19 | 2.6% | | 56 | 4.9% | 35 | 2.4% | |
| Grand parent | 20 | 3.4% | 55 | 7.7% | | 21 | 3.9% | 56 | 7.5% | | 41 | 3.6% | 111 | 7.6% | |
| Guardian | 34 | 5.7% | 24 | 3.4% | | 24 | 4.4% | 27 | 3.6% | | 58 | 5.1% | 51 | 3.5% | |
| **Guardian was the household head** | | | | | | | | | | | | | | | |
| Yes | 371 | 62.6% | 431 | 60.4% | 0.435 | 326 | 60.3% | 463 | 62.3% | 0.455 | 697 | 61.5% | 894 | 61.4% | 0.974 |
| No | 222 | 37.4% | 282 | 39.6% | | 215 | 39.7% | 280 | 37.7% | | 437 | 38.5% | 562 | 38.6% | |
| **Main occupation of the guardian** | | | | | | | | | | | | | | | |
| Too old to work | 23 | 3.9% | 11 | 1.5% | **<0.001** | 15 | 2.8% | 9 | 1.2% | **<0.001** | 38 | 3.4% | 20 | 1.4% | **<0.001** |
| Student | 3 | 0.5% | 5 | 0.7% | | 5 | 0.9% | 4 | 0.5% | | 8 | 0.7% | 9 | 0.6% | |
| Farmer | 41 | 6.9% | 279 | 39.1% | | 30 | 5.5% | 297 | 40.0% | | 71 | 6.3% | 576 | 39.6% | |
| Pastoralist | 91 | 15.3% | 29 | 4.1% | | 65 | 12.0% | 23 | 3.1% | | 156 | 13.8% | 52 | 3.6% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Salaried employee | 24 | 4.0% | 34 | 4.8% | | 18 | 3.3% | 41 | 5.5% | | 42 | 3.7% | 75 | 5.2% | |
| Casual laborer | 78 | 13.2% | 166 | 23.3% | | 50 | 9.2% | 187 | 25.2% | | 128 | 11.3% | 353 | 24.2% | |
| Self-employed business | 40 | 6.7% | 89 | 12.5% | | 59 | 10.9% | 83 | 11.2% | | 99 | 8.7% | 172 | 11.8% | |
| Not currently working | 239 | 40.3% | 87 | 12.2% | | 247 | 45.7% | 89 | 12.0% | | 486 | 42.9% | 176 | 12.1% | |
| Others | 54 | 9.1% | 13 | 1.8% | | 52 | 9.6% | 10 | 1.3% | | 106 | 9.3% | 23 | 1.6% | |
| **Education level of the guardian** | | | | | | | | | | | | | | | |
| Never attended school | 466 | 78.6% | 118 | 16.5% | **<0.001** | 427 | 78.9% | 105 | 14.1% | **<0.001** | 893 | 78.7% | 223 | 15.3% | **<0.001** |
| Madrasa/Adult learning center | 30 | 5.1% | 1 | 0.1% | | 24 | 4.4% | 0 | 0.0% | | 54 | 4.8% | 1 | 0.1% | |
| Did not complete primary school | 31 | 5.2% | 212 | 29.7% | | 28 | 5.2% | 202 | 27.2% | | 59 | 5.2% | 414 | 28.4% | |
| Completed primary school | 22 | 3.7% | 224 | 31.4% | | 22 | 4.1% | 264 | 35.5% | | 44 | 3.9% | 488 | 33.5% | |
| Did not compete secondary | 6 | 1.0% | 58 | 8.1% | | 8 | 1.5% | 53 | 7.1% | | 14 | 1.2% | 111 | 7.6% | |
| Completed secondary school | 26 | 4.4% | 61 | 8.6% | | 17 | 3.1% | 80 | 10.8% | | 43 | 3.8% | 141 | 9.7% | |
| Completed technical college | 10 | 1.7% | 34 | 4.8% | | 14 | 2.6% | 37 | 5.0% | | 24 | 2.1% | 71 | 4.9% | |
| Completed university/graduate school | 2 | 0.3% | 5 | 0.7% | | 1 | 0.2% | 2 | 0.3% | | 3 | 0.3% | 7 | 0.5% | |

**Table 2a: Number of males and females in the household distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p value |
| **Total males in the household** | | | | | | | | | | | | | | | |
| None | 6 | 0.9% | 1 | 0.2% | **<0.001** | 35 | 4.9% | 21 | 3.7% | **<0.001** | 41 | 2.9% | 22 | 1.9% | **<0.001** |
| 1 to 2 | 187 | 27.7% | 104 | 18.0% | | 307 | 42.6% | 150 | 26.5% | | 494 | 35.4% | 254 | 22.2% | |
| 3 to 4 | 316 | 46.8% | 273 | 47.2% | | 287 | 39.8% | 269 | 47.6% | | 603 | 43.2% | 542 | 47.4% | |
| 5 to 6 | 136 | 20.1% | 153 | 26.4% | | 74 | 10.3% | 106 | 18.8% | | 210 | 15.0% | 259 | 22.6% | |
| 7 to 8 | 30 | 4.4% | 48 | 8.3% | | 18 | 2.5% | 19 | 3.4% | | 48 | 3.4% | 67 | 5.9% | |
| **Total females in the household** | | | | | | | | | | | | | | | |
| None | 26 | 3.9% | 23 | 4.0% | **<0.001** | 2 | 0.3% | 4 | 0.7% | **0.021** | 28 | 2.0% | 27 | 2.4% | **0.002** |
| 1 to 2 | 316 | 46.8% | 208 | 35.9% | | 200 | 27.7% | 148 | 26.2% | | 516 | 37.0% | 356 | 31.1% | |
| 3 to 4 | 260 | 38.5% | 259 | 44.7% | | 346 | 48.0% | 235 | 41.6% | | 606 | 43.4% | 494 | 43.2% | |
| 5 to 6 | 70 | 10.4% | 74 | 12.8% | | 135 | 18.7% | 145 | 25.7% | | 205 | 14.7% | 219 | 19.1% | |
| 7 to 8 | 3 | 0.4% | 15 | 2.6% | | 38 | 5.3% | 33 | 5.8% | | 41 | 2.9% | 48 | 4.2% | |
| **Total males between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 15 | 2.2% | 13 | 2.2% | **0.028** | 196 | 27.2% | 100 | 17.7% | **<0.001** | 211 | 15.1% | 113 | 9.9% | **<0.001** |
| 1 to 2 | 477 | 70.7% | 368 | 63.6% | | 438 | 60.7% | 351 | 62.1% | | 915 | 65.5% | 719 | 62.8% | |
| 3 to 4 | 164 | 24.3% | 175 | 30.2% | | 77 | 10.7% | 101 | 17.9% | | 241 | 17.3% | 276 | 24.1% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 to 6 | 12 | 1.8% | 20 | 3.5% | | 9 | 1.2% | 11 | 1.9% | | 21 | 1.5% | 31 | 2.7% | |
| 7 to 8 | 7 | 1.0% | 3 | 0.5% | | 1 | 0.1% | 2 | 0.4% | | 8 | 0.6% | 5 | 0.4% | |
| **Total females between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 203 | 30.1% | 162 | 28.0 % | 0.065 | 24 | 3.3% | 31 | 5.5% | 0.204 | 227 | 16.3% | 193 | 16.9% | 0.516 |
| 1 to 2 | 40 8 | 60.4 % | 337 | 58.2% | | 508 | 70.5% | 401 | 71.0% | | 916 | 65.6 % | 738 | 64.5 % | |
| 3 to 4 | 58 | 8.6% | 68 | 11.7% | | 167 | 23.2% | 111 | 19.6% | | 225 | 16.1% | 179 | 15.6% | |
| 5 to 6 | 3 | 0.4% | 10 | 1.7% | | 18 | 2.5% | 18 | 3.2% | | 21 | 1.5% | 28 | 2.4% | |
| 7 to 8 | 3 | 0.4% | 2 | 0.3% | | 4 | 0.6% | 4 | 0.7% | | 7 | 0.5% | 6 | 0.5% | |

**Table 2b: Number of males and females in the household distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Total males in the household** | | | | | | | | | | | | | | | |
| None | 5 | 0.8% | 3 | 0.4% | **<0.001** | 26 | 4.8% | 47 | 6.3% | **<0.001** | 31 | 2.7% | 50 | 3.4% | **<0.001** |
| 1 to 2 | 110 | 18.5% | 218 | 30.6% | | 161 | 29.8% | 354 | 47.6% | | 271 | 23.9% | 572 | 39.3% | |
| 3 to 4 | 265 | 44.7% | 348 | 48.8% | | 235 | 43.4% | 259 | 34.9% | | 500 | 44.1% | 607 | 41.7% | |
| 5 to 6 | 161 | 27.2% | 111 | 15.6% | | 96 | 17.7% | 65 | 8.7% | | 257 | 22.7% | 176 | 12.1% | |
| 7 to 8 | 52 | 8.8% | 33 | 4.6% | | 23 | 4.3% | 18 | 2.4% | | 75 | 6.6% | 51 | 3.5% | |
| **Total females in the household** | | | | | | | | | | | | | | | |
| None | 22 | 3.7% | 68 | 9.5% | **<0.001** | 4 | 0.7% | 3 | 0.4% | **0.014** | 26 | 2.3% | 71 | 4.9% | **<0.001** |
| 1 to 2 | 198 | 33.4% | 320 | 44.9% | | 143 | 26.4% | 234 | 31.5% | | 341 | 30.1% | 554 | 38.0% | |
| 3 to 4 | 264 | 44.5% | 241 | 33.8% | | 234 | 43.3% | 346 | 46.6% | | 498 | 43.9% | 587 | 40.3% | |
| 5 to 6 | 98 | 16.5% | 74 | 10.4% | | 124 | 22.9% | 121 | 16.3% | | 222 | 19.6% | 195 | 13.4% | |
| 7 to 8 | 11 | 1.9% | 10 | 1.4% | | 36 | 6.7% | 39 | 5.2% | | 47 | 4.1% | 49 | 3.4% | |
| **Total males between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 13 | 2.2% | 18 | 2.5% | 0.168 | 97 | 17.9% | 246 | 33.1% | **<0.001** | 110 | 9.7% | 264 | 18.1% | **<0.001** |
| 1 to 2 | 388 | 65.4% | 509 | 71.4% | | 334 | 61.7% | 410 | 55.2% | | 722 | 63.7% | 919 | 63.1% | |
| 3 to 4 | 163 | 27.5% | 155 | 21.7% | | 96 | 17.7% | 76 | 10.2% | | 259 | 22.8% | 231 | 15.9% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 to 6 | 22 | 3.7% | 24 | 3.4% | | 13 | 2.4% | 9 | 1.2% | | 35 | 3.1% | 33 | 2.3% | |
| 7 to 8 | 7 | 1.2% | 7 | 1.0% | | 1 | 0.2% | 2 | 0.3% | | 8 | 0.7% | 9 | 0.6% | |
| **Total females between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 151 | 25.5 % | 267 | 37.4% | **<0.001** | 26 | 4.8% | 24 | 3.2% | 0.298 | 177 | 15.6% | 291 | 20.0 % | **0.029** |
| 1 to 2 | 355 | 59.9 % | 369 | 51.8% | | 382 | 70.6 % | 545 | 73.4 % | | 737 | 65.0 % | 914 | 62.8 % | |
| 3 to 4 | 80 | 13.5% | 66 | 9.3% | | 114 | 21.1% | 145 | 19.5% | | 194 | 17.1% | 211 | 14.5% | |
| 5 to 6 | 7 | 1.2% | 8 | 1.1% | | 14 | 2.6% | 26 | 3.5% | | 21 | 1.9% | 34 | 2.3% | |
| 7 to 8 | 0 | 0.0% | 3 | 0.4% | | 5 | 0.9% | 3 | 0.4% | | 5 | 0.4% | 6 | 0.4% | |

**Table 3a: Availability of food at home distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p value |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 104 | 15.4% | 158 | 27.3% | **<0.001** | 125 | 17.3% | 153 | 27.1% | **<0.001** | 229 | 16.4% | 311 | 27.2% | **<0.001** |
| 1 - 2 days | 96 | 14.2% | 83 | 14.3% | | 107 | 14.8% | 101 | 17.9% | | 203 | 14.5% | 184 | 16.1% | |
| 3 - 4 days | 203 | 30.1% | 149 | 25.7% | | 231 | 32.0% | 122 | 21.6% | | 434 | 31.1% | 271 | 23.7% | |
| 5 days | 272 | 40.3% | 189 | 32.6% | | 258 | 35.8% | 189 | 33.5% | | 530 | 38.0% | 378 | 33.0% | |
| **Number of days child ate after coming from school** | | | | | | | | | | | | | | | |
| None | 23 | 3.4% | 36 | 6.2% | **<0.001** | 29 | 4.0% | 35 | 6.2% | **<0.001** | 52 | 3.7% | 71 | 6.2% | **<0.001** |
| 1 - 2 days | 42 | 6.2% | 81 | 14.0% | | 48 | 6.7% | 95 | 16.8% | | 90 | 6.4% | 176 | 15.4% | |
| 3 - 4 days | 129 | 19.1% | 206 | 35.6% | | 140 | 19.4% | 171 | 30.3% | | 269 | 19.3% | 377 | 33.0% | |
| 5 days | 481 | 71.3% | 256 | 44.2% | | 504 | 69.9% | 264 | 46.7% | | 985 | 70.6% | 520 | 45.5% | |
| **Child had a meal on interview day before going to school** | | | | | | | | | | | | | | | |
| No | 221 | 32.7% | 256 | 44.2% | **<0.001** | 287 | 39.8% | 260 | 46.0% | **<0.001** | 508 | 36.4% | 516 | 45.1% | **<0.001** |
| Yes: Not enough | 298 | 44.1% | 152 | 26.3% | | 279 | 38.7% | 156 | 27.6% | | 577 | 41.3% | 308 | 26.9% | |
| Yes: Enough | 156 | 23.1% | 171 | 29.5% | | 155 | 21.5% | 149 | 26.4% | | 311 | 22.3% | 320 | 28.0% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Food consumption score (FCS)** | | | | | | | | | | | | | | | |
| Poor | 164 | 24.3 % | 216 | 37.3 % | **<0.001** | 182 | 25.2 % | 213 | 37.7% | **<0.001** | 346 | 24.8 % | 429 | 37.5% | **<0.001** |
| Borderline | 268 | 39.7 % | 154 | 26.6 % | | 288 | 39.9 % | 158 | 28.0 % | | 556 | 39.8 % | 312 | 27.3% | |
| Acceptable | 243 | 36.0 % | 209 | 36.1 % | | 251 | 34.8 % | 194 | 34.3 % | | 494 | 35.4 % | 403 | 35.2% | |

**Table 3b: Availability of food at home distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 116 | 19.6% | 90 | 12.6% | **0.007** | 97 | 17.9% | 80 | 10.8% | **<0.001** | 213 | 18.8% | 170 | 11.7% | **<0.001** |
| 1 - 2 days | 80 | 13.5% | 98 | 13.7% | | 99 | 18.3% | 103 | 13.9% | | 179 | 15.8% | 201 | 13.8% | |
| 3 - 4 days | 165 | 27.8% | 224 | 31.4% | | 138 | 25.5% | 232 | 31.2% | | 303 | 26.7% | 456 | 31.3% | |
| 5 days | 232 | 39.1% | 301 | 42.2% | | 207 | 38.3% | 328 | 44.1% | | 439 | 38.7% | 629 | 43.2% | |
| **Number of days child ate after coming from school** | | | | | | | | | | | | | | | |
| None | 24 | 4.0% | 41 | 5.8% | **<0.001** | 22 | 4.1% | 42 | 5.7% | **<0.001** | 46 | 4.1% | 83 | 5.7% | **<0.001** |
| 1 - 2 days | 89 | 15.0% | 44 | 6.2% | | 94 | 17.4% | 41 | 5.5% | | 183 | 16.1% | 85 | 5.8% | |
| 3 - 4 days | 204 | 34.4% | 125 | 17.5% | | 169 | 31.2% | 126 | 17.0% | | 373 | 32.9% | 251 | 17.2% | |
| 5 days | 276 | 46.5% | 503 | 70.5% | | 256 | 47.3% | 534 | 71.9% | | 532 | 46.9% | 1037 | 71.2% | |
| **Child had a meal on interview day before going to school** | | | | | | | | | | | | | | | |
| No | 209 | 35.2% | 231 | 32.4% | **<0.001** | 193 | 35.7% | 241 | 32.4% | **<0.001** | 402 | 35.4% | 472 | 32.4% | **<0.001** |
| Meal not enough | 162 | 27.3% | 312 | 43.8% | | 154 | 28.5% | 332 | 44.7% | | 316 | 27.9% | 644 | 44.2% | |
| Enough meal | 222 | 37.4% | 170 | 23.8% | | 194 | 35.9% | 170 | 22.9% | | 416 | 36.7% | 340 | 23.4% | |
| **Food consumption score (FCS)** | | | | | | | | | | | | | | | |
| Poor | 197 | 33.2% | 148 | 20.8% | **<0.001** | 193 | 35.7% | 156 | 21.0% | **<0.001** | 390 | 34.4% | 304 | 20.9% | **<0.001** |
| Borderline | 135 | 22.8% | 281 | 39.4% | | 125 | 23.1% | 271 | 36.5% | | 260 | 22.9% | 552 | 37.9% | |
| Acceptable | 261 | 44.0% | 284 | 39.8% | | 223 | 41.2% | 316 | 42.5% | | 484 | 42.7% | 600 | 41.2% | |

**Table 4a: Availability of food at school distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p value |
| **Child has been receiving school meals at school in the current school year (2017)** | | | | | | | | | | | | | | | |
| Yes | 158 | 23.4% | 322 | 55.6% | **<0.001** | 121 | 16.8% | 356 | 63.0% | **<0.001** | 279 | 20.0% | 678 | 59.3% | **<0.001** |
| No | 517 | 76.6% | 257 | 44.4% | | 600 | 83.2% | 209 | 37.0% | | 1117 | 80.0% | 466 | 40.7% | |
| **The school in which the child was learning at currently (same week) serving food** | | | | | | | | | | | | | | | |
| Yes | 114 | 16.9% | 289 | 49.9% | **<0.001** | 113 | 15.7% | 302 | 53.5% | **<0.001** | 227 | 16.3% | 591 | 51.7% | **<0.001** |
| No | 561 | 83.1% | 290 | 50.1% | | 608 | 84.3% | 263 | 46.5% | | 1169 | 83.7% | 553 | 48.3% | |
| **When school meals are not provided: Child carried food from home** | | | | | | | | | | | | | | | |
| No | 410 | 60.7% | 573 | 99.0% | **<0.001** | 383 | 53.1% | 562 | 99.5% | **<0.001** | 793 | 56.8% | 1135 | 99.2% | **<0.001** |
| Yes | 265 | 39.3% | 6 | 1.0% | | 338 | 46.9% | 3 | 0.5% | | 603 | 43.2% | 9 | 0.8% | |
| **When school meals are not provided: Child buys lunch** | | | | | | | | | | | | | | | |
| No | 664 | 98.4% | 572 | 98.8% | 0.532 | 711 | 98.6% | 558 | 98.8% | 0.818 | 1375 | 98.5% | 1130 | 98.8% | 0.546 |
| Yes | 11 | 1.6% | 7 | 1.2% | | 10 | 1.4% | 7 | 1.2% | | 21 | 1.5% | 14 | 1.2% | |
| **When school meals are not provided: Child goes home for lunch** | | | | | | | | | | | | | | | |
| No | 537 | 79.6% | 246 | 42.5% | **<0.001** | 558 | 77.4% | 278 | 49.2% | **<0.001** | 1095 | 78.4% | 524 | 45.8% | **<0.001** |
| Yes | 138 | 20.4% | 333 | 57.5% | | 163 | 22.6% | 287 | 50.8% | | 301 | 21.6% | 620 | 54.2% | |
| **When school meals are not provided: Child remains at home** | | | | | | | | | | | | | | | |
| No | 670 | 99.3% | 562 | 97.1% | **0.003** | 715 | 99.2% | 544 | 96.3% | **<0.001** | 1385 | 99.2% | 1106 | 96.7% | **<0.001** |
| Yes | 5 | 0.7% | 17 | 2.9% | | 6 | 0.8% | 21 | 3.7% | | 11 | 0.8% | 38 | 3.3% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **When school meals are not provided: Child goes without lunch** | | | | | | | | | | | | | | | |
| No | 255 | 37.8% | 293 | 50.6% | **<0.001** | 315 | 43.7% | 262 | 46.4% | 0.337 | 570 | 40.8% | 555 | 48.5% | **<0.001** |
| Yes | 420 | 62.2% | 286 | 49.4% | | 406 | 56.3% | 303 | 53.6% | | 826 | 59.2% | 589 | 51.5% | |
| **Child missed a complete day of school during the 1st term of the year (2017)** | | | | | | | | | | | | | | | |
| Yes | 357 | 52.9% | 211 | 36.4% | **<0.001** | 360 | 49.9% | 190 | 33.6% | **<0.001** | 717 | 51.4% | 401 | 35.1% | **<0.001** |
| No | 318 | 47.1% | 368 | 63.6% | | 361 | 50.1% | 375 | 66.4% | | 679 | 48.6% | 743 | 64.9% | |

**Table 4b: Availability of food at school distributed by WFPSMP and HGSMP stratified by gender of the child**

| | **Male (n=1306)** | | | | | **Female (n=1284)** | | | | | **Total (n=2590)** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | **WFPSMP (n=593)** | | **HGSMP (n=713)** | | **p value** | **WFPSMP (n=541)** | | **HGSMP (n=743)** | | **p value** | **WFPSMP (n=1134)** | | **HGSMP (n=1456)** | | **p value** |
| **Child has been receiving school meals at school in the current school year (2017)** | | | | | | | | | | | | | | | |
| Yes | 318 | 53.6% | 573 | 80.4% | **<0.001** | 313 | 57.9% | 598 | 80.5% | **<0.001** | 631 | 55.6% | 1171 | 80.4% | **<0.001** |
| No | 275 | 46.4% | 140 | 19.6% | | 228 | 42.1% | 145 | 19.5% | | 503 | 44.4% | 285 | 19.6% | |
| **The school in which the child was learning at currently (same week) serving food** | | | | | | | | | | | | | | | |
| Yes | 263 | 44.4% | 351 | 49.2% | 0.079 | 235 | 43.4% | 399 | 53.7% | **<0.001** | 498 | 43.9% | 750 | 51.5% | **<0.001** |
| No | 330 | 55.6% | 362 | 50.8% | | 306 | 56.6% | 344 | 46.3% | | 636 | 56.1% | 706 | 48.5% | |
| **When school meals are not provided: Child carried food from home** | | | | | | | | | | | | | | | |
| No | 583 | 98.3% | 410 | 57.5% | **<0.001** | 537 | 99.3% | 387 | 52.1% | **<0.001** | 1120 | 98.8% | 797 | 54.7% | **<0.001** |
| Yes | 10 | 1.7% | 303 | 42.5% | | 4 | 0.7% | 356 | 47.9% | | 14 | 1.2% | 659 | 45.3% | |
| **When school meals are not provided: Child buys lunch** | | | | | | | | | | | | | | | |
| No | 581 | 98.0% | 698 | 97.9% | 0.919 | 532 | 98.3% | 732 | 98.5% | 0.794 | 1113 | 98.1% | 1430 | 98.2% | 0.900 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Yes | 12 | 2.0% | 15 | 2.1% | | 9 | 1.7% | 11 | 1.5% | | 21 | 1.9% | 26 | 1.8% | |
| **When school meals are not provided: Child goes home for lunch** | | | | | | | | | | | | | | | |
| No | 197 | 33.2% | 557 | 78.1% | **<0.001** | 202 | 37.3% | 602 | 81.0% | **<0.001** | 399 | 35.2% | 1159 | 79.6% | **<0.001** |
| Yes | 396 | 66.8% | 156 | 21.9% | | 339 | 62.7% | 141 | 19.0% | | 735 | 64.8% | 297 | 20.4% | |
| **When school meals are not provided: Child remains at home** | | | | | | | | | | | | | | | |
| No | 580 | 97.8% | 707 | 99.2% | **0.042** | 535 | 98.9% | 726 | 97.7% | 0.116 | 1115 | 98.3% | 1433 | 98.4% | 0.848 |
| Yes | 13 | 2.2% | 6 | 0.8% | | 6 | 1.1% | 17 | 2.3% | | 19 | 1.7% | 23 | 1.6% | |
| **When school meals are not provided: Child goes without lunch** | | | | | | | | | | | | | | | |
| No | 376 | 63.4% | 291 | 40.8% | **<0.001** | 320 | 59.1% | 328 | 44.1% | **<0.001** | 696 | 61.4% | 619 | 42.5% | **<0.001** |
| Yes | 217 | 36.6% | 422 | 59.2% | | 221 | 40.9% | 415 | 55.9% | | 438 | 38.6% | 837 | 57.5% | |
| **Child missed a complete day of school during the 1st term of the year (2017)** | | | | | | | | | | | | | | | |
| Yes | 181 | 30.5% | 402 | 56.4% | **<0.001** | 186 | 34.4% | 399 | 53.7% | **<0.001** | 367 | 32.4% | 801 | 55.0% | **<0.001** |
| No | 412 | 69.5% | 311 | 43.6% | | 355 | 65.6% | 344 | 46.3% | | 767 | 67.6% | 655 | 45.0% | |

**Table 5a: Coping strategy on days when the family did not have enough food or money to buy food distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p value |
| **Quintiles of Coping Strategy Index (CSI)** | | | | | | | | | | | | | | | |
| First | 108 | 16.0% | 130 | 22.5% | **0.001** | 119 | 16.5% | 109 | 19.3% | 0.117 | 227 | 16.3% | 239 | 20.9% | **0.001** |
| Second | 126 | 18.7% | 132 | 22.8% | | 142 | 19.7% | 104 | 18.4% | | 268 | 19.2% | 236 | 20.6% | |
| Third | 140 | 20.7% | 93 | 16.1% | | 147 | 20.4% | 121 | 21.4% | | 287 | 20.6% | 214 | 18.7% | |
| Fourth | 161 | 23.9% | 103 | 17.8% | | 173 | 24.0% | 105 | 18.6% | | 334 | 23.9% | 208 | 18.2% | |
| Fifth | 140 | 20.7% | 121 | 20.9% | | 140 | 19.4% | 126 | 22.3% | | 280 | 20.1% | 247 | 21.6% | |

**Table 5b: Coping strategy on days when the family did not have enough food or money to buy food distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Quintiles of Coping Strategy Index (CSI)** | | | | | | | | | | | | | | | |
| First | 178 | 30.0% | 126 | 17.7% | **0.001** | 132 | 24.4% | 145 | 19.5% | 0.161 | 310 | 27.3% | 271 | 18.6% | **0.001** |
| Second | 133 | 22.4% | 132 | 18.5% | | 110 | 20.3% | 154 | 20.7% | | 243 | 21.4% | 286 | 19.6% | |
| Third | 92 | 15.5% | 170 | 23.8% | | 100 | 18.5% | 167 | 22.5% | | 192 | 16.9% | 337 | 23.1% | |
| Fourth | 77 | 13.0% | 165 | 23.1% | | 96 | 17.7% | 144 | 19.4% | | 173 | 15.3% | 309 | 21.2% | |
| Fifth | 113 | 19.1% | 120 | 16.8% | | 103 | 19.0% | 133 | 17.9% | | 216 | 19.0% | 253 | 17.4% | |

**Table 6a: Views on benefits of education, school absenteeism, sources of information on school feeding and hygiene distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p valu |
| **Number of important benefits of education mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| <2 | 227 | 33.6% | 78 | 13.5% | **<0.001** | 242 | 33.6% | 80 | 14.2% | **<0.001** | 469 | 33.6% | 158 | 13.8% | **<0.0** |
| 2 to 3 | 404 | 59.9% | 310 | 53.5% | | 436 | 60.5% | 284 | 50.3% | | 840 | 60.2% | 594 | 51.9% | |
| 4 to 5 | 41 | 6.1% | 104 | 18.0% | | 38 | 5.3% | 96 | 17.0% | | 79 | 5.7% | 200 | 17.5% | |
| 6 and above | 3 | 0.4% | 87 | 15.0% | | 5 | 0.7% | 105 | 18.6% | | 8 | 0.6% | 192 | 16.8% | |
| **Number of sources of information on school feeding in the past year mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| None | 469 | 69.5% | 172 | 29.7% | **<0.001** | 511 | 70.9% | 164 | 29.0% | **<0.001** | 980 | 70.2% | 336 | 29.4% | **<0.0** |
| One | 181 | 26.8% | 304 | 52.5% | | 184 | 25.5% | 302 | 53.5% | | 365 | 26.1% | 606 | 53.0% | |
| Two | 19 | 2.8% | 73 | 12.6% | | 24 | 3.3% | 69 | 12.2% | | 43 | 3.1% | 142 | 12.4% | |
| Three and above | 6 | 0.9% | 30 | 5.2% | | 2 | 0.3% | 30 | 5.3% | | 8 | 0.6% | 60 | 5.2% | |
| **Number of sources of information on hygiene in the past year mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| None | 337 | 49.9% | 218 | 37.7% | **<0.001** | 361 | 50.1% | 182 | 32.2% | **<0.001** | 698 | 50.0% | 400 | 35.0% | **<0.0** |
| One | 257 | 38.1% | 233 | 40.2% | | 288 | 39.9% | 239 | 42.3% | | 545 | 39.0% | 472 | 41.3% | |
| Two | 55 | 8.1% | 83 | 14.3% | | 51 | 7.1% | 99 | 17.5% | | 106 | 7.6% | 182 | 15.9% | |
| Three and above | 26 | 3.9% | 45 | 7.8% | | 21 | 2.9% | 45 | 8.0% | | 47 | 3.4% | 90 | 7.9% | |
| **Number of reasons why the child missed a complete day of school during the 1st term of this year** | | | | | | | | | | | | | | | |
| None | 318 | 47.1% | 368 | 63.6% | **<0.001** | 361 | 50.1% | 375 | 66.4% | **<0.001** | 679 | 48.6% | 743 | 64.9% | **<0.0** |
| One | 261 | 38.7% | 143 | 24.7% | | 282 | 39.1% | 118 | 20.9% | | 543 | 38.9% | 261 | 22.8% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Two | 80 | 11.9% | 39 | 6.7% | 61 | 8.5% | 45 | 8.0% | 141 | 10.1% | 84 | 7.3% |
| Three and above | 16 | 2.4% | 29 | 5.0% | 17 | 2.4% | 27 | 4.8% | 33 | 2.4% | 56 | 4.9% |

**Table 6b: Views on benefits of education, school absenteeism, sources of information on school feeding and hygiene distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Number of important benefits of education mentioned** | | | | | | | | | | | | | | | |
| <2 | 63 | 10.6% | 202 | 28.3% | **<0.001** | 64 | 11.8% | 183 | 24.6% | **<0.001** | 127 | 11.2% | 385 | 26.4% | **<0.001** |
| 2 to 3 | 358 | 60.4% | 455 | 63.8% | | 301 | 55.6% | 500 | 67.3% | | 659 | 58.1% | 955 | 65.6% | |
| 4 to 5 | 109 | 18.4% | 55 | 7.7% | | 93 | 17.2% | 57 | 7.7% | | 202 | 17.8% | 112 | 7.7% | |
| 6 and above | 63 | 10.6% | 1 | 0.1% | | 83 | 15.3% | 3 | 0.4% | | 146 | 12.9% | 4 | 0.3% | |
| **Number of sources of information on school feeding in the past year** | | | | | | | | | | | | | | | |
| None | 182 | 30.7% | 299 | 41.9% | **<0.001** | 169 | 31.2% | 318 | 42.8% | **<0.001** | 351 | 31.0% | 617 | 42.4% | **<0.001** |
| One | 310 | 52.3% | 357 | 50.1% | | 271 | 50.1% | 377 | 50.7% | | 581 | 51.2% | 734 | 50.4% | |
| Two | 71 | 12.0% | 42 | 5.9% | | 66 | 12.2% | 37 | 5.0% | | 137 | 12.1% | 79 | 5.4% | |
| Three and above | 30 | 5.1% | 15 | 2.1% | | 35 | 6.5% | 11 | 1.5% | | 65 | 5.7% | 26 | 1.8% | |
| **Number of sources of information on hygiene in the past year** | | | | | | | | | | | | | | | |
| None | 235 | 39.6% | 244 | 34.2% | **<0.001** | 192 | 35.5% | 258 | 34.7% | **<0.001** | 427 | 37.7% | 502 | 34.5% | **<0.001** |
| One | 217 | 36.6% | 372 | 52.2% | | 200 | 37.0% | 368 | 49.5% | | 417 | 36.8% | 740 | 50.8% | |
| Two | 102 | 17.2% | 76 | 10.7% | | 109 | 20.1% | 92 | 12.4% | | 211 | 18.6% | 168 | 11.5% | |
| Three and above | 39 | 6.6% | 21 | 2.9% | | 40 | 7.4% | 25 | 3.4% | | 79 | 7.0% | 46 | 3.2% | |
| **Number of reasons why the child missed a complete day of school during the 1st term of this year** | | | | | | | | | | | | | | | |
| None | 412 | 69.5% | 311 | 43.6% | **<0.001** | 355 | 65.6% | 344 | 46.3% | **<0.001** | 767 | 67.6% | 655 | 45.0% | **<0.001** |
| One | 124 | 20.9% | 304 | 42.6% | | 124 | 22.9% | 323 | 43.5% | | 248 | 21.9% | 627 | 43.1% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Two | 34 | 5.7% | 76 | 10.7% | 42 | 7.8% | 58 | 7.8% | 76 | 6.7% | 134 | 9.2% |
| Three and above | 23 | 3.9% | 22 | 3.1% | 20 | 3.7% | 18 | 2.4% | 43 | 3.8% | 40 | 2.7% |

**Table 7a: Socio-demographic characteristics of children distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p value |
| **Age of child in years** | | | | | | | | | | | | | | | |
| 7 to 8 | 43 | 6.4% | 32 | 5.5% | **0.078** | 67 | 9.3% | 33 | 5.8% | **0.002** | 110 | 7.9% | 65 | 5.7% | **<0.00** |
| 9 to 10 | 135 | 20.0% | 87 | 15.0% | | 158 | 21.9% | 97 | 17.2% | | 293 | 21.0% | 184 | 16.1% | |
| 11 to 12 | 188 | 27.9% | 163 | 28.2% | | 202 | 28.0% | 162 | 28.7% | | 390 | 27.9% | 325 | 28.4% | |
| 13 to 14 | 204 | 30.2% | 181 | 31.3% | | 210 | 29.1% | 172 | 30.4% | | 414 | 29.7% | 353 | 30.9% | |
| >14 | 105 | 15.6% | 116 | 20.0% | | 84 | 11.7% | 101 | 17.9% | | 189 | 13.5% | 217 | 19.0% | |
| **Class of the child** | | | | | | | | | | | | | | | |
| Third | 99 | 14.7% | 136 | 23.5% | **0.006** | 116 | 16.1% | 123 | 21.8% | **0.001** | 215 | 15.4% | 259 | 22.6% | **<0.00** |
| Fourth | 116 | 17.2% | 94 | 16.2% | | 109 | 15.1% | 108 | 19.1% | | 225 | 16.1% | 202 | 17.7% | |
| Fifth | 122 | 18.1% | 96 | 16.6% | | 112 | 15.5% | 96 | 17.0% | | 234 | 16.8% | 192 | 16.8% | |
| Sixth | 122 | 18.1% | 95 | 16.4% | | 128 | 17.8% | 95 | 16.8% | | 250 | 17.9% | 190 | 16.6% | |
| Seventh | 133 | 19.7% | 94 | 16.2% | | 135 | 18.7% | 76 | 13.5% | | 268 | 19.2% | 170 | 14.9% | |
| Eighth | 83 | 12.3% | 64 | 11.1% | | 121 | 16.8% | 67 | 11.9% | | 204 | 14.6% | 131 | 11.5% | |
| **Time taken to get to school** | | | | | | | | | | | | | | | |
| Less than 15 minutes | 151 | 22.4% | 262 | 45.3% | **<0.001** | 153 | 21.2% | 273 | 48.3% | **<0.001** | 304 | 21.8% | 535 | 46.8% | **<0.00** |
| Between 15 and 30 minutes | 250 | 37.0% | 189 | 32.6% | | 255 | 35.4% | 158 | 28.0% | | 505 | 36.2% | 347 | 30.3% | |
| Between 30 and 60 minutes | 219 | 32.4% | 78 | 13.5% | | 238 | 33.0% | 85 | 15.0% | | 457 | 32.7% | 163 | 14.2% | |
| More than 1 hour | 55 | 8.1% | 50 | 8.6% | | 75 | 10.4% | 49 | 8.7% | | 130 | 9.3% | 99 | 8.7% | |
| **Mode of travel to school** | | | | | | | | | | | | | | | |
| On foot | 668 | 99.0% | 574 | 99.1% | 0.753 | 719 | 99.7% | 562 | 99.5% | 0.468 | 1387 | 99.4% | 1136 | 99.3% | 0.867 |
| Bicycle/ Bus/ Motor cycle | 7 | 1.0% | 5 | 0.9% | | 2 | 0.3% | 3 | 0.5% | | 9 | 0.6% | 8 | 0.7% | |
| **Brothers and sisters currently studying in the same school** | | | | | | | | | | | | | | | |
| Yes | 484 | 71.7% | 382 | 66.0% | **0.029** | 547 | 75.9% | 387 | 68.5% | **0.003** | 1031 | 73.9% | 769 | 67.2% | **<0.00** |
| No | 191 | 28.3% | 197 | 34.0% | | 174 | 24.1% | 178 | 31.5% | | 365 | 26.1% | 375 | 32.8% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Having brothers and sisters who are old enough to go to school but are NOT currently attending school** | | | | | | | | | | | | | | | |
| Yes | 69 | 10.2% | 131 | 22.6% | **<0.001** | 62 | 8.6% | 124 | 21.9% | **<0.001** | 131 | 9.4% | 255 | 22.3% | **<0.00** |
| No | 606 | 89.8% | 448 | 77.4% | | 659 | 91.4% | 441 | 78.1% | | 1265 | 90.6% | 889 | 77.7% | |

**Table 7b: Socio-demographic characteristics of children distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p value |
| **Age of child in years** | | | | | | | | | | | | | | | |
| 7 to 8 | 28 | 4.7% | 27 | 3.8% | **0.001** | 38 | 7.0% | 54 | 7.3% | **0.005** | 66 | 5.8% | 81 | 5.6% | **<0.001** |
| 9 to 10 | 83 | 14.0% | 163 | 22.9% | | 97 | 17.9% | 176 | 23.7% | | 180 | 15.9% | 339 | 23.3% | |
| 11 to 12 | 184 | 31.0% | 191 | 26.8% | | 164 | 30.3% | 236 | 31.8% | | 348 | 30.7% | 427 | 29.3% | |
| 13 to 14 | 206 | 34.7% | 220 | 30.9% | | 164 | 30.3% | 213 | 28.7% | | 370 | 32.6% | 433 | 29.7% | |
| >14 | 92 | 15.5% | 112 | 15.7% | | 78 | 14.4% | 64 | 8.6% | | 170 | 15.0% | 176 | 12.1% | |
| **Class of the child** | | | | | | | | | | | | | | | |
| Third | 125 | 21.1% | 95 | 13.3% | **<0.001** | 123 | 22.7% | 111 | 14.9% | **<0.001** | 248 | 21.9% | 206 | 14.1% | **<0.001** |
| Fourth | 119 | 20.1% | 119 | 16.7% | | 121 | 22.4% | 122 | 16.4% | | 240 | 21.2% | 241 | 16.6% | |
| Fifth | 120 | 20.2% | 130 | 18.2% | | 95 | 17.6% | 126 | 17.0% | | 215 | 19.0% | 256 | 17.6% | |
| Sixth | 94 | 15.9% | 139 | 19.5% | | 98 | 18.1% | 125 | 16.8% | | 192 | 16.9% | 264 | 18.1% | |
| Seventh | 84 | 14.2% | 123 | 17.3% | | 66 | 12.2% | 149 | 20.1% | | 150 | 13.2% | 272 | 18.7% | |
| Eighth | 51 | 8.6% | 107 | 15.0% | | 38 | 7.0% | 110 | 14.8% | | 89 | 7.8% | 217 | 14.9% | |
| **Time taken to get to school** | | | | | | | | | | | | | | | |
| Less than 15 minutes | 298 | 50.3% | 187 | 26.2% | **<0.001** | 262 | 48.4% | 190 | 25.6% | **<0.001** | 560 | 49.4% | 377 | 25.9% | **<0.001** |
| Between 15 and 30 minutes | 194 | 32.7% | 273 | 38.3% | | 174 | 32.2% | 306 | 41.2% | | 368 | 32.5% | 579 | 39.8% | |
| Between 30 and 60 minutes | 68 | 11.5% | 203 | 28.5% | | 67 | 12.4% | 191 | 25.7% | | 135 | 11.9% | 394 | 27.1% | |
| More than 1 hour | 33 | 5.6% | 50 | 7.0% | | 38 | 7.0% | 56 | 7.5% | | 71 | 6.3% | 106 | 7.3% | |
| **Mode of travel to school** | | | | | | | | | | | | | | | |
| On foot | 592 | 99.8% | 685 | 96.1% | **<0.001** | 539 | 99.6% | 720 | 96.9% | **<0.001** | 1131 | 99.7% | 1405 | 96.5% | **<0.001** |
| Bicycle/ Bus/ Motor cycle | 1 | 0.2% | 28 | 3.9% | | 2 | 0.4% | 23 | 3.1% | | 3 | 0.3% | 51 | 3.5% | |
| **Brothers and sisters currently studying in the same school** | | | | | | | | | | | | | | | |
| Yes | 378 | 63.7% | 476 | 66.8% | 0.254 | 355 | 65.6% | 512 | 68.9% | 0.214 | 733 | 64.6% | 988 | 67.9% | 0.085 |
| No | 215 | 36.3% | 237 | 33.2% | | 186 | 34.4% | 231 | 31.1% | | 401 | 35.4% | 468 | 32.1% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Having brothers and sisters who are old enough to go to school but are NOT currently attending school** | | | | | | | | | | | | | | | |
| Yes | 116 | 19.6% | 56 | 7.9% | **<0.001** | 104 | 19.2% | 66 | 8.9% | <0.001 | 220 | 19.4% | 122 | 8.4% | **<0.001** |
| No | 477 | 80.4% | 657 | 92.1% | | 437 | 80.8% | 677 | 91.1% | | 914 | 80.6% | 1334 | 91.6% | |

**Table 8a: Children feeding distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p valu |
| **Had a meal today BEFORE coming to school** | | | | | | | | | | | | | | | |
| No | 230 | 34.1% | 221 | 38.2% | **<0.001** | 296 | 41.1% | 237 | 41.9% | **0.007** | 526 | 37.7% | 458 | 40.0% | **<0.0** |
| Yes: Not enough | 252 | 37.3% | 149 | 25.7% | | 238 | 33.0% | 146 | 25.8% | | 490 | 35.1% | 295 | 25.8% | |
| Yes: Enough | 193 | 28.6% | 209 | 36.1% | | 187 | 25.9% | 182 | 32.2% | | 380 | 27.2% | 391 | 34.2% | |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 89 | 13.2% | 135 | 23.3% | **<0.001** | 103 | 14.3% | 124 | 21.9% | **<0.001** | 192 | 13.8% | 259 | 22.6% | **<0.0** |
| 1 - 2 days | 111 | 16.4% | 93 | 16.1% | | 113 | 15.7% | 114 | 20.2% | | 224 | 16.0% | 207 | 18.1% | |
| 3 - 4 days | 219 | 32.4% | 162 | 28.0% | | 232 | 32.2% | 159 | 28.1% | | 451 | 32.3% | 321 | 28.1% | |
| 5 days | 256 | 37.9% | 189 | 32.6% | | 273 | 37.9% | 168 | 29.7% | | 529 | 37.9% | 357 | 31.2% | |
| **Number of times child normally eat per day** | | | | | | | | | | | | | | | |
| 1 time | 107 | 15.9% | 119 | 20.6% | **<0.001** | 133 | 18.4% | 118 | 20.9% | **0.007** | 240 | 17.2% | 237 | 20.7% | **<0.0** |
| 2 times | 291 | 43.1% | 292 | 50.4% | | 326 | 45.2% | 293 | 51.9% | | 617 | 44.2% | 585 | 51.1% | |
| 3 times | 266 | 39.4% | 164 | 28.3% | | 249 | 34.5% | 147 | 26.0% | | 515 | 36.9% | 311 | 27.2% | |
| More than 3 time | 11 | 1.6% | 4 | 0.7% | | 13 | 1.8% | 7 | 1.2% | | 24 | 1.7% | 11 | 1.0% | |
| **Number of times child ate yesterday** | | | | | | | | | | | | | | | |
| 1 time | 148 | 21.9% | 139 | 24.0% | **0.050** | 196 | 27.2% | 134 | 23.7% | **0.024** | 344 | 24.6% | 273 | 23.9% | **0.00** |
| 2 times | 276 | 40.9% | 261 | 45.1% | | 290 | 40.2% | 275 | 48.7% | | 566 | 40.5% | 536 | 46.9% | |
| 3 times | 234 | 34.7% | 173 | 29.9% | | 220 | 30.5% | 148 | 26.2% | | 454 | 32.5% | 321 | 28.1% | |
| More than 3 time | 17 | 2.5% | 6 | 1.0% | | 15 | 2.1% | 8 | 1.4% | | 32 | 2.3% | 14 | 1.2% | |
| **The last time meals were provided for pupils in the school** | | | | | | | | | | | | | | | |
| Yesterday | 82 | 12.1% | 238 | 41.1% | **<0.001** | 69 | 9.6% | 263 | 46.5% | **<0.001** | 151 | 10.8% | 501 | 43.8% | **<0.0** |
| One week ago | 94 | 13.9% | 24 | 4.1% | | 74 | 10.3% | 18 | 3.2% | | 168 | 12.0% | 42 | 3.7% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| One month ago | 9 | 1.3% | 4 | 0.7% | 7 | 1.0% | 5 | 0.9% | 16 | 1.1% | 9 | 0.8% |
| One term ago | 19 | 2.8% | 201 | 34.7% | 25 | 3.5% | 186 | 32.9% | 44 | 3.2% | 387 | 33.8% |
| Two terms ago | 5 | 0.7% | 65 | 11.2% | 4 | 0.6% | 51 | 9.0% | 9 | 0.6% | 116 | 10.1% |
| One year ago | 62 | 9.2% | 43 | 7.4% | 51 | 7.1% | 39 | 6.9% | 113 | 8.1% | 82 | 7.2% |
| More than one year ago | 404 | 59.9% | 4 | 0.7% | 491 | 68.1% | 3 | 0.5% | 895 | 64.1% | 7 | 0.6% |

**Table 8b: Children feeding distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=593) | | HGSMP (n=713) | | p value | WFPSMP (n=541) | | HGSMP (n=743) | | p value | WFPSMP (n=1134) | | HGSMP (n=1456) | | p valu |
| **Had a meal today BEFORE coming to school** | | | | | | | | | | | | | | | |
| No | 175 | 29.5% | 194 | 27.2% | **<0.001** | 182 | 33.6% | 246 | 33.1% | **0.006** | 357 | 31.5% | 440 | 30.2% | **<0.0** |
| Yes: Not enough | 145 | 24.5% | 257 | 36.0% | | 137 | 25.3% | 244 | 32.8% | | 282 | 24.9% | 501 | 34.4% | |
| Yes: Enough | 273 | 46.0% | 262 | 36.7% | | 222 | 41.0% | 253 | 34.1% | | 495 | 43.7% | 515 | 35.4% | |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 88 | 14.8% | 65 | 9.1% | **<0.001** | 78 | 14.4% | 83 | 11.2% | **<0.001** | 166 | 14.6% | 148 | 10.2% | **<0.0** |
| 1 - 2 days | 111 | 18.7% | 107 | 15.0% | | 100 | 18.5% | 119 | 16.0% | | 211 | 18.6% | 226 | 15.5% | |
| 3 - 4 days | 169 | 28.5% | 198 | 27.8% | | 165 | 30.5% | 182 | 24.5% | | 334 | 29.5% | 380 | 26.1% | |
| 5 days | 225 | 37.9% | 343 | 48.1% | | 198 | 36.6% | 359 | 48.3% | | 423 | 37.3% | 702 | 48.2% | |
| **Number of times child normally eat per day** | | | | | | | | | | | | | | | |
| 1 time | 81 | 13.7% | 111 | 15.6% | **<0.001** | 92 | 17.0% | 106 | 14.3% | **<0.001** | 173 | 15.3% | 217 | 14.9% | **<0.0** |
| 2 times | 275 | 46.4% | 242 | 33.9% | | 246 | 45.5% | 240 | 32.3% | | 521 | 45.9% | 482 | 33.1% | |
| 3 times | 227 | 38.3% | 339 | 47.5% | | 193 | 35.7% | 371 | 49.9% | | 420 | 37.0% | 710 | 48.8% | |
| More than 3 time | 10 | 1.7% | 21 | 2.9% | | 10 | 1.8% | 26 | 3.5% | | 20 | 1.8% | 47 | 3.2% | |
| **Number of times child ate yesterday** | | | | | | | | | | | | | | | |
| 1 time | 110 | 18.5% | 126 | 17.7% | 0.061 | 114 | 21.1% | 141 | 19.0% | **0.001** | 224 | 19.8% | 267 | 18.3% | **<0.0** |
| 2 times | 240 | 40.5% | 256 | 35.9% | | 226 | 41.8% | 242 | 32.6% | | 466 | 41.1% | 498 | 34.2% | |
| 3 times | 233 | 39.3% | 305 | 42.8% | | 188 | 34.8% | 330 | 44.4% | | 421 | 37.1% | 635 | 43.6% | |
| More than 3 time | 10 | 1.7% | 26 | 3.6% | | 13 | 2.4% | 30 | 4.0% | | 23 | 2.0% | 56 | 3.8% | |
| **The last time meals were provided for pupils in the school** | | | | | | | | | | | | | | | |
| Yesterday | 211 | 35.6% | 305 | 42.8% | **<0.001** | 197 | 36.4% | 352 | 47.4% | **<0.001** | 408 | 36.0% | 657 | 45.1% | **<0.0** |
| One week ago | 32 | 5.4% | 72 | 10.1% | | 27 | 5.0% | 67 | 9.0% | | 59 | 5.2% | 139 | 9.5% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| One month ago | 7 | 1.2% | 26 | 3.6% | 10 | 1.8% | 22 | 3.0% | 17 | 1.5% | 48 | 3.3% |
| One term ago | 246 | 41.5% | 200 | 28.1% | 225 | 41.6% | 189 | 25.4% | 471 | 41.5% | 389 | 26.7% |
| Two terms ago | 47 | 7.9% | 2 | 0.3% | 32 | 5.9% | 4 | 0.5% | 79 | 7.0% | 6 | 0.4% |
| One year ago | 47 | 7.9% | 17 | 2.4% | 47 | 8.7% | 17 | 2.3% | 94 | 8.3% | 34 | 2.3% |
| More than one year ago | 3 | 0.5% | 91 | 12.8% | 3 | 0.6% | 92 | 12.4% | 6 | 0.5% | 183 | 12.6% |

**Table 9a: Hygiene, nutrition, concentration in class, importance of education and school absenteeism distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CONTROL (n=675) | | WFPSMP (n=579) | | p value | CONTROL (n=721) | | WFPSMP (n=565) | | p value | CONTROL (n=1396) | | WFPSMP (n=1144) | | p valu |
| **In the past month the teacher talked to students about hygiene** | | | | | | | | | | | | | | | |
| Yes | 582 | 86.2% | 497 | 85.8% | 0.845 | 628 | 87.1% | 503 | 89.0% | 0.293 | 1210 | 86.7% | 1000 | 87.4% | 0.58 |
| No | 93 | 13.8% | 82 | 14.2% | | 93 | 12.9% | 62 | 11.0% | | 186 | 13.3% | 144 | 12.6% | |
| **Number of hygiene habits mentioned** | | | | | | | | | | | | | | | |
| None | 64 | 9.5% | 49 | 8.5% | **<0.001** | 64 | 8.9% | 45 | 8.0% | **<0.001** | 128 | 9.2% | 94 | 8.2% | **<0.0** |
| 1 to 2 | 479 | 71.0% | 249 | 43.0% | | 513 | 71.2% | 217 | 38.4% | | 992 | 71.1% | 466 | 40.7% | |
| 3 to 4 | 127 | 18.8% | 205 | 35.4% | | 140 | 19.4% | 227 | 40.2% | | 267 | 19.1% | 432 | 37.8% | |
| 5 and above | 5 | 0.7% | 76 | 13.1% | | 4 | 0.6% | 76 | 13.5% | | 9 | 0.6% | 152 | 13.3% | |
| **In the past month the teacher talked to students about nutrition** | | | | | | | | | | | | | | | |
| Yes | 460 | 68.1% | 394 | 68.0% | 0.970 | 495 | 68.7% | 399 | 70.6% | 0.447 | 955 | 68.4% | 793 | 69.3% | 0.62 |
| No | 215 | 31.9% | 185 | 32.0% | | 226 | 31.3% | 166 | 29.4% | | 441 | 31.6% | 351 | 30.7% | |
| **Number of important nutrition habits mentioned** | | | | | | | | | | | | | | | |
| None | 251 | 37.2% | 163 | 28.2% | **<0.001** | 284 | 39.4% | 154 | 27.3% | **<0.001** | 535 | 38.3% | 317 | 27.7% | **<0.0** |
| One | 267 | 39.6% | 143 | 24.7% | | 261 | 36.2% | 134 | 23.7% | | 528 | 37.8% | 277 | 24.2% | |
| Two | 114 | 16.9% | 126 | 21.8% | | 117 | 16.2% | 121 | 21.4% | | 231 | 16.5% | 247 | 21.6% | |
| Three and above | 43 | 6.4% | 147 | 25.4% | | 59 | 8.2% | 156 | 27.6% | | 102 | 7.3% | 303 | 26.5% | |
| **Number of reasons why missed school** | | | | | | | | | | | | | | | |
| Never missed | 343 | 50.8% | 382 | 66.0% | **<0.001** | 366 | 50.8% | 376 | 66.5% | **<0.001** | 709 | 50.8% | 758 | 66.3% | **<0.0** |
| One | 289 | 42.8% | 164 | 28.3% | | 304 | 42.2% | 146 | 25.8% | | 593 | 42.5% | 310 | 27.1% | |
| Two | 41 | 6.1% | 23 | 4.0% | | 48 | 6.7% | 27 | 4.8% | | 89 | 6.4% | 50 | 4.4% | |
| Three or more | 2 | 0.3% | 10 | 1.7% | | 3 | 0.4% | 16 | 2.8% | | 5 | 0.4% | 26 | 2.3% | |
| **Number of reasons why it was difficult to concentrate in class** | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Never missed | 361 | 53.5% | 331 | 57.2% | **<0.001** | 387 | 53.7% | 343 | 60.7% | **<0.001** | 748 | 53.6% | 674 | 58.9% | **<0.0** |
| One | 234 | 34.7% | 104 | 18.0% | | 245 | 34.0% | 98 | 17.3% | | 479 | 34.3% | 202 | 17.7% | |
| Two | 72 | 10.7% | 81 | 14.0% | | 74 | 10.3% | 61 | 10.8% | | 146 | 10.5% | 142 | 12.4% | |
| Three or more | 8 | 1.2% | 63 | 10.9% | | 15 | 2.1% | 63 | 11.2% | | 23 | 1.6% | 126 | 11.0% | |
| **Number of most important benefits of education mentioned by the child** | | | | | | | | | | | | | | | |
| <2 | 356 | 52.7% | 138 | 23.8% | **<0.001** | 383 | 53.1% | 143 | 25.3% | **<0.001** | 739 | 52.9% | 281 | 24.6% | **<0.0** |
| 2 to 3 | 299 | 44.3% | 280 | 48.4% | | 306 | 42.4% | 258 | 45.7% | | 605 | 43.3% | 538 | 47.0% | |
| 4 to 5 | 20 | 3.0% | 93 | 16.1% | | 32 | 4.4% | 68 | 12.0% | | 52 | 3.7% | 161 | 14.1% | |
| 6 and above | 0 | 0.0% | 68 | 11.7% | | 0 | 0.0% | 96 | 17.0% | | 0 | 0.0% | 164 | 14.3% | |

**Table 9b: Hygiene, nutrition, concentration in class, importance of education and school absenteeism distributed by WFPSMP and HGSMP stratified by gender of the child**

| | **Male (n=1306)** | | | | | **Female (n=1284)** | | | | | **Total (n=2590)** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | **WFPSMP (n=593)** | | **HGSMP (n=713)** | | **p value** | **WFPSMP (n=541)** | | **HGSMP (n=743)** | | **p value** | **WFPSMP (n=1134)** | | **HGSMP (n=1456)** | | **p value** |
| **In the past month the teacher talked to students about hygiene** | | | | | | | | | | | | | | | |
| Yes | 508 | 85.7% | 629 | 88.2% | 0.171 | 462 | 85.4% | 631 | 84.9% | 0.815 | 970 | 85.5% | 1260 | 86.5% | 0.465 |
| No | 85 | 14.3% | 84 | 11.8% | | 79 | 14.6% | 112 | 15.1% | | 164 | 14.5% | 196 | 13.5% | |
| **Number of hygiene habits mentioned by the child** | | | | | | | | | | | | | | | |
| None | 39 | 6.6% | 44 | 6.2% | **<0.001** | 39 | 7.2% | 64 | 8.6% | **<0.001** | 78 | 6.9% | 108 | 7.4% | **<0.001** |
| 1 to 2 | 248 | 41.8% | 520 | 72.9% | | 236 | 43.6% | 526 | 70.8% | | 484 | 42.7% | 1046 | 71.8% | |
| 3 to 4 | 246 | 41.5% | 139 | 19.5% | | 207 | 38.3% | 142 | 19.1% | | 453 | 39.9% | 281 | 19.3% | |
| 5 and above | 60 | 10.1% | 10 | 1.4% | | 59 | 10.9% | 11 | 1.5% | | 119 | 10.5% | 21 | 1.4% | |
| **In the past month the teacher talked to students about nutrition** | | | | | | | | | | | | | | | |
| Yes | 413 | 69.6% | 479 | 67.2% | 0.341 | 367 | 67.8% | 500 | 67.3% | 0.838 | 780 | 68.8% | 979 | 67.2% | 0.404 |
| No | 180 | 30.4% | 234 | 32.8% | | 174 | 32.2% | 243 | 32.7% | | 354 | 31.2% | 477 | 32.8% | |
| **Number of important nutrition habits mentioned by the child** | | | | | | | | | | | | | | | |
| None | 125 | 21.1% | 256 | 35.9% | **<0.001** | 118 | 21.8% | 278 | 37.4% | **<0.001** | 243 | 21.4% | 534 | 36.7% | **<0.001** |
| One | 138 | 23.3% | 267 | 37.4% | | 120 | 22.2% | 282 | 38.0% | | 258 | 22.8% | 549 | 37.7% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Two | 164 | 27.7% | 109 | 15.3% | | 157 | 29.0% | 105 | 14.1% | | 321 | 28.3% | 214 | 14.7% | |
| Three and above | 166 | 28.0% | 81 | 11.4% | | 146 | 27.0% | 78 | 10.5% | | 312 | 27.5% | 159 | 10.9% | |
| **Number of reasons why missed school** | | | | | | | | | | | | | | | |
| Never missed | 410 | 69.1% | 342 | 48.0% | **<0.001** | 359 | 66.4% | 372 | 50.1% | **<0.001** | 769 | 67.8% | 714 | 49.0% | **<0.001** |
| One | 159 | 26.8% | 333 | 46.7% | | 143 | 26.4% | 321 | 43.2% | | 302 | 26.6% | 654 | 44.9% | |
| Two | 17 | 2.9% | 34 | 4.8% | | 26 | 4.8% | 48 | 6.5% | | 43 | 3.8% | 82 | 5.6% | |
| Three or more | 7 | 1.2% | 4 | 0.6% | | 13 | 2.4% | 2 | 0.3% | | 20 | 1.8% | 6 | 0.4% | |
| **Number of reasons why it was difficult to concentrate in class** | | | | | | | | | | | | | | | |
| Never missed | 371 | 62.6% | 390 | 54.7% | **<0.001** | 339 | 62.7% | 432 | 58.1% | **<0.001** | 710 | 62.6% | 822 | 56.5% | **<0.001** |
| One | 105 | 17.7% | 249 | 34.9% | | 101 | 18.7% | 251 | 33.8% | | 206 | 18.2% | 500 | 34.3% | |
| Two | 66 | 11.1% | 65 | 9.1% | | 63 | 11.6% | 50 | 6.7% | | 129 | 11.4% | 115 | 7.9% | |
| Three or more | 51 | 8.6% | 9 | 1.3% | | 38 | 7.0% | 10 | 1.3% | | 89 | 7.8% | 19 | 1.3% | |
| **Number of most important benefits of education mentioned by the child** | | | | | | | | | | | | | | | |
| <2 | 136 | 22.9% | 342 | 48.0% | **<0.001** | 122 | 22.6% | 346 | 46.6% | **<0.001** | 258 | 22.8% | 688 | 47.3% | **<0.001** |
| 2 to 3 | 313 | 52.8% | 337 | 47.3% | | 281 | 51.9% | 356 | 47.9% | | 594 | 52.4% | 693 | 47.6% | |
| 4 to 5 | 87 | 14.7% | 34 | 4.8% | | 73 | 13.5% | 38 | 5.1% | | 160 | 14.1% | 72 | 4.9% | |
| 6 and above | 57 | 9.6% | 0 | 0.0% | | 65 | 12.0% | 3 | 0.4% | | 122 | 10.8% | 3 | 0.2% | |

### Annex 10b – Computation of the Propensity Score at baseline

All variables whose distribution was significantly different ($p<0.05$) between the study arms (CONTROL, WFPSMP and HGSMP) were used to construct the propensity score.

The propensity score was constructed using the 'participation equation', derived from a logit regression with programme participation as the dependent variable coded as follows;

- WFPSMP = 1, versus Control = 0.
- HGSMP = 1, versus WFPSMP = 0.

Comparison of indicators measured from learners data was adjusted for, using the propensity score quintiles calculated at baseline. Table 10a and 10b shows distribution of propensity score quintiles by specific study arms stratified by gender of children.

**Table 10a: Propensity score quintiles distributed by WFPSMP and Control stratified by gender of the child, at baseline.**

| | Male (n=1254) | | | | | Female (n=1286) | | | | | Total (n=2540) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | **WFPSMP (n=579)** | | **CONTROL (n=675)** | | **p value** | **WFPSMP (n=565)** | | **CONTROL (n=721)** | | **p value** | **WFPSMP (n=1144)** | | **CONTROL (n=1396)** | | **p value** |
| **Propensity score quintiles** | | | | | | | | | | | | | | | |
| First | 2 | 0.3% | 248 | 36.7% | **<0.001** | 0 | 0.0% | 258 | 35.8% | **<0.001** | 2 | 0.2% | 506 | 36.2% | **<0.001** |
| Second | 7 | 1.2% | 244 | 36.1% | | 4 | 0.7% | 253 | 35.1% | | 11 | 1.0% | 497 | 35.6% | |
| Third | 93 | 16.1% | 158 | 23.4% | | 76 | 13.5% | 181 | 25.1% | | 169 | 14.8% | 339 | 24.3% | |
| Fourth | 230 | 39.7% | 21 | 3.1% | | 228 | 40.4% | 29 | 4.0% | | 458 | 40.0% | 50 | 3.6% | |
| Fifth | 247 | 42.7% | 4 | 0.6% | | 257 | 45.5% | 0 | 0.0% | | 504 | 44.1% | 4 | 0.3% | |

**Table 10b: Propensity score quintiles distributed by HGSMP and WFPSMP stratified by gender of the child, at baseline.**

| | Male (n=1306) | | | | | Female (n=1284) | | | | | Total (n=2590) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | **HGSMP (n=713)** | | **WFPSMP (n=593)** | | **p value** | **HGSMP (n=743)** | | **WFPSMP (n=541)** | | **p value** | **HGSMP (n=1456)** | | **WFPSMP (n=1134)** | | **p value** |
| **Propensity score quintiles** | | | | | | | | | | | | | | | |
| First | 5 | 0.7% | 256 | 43.2% | **<0.001** | 4 | 0.5% | 253 | 46.8% | **<0.001** | 9 | 0.6% | 509 | 44.9% | **<0.001** |
| Second | 25 | 3.5% | 236 | 39.8% | | 45 | 6.1% | 212 | 39.2% | | 70 | 4.8% | 448 | 39.5% | |
| Third | 177 | 24.8% | 84 | 14.2% | | 186 | 25.0% | 70 | 12.9% | | 363 | 24.9% | 154 | 13.6% | |
| Fourth | 246 | 34.5% | 16 | 2.7% | | 251 | 33.8% | 6 | 1.1% | | 497 | 34.1% | 22 | 1.9% | |
| Fifth | 260 | 36.5% | 1 | 0.2% | | 257 | 34.6% | 0 | 0.0% | | 517 | 35.5% | 1 | 0.1% | |

**Annex 10a: Comparing distribution of specific variables between study arms stratified by gender of child at Midline**

**Table 11a: Socio-demographic of parents/guardians distributed by CONTROL and WFPSMP stratified by gender of the child**

| | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | p | WFPSMP (n=582) | | Control (n=722) | | p | WFPSMP (n=1181) | | Control (n=1396) | | p |
| **Variables** | **n** | **%** | **n** | **%** | **value** | **n** | **%** | **n** | **%** | **value** | **n** | **%** | **n** | **%** | **value** |
| **Age of parent/guardian in years** | | | | | | | | | | | | | | | |
| <20 | 5 | 0.8% | 5 | 0.7% | 0.648 | 1 | 0.2% | 4 | 0.6% | 0.296 | 6 | 0.5% | 9 | 0.6% | 0.180 |
| 20 – 29 | 60 | 10.0% | 56 | 8.3% | | 82 | 14.1% | 94 | 13.0% | | 142 | 12.0% | 150 | 10.7% | |
| 30 – 39 | 215 | 35.9% | 245 | 36.4% | | 209 | 35.9% | 270 | 37.4% | | 424 | 35.9% | 515 | 36.9% | |
| 40 – 49 | 175 | 29.2% | 216 | 32.0% | | 172 | 29.6% | 228 | 31.6% | | 347 | 29.4% | 444 | 31.8% | |
| 50 – 59 | 93 | 15.5% | 89 | 13.2% | | 81 | 13.9% | 74 | 10.2% | | 174 | 14.7% | 163 | 11.7% | |
| 60 and above | 51 | 8.5% | 63 | 9.3% | | 37 | 6.4% | 52 | 7.2% | | 88 | 7.5% | 115 | 8.2% | |
| **Gender of the parent/guardian** | | | | | | | | | | | | | | | |
| Male | 245 | 40.9% | 201 | 29.8% | **<0.001** | 166 | 28.5% | 166 | 23.0% | **0.023** | 411 | 34.8% | 367 | 26.3% | **<0.001** |
| Female | 354 | 59.1% | 473 | 70.2% | | 416 | 71.5% | 556 | 77.0% | | 770 | 65.2% | 1029 | 73.7% | |
| **Relationship of parent/guardian to the child** | | | | | | | | | | | | | | | |
| Father/ Mother | 488 | 81.5% | 554 | 82.2% | **<0.001** | 475 | 81.6% | 592 | 82.0% | **0.002** | 963 | 81.5% | 1146 | 82.1% | **<0.001** |
| Brother/ Sister | 36 | 6.0% | 12 | 1.8% | | 28 | 4.8% | 28 | 3.9% | | 64 | 5.4% | 40 | 2.9% | |
| Uncle/ Aunt | 25 | 4.2% | 21 | 3.1% | | 30 | 5.2% | 17 | 2.4% | | 55 | 4.7% | 38 | 2.7% | |
| Grand Father/ Mother | 16 | 2.7% | 55 | 8.2% | | 18 | 3.1% | 50 | 6.9% | | 34 | 2.9% | 105 | 7.5% | |
| Guardian | 34 | 5.7% | 32 | 4.7% | | 31 | 5.3% | 35 | 4.8% | | 65 | 5.5% | 67 | 4.8% | |
| **Main occupation of the parent/guardian** | | | | | | | | | | | | | | | |
| Too old to work | 38 | 6.3% | 12 | 1.8% | **<0.001** | 38 | 6.5% | 8 | 1.1% | **<0.001** | 76 | 6.4% | 20 | 1.4% | **<0.001** |
| Student | 6 | 1.0% | 3 | 0.4% | | 7 | 1.2% | 5 | 0.7% | | 13 | 1.1% | 8 | 0.6% | |
| Farmer | 35 | 5.8% | 348 | 51.6% | | 34 | 5.8% | 374 | 51.8% | | 69 | 5.8% | 722 | 51.7% | |
| Pastoralist | 95 | 15.9% | 23 | 3.4% | | 84 | 14.4% | 18 | 2.5% | | 179 | 15.2% | 41 | 2.9% | |
| Salaried Employee | 20 | 3.3% | 17 | 2.5% | | 20 | 3.4% | 31 | 4.3% | | 40 | 3.4% | 48 | 3.4% | |
| Casual Labourer | 76 | 12.7% | 107 | 15.9% | | 55 | 9.5% | 94 | 13.0% | | 131 | 11.1% | 201 | 14.4% | |
| Self-employed business | 65 | 10.9% | 52 | 7.7% | | 66 | 11.3% | 83 | 11.5% | | 131 | 11.1% | 135 | 9.7% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not currently working | 245 | 40.9% | 101 | 15.0% | | 261 | 44.8% | 97 | 13.4% | | 506 | 42.8% | 198 | 14.2% | |
| Other | 19 | 3.2% | 11 | 1.6% | | 17 | 2.9% | 12 | 1.7% | | 36 | 3.0% | 23 | 1.6% | |
| **Education level of the parent/guardian** | | | | | | | | | | | | | | | |
| Never attended school | 467 | 78.0% | 98 | 14.5% | **<0.001** | 433 | 74.4% | 111 | 15.4% | **<0.001** | 900 | 76.2% | 209 | 15.0% | **<0.001** |
| Adult learning centre | 9 | 1.5% | 3 | 0.4% | | 7 | 1.2% | 1 | 0.1% | | 16 | 1.4% | 4 | 0.3% | |
| Did not complete primary school | 56 | 9.3% | 179 | 26.6% | | 70 | 12.0% | 206 | 28.5% | | 126 | 10.7% | 385 | 27.6% | |
| Completed primary school | 22 | 3.7% | 229 | 34.0% | | 26 | 4.5% | 240 | 33.2% | | 48 | 4.1% | 469 | 33.6% | |
| Did not compete secondary | 9 | 1.5% | 63 | 9.3% | | 11 | 1.9% | 54 | 7.5% | | 20 | 1.7% | 117 | 8.4% | |
| Completed secondary school | 16 | 2.7% | 86 | 12.8% | | 13 | 2.2% | 82 | 11.4% | | 29 | 2.5% | 168 | 12.0% | |
| Completed technical college | 14 | 2.3% | 16 | 2.4% | | 16 | 2.7% | 21 | 2.9% | | 30 | 2.5% | 37 | 2.7% | |
| Completed university/graduate school | 6 | 1.0% | 0 | 0.0% | | 6 | 1.0% | 7 | 1.0% | | 12 | 1.0% | 7 | 0.5% | |

**Table 11b: Socio-demographic of parents/guardians distributed by WFPSMP and HGSMP stratified by gender of the child**

| | **Male (n=1325)** | | | | | **Female (n=1431)** | | | | | **Total (n=2756)** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **HGSMP (n=721)** | | **WFPSMP (n=604)** | | | **HGSMP (n=873)** | | **WFPSMP (n=558)** | | | **HGSMP (n=1594)** | | **WFPSMP (n=1162)** | | |
| **Variables** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** |
| **Age of parent/guardian in years** | | | | | | | | | | | | | | | |
| <20 | 2 | 0.3% | 9 | 1.5% | **<0.001** | 9 | 1.00% | 6 | 1.1% | **0.018** | 11 | 0.7% | 15 | 1.3% | **<0.00** |
| 20 - 29 | 83 | 11.5% | 58 | 9.6% | | 109 | 12.50% | 84 | 15.1% | | 192 | 12.0% | 142 | 12.2% | |
| 30 - 39 | 289 | 40.1% | 187 | 31.0% | | 336 | 38.50% | 193 | 34.6% | | 625 | 39.2% | 380 | 32.7% | |
| 40 - 49 | 210 | 29.1% | 182 | 30.1% | | 252 | 28.90% | 134 | 24.0% | | 462 | 29.0% | 316 | 27.2% | |
| 50 - 59 | 91 | 12.6% | 105 | 17.4% | | 95 | 10.90% | 90 | 16.1% | | 186 | 11.7% | 195 | 16.8% | |
| 60 and above | 46 | 6.4% | 63 | 10.4% | | 72 | 8.20% | 51 | 9.1% | | 118 | 7.4% | 114 | 9.8% | |
| **Gender of the parent/guardian** | | | | | | | | | | | | | | | |
| Male | 243 | 33.7% | 279 | 46.2% | **<0.001** | 201 | 23.00% | 177 | 31.7% | **<0.001** | 444 | 27.9% | 456 | 39.2% | **<0.00** |
| Female | 478 | 66.3% | 325 | 53.8% | | 672 | 77.00% | 381 | 68.3% | | 1150 | 72.1% | 706 | 60.8% | |
| **Relationship of parent/guardian to the child** | | | | | | | | | | | | | | | |
| Father/ Mother | 608 | 84.3% | 485 | 80.3% | **<0.001** | 716 | 82.00% | 418 | 74.9% | **<0.001** | 1324 | 83.1% | 903 | 77.7% | **<0.00** |
| Brother/ Sister | 11 | 1.5% | 39 | 6.5% | | 24 | 2.70% | 39 | 7.0% | | 35 | 2.2% | 78 | 6.7% | |
| Uncle/ Aunt | 19 | 2.6% | 26 | 4.3% | | 23 | 2.60% | 32 | 5.7% | | 42 | 2.6% | 58 | 5.0% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grand Father/ Mother | 43 | 6.0% | 17 | 2.8% | | 69 | 7.90% | 24 | 4.3% | | 112 | 7.0% | 41 | 3.5% | |
| Guardian | 40 | 5.5% | 37 | 6.1% | | 41 | 4.70% | 45 | 8.1% | | 81 | 5.1% | 82 | 7.1% | |
| **Main occupation of the parent/guardian** | | | | | | | | | | | | | | | |
| Too old to work | 8 | 1.1% | 41 | 6.8% | **<0.001** | 23 | 2.60% | 48 | 8.6% | **<0.001** | 31 | 1.9% | 89 | 7.7% | **<0.00** |
| Student | 6 | 0.8% | 10 | 1.7% | | 4 | 0.50% | 13 | 2.3% | | 10 | 0.6% | 23 | 2.0% | |
| Farmer | 333 | 46.2% | 30 | 5.0% | | 428 | 49.00% | 31 | 5.6% | | 761 | 47.7% | 61 | 5.2% | |
| Pastoralist | 28 | 3.9% | 78 | 12.9% | | 15 | 1.70% | 62 | 11.1% | | 43 | 2.7% | 140 | 12.0% | |
| Salaried Employee | 46 | 6.4% | 21 | 3.5% | | 45 | 5.20% | 34 | 6.1% | | 91 | 5.7% | 55 | 4.7% | |
| Casual Labourer | 129 | 17.9% | 83 | 13.7% | | 148 | 17.00% | 57 | 10.2% | | 277 | 17.4% | 140 | 12.0% | |
| Self-employed business | 84 | 11.7% | 68 | 11.3% | | 78 | 8.90% | 67 | 12.0% | | 162 | 10.2% | 135 | 11.6% | |
| Not currently working | 75 | 10.4% | 259 | 42.9% | | 113 | 12.90% | 225 | 40.3% | | 188 | 11.8% | 484 | 41.7% | |
| Other | 12 | 1.7% | 14 | 2.3% | | 19 | 2.20% | 21 | 3.8% | | 31 | 1.9% | 35 | 3.0% | |
| **Education level of the parent/guardian** | | | | | | | | | | | | | | | |
| Never attended school | 112 | 15.5% | 475 | 78.6% | **<0.001** | 129 | 14.80% | 404 | 72.4% | **<0.001** | 241 | 15.1% | 879 | 75.6% | **<0.00** |
| Adult learning centre | 2 | 0.3% | 11 | 1.8% | | 0 | 0.00% | 2 | 0.4% | | 2 | 0.1% | 13 | 1.1% | |
| Did not complete primary school | 188 | 26.1% | 49 | 8.1% | | 228 | 26.10% | 55 | 9.9% | | 416 | 26.1% | 104 | 9.0% | |
| Completed primary school | 247 | 34.3% | 23 | 3.8% | | 297 | 34.00% | 22 | 3.9% | | 544 | 34.1% | 45 | 3.9% | |
| Did not compete secondary | 46 | 6.4% | 7 | 1.2% | | 51 | 5.80% | 15 | 2.7% | | 97 | 6.1% | 22 | 1.9% | |
| Completed secondary school | 79 | 11.0% | 14 | 2.3% | | 128 | 14.70% | 25 | 4.5% | | 207 | 13.0% | 39 | 3.4% | |
| Completed technical college | 43 | 6.0% | 16 | 2.6% | | 35 | 4.00% | 26 | 4.7% | | 78 | 4.9% | 42 | 3.6% | |
| Completed university/graduate school | 4 | 0.6% | 9 | 1.5% | | 5 | 0.60% | 9 | 1.6% | | 9 | 0.6% | 18 | 1.5% | |

**Table 12a: Number of males and females in the household distributed by CONTROL and WFPSMP stratified by gender of the child**

| | **Male (n=1273)** | | | | | **Female (n=1304)** | | | | | **Total (n=2577)** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **WFPSMP (n=599)** | | **Control (n=674)** | | | **WFPSMP (n=582)** | | **Control (n=722)** | | | **WFPSMP (n=1181)** | | **Control (n=1396)** | | |
| **Variables** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** |
| **Total males in the household** | | | | | | | | | | | | | | | |
| None | 3 | 0.5% | 10 | 1.5% | **<0.001** | 45 | 7.7% | 103 | 14.3% | **<0.001** | 48 | 4.1% | 113 | 8.1% | **<0.001** |
| 1 to 2 | 203 | 33.9% | 411 | 61.0% | | 247 | 42.4% | 430 | 59.6% | | 450 | 38.1% | 841 | 60.2% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 to 4 | 266 | 44.4% | 213 | 31.6% | | 221 | 38.0% | 163 | 22.6% | | 487 | 41.2% | 376 | 26.9% | |
| 5 to 6 | 101 | 16.9% | 36 | 5.3% | | 62 | 10.7% | 21 | 2.9% | | 163 | 13.8% | 57 | 4.1% | |
| 7 and above | 26 | 4.3% | 4 | 0.6% | | 7 | 1.2% | 5 | 0.7% | | 33 | 2.8% | 9 | 0.6% | |
| **Total females in the household** | | | | | | | | | | | | | | | |
| None | 50 | 8.3% | 114 | 16.9% | **<0.001** | 9 | 1.5% | 11 | 1.5% | **<0.001** | 59 | 5.0% | 125 | 9.0% | **<0.001** |
| 1 to 2 | 285 | 47.6% | 416 | 61.7% | | 233 | 40.0% | 406 | 56.2% | | 518 | 43.9% | 822 | 58.9% | |
| 3 to 4 | 203 | 33.9% | 121 | 18.0% | | 238 | 40.9% | 257 | 35.6% | | 441 | 37.3% | 378 | 27.1% | |
| 5 to 6 | 49 | 8.2% | 19 | 2.8% | | 89 | 15.3% | 38 | 5.3% | | 138 | 11.7% | 57 | 4.1% | |
| 7 and above | 12 | 2.0% | 4 | 0.6% | | 13 | 2.2% | 10 | 1.4% | | 25 | 2.1% | 14 | 1.0% | |
| **Total males between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 38 | 6.3% | 20 | 3.0% | **<0.001** | 121 | 20.8% | 150 | 20.8% | **0.010** | 159 | 13.5% | 170 | 12.2% | **<0.001** |
| 1 to 2 | 365 | 60.9% | 475 | 70.5% | | 332 | 57.0% | 465 | 64.4% | | 697 | 59.0% | 940 | 67.3% | |
| 3 to 4 | 162 | 27.0% | 160 | 23.7% | | 117 | 20.1% | 100 | 13.9% | | 279 | 23.6% | 260 | 18.6% | |
| 5 to 6 | 30 | 5.0% | 19 | 2.8% | | 11 | 1.9% | 6 | 0.8% | | 41 | 3.5% | 25 | 1.8% | |
| 7 and above | 4 | 0.7% | 0 | 0.0% | | 1 | 0.2% | 1 | 0.1% | | 5 | 0.4% | 1 | 0.1% | |
| **Total females between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 147 | 24.5% | 157 | 23.3% | 0.292 | 50 | 8.6% | 33 | 4.6% | **0.013** | 197 | 16.7% | 190 | 13.6% | 0.060 |
| 1 to 2 | 348 | 58.1% | 424 | 62.9% | | 360 | 61.9% | 479 | 66.3% | | 708 | 59.9% | 903 | 64.7% | |
| 3 to 4 | 96 | 16.0% | 86 | 12.8% | | 147 | 25.3% | 191 | 26.5% | | 243 | 20.6% | 277 | 19.8% | |
| 5 to 6 | 7 | 1.2% | 7 | 1.0% | | 22 | 3.8% | 15 | 2.1% | | 29 | 2.5% | 22 | 1.6% | |
| 7 and above | 1 | 0.2% | 0 | 0.0% | | 3 | 0.5% | 4 | 0.6% | | 4 | 0.3% | 4 | 0.3% | |

**Table 12b: Number of males and females in the household distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | | HGSMP (n=873) | | WFPSMP (n=558) | | | HGSMP (n=1594) | | WFPSMP (n=1162) | | |
| | n | % | n | % | p value | n | % | n | % | p value | n | % | n | % | p value |
| **Total males in the household** | | | | | | | | | | | | | | | |
| None | 12 | 1.7% | 3 | 0.5% | **<0.001** | 199 | 22.8% | 40 | 7.2% | **<0.001** | 211 | 13.2% | 43 | 3.7% | **<0.001** |
| 1 to 2 | 448 | 62.1% | 209 | 34.6% | | 467 | 53.5% | 235 | 42.1% | | 915 | 57.4% | 444 | 38.2% | |
| 3 to 4 | 217 | 30.1% | 264 | 43.7% | | 171 | 19.6% | 202 | 36.2% | | 388 | 24.3% | 466 | 40.1% | |
| 5 to 6 | 42 | 5.8% | 107 | 17.7% | | 34 | 3.9% | 74 | 13.3% | | 76 | 4.8% | 181 | 15.6% | |
| 7 and above | 2 | 0.3% | 21 | 3.5% | | 2 | 0.2% | 7 | 1.3% | | 4 | 0.3% | 28 | 2.4% | |
| **Total females in the household** | | | | | | | | | | | | | | | |
| None | 202 | 28.0% | 50 | 8.3% | **<0.001** | 16 | 1.8% | 10 | 1.8% | **<0.001** | 218 | 13.7% | 60 | 5.2% | **<0.001** |
| 1 to 2 | 381 | 52.8% | 271 | 44.9% | | 547 | 62.7% | 232 | 41.6% | | 928 | 58.2% | 503 | 43.3% | |
| 3 to 4 | 119 | 16.5% | 217 | 35.9% | | 257 | 29.4% | 233 | 41.8% | | 376 | 23.6% | 450 | 38.7% | |
| 5 to 6 | 16 | 2.2% | 58 | 9.6% | | 51 | 5.8% | 73 | 13.1% | | 67 | 4.2% | 131 | 11.3% | |
| 7 and above | 3 | 0.4% | 8 | 1.3% | | 2 | 0.2% | 10 | 1.8% | | 5 | 0.3% | 18 | 1.5% | |
| **Total males between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 21 | 2.9% | 36 | 6.0% | **<0.001** | 281 | 32.2% | 105 | 18.8% | **<0.001** | 302 | 18.9% | 141 | 12.1% | **<0.001** |
| 1 to 2 | 508 | 70.5% | 356 | 58.9% | | 475 | 54.4% | 312 | 55.9% | | 983 | 61.7% | 668 | 57.5% | |
| 3 to 4 | 174 | 24.1% | 175 | 29.0% | | 103 | 11.8% | 121 | 21.7% | | 277 | 17.4% | 296 | 25.5% | |
| 5 to 6 | 17 | 2.4% | 33 | 5.5% | | 14 | 1.6% | 18 | 3.2% | | 31 | 1.9% | 51 | 4.4% | |
| 7 and above | 1 | 0.1% | 4 | 0.7% | | 0 | 0.0% | 2 | 0.4% | | 1 | 0.1% | 6 | 0.5% | |
| **Total females between 7-18 years attending school** | | | | | | | | | | | | | | | |
| None | 250 | 34.7% | 147 | 24.3% | **<0.001** | 49 | 5.6% | 46 | 8.2% | 0.113 | 299 | 18.8% | 193 | 16.6% | **0.031** |
| 1 to 2 | 389 | 54.0% | 337 | 55.8% | | 603 | 69.1% | 353 | 63.3% | | 992 | 62.2% | 690 | 59.4% | |
| 3 to 4 | 72 | 10.0% | 108 | 17.9% | | 196 | 22.5% | 138 | 24.7% | | 268 | 16.8% | 246 | 21.2% | |
| 5 to 6 | 8 | 1.1% | 11 | 1.8% | | 24 | 2.7% | 19 | 3.4% | | 32 | 2.0% | 30 | 2.6% | |
| 7 and above | 2 | 0.3% | 1 | 0.2% | | 1 | 0.1% | 2 | 0.4% | | 3 | 0.2% | 3 | 0.3% | |

**Table 13a: Availability of food at home distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | | WFPSMP (n=582) | | Control (n=722) | | | WFPSMP (n=1181) | | Control (n=1396) | | |
| | n | % | n | % | p value | n | % | n | % | p value | n | % | n | % | p value |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 164 | 27.4% | 80 | 11.9% | **<0.001** | 154 | 26.5% | 70 | 9.7% | **<0.001** | 318 | 26.9% | 150 | 10.7% | **<0.001** |
| 1 to 2 | 45 | 7.5% | 91 | 13.5% | | 42 | 7.2% | 90 | 12.5% | | 87 | 7.4% | 181 | 13.0% | |
| 3 to 4 | 62 | 10.4% | 177 | 26.3% | | 49 | 8.4% | 181 | 25.1% | | 111 | 9.4% | 358 | 25.6% | |
| 5 | 328 | 54.8% | 326 | 48.4% | | 337 | 57.9% | 381 | 52.8% | | 665 | 56.3% | 707 | 50.6% | |
| **Child had a meal/breakfast on interview day before going to school** | | | | | | | | | | | | | | | |
| Yes | 368 | 61.4% | 479 | 71.1% | **<0.001** | 365 | 62.7% | 520 | 72.0% | **<0.001** | 733 | 62.1% | 999 | 71.6% | **<0.001** |
| No | 231 | 38.6% | 195 | 28.9% | | 217 | 37.3% | 202 | 28.0% | | 448 | 37.9% | 397 | 28.4% | |
| **Food consumption score (FCS)** | | | | | | | | | | | | | | | |
| Poor | 50 | 8.3% | 52 | 7.7% | 0.246 | 54 | 9.3% | 51 | 7.1% | **0.012** | 104 | 8.8% | 103 | 7.4% | **0.006** |
| Borderline | 124 | 20.7% | 166 | 24.6% | | 97 | 16.7% | 165 | 22.9% | | 221 | 18.7% | 331 | 23.7% | |
| Acceptable | 425 | 71.0% | 456 | 67.7% | | 431 | 74.1% | 506 | 70.1% | | 856 | 72.5% | 962 | 68.9% | |

**Table 13b: Availability of food at home distributed by WFPSMP and HGSMP stratified by gender of the child**

| | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | | HGSMP (n=873) | | WFPSMP (n=558) | | | HGSMP (n=1594) | | WFPSMP (n=1162) | | |
| **Variables** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** |
| **Number of days child ate before going to school** | | | | | | | | | | | | | | | |
| None | 40 | 5.5% | 109 | 18.0% | **<0.001** | 74 | 8.5% | 108 | 19.4% | **<0.001** | 114 | 7.2% | 217 | 18.7% | **<0.001** |
| 1 to 2 | 66 | 9.2% | 31 | 5.1% | | 111 | 12.7% | 42 | 7.5% | | 177 | 11.1% | 73 | 6.3% | |
| 3 to 4 | 136 | 18.9% | 59 | 9.8% | | 171 | 19.6% | 50 | 9.0% | | 307 | 19.3% | 109 | 9.4% | |
| 5 | 479 | 66.4% | 405 | 67.1% | | 517 | 59.2% | 358 | 64.2% | | 996 | 62.5% | 763 | 65.7% | |
| **Child had a meal/breakfast on interview day before going to school** | | | | | | | | | | | | | | | |
| Yes | 599 | 83.1% | 447 | 74.0% | **<0.001** | 657 | 75.3% | 374 | 67.0% | **0.001** | 1256 | 78.8% | 821 | 70.7% | **<0.001** |
| No | 122 | 16.9% | 157 | 26.0% | | 216 | 24.7% | 184 | 33.0% | | 338 | 21.2% | 341 | 29.3% | |
| **Food consumption score (FCS)** | | | | | | | | | | | | | | | |
| Poor | 37 | 5.1% | 30 | 5.0% | 0.161 | 69 | 7.9% | 38 | 6.8% | **0.002** | 106 | 6.6% | 68 | 5.9% | **<0.001** |
| Borderline | 129 | 17.9% | 85 | 14.1% | | 180 | 20.6% | 77 | 13.8% | | 309 | 19.4% | 162 | 13.9% | |
| Acceptable | 555 | 77.0% | 489 | 81.0% | | 624 | 71.5% | 443 | 79.4% | | 1179 | 74.0% | 932 | 80.2% | |

**Table 14a: Availability of food at school distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | | WFPSMP (n=582) | | Control (n=722) | | | WFPSMP (n=1181) | | Control (n=1396) | | |
| | n | % | n | % | p value | n | % | n | % | p value | n | % | n | % | p val |
| **Child has been receiving school meals at school in the current school year** | | | | | | | | | | | | | | | |
| Yes | 535 | 89.3% | 166 | 24.6% | **<0.001** | 528 | 90.7% | 172 | 23.8% | **<0.001** | 1063 | 90.0% | 338 | 24.2% | **<0.0** |
| No | 64 | 10.7% | 508 | 75.4% | | 54 | 9.3% | 550 | 76.2% | | 118 | 10.0% | 1058 | 75.8% | |
| **The school in which the child was learning at currently (same week) serving food** | | | | | | | | | | | | | | | |
| Yes | 433 | 72.3% | 145 | 21.5% | **<0.001** | 400 | 68.7% | 153 | 21.2% | **<0.001** | 833 | 70.5% | 298 | 21.3% | **<0.0** |
| No | 166 | 27.7% | 529 | 78.5% | | 182 | 31.3% | 569 | 78.8% | | 348 | 29.5% | 1098 | 78.7% | |
| **Child missed a complete day of school during the 1st term of the year** | | | | | | | | | | | | | | | |
| Yes | 185 | 30.9% | 321 | 47.6% | **<0.001** | 178 | 30.6% | 324 | 44.9% | **<0.001** | 363 | 30.7% | 645 | 46.2% | **<0.0** |
| No | 414 | 69.1% | 353 | 52.4% | | 404 | 69.4% | 398 | 55.1% | | 818 | 69.3% | 751 | 53.8% | |

**Table 14b: Availability of food at school distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | | HGSMP (n=873) | | WFPSMP (n=558) | | | HGSMP (n=1594) | | WFPSMP (n=1162) | | |
| | n | % | n | % | p value | n | % | n | % | p value | n | % | n | % | p valu |
| **Child has been receiving school meals at school in the current school year** | | | | | | | | | | | | | | | |
| Yes | 597 | 82.8% | 496 | 82.1% | 0.745 | 659 | 75.5% | 446 | 79.9% | 0.051 | 1256 | 78.8% | 942 | 81.1% | 0.143 |
| No | 124 | 17.2% | 108 | 17.9% | | 214 | 24.5% | 112 | 20.1% | | 338 | 21.2% | 220 | 18.9% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **The school in which the child was learning at currently (same week) serving food** | | | | | | | | | | | | | | | |
| Yes | 528 | 73.2% | 428 | 70.9% | 0.338 | 558 | 63.9% | 388 | 69.5% | **0.029** | 1086 | 68.1% | 816 | 70.2% | 0.241 |
| No | 193 | 26.8% | 176 | 29.1% | | 315 | 36.1% | 170 | 30.5% | | 508 | 31.9% | 346 | 29.8% | |
| **Child missed a complete day of school during the 1st term of the year** | | | | | | | | | | | | | | | |
| Yes | 368 | 51.0% | 159 | 26.3% | **<0.001** | 472 | 54.1% | 171 | 30.6% | **<0.001** | 840 | 52.7% | 330 | 28.4% | **<0.00** |
| No | 353 | 49.0% | 445 | 73.7% | | 401 | 45.9% | 387 | 69.4% | | 754 | 47.3% | 832 | 71.6% | |

**Table 15a: Coping strategy on days when the family did not have enough food or money to buy food distributed by CONTROL and WFPSMP stratified by gender of the child**

| | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | | WFPSMP (n=582) | | Control (n=722) | | | WFPSMP (n=1181) | | Control (n=1396) | | |
| **Variables** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** |
| **Coping Strategy Index (CSI)** | | | | | | | | | | | | | | | |
| None | 83 | 13.9% | 60 | 8.9% | **<0.001** | 88 | 15.1% | 89 | 12.3% | **<0.001** | 171 | 14.5% | 149 | 10.7% | **<0.001** |
| 1 to 9 | 179 | 29.9% | 201 | 29.8% | | 165 | 28.4% | 180 | 24.9% | | 344 | 29.1% | 381 | 27.3% | |
| 10 to 19 | 200 | 33.4% | 183 | 27.2% | | 160 | 27.5% | 215 | 29.8% | | 360 | 30.5% | 398 | 28.5% | |
| 20 to 29 | 96 | 16.0% | 131 | 19.4% | | 127 | 21.8% | 134 | 18.6% | | 223 | 18.9% | 265 | 19.0% | |
| 30 to 39 | 35 | 5.8% | 56 | 8.3% | | 39 | 6.7% | 56 | 7.8% | | 74 | 6.3% | 112 | 8.0% | |
| 40 and above | 6 | 1.0% | 43 | 6.4% | | 3 | 0.5% | 48 | 6.6% | | 9 | 0.8% | 91 | 6.5% | |

**Table 15b: Coping strategy on days when the family did not have enough food or money to buy food distributed by WFPSMP and HGSMP stratified by gender of the child**

| | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | | HGSMP (n=873) | | WFPSMP (n=558) | | | HGSMP (n=1594) | | WFPSMP (n=1162) | | |
| **Variables** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** | **n** | **%** | **n** | **%** | **p value** |
| **Coping Strategy Index (CSI)** | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| None | 103 | 14.3% | 145 | 24.0% | **<0.001** | 120 | 13.7% | 124 | 22.2% | **<0.001** | 223 | 14.0% | 269 | 23.1% | **<0.001** |
| 1 to 9 | 199 | 27.6% | 167 | 27.6% | | 252 | 28.9% | 143 | 25.6% | | 451 | 28.3% | 310 | 26.7% | |
| 10 to 19 | 236 | 32.7% | 174 | 28.8% | | 249 | 28.5% | 172 | 30.8% | | 485 | 30.4% | 346 | 29.8% | |
| 20 to 29 | 116 | 16.1% | 87 | 14.4% | | 153 | 17.5% | 86 | 15.4% | | 269 | 16.9% | 173 | 14.9% | |
| 30 to 39 | 34 | 4.7% | 24 | 4.0% | | 53 | 6.1% | 27 | 4.8% | | 87 | 5.5% | 51 | 4.4% | |
| 40 and above | 33 | 4.6% | 7 | 1.2% | | 46 | 5.3% | 6 | 1.1% | | 79 | 5.0% | 13 | 1.1% | |

**Table 16a: Views on benefits of education, school absenteeism, sources of information on school feeding and hygiene distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | p value | WFPSMP (n=582) | | Control (n=722) | | p value | WFPSMP (n=1181) | | Control (n=1396) | | p value |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Number of important benefits of education mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| <2 | 89 | 14.9% | 180 | 26.7% | **<0.001** | 100 | 17.2% | 185 | 25.6% | **<0.001** | 189 | 16.0% | 365 | 26.1% | **<0.001** |
| 2 to 3 | 343 | 57.3% | 427 | 63.4% | | 299 | 51.4% | 442 | 61.2% | | 642 | 54.4% | 869 | 62.2% | |
| 4 to 5 | 107 | 17.9% | 55 | 8.2% | | 126 | 21.6% | 79 | 10.9% | | 233 | 19.7% | 134 | 9.6% | |
| 6 and above | 60 | 10.0% | 12 | 1.8% | | 57 | 9.8% | 16 | 2.2% | | 117 | 9.9% | 28 | 2.0% | |
| **Number of sources of information on hygiene in the past year mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| None | 250 | 41.7% | 245 | 36.4% | **<0.001** | 191 | 32.8% | 250 | 34.6% | **0.004** | 441 | 37.3% | 495 | 35.5% | **<0.001** |
| One | 155 | 25.9% | 219 | 32.5% | | 162 | 27.8% | 249 | 34.5% | | 317 | 26.8% | 468 | 33.5% | |
| Two | 91 | 15.2% | 140 | 20.8% | | 115 | 19.8% | 127 | 17.6% | | 206 | 17.4% | 267 | 19.1% | |
| Three and above | 103 | 17.2% | 70 | 10.4% | | 114 | 19.6% | 96 | 13.3% | | 217 | 18.4% | 166 | 11.9% | |
| **Number of reasons why the child missed a complete day of school during the 1st term of this year** | | | | | | | | | | | | | | | |
| None | 415 | 69.3% | 353 | 52.4% | **<0.001** | 404 | 69.4% | 399 | 55.3% | **<0.001** | 819 | 69.3% | 752 | 53.9% | **<0.001** |
| One | 155 | 25.9% | 282 | 41.8% | | 160 | 27.5% | 280 | 38.8% | | 315 | 26.7% | 562 | 40.3% | |
| Two | 27 | 4.5% | 35 | 5.2% | | 16 | 2.7% | 43 | 6.0% | | 43 | 3.6% | 78 | 5.6% | |
| Three and above | 2 | 0.3% | 4 | 0.6% | | 2 | 0.3% | 0 | 0.0% | | 4 | 0.3% | 4 | 0.3% | |

**Table 16b: Views on benefits of education, school absenteeism, sources of information on school feeding and hygiene distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | p value | HGSMP (n=873) | | WFPSMP (n=558) | | p value | HGSMP (n=1594) | | WFPSMP (n=1162) | | p valu |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Number of important benefits of education mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| <2 | 177 | 24.5% | 92 | 15.2% | **<0.001** | 233 | 26.7% | 97 | 17.4% | **<0.001** | 410 | 25.7% | 189 | 16.3% | **<0.0** |
| 2 to 3 | 486 | 67.4% | 348 | 57.6% | | 550 | 63.0% | 292 | 52.3% | | 1036 | 65.0% | 640 | 55.1% | |
| 4 to 5 | 54 | 7.5% | 112 | 18.5% | | 86 | 9.9% | 110 | 19.7% | | 140 | 8.8% | 222 | 19.1% | |
| 6 and above | 4 | 0.6% | 52 | 8.6% | | 4 | 0.5% | 59 | 10.6% | | 8 | 0.5% | 111 | 9.6% | |
| **Number of sources of information on hygiene in the past year mentioned by the parent/guardian** | | | | | | | | | | | | | | | |
| None | 221 | 30.7% | 223 | 36.9% | **<0.001** | 297 | 34.0% | 194 | 34.8% | **0.003** | 518 | 32.5% | 417 | 35.9% | **<0.0** |
| One | 277 | 38.4% | 177 | 29.3% | | 298 | 34.1% | 167 | 29.9% | | 575 | 36.1% | 344 | 29.6% | |
| Two | 154 | 21.4% | 99 | 16.4% | | 178 | 20.4% | 97 | 17.4% | | 332 | 20.8% | 196 | 16.9% | |
| Three and above | 69 | 9.6% | 105 | 17.4% | | 100 | 11.5% | 100 | 17.9% | | 169 | 10.6% | 205 | 17.6% | |
| **Number of reasons why the child missed a complete day of school during the 1st term of this year** | | | | | | | | | | | | | | | |
| None | 353 | 49.0% | 445 | 73.7% | **<0.001** | 401 | 45.9% | 387 | 69.4% | **<0.001** | 754 | 47.3% | 832 | 71.6% | **<0.0** |
| One | 334 | 46.3% | 139 | 23.0% | | 409 | 46.8% | 155 | 27.8% | | 743 | 46.6% | 294 | 25.3% | |
| Two | 31 | 4.3% | 18 | 3.0% | | 58 | 6.6% | 13 | 2.3% | | 89 | 5.6% | 31 | 2.7% | |
| Three and above | 3 | 0.4% | 2 | 0.3% | | 5 | 0.6% | 3 | 0.5% | | 8 | 0.5% | 5 | 0.4% | |

**Table 17a: Socio-demographic characteristics of children distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | p value | WFPSMP (n=582) | | Control (n=722) | | p value | WFPSMP (n=1181) | | Control (n=1396) | | p val |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Age of child in years** | | | | | | | | | | | | | | | |
| 7 to 8 | 19 | 3.2% | 31 | 4.6% | **0.007** | 32 | 5.5% | 55 | 7.6% | **0.001** | 51 | 4.3% | 86 | 6.2% | **<0.** |
| 9 to 10 | 102 | 17.0% | 146 | 21.7% | | 124 | 21.3% | 169 | 23.4% | | 226 | 19.1% | 315 | 22.6% | |
| 11 to 12 | 146 | 24.4% | 183 | 27.2% | | 144 | 24.7% | 222 | 30.7% | | 290 | 24.6% | 405 | 29.0% | |
| 13 to 14 | 194 | 32.4% | 205 | 30.4% | | 198 | 34.0% | 215 | 29.8% | | 392 | 33.2% | 420 | 30.1% | |
| >14 | 138 | 23.0% | 109 | 16.2% | | 84 | 14.4% | 61 | 8.4% | | 222 | 18.8% | 170 | 12.2% | |
| **Class of the child** | | | | | | | | | | | | | | | |
| Third | 114 | 19.0% | 91 | 13.5% | 0.073 | 127 | 21.8% | 113 | 15.7% | **0.005** | 241 | 20.4% | 204 | 14.6% | **<0.** |
| Fourth | 100 | 16.7% | 108 | 16.0% | | 115 | 19.8% | 127 | 17.6% | | 215 | 18.2% | 235 | 16.8% | |
| Fifth | 107 | 17.9% | 112 | 16.6% | | 96 | 16.5% | 122 | 16.9% | | 203 | 17.2% | 234 | 16.8% | |
| Sixth | 102 | 17.0% | 128 | 19.0% | | 100 | 17.2% | 116 | 16.1% | | 202 | 17.1% | 244 | 17.5% | |
| Seventh | 101 | 16.9% | 132 | 19.6% | | 80 | 13.7% | 128 | 17.7% | | 181 | 15.3% | 260 | 18.6% | |
| Eighth | 75 | 12.5% | 103 | 15.3% | | 64 | 11.0% | 116 | 16.1% | | 139 | 11.8% | 219 | 15.7% | |
| **Time taken to get to school** | | | | | | | | | | | | | | | |
| <15 minutes | 254 | 42.4% | 136 | 20.2% | **<0.001** | 247 | 42.4% | 143 | 19.8% | **<0.001** | 501 | 42.4% | 279 | 20.0% | **<0.** |
| 15 to 29 minutes | 152 | 25.4% | 148 | 22.0% | | 145 | 24.9% | 155 | 21.5% | | 297 | 25.1% | 303 | 21.7% | |
| 30 to 59 minutes | 129 | 21.5% | 283 | 42.0% | | 117 | 20.1% | 279 | 38.6% | | 246 | 20.8% | 562 | 40.3% | |
| 60 minutes and above | 64 | 10.7% | 107 | 15.9% | | 73 | 12.5% | 145 | 20.1% | | 137 | 11.6% | 252 | 18.1% | |
| **Mode of travel to school** | | | | | | | | | | | | | | | |
| On foot | 588 | 98.2% | 671 | 99.6% | **0.018** | 561 | 96.4% | 709 | 98.2% | **0.042** | 1149 | 97.3% | 1380 | 98.9% | **0.0** |
| Bicycle/ Bus/ Motor cycle | 11 | 1.8% | 3 | 0.4% | | 21 | 3.6% | 13 | 1.8% | | 32 | 2.7% | 16 | 1.1% | |
| **Having brothers and sisters who are old enough to go to school but are NOT currently attending school** | | | | | | | | | | | | | | | |
| Yes | 202 | 33.7% | 50 | 7.4% | **<0.001** | 160 | 27.5% | 68 | 9.4% | **<0.001** | 362 | 30.7% | 118 | 8.5% | **<0.** |
| No | 397 | 66.3% | 624 | 92.6% | | 422 | 72.5% | 654 | 90.6% | | 819 | 69.3% | 1278 | 91.5% | |

**Table 17b: Socio-demographic characteristics of children distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | p value | HGSMP (n=873) | | WFPSMP (n=558) | | p value | HGSMP (n=1594) | | WFPSMP (n=1162) | | p val |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Age of child in years** | | | | | | | | | | | | | | | |
| 7 to 8 | 38 | 5.3% | 19 | 3.1% | **<0.001** | 52 | 6.0% | 34 | 6.1% | **<0.001** | 90 | 5.6% | 53 | 4.6% | **<0.** |
| 9 to 10 | 148 | 20.5% | 93 | 15.4% | | 203 | 23.3% | 108 | 19.4% | | 351 | 22.0% | 201 | 17.3% | |
| 11 to 12 | 198 | 27.5% | 148 | 24.5% | | 273 | 31.3% | 129 | 23.1% | | 471 | 29.5% | 277 | 23.8% | |
| 13 to 14 | 230 | 31.9% | 199 | 32.9% | | 265 | 30.4% | 201 | 36.0% | | 495 | 31.1% | 400 | 34.4% | |
| >14 | 107 | 14.8% | 145 | 24.0% | | 80 | 9.2% | 86 | 15.4% | | 187 | 11.7% | 231 | 19.9% | |
| **Class of the child** | | | | | | | | | | | | | | | |
| Third | 118 | 16.4% | 106 | 17.5% | **0.020** | 114 | 13.1% | 109 | 19.5% | **<0.001** | 232 | 14.6% | 215 | 18.5% | **<0.** |
| Fourth | 103 | 14.3% | 120 | 19.9% | | 142 | 16.3% | 125 | 22.4% | | 245 | 15.4% | 245 | 21.1% | |
| Fifth | 132 | 18.3% | 116 | 19.2% | | 161 | 18.4% | 93 | 16.7% | | 293 | 18.4% | 209 | 18.0% | |
| Sixth | 122 | 16.9% | 100 | 16.6% | | 162 | 18.6% | 109 | 19.5% | | 284 | 17.8% | 209 | 18.0% | |
| Seventh | 135 | 18.7% | 98 | 16.2% | | 154 | 17.6% | 82 | 14.7% | | 289 | 18.1% | 180 | 15.5% | |
| Eighth | 111 | 15.4% | 64 | 10.6% | | 140 | 16.0% | 40 | 7.2% | | 251 | 15.7% | 104 | 9.0% | |
| **Time taken to get to school** | | | | | | | | | | | | | | | |
| <15 minutes | 164 | 22.7% | 255 | 42.2% | **<0.001** | 192 | 22.0% | 235 | 42.1% | **<0.001** | 356 | 22.3% | 490 | 42.2% | **<0.** |
| 15 to 29 minutes | 184 | 25.5% | 168 | 27.8% | | 179 | 20.5% | 175 | 31.4% | | 363 | 22.8% | 343 | 29.5% | |
| 30 to 59 minutes | 266 | 36.9% | 133 | 22.0% | | 349 | 40.0% | 112 | 20.1% | | 615 | 38.6% | 245 | 21.1% | |
| 60 minutes and above | 107 | 14.8% | 48 | 7.9% | | 153 | 17.5% | 36 | 6.5% | | 260 | 16.3% | 84 | 7.2% | |
| **Mode of travel to school** | | | | | | | | | | | | | | | |
| On foot | 690 | 95.7% | 591 | 97.8% | **0.030** | 838 | 96.0% | 539 | 96.6% | 0.559 | 1528 | 95.9% | 1130 | 97.2% | 0.0 |
| Bicycle/ Bus/ Motor cycle | 31 | 4.3% | 13 | 2.2% | | 35 | 4.0% | 19 | 3.4% | | 66 | 4.1% | 32 | 2.8% | |
| **Having brothers and sisters who are old enough to go to school but are NOT currently attending school** | | | | | | | | | | | | | | | |
| Yes | 55 | 7.6% | 176 | 29.1% | **<0.001** | 67 | 7.7% | 142 | 25.4% | **<0.001** | 122 | 7.7% | 318 | 27.4% | **<0.** |
| No | 666 | 92.4% | 428 | 70.9% | | 806 | 92.3% | 416 | 74.6% | | 1472 | 92.3% | 844 | 72.6% | |

**Table 18a: Children feeding distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | p value | WFPSMP (n=582) | | Control (n=722) | | p value | WFPSMP (n=1181) | | Control (n=1396) | | p value |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Had a meal today BEFORE coming to school** | | | | | | | | | | | | | | | |
| Yes | 385 | 64.3% | 464 | 68.8% | 0.084 | 382 | 65.6% | 480 | 66.5% | 0.748 | 767 | 64.9% | 944 | 67.6% | 0.152 |
| No | 214 | 35.7% | 210 | 31.2% | | 200 | 34.4% | 242 | 33.5% | | 414 | 35.1% | 452 | 32.4% | |
| **Number of times child normally eat per day** | | | | | | | | | | | | | | | |
| 1 time | 28 | 4.7% | 95 | 14.1% | **<0.001** | 24 | 4.1% | 96 | 13.3% | **<0.001** | 52 | 4.4% | 191 | 13.7% | **<0.001** |
| 2 times | 346 | 57.8% | 264 | 39.2% | | 336 | 57.7% | 272 | 37.7% | | 682 | 57.7% | 536 | 38.4% | |
| 3 times | 224 | 37.4% | 302 | 44.8% | | 221 | 38.0% | 339 | 47.0% | | 445 | 37.7% | 641 | 45.9% | |
| More than three times | 1 | 0.2% | 13 | 1.9% | | 1 | 0.2% | 15 | 2.1% | | 2 | 0.2% | 28 | 2.0% | |

**Table 18b: Children feeding distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | p value | HGSMP (n=873) | | WFPSMP (n=558) | | p value | HGSMP (n=1594) | | WFPSMP (n=1162) | | p value |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **Had a meal today BEFORE coming to school** | | | | | | | | | | | | | | | |
| Yes | 571 | 79.2% | 449 | 74.3% | 0.036 | 616 | 70.6% | 399 | 71.5% | 0.701 | 1187 | 74.5% | 848 | 73.0% | 0.380 |
| No | 150 | 20.8% | 155 | 25.7% | | 257 | 29.4% | 159 | 28.5% | | 407 | 25.5% | 314 | 27.0% | |
| **Number of times child normally eat per day** | | | | | | | | | | | | | | | |
| 1 time | 49 | 6.8% | 25 | 4.1% | **<0.001** | 67 | 7.7% | 26 | 4.7% | **<0.001** | 116 | 7.3% | 51 | 4.4% | **<0.001** |
| 2 times | 216 | 30.0% | 305 | 50.5% | | 284 | 32.5% | 264 | 47.3% | | 500 | 31.4% | 569 | 49.0% | |
| 3 times | 443 | 61.4% | 273 | 45.2% | | 494 | 56.6% | 267 | 47.8% | | 937 | 58.8% | 540 | 46.5% | |
| More than three times | 13 | 1.8% | 1 | 0.2% | | 28 | 3.2% | 1 | 0.2% | | 41 | 2.6% | 2 | 0.2% | |

**Table 19a: Hygiene, nutrition, concentration in class, importance of education and school absenteeism distributed by CONTROL and WFPSMP stratified by gender of the child**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | Control (n=674) | | p value | WFPSMP (n=582) | | Control (n=722) | | p value | WFPSMP (n=1181) | | Control (n=1396) | | p value |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **In the past month the teacher talked to students about hygiene** | | | | | | | | | | | | | | | |
| Yes | 468 | 78.1% | 572 | 84.9% | **0.002** | 456 | 78.4% | 605 | 83.8% | **0.012** | 924 | 78.2% | 1177 | 84.3% | **<0.001** |
| No | 131 | 21.9% | 102 | 15.1% | | 126 | 21.6% | 117 | 16.2% | | 257 | 21.8% | 219 | 15.7% | |
| **Number of hygiene habits mentioned** | | | | | | | | | | | | | | | |
| None | 153 | 25.5% | 83 | 12.3% | **<0.001** | 139 | 23.9% | 102 | 14.1% | **<0.001** | 292 | 24.7% | 185 | 13.3% | **<0.001** |
| 1 to 2 | 197 | 32.9% | 408 | 60.5% | | 184 | 31.6% | 428 | 59.3% | | 381 | 32.3% | 836 | 59.9% | |
| 3 to 4 | 178 | 29.7% | 168 | 24.9% | | 189 | 32.5% | 176 | 24.4% | | 367 | 31.1% | 344 | 24.6% | |
| 5 and above | 71 | 11.9% | 15 | 2.2% | | 70 | 12.0% | 16 | 2.2% | | 141 | 11.9% | 31 | 2.2% | |
| **In the past month the teacher talked to students about nutrition** | | | | | | | | | | | | | | | |
| Yes | 359 | 59.9% | 453 | 67.2% | **0.007** | 375 | 64.4% | 498 | 69.0% | **0.083** | 734 | 62.2% | 951 | 68.1% | **0.001** |
| No | 240 | 40.1% | 221 | 32.8% | | 207 | 35.6% | 224 | 31.0% | | 447 | 37.8% | 445 | 31.9% | |
| **Number of important nutrition habits mentioned** | | | | | | | | | | | | | | | |
| None | 287 | 47.9% | 295 | 43.8% | **<0.001** | 235 | 40.4% | 296 | 41.0% | **<0.001** | 522 | 44.2% | 591 | 42.3% | **<0.001** |
| One | 89 | 14.9% | 208 | 30.9% | | 100 | 17.2% | 250 | 34.6% | | 189 | 16.0% | 458 | 32.8% | |
| Two | 81 | 13.5% | 138 | 20.5% | | 108 | 18.6% | 123 | 17.0% | | 189 | 16.0% | 261 | 18.7% | |
| Three and above | 142 | 23.7% | 33 | 4.9% | | 139 | 23.9% | 53 | 7.3% | | 281 | 23.8% | 86 | 6.2% | |
| **Number of reasons why missed school** | | | | | | | | | | | | | | | |
| Never missed | 419 | 69.9% | 378 | 56.1% | **<0.001** | 390 | 67.0% | 393 | 54.4% | **<0.001** | 809 | 68.5% | 771 | 55.2% | **<0.001** |
| One | 163 | 27.2% | 273 | 40.5% | | 179 | 30.8% | 298 | 41.3% | | 342 | 29.0% | 571 | 40.9% | |
| Two and above | 17 | 2.8% | 23 | 3.4% | | 13 | 2.2% | 31 | 4.3% | | 30 | 2.5% | 54 | 3.9% | |
| **Number of reasons why it was difficult to concentrate in class** | | | | | | | | | | | | | | | |
| One | 280 | 46.7% | 500 | 74.2% | **<0.001** | 279 | 47.9% | 515 | 71.3% | **<0.001** | 559 | 47.3% | 1015 | 72.7% | **<0.001** |
| Two | 173 | 28.9% | 138 | 20.5% | | 176 | 30.2% | 167 | 23.1% | | 349 | 29.6% | 305 | 21.8% | |
| Three | 95 | 15.9% | 33 | 4.9% | | 96 | 16.5% | 31 | 4.3% | | 191 | 16.2% | 64 | 4.6% | |
| Four and more | 51 | 8.5% | 3 | 0.4% | | 31 | 5.3% | 9 | 1.2% | | 82 | 6.9% | 12 | 0.9% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Number of most important benefits of education mentioned by the child** | | | | | | | | | | | | | | | |
| <2 | 140 | 23.4% | 288 | 42.7% | **<0.001** | 130 | 22.3% | 272 | 37.7% | **<0.001** | 270 | 22.9% | 560 | 40.1% | **<0.001** |
| 2 to 3 | 358 | 59.8% | 353 | 52.4% | | 335 | 57.6% | 414 | 57.3% | | 693 | 58.7% | 767 | 54.9% | |
| 4 to 5 | 66 | 11.0% | 31 | 4.6% | | 76 | 13.1% | 32 | 4.4% | | 142 | 12.0% | 63 | 4.5% | |
| 6 and above | 35 | 5.8% | 2 | 0.3% | | 41 | 7.0% | 4 | 0.6% | | 76 | 6.4% | 6 | 0.4% | |

**Table 19b: Hygiene, nutrition, concentration in class, importance of education and school absenteeism distributed by WFPSMP and HGSMP stratified by gender of the child**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | p value | HGSMP (n=873) | | WFPSMP (n=558) | | p value | HGSMP (n=1594) | | WFPSMP (n=1162) | | p value |
| | n | % | n | % | | n | % | n | % | | n | % | n | % | |
| **In the past month the teacher talked to students about hygiene** | | | | | | | | | | | | | | | |
| Yes | 614 | 85.2% | 469 | 77.6% | **<0.001** | 757 | 86.7% | 422 | 75.6% | **<0.001** | 1371 | 86.0% | 891 | 76.7% | **<0.001** |
| No | 107 | 14.8% | 135 | 22.4% | | 116 | 13.3% | 136 | 24.4% | | 223 | 14.0% | 271 | 23.3% | |
| **Number of hygiene habits mentioned** | | | | | | | | | | | | | | | |
| None | 113 | 15.7% | 171 | 28.3% | **<0.001** | 133 | 15.2% | 139 | 24.9% | **<0.001** | 246 | 15.4% | 310 | 26.7% | **<0.001** |
| 1 to 2 | 449 | 62.3% | 204 | 33.8% | | 549 | 62.9% | 195 | 34.9% | | 998 | 62.6% | 399 | 34.3% | |
| 3 to 4 | 151 | 20.9% | 177 | 29.3% | | 182 | 20.8% | 166 | 29.7% | | 333 | 20.9% | 343 | 29.5% | |
| 5 and above | 8 | 1.1% | 52 | 8.6% | | 9 | 1.0% | 58 | 10.4% | | 17 | 1.1% | 110 | 9.5% | |
| **In the past month the teacher talked to students about nutrition** | | | | | | | | | | | | | | | |
| Yes | 536 | 74.3% | 393 | 65.1% | **<0.001** | 640 | 73.3% | 363 | 65.1% | **0.001** | 1176 | 73.8% | 756 | 65.1% | **<0.001** |
| No | 185 | 25.7% | 211 | 34.9% | | 233 | 26.7% | 195 | 34.9% | | 418 | 26.2% | 406 | 34.9% | |
| **Number of important nutrition habits mentioned** | | | | | | | | | | | | | | | |
| None | 242 | 33.6% | 259 | 42.9% | **<0.001** | 303 | 34.7% | 212 | 38.0% | **<0.001** | 545 | 34.2% | 471 | 40.5% | **<0.001** |
| One | 251 | 34.8% | 93 | 15.4% | | 319 | 36.5% | 109 | 19.5% | | 570 | 35.8% | 202 | 17.4% | |
| Two | 173 | 24.0% | 90 | 14.9% | | 199 | 22.8% | 98 | 17.6% | | 372 | 23.3% | 188 | 16.2% | |
| Three and above | 55 | 7.6% | 162 | 26.8% | | 52 | 6.0% | 139 | 24.9% | | 107 | 6.7% | 301 | 25.9% | |
| **Number of reasons why missed school** | | | | | | | | | | | | | | | |
| Never missed | 361 | 50.1% | 439 | 72.7% | **<0.001** | 393 | 45.0% | 387 | 69.4% | **<0.001** | 754 | 47.3% | 826 | 71.1% | **<0.001** |
| One | 334 | 46.3% | 147 | 24.3% | | 452 | 51.8% | 162 | 29.0% | | 786 | 49.3% | 309 | 26.6% | |
| Two and above | 26 | 3.6% | 18 | 3.0% | | 28 | 3.2% | 9 | 1.6% | | 54 | 3.4% | 27 | 2.3% | |
| **Number of reasons why it was difficult to concentrate in class** | | | | | | | | | | | | | | | |
| One | 575 | 79.8% | 303 | 50.2% | **<0.001** | 681 | 78.0% | 278 | 49.8% | **<0.001** | 1256 | 78.8% | 581 | 50.0% | **<0.001** |
| Two | 117 | 16.2% | 187 | 31.0% | | 145 | 16.6% | 178 | 31.9% | | 262 | 16.4% | 365 | 31.4% | |
| Three | 26 | 3.6% | 78 | 12.9% | | 38 | 4.4% | 75 | 13.4% | | 64 | 4.0% | 153 | 13.2% | |
| Four and more | 3 | 0.4% | 36 | 6.0% | | 9 | 1.0% | 27 | 4.8% | | 12 | 0.8% | 63 | 5.4% | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Number of most important benefits of education mentioned by the child** | | | | | | | | | | | | | | | |
| <2 | 326 | 45.2% | 137 | 22.7% | **<0.001** | 391 | 44.8% | 136 | 24.4% | **<0.001** | 717 | 45.0% | 273 | 23.5% | **<0.001** |
| 2 to 3 | 387 | 53.7% | 365 | 60.4% | | 440 | 50.4% | 313 | 56.1% | | 827 | 51.9% | 678 | 58.3% | |
| 4 to 5 | 7 | 1.0% | 69 | 11.4% | | 41 | 4.7% | 73 | 13.1% | | 48 | 3.0% | 142 | 12.2% | |
| 6 and above | 1 | 0.1% | 33 | 5.5% | | 1 | 0.1% | 36 | 6.5% | | 2 | 0.1% | 69 | 5.9% | |

### Annex 10b – Computation of the Propensity Score at midline

All variables whose distribution was significantly different ($p<0.05$) between the study arms (CONTROL, WFPSMP and HGSMP) were used to construct the propensity score.

The propensity score was constructed using the 'participation equation', derived from a logit regression with programme participation as the dependent variable coded as follows;

- WFPSMP = 1, versus Control = 0.
- HGSMP = 1, versus WFPSMP = 0.

Comparison of indicators measured from learners data was adjusted for, using the propensity score quintiles calculated at midline. Table 10a and 10b shows distribution of propensity score quintiles by specific study arms stratified by gender of children.

**Table 20a: Propensity score quintiles distributed by WFPSMP and Control stratified by gender of the child, at midline.**

| Variables | Male (n=1273) | | | | | Female (n=1304) | | | | | Total (n=2577) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP (n=599) | | CONTROL (n=674) | | p value | WFPSMP (n=582) | | CONTROL (n=722) | | p value | WFPSMP (n=1181) | | CONTROL (n=1396) | | p value |
| **Propensity score quintiles** | | | | | | | | | | | | | | | |
| First | 0 | 0.0% | 254 | 37.7% | **<0.001** | 2 | 0.3% | 259 | 35.9% | **<0.001** | 2 | 0.2% | 513 | 36.7% | **<0.001** |
| Second | 10 | 1.7% | 245 | 36.4% | | 14 | 2.4% | 247 | 34.2% | | 24 | 2.0% | 492 | 35.2% | |
| Third | 96 | 16.0% | 159 | 23.6% | | 88 | 15.1% | 173 | 24.0% | | 184 | 15.6% | 332 | 23.8% | |
| Fourth | 240 | 40.1% | 15 | 2.2% | | 223 | 38.3% | 38 | 5.3% | | 463 | 39.2% | 53 | 3.8% | |
| Fifth | 253 | 42.2% | 1 | 0.1% | | 255 | 43.8% | 5 | 0.7% | | 508 | 43.0% | 6 | 0.4% | |

**Table 20b: Propensity score quintiles distributed by WFPSMP and HGSMP stratified by gender of the child, at midline.**

| Variables | Male (n=1325) | | | | | Female (n=1431) | | | | | Total (n=2756) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP (n=721) | | WFPSMP (n=604) | | p value | HGSMP (n=873) | | WFPSMP (n=558) | | p value | HGSMP (n=1594) | | WFPSMP (n=1162) | | p value |
| **Propensity score quintiles** | | | | | | | | | | | | | | | |
| First | 3 | 0.4% | 262 | 43.4% | **<0.001** | 2 | 0.2% | 285 | 51.1% | **<0.001** | 5 | 0.3% | 547 | 47.1% | **<0.001** |
| Second | 23 | 3.2% | 242 | 40.1% | | 64 | 7.3% | 222 | 39.8% | | 87 | 5.5% | 464 | 39.9% | |
| Third | 173 | 24.0% | 92 | 15.2% | | 243 | 27.8% | 43 | 7.7% | | 416 | 26.1% | 135 | 11.6% | |
| Fourth | 258 | 35.8% | 7 | 1.2% | | 279 | 32.0% | 7 | 1.3% | | 537 | 33.7% | 14 | 1.2% | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fifth | 264 | 36.6% | 1 | 0.2% | 285 | 32.6% | 1 | 0.2% | 549 | 34.4% | 2 | 0.2% |

## Annex 10a – Measuring the effect of the WFPSMP using Difference-in-Difference (DID) method

**Table 21: Mean raw score on Learners outcomes distributed by WFPSMP and Control study arms stratified by gender**

| Timepoint | Baseline | | | | | Midline | | | | | Difference-in-Difference (DID) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | Boys | | | | | | | | | | | | | | |
| | **WFPSMP (n=579)** | | **Control (n=675)** | | **p** | **WFPSMP (n=599)** | | **Control (n=674)** | | **p** | **Diff. in WFPSMP** | **Diff. in Control** | **DID** | | **p** |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **β** | **SE(β)** | **val** |
| English literacy raw score | 3.81 | 0.05 | 4.07 | 0.05 | **<0.001** | 3.99 | 0.05 | 4.22 | 0.04 | **<0.001** | 0.18 | 0.15 | 0.022 | 0.094 | 0.8 |
| Kiswahili literacy raw score | 4.06 | 0.05 | 4.28 | 0.05 | **0.001** | 4.17 | 0.05 | 4.41 | 0.04 | **<0.001** | 0.11 | 0.13 | -0.096 | 0.096 | 0.3 |
| Numeracy raw score | 6.01 | 0.07 | 6.37 | 0.05 | **<0.001** | 6.15 | 0.06 | 6.12 | 0.06 | 0.777 | 0.14 | -0.25 | 0.390 | 0.115 | **0.0** |
| Copying strategy index | 22.26 | 0.73 | 29.22 | 0.74 | **<0.001** | 12.64 | 0.39 | 15.80 | 0.51 | **<0.001** | -9.62 | -13.42 | 3.080 | 0.857 | **<0.** |
| **Gender** | Girls | | | | | | | | | | | | | | |
| | **WFPSMP (n=565)** | | **Control (n=721)** | | **p** | **WFPSMP (n=582)** | | **Control (n=722)** | | **p** | **WFPSMP** | **Control** | **DID** | | **p** |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **β** | **SE(β)** | **val** |
| English literacy raw score | 3.60 | 0.06 | 4.14 | 0.04 | **<0.001** | 3.65 | 0.06 | 4.19 | 0.04 | **<0.001** | 0.05 | 0.05 | -0.013 | 0.097 | 0.8 |
| Kiswahili literacy raw score | 3.92 | 0.06 | 4.34 | 0.04 | **<0.001** | 3.86 | 0.06 | 4.36 | 0.04 | **<0.001** | -0.06 | 0.02 | -0.019 | 0.091 | 0.8 |
| Numeracy raw score | 5.88 | 0.07 | 6.41 | 0.05 | **<0.001** | 5.73 | 0.07 | 6.07 | 0.06 | **<0.001** | -0.15 | -0.34 | 0.190 | 0.122 | 0.1 |
| Copying strategy index | 23.29 | 0.69 | 28.43 | 0.69 | **<0.001** | 13.22 | 0.41 | 16.01 | 0.51 | **<0.001** | -10.07 | -12.42 | 3.768 | 1.231 | **0.0** |
| | Total | | | | | | | | | | | | | | |
| | **WFPSMP (n=1144)** | | **Control (n=1396)** | | **p** | **WFPSMP (n=1181)** | | **Control (n=1396)** | | **p** | **WFPSMP** | **Control** | **DID** | | **p** |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **β** | **SE(β)** | **val** |
| English literacy raw score | 3.71 | 0.04 | 4.11 | 0.03 | **<0.001** | 3.82 | 0.04 | 4.21 | 0.03 | **<0.001** | 0.11 | 0.10 | 0.011 | 0.068 | 0.8 |
| Kiswahili literacy raw score | 3.99 | 0.04 | 4.31 | 0.03 | **<0.001** | 4.02 | 0.04 | 4.38 | 0.03 | **<0.001** | 0.03 | 0.07 | -0.052 | 0.066 | 0.4 |
| Numeracy raw score | 5.94 | 0.05 | 6.39 | 0.03 | **<0.001** | 5.94 | 0.05 | 6.09 | 0.04 | **0.014** | 0.00 | -0.30 | 0.295 | 0.084 | **<0.** |
| Copying strategy index | 22.77 | 0.51 | 28.81 | 0.50 | **<0.001** | 12.93 | 0.28 | 15.91 | 0.36 | **<0.001** | -9.84 | -12.90 | 2.362 | 1.194 | **0.0** |

**Table 22: Indicators measured from the learners data distributed by WFPSMP and Control study arms stratified by gender**

| Time point | Baseline | | | Midline | | |
|---|---|---|---|---|---|---|
| **Gender** | **Boys** | | | | | |
| **Indicators** | **WFPSMP (n=579)** | **Control (n=675)** | **p value** | **WFPSMP (n=599)** | **Control (n=674)** | **p value** |
| Highest Level of English literacy | 42.8% | 53.9% | **<0.001** | 46.1% | 56.7% | **<0.001** |
| Highest Level of Kiswahili literacy | 52.3% | 64.0% | **<0.001** | 56.1% | 68.8% | **<0.001** |
| Highest Level of numeracy | 61.8% | 72.6% | **<0.001** | 64.9% | 66.3% | 0.605 |
| Sometimes find it difficult to concentrate in class | 42.8% | 46.5% | 0.191 | 58.1% | 49.7% | **0.003** |
| Parents/guardians who reported their children ate daily before going to school | 32.6% | 40.3% | **0.005** | 54.8% | 48.4% | **0.023** |
| Parents/guardians who reported their children ate daily after going to school | 44.2% | 71.3% | **<0.001** | 63.1% | 57.9% | 0.056 |
| Parents/guardians indicating that their child had received school meals in the current school year | 55.6% | 23.4% | **<0.001** | 89.3% | 24.6% | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 49.9% | 16.9% | **<0.001** | 72.3% | 21.5% | **<0.001** |
| Acceptable food consumption score (FCS) | 36.1% | 36.0% | 0.972 | 71.0% | 67.7% | 0.204 |
| Parents/guardians in target communities who could name at least three benefits of primary education | 59.6% | 26.1% | **<0.001** | 53.8% | 33.8% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 48.5% | 19.6% | **<0.001** | 41.6% | 27.2% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 25.4% | 6.4% | **<0.001** | 38.4% | 20.6% | **<0.001** |
| **Gender** | **Girls** | | | | | |
| **Indicators** | **WFPSMP (n=565)** | **Control (n=721)** | **p value** | **WFPSMP (n=582)** | **Control (n=722)** | **p value** |
| Highest Level of English literacy | 38.2% | 57.1% | **<0.001** | 37.8% | 55.4% | **<0.001** |
| Highest Level of Kiswahili literacy | 50.1% | 67.8% | **<0.001** | 47.3% | 66.3% | **<0.001** |
| Highest Level of numeracy | 60.0% | 74.3% | **<0.001** | 54.6% | 62.7% | **0.003** |
| Sometimes find it difficult to concentrate in class | 39.3% | 46.3% | **0.012** | 63.1% | 48.1% | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 33.5% | 35.8% | 0.383 | 57.9% | 52.8% | 0.064 |
| Parents/guardians who reported their children ate daily after going to school | 46.7% | 69.9% | **<0.001** | 64.4% | 59.3% | 0.057 |
| Parents/guardians indicating that their child had received school meals in the current school year | 63.0% | 16.8% | **<0.001** | 90.7% | 23.8% | **<0.001** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Parents/guardians indicating that their child had received school meals in the week of the survey | 53.5% | 15.7% | **<0.001** | 68.7% | 21.2% | **<0.001** |
| Acceptable food consumption score (FCS) | 34.3% | 34.8% | 0.859 | 74.1% | 70.1% | 0.113 |
| Parents/guardians in target communities who could name at least three benefits of primary education | 54.7% | 26.1% | **<0.001** | 58.2% | 33.2% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 53.6% | 20.0% | **<0.001** | 44.5% | 26.6% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 27.6% | 8.2% | **<0.001** | 40.5% | 22.0% | **<0.001** |

**Table 23: Indicators measured from the learners data distributed by WFPSMP and Control study arms for all boys and girls**

| Indicators | WFPSMP (n=1144) | Control (n=1396) | p value | WFPSMP (n=1181) | Control (n=1396) | p value |
|---|---|---|---|---|---|---|
| Highest Level of English literacy | 40.6% | 55.6% | **<0.001** | 42.0% | 56.0% | **<0.001** |
| Highest Level of Kiswahili literacy | 51.2% | 66.0% | **<0.001** | 51.7% | 67.6% | **<0.001** |
| Highest Level of numeracy | 60.9% | 73.5% | **<0.001** | 59.9% | 64.5% | **0.016** |
| Sometimes find it difficult to concentrate in class | 41.1% | 46.4% | **0.007** | 60.5% | 48.9% | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 33.0% | 38.0% | **0.010** | 56.3% | 50.6% | **0.004** |
| Parents/guardians who reported their children ate daily after going to school | 45.5% | 70.6% | **<0.001** | 63.8% | 58.6% | **0.007** |
| Parents/guardians indicating that their child had received school meals in the current school year | 59.3% | 20.0% | **<0.001** | 90.0% | 24.2% | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 51.7% | 16.3% | **<0.001** | 70.5% | 21.3% | **<0.001** |
| Acceptable food consumption score (FCS) | 35.2% | 35.4% | 0.933 | 72.5% | 68.9% | **0.048** |
| Parents/guardians in target communities who could name at least three benefits of primary education | 57.2% | 26.1% | **<0.001** | 56.0% | 33.5% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 51.0% | 19.8% | **<0.001** | 43.0% | 26.9% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 26.5% | 7.3% | **<0.001** | 39.5% | 21.3% | **<0.001** |

**Table 24: Comparison of change in indicators measured from the learners data between WFPSMP and Control schools from baseline to midline**

| | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| **Indicators** | **Diff. in WFPSMP** | **Diff. in Control** | **Diff.** | **DID β** | **SE(β)** | **p value** |
| | Boys | | | | | |
| Highest Level of English literacy | 3.3% | 2.8% | 0.5% | 0.021 | 0.161 | 0.895 |
| Highest Level of Kiswahili literacy | 3.8% | 4.8% | -1.0% | -0.062 | 0.165 | 0.707 |
| Highest Level of numeracy | 3.1% | -6.3% | 9.4% | 0.432 | 0.170 | **0.011** |
| Sometimes find it difficult to concentrate in class | 15.3% | 3.2% | 12.1% | 0.489 | 0.161 | **0.002** |
| Parents/guardians who reported their children ate daily before going to school | 22.2% | 8.1% | 14.1% | 0.598 | 0.164 | **<0.001** |
| Parents/guardians who reported their children ate daily after going to school | 18.9% | -13.4% | 32.3% | 1.373 | 0.167 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 33.7% | 1.2% | 32.5% | 1.813 | 0.211 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 22.4% | 4.6% | 17.8% | 0.624 | 0.191 | **0.001** |
| Acceptable food consumption score (FCS) | 34.9% | 31.7% | 3.2% | 0.160 | 0.170 | **0.347** |
| Parents/guardians in target communities who could name at least three benefits of primary education | -5.8% | 7.7% | -13.5% | -0.648 | 0.172 | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | -6.9% | 7.6% | -14.5% | -0.747 | 0.179 | **<0.001** |
| Children who mentioned three most important nutrition efforts | 13.0% | 14.2% | -1.2% | -0.697 | 0.229 | **0.002** |
| | Girls | | | | | |
| Highest Level of English literacy | -0.4% | -1.7% | 1.3% | 0.022 | 0.162 | 0.894 |
| Highest Level of Kiswahili literacy | -2.8% | -1.5% | -1.3% | -0.078 | 0.164 | 0.633 |
| Highest Level of numeracy | -5.4% | -11.6% | 6.2% | 0.314 | 0.166 | 0.059 |
| Sometimes find it difficult to concentrate in class | 23.8% | 1.8% | 22.0% | 0.938 | 0.162 | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 24.4% | 17.0% | 7.4% | 0.320 | 0.164 | **0.05** |
| Parents/guardians who reported their children ate daily after going to school | 17.7% | -10.6% | 28.3% | 1.180 | 0.165 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 27.7% | 7.0% | 20.7% | 1.402 | 0.224 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 15.2% | 5.5% | 9.7% | 0.300 | 0.189 | 0.114 |
| Acceptable food consumption score (FCS) | 39.8% | 35.3% | 4.5% | 0.224 | 0.172 | 0.194 |
| Parents/guardians in target communities who could name at least three benefits of primary education | 3.5% | 7.1% | -3.6% | -0.143 | 0.170 | 0.401 |
| Children who responded to the survey who mentioned three most important hygiene methods | -9.1% | 6.6% | -15.7% | -0.732 | 0.177 | **<0.001** |
| Children who mentioned three most important nutrition efforts | 12.9% | 13.8% | -0.9% | -0.496 | 0.211 | **0.019** |

**Table 25: Comparison of change in indicators measured from the learners data between WFPSMP and Control schools from baseline to midline for all boys and girls**

| | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| **Indicators** | **Diff. in WFPSMP** | **Diff. in Control** | **DID** | | | **p value** |
| | | | **Diff.** | **B** | **SE(β)** | |
| | Total | | | | | |
| Highest Level of English literacy | 1.4% | 0.4% | 1.0% | 0.035 | 0.114 | 0.761 |
| Highest Level of Kiswahili literacy | 0.5% | 1.6% | -1.1% | -0.060 | 0.116 | 0.604 |
| Highest Level of numeracy | -1.0% | -9.0% | 8.0% | 0.375 | 0.118 | **0.002** |
| Sometimes find it difficult to concentrate in class | 19.4% | 2.5% | 16.9% | 0.704 | 0.114 | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 23.3% | 12.6% | 10.7% | 0.451 | 0.116 | **<0.001** |
| Parents/guardians who reported their children ate daily after going to school | 18.3% | -12.0% | 30.3% | 1.275 | 0.117 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 30.7% | 4.2% | 26.5% | 1.605 | 0.153 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 18.8% | 5.0% | 13.8% | 0.455 | 0.134 | **0.001** |
| Acceptable food consumption score (FCS) | 37.3% | 33.5% | 3.8% | 0.184 | 0.121 | **0.128** |
| Parents/guardians in target communities who could name at least three benefits of primary education | -1.2% | 7.4% | -8.6% | -0.392 | 0.121 | **0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | -8.0% | 7.1% | -15.1% | -0.738 | 0.126 | **<0.001** |
| Children who mentioned three most important nutrition efforts | 13.0% | 14.0% | -1.0% | -0.582 | 0.155 | **<0.001** |

**Table 26: Indicators measured from the school checklist data distributed by WFPSMP, Control and HGSMP study arms**

| Variables | Baseline | | | Midline | | |
|---|---|---|---|---|---|---|
| | WFPSMP | Control | p value | WFPSMP | Control | p value |
| Passing score on a test of safe food preparation and storage | 43.5% | 39.1% | 0.765 | 68.2% | 20.0% | **0.002** |
| Sufficient kitchen for preparing pupils food | 43.5% | 39.1% | 0.765 | 54.5% | 10.0% | **0.002** |
| Kitchen have fuel efficient stoves in sufficient quantity | 34.8% | 26.1% | 0.522 | 45.5% | 5.0% | **0.003** |
| Enough utensils | 34.8% | 0.0% | **0.002** | 45.5% | 5.0% | **0.003** |
| Store have pallets | 56.5% | 17.4% | **0.006** | 45.5% | 15.0% | **0.033** |
| Storage locked | 78.3% | 30.4% | **0.001** | 90.9% | 50.0% | **0.003** |
| Storage ventilated | 56.5% | 26.1% | **0.036** | 50.0% | 25.0% | 0.096 |
| Humidity free storage | 65.2% | 34.8% | **0.039** | 22.7% | 10.0% | 0.269 |
| Store have weighing scale | 26.1% | 4.3% | **0.04** | 18.2% | 5.0% | 0.188 |

**Table 27: Comparison of change in indicators measured from the school checklist data between WFPSMP, Control and HGSMP schools from baseline to midline**

| Indicators | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| | | | DID | | | p value |
| | WFPSMP | Control | Diff | β | SE(β) | |
| Passing score on a test of safe food preparation and storage | 24.70% | -19.10% | 43.80% | 1.969 | 0.939 | **0.036** |
| Sufficient kitchen for preparing pupils food | 11.00% | -29.10% | 40.10% | 2.2 | 1.048 | **0.036** |
| Kitchen have fuel efficient stoves in sufficient quantity | 10.70% | -21.10% | 31.80% | 2.349 | 1.286 | 0.068 |
| Enough utensils | 10.70% | 5.00% | 5.70% | 0.249 | 0.92 | 0.661 |
| Store have pallets | -11.00% | -2.40% | -8.60% | -0.268 | 1.027 | 0.794 |
| Storage locked | 12.60% | 19.60% | -7.00% | 0.434 | 1.087 | 0.689 |
| Storage ventilated | -6.50% | -1.10% | -5.40% | -0.205 | 0.922 | 0.824 |
| Humidity free storage | -42.50% | -24.80% | -17.70% | -0.284 | 1.094 | 0.795 |
| Store have weighing scale | -7.90% | 0.70% | -8.60% | -0.609 | 1.621 | 0.707 |

**Table 28: Indicators measured from the school checklist data distributed by WFPSMP, Control and HGSMP study arms**

| Timepoint | Baseline | | | | | Midline | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP | | Control | | | WFPSMP | | Control | | |
| Indicator | Mean | SE | Mean | SE | p value | Mean | SE | Mean | SE | p value |
| **Gender** | Boys | | | | | | | | | |
| Number of students enrolled in schools | 155 | 20 | 207 | 26 | 0.125 | 167 | 21 | 182 | 18 | 0.610 |
| Number of students regularly (80%) attending school | 108 | 14 | 135 | 17 | 0.227 | 99 | 13 | 136 | 14 | **0.049** |
| **Gender** | Girls | | | | | | | | | |
| Number of students enrolled in schools | 125 | 17 | 168 | 15 | 0.061 | 126 | 14 | 153 | 17 | 0.219 |
| Number of students regularly (80%) attending school | 87 | 12 | 110 | 10 | 0.145 | 75 | 8 | 115 | 12 | **0.009** |
| | Total | | | | | | | | | |
| Number of students enrolled in schools | 280 | 35 | 375 | 39 | 0.076 | 293 | 34 | 335 | 34 | 0.396 |
| Number of students regularly (80%) attending school | 195 | 25 | 244 | 25 | 0.166 | 173 | 20 | 251 | 25 | **0.020** |

**Table 29: Comparison of change in indicators measured from the school checklist data between WFPSMP, Control and HGSMP schools from baseline to midline**

| | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| | WFPSMP | Control | DID | | | |
| Indicator | Mean | Mean | Diff | B | SE(β) | p value |
| **Gender** | Boys | | | | | |
| Number of students enrolled in schools | 12 | -25 | 37 | 37.39 | 44.08 | 0.399 |
| Number of students regularly (80%) attending school | -9 | 1 | -10 | -10.46 | 29.24 | 0.722 |
| **Gender** | Girls | | | | | |
| Number of students enrolled in schools | 1 | -15 | 16 | 16.22 | 31.13 | 0.604 |
| Number of students regularly (80%) attending school | -12 | 5 | -18 | -17.74 | 21.13 | 0.403 |
| | Total | | | | | |
| Number of students enrolled in schools | 13 | -40 | 54 | 53.61 | 71.55 | 0.456 |
| Number of students regularly (80%) attending school | -21 | 7 | -28 | -28.32 | 47.94 | 0.556 |

## Annex 10b – Measuring sustainability of the indicators after transition to HGSMP using Difference-in-Difference (DID) method

**Table 30: Mean raw score on Learners outcomes distributed by HGSMP and WFPSMP study arms stratified by gender**

| Timepoint | Baseline | | | | | Midline | | | | | Difference-in-Difference (DID) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender** | Boys | | | | | | | | | | | | | | |
| | **HGSMP (n=713)** | | **WFPSMP (n=593)** | | **p** | **HGSMP (n=721)** | | **WFPSMP (n=604)** | | **p** | **Diff. in HGSMP** | **Diff. in WFPSMP** | **DID** | | |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **B** | **SE(β)** | **va** |
| English literacy raw score | 4.21 | 0.04 | 3.91 | 0.05 | **<0.001** | 4.24 | 0.04 | 4.17 | 0.04 | **<0.001** | 0.03 | 0.26 | -0.234 | 0.089 | **0.** |
| Kiswahili literacy raw score | 4.41 | 0.04 | 4.10 | 0.05 | **0.001** | 4.38 | 0.04 | 4.31 | 0.04 | **<0.001** | -0.03 | 0.21 | -0.241 | 0.087 | **0.** |
| Numeracy raw score | 6.47 | 0.05 | 6.00 | 0.07 | **<0.001** | 6.17 | 0.06 | 6.27 | 0.05 | **<0.001** | -0.30 | 0.27 | -0.571 | 0.112 | **<0** |
| Copying strategy index | 27.10 | 0.67 | 18.65 | 0.69 | **<0.001** | 13.58 | 0.44 | 11.01 | 0.403 | **<0.001** | -13.52 | -7.64 | -5.890 | 1.135 | **<0** |
| **Gender** | Girls | | | | | | | | | | | | | | |
| | **HGSMP (n=743)** | | **WFPSMP (n=541)** | | **p** | **HGSMP (n=873)** | | **WFPSMP (n=558)** | | **p** | **Diff. in HGSMP** | **Diff. in WFPSMP** | **DID** | | **va** |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **B** | **SE(β)** | |
| English literacy raw score | 4.39 | 0.04 | 3.74 | 0.06 | **<0.001** | 4.36 | 0.03 | 3.87 | 0.06 | **<0.001** | -0.03 | 0.13 | -0.155 | 0.090 | 0. |
| Kiswahili literacy raw score | 4.57 | 0.04 | 3.99 | 0.06 | **<0.001** | 4.56 | 0.03 | 4.01 | 0.05 | **<0.001** | -0.01 | 0.02 | -0.046 | 0.085 | 0. |
| Numeracy raw score | 6.49 | 0.04 | 5.79 | 0.08 | **<0.001** | 6.33 | 0.05 | 5.78 | 0.07 | **<0.001** | -0.16 | -0.01 | -0.155 | 0.115 | 0. |
| Copying strategy index | 26.39 | 0.69 | 20.23 | 0.71 | **<0.001** | 14.33 | 0.42 | 11.73 | 0.423 | **<0.001** | -12.06 | -8.50 | -3.548 | 1.166 | **<0** |
| | Total | | | | | | | | | | | | | | |
| | **HGSMP (n=1456)** | | **WFPSMP (n=1134)** | | **p** | **HGSMP (n=1594)** | | **WFPSMP (n=1162)** | | **p** | **Diff. in HGSMP** | **Diff. in WFPSMP** | **DID** | | **va** |
| **Learners outcomes** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **SE** | **Mean** | **SE** | **value** | **Mean** | **Mean** | **B** | **SE(β)** | |
| English literacy raw score | 4.30 | 0.03 | 3.83 | 0.04 | **<0.001** | 4.30 | 0.03 | 4.03 | 0.04 | **<0.001** | 0.00 | 0.20 | -0.192 | 0.063 | **0.** |
| Kiswahili literacy raw score | 4.49 | 0.03 | 4.05 | 0.04 | **<0.001** | 4.48 | 0.03 | 4.17 | 0.03 | **<0.001** | -0.01 | 0.12 | -0.139 | 0.061 | **0.** |
| Numeracy raw score | 6.48 | 0.03 | 5.90 | 0.05 | **<0.001** | 6.26 | 0.04 | 6.03 | 0.05 | **<0.001** | -0.22 | 0.13 | -0.360 | 0.080 | **<0** |
| Copying strategy index | 26.74 | 0.48 | 19.40 | 0.493 | **<0.001** | 13.99 | 0.30 | 11.36 | 0.292 | **<0.001** | -12.75 | -8.04 | -4.697 | 0.812 | **<0** |

**Table 31: Indicators measured from the learners data distributed by HGSMP and WFPSMP study arms stratified by gender**

| **Time point** | **Baseline** | | | **Midline** | | |
|---|---|---|---|---|---|---|
| **Gender** | Boys | | | | | |
| **Indicators** | **HGSMP (n=713)** | **WFPSMP (n=593)** | **p value** | **HGSMP (n=721)** | **WFPSMP (n=604)** | **p value** |
| Highest Level of English literacy | 61.0% | 46.5% | **<0.001** | 61.0% | 51.0% | **<0.001** |
| Highest Level of Kiswahili literacy | 71.5% | 53.8% | **<0.001** | 69.1% | 59.6% | **<0.001** |
| Highest Level of numeracy | 78.8% | 62.6% | **<0.001** | 69.3% | 66.7% | **<0.001** |
| Sometimes find it difficult to concentrate in class | 45.3% | 37.4% | **0.004** | 47.2% | 58.1% | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 42.2% | 39.1% | 0.258 | 66.4% | 67.1% | 0.812 |
| Parents/guardians who reported their children ate daily after going to school | 70.5% | 46.5% | **<0.001** | 83.8% | 53.0% | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 80.4% | 53.6% | **<0.001** | 82.8% | 82.1% | 0.745 |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 49.2% | 44.4% | 0.079 | 73.2% | 70.9% | 0.338 |
| Acceptable food consumption score (FCS) | 39.8% | 44.0% | 0.127 | 77.0% | 81.0% | 0.077 |
| Parents/guardians in target communities who could name at least three benefits of primary education | 30.0% | 57.7% | **<0.001** | 32.2% | 55.8% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 20.9% | 51.6% | **<0.001** | 22.1% | 37.9% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 11.4% | 28.0% | **<0.001** | 18.6% | 41.6% | **<0.001** |
| **Gender** | Girls | | | | | |
| **Indicators** | **HGSMP (n=743)** | **WFPSMP (n=541)** | **p value** | **HGSMP (n=873)** | **WFPSMP (n=558)** | **p value** |
| Highest Level of English literacy | 68.0% | 43.3% | **<0.001** | 62.8% | 45.7% | **<0.001** |
| Highest Level of Kiswahili literacy | 78.1% | 53.2% | **<0.001** | 74.1% | 52.3% | **<0.001** |
| Highest Level of numeracy | 76.6% | 57.5% | **<0.001** | 71.7% | 55.6% | **<0.001** |
| Sometimes find it difficult to concentrate in class | 41.9% | 37.3% | 0.103 | 49.9% | 58.8% | **0.001** |
| Parents/guardians who reported their children ate daily before going to school | 44.1% | 38.3% | **0.035** | 59.2% | 64.2% | 0.062 |
| Parents/guardians who reported their children ate daily after going to school | 71.9% | 47.3% | **<0.001** | 80.0% | 57.5% | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 80.5% | 57.9% | **<0.001** | 75.5% | 79.9% | 0.051 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Parents/guardians indicating that their child had received school meals in the week of the survey | 53.7% | 43.4% | **<0.001** | 63.9% | 69.5% | **0.029** |
| Acceptable food consumption score (FCS) | 42.5% | 41.2% | **0.639** | 71.5% | 79.4% | **0.001** |
| Parents/guardians in target communities who could name at least three benefits of primary education | 30.0% | 56.9% | **<0.001** | 35.4% | 59.5% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 20.6% | 49.2% | **<0.001** | 21.9% | 40.1% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 10.5% | 27.0% | **<0.001** | 20.3% | 42.5% | **<0.001** |

**Table 32: Indicators measured from the learners data distributed by HGSMP and WFPSMP study arms for all boys and girls**

| Indicators | HGSMP (n=1456) | WFPSMP (n=1134) | p value | HGSMP (n=1594) | WFPSMP (n=1162) | p value |
|---|---|---|---|---|---|---|
| Highest Level of English literacy | 64.6% | 45.0% | **<0.001** | 62.0% | 48.5% | **<0.001** |
| Highest Level of Kiswahili literacy | 74.9% | 53.5% | **<0.001** | 71.8% | 56.1% | **<0.001** |
| Highest Level of numeracy | 77.7% | 60.1% | **<0.001** | 70.6% | 61.4% | **<0.001** |
| Sometimes find it difficult to concentrate in class | 43.5% | 37.4% | **0.002** | 48.7% | 58.4% | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 43.2% | 38.7% | **0.021** | 62.5% | 65.7% | 0.086 |
| Parents/guardians who reported their children ate daily after going to school | 71.2% | 46.9% | **<0.001** | 81.7% | 55.2% | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the current school year | 80.4% | 55.6% | **<0.001** | 78.8% | 81.1% | 0.143 |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 51.5% | 43.9% | **<0.001** | 68.1% | 70.2% | 0.241 |
| Acceptable food consumption score (FCS) | 41.2% | 42.7% | **0.451** | 74.0% | 80.2% | **<0.001** |
| Parents/guardians in target communities who could name at least three benefits of primary education | 30.0% | 57.3% | **<0.001** | 33.9% | 57.6% | **<0.001** |
| Children who responded to the survey who mentioned three most important hygiene methods | 20.7% | 50.4% | **<0.001** | 22.0% | 39.0% | **<0.001** |
| Children who mentioned three most important nutrition efforts | 10.9% | 27.5% | **<0.001** | 19.5% | 42.0% | **<0.001** |

**Table 33: Comparison of change in indicators measured from the learners data between HGSMP and WFPSMP schools from baseline to midline**

| | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| **Indicators** | **Diff. in HGSMP** | **Diff. in WFPSMP** | **DID** | | | **p value** |
| | | | **Diff.** | **β** | **SE(β)** | |
| | Boys | | | | | |
| Highest Level of English literacy | 0.0% | 4.5% | -4.5% | -0.185 | 0.159 | 0.245 |
| Highest Level of Kiswahili literacy | -2.4% | 5.8% | -8.2% | -0.365 | 0.165 | **0.027** |
| Highest Level of numeracy | -9.5% | 4.1% | -13.6% | -0.692 | 0.172 | **<0.001** |
| Sometimes find it difficult to concentrate in class | 1.9% | 20.7% | -18.8% | -0.766 | 0.159 | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 24.2% | 28.0% | -3.8% | -0.161 | 0.163 | 0.323 |
| Parents/guardians who reported their children ate daily after going to school | 13.3% | 6.5% | 6.8% | 0.502 | 0.175 | **0.004** |
| Parents/guardians indicating that their child had received school meals in the current school year | 2.4% | 28.5% | -26.1% | -1.214 | 0.193 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 24.0% | 26.5% | -2.5% | -0.08 | 0.166 | 0.631 |
| Acceptable food consumption score (FCS) | 37.2% | 37.0% | 0.2% | -0.07 | 0.177 | 0.693 |
| Parents/guardians in target communities who could name at least three benefits of primary education | 2.2% | -1.9% | 4.1% | 0.207 | 0.167 | 0.215 |
| Children who responded to the survey who mentioned three most important hygiene methods | 1.2% | -13.7% | 14.9% | 0.668 | 0.177 | **<0.001** |
| Children who mentioned three most important nutrition efforts | 7.2% | 13.6% | -6.4% | -0.037 | 0.2 | 0.854 |
| | Girls | | | | | |
| Highest Level of English literacy | -5.2% | 2.4% | -7.6% | -0.323 | 0.162 | **0.046** |
| Highest Level of Kiswahili literacy | -4.0% | -0.9% | -3.1% | -0.181 | 0.170 | 0.285 |
| Highest Level of numeracy | -4.9% | -1.9% | -3.0% | -0.183 | 0.168 | 0.277 |
| Sometimes find it difficult to concentrate in class | 8.0% | 21.5% | -13.5% | -0.553 | 0.160 | **0.001** |
| Parents/guardians who reported their children ate daily before going to school | 15.1% | 25.9% | -10.8% | -0.453 | 0.161 | **0.005** |
| Parents/guardians who reported their children ate daily after going to school | 8.1% | 10.2% | -2.1% | 0.005 | 0.170 | 0.978 |
| Parents/guardians indicating that their child had received school meals in the current school year | -5.0% | 22.0% | -27.0% | -1.388 | 0.185 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 10.2% | 26.1% | -15.9% | -0.689 | 0.163 | **<0.001** |
| Acceptable food consumption score (FCS) | 29.0% | 38.2% | -9.2% | -0.499 | 0.173 | **0.004** |
| Parents/guardians in target communities who could name at least three benefits of primary education | 5.4% | 2.6% | 2.8% | 0.179 | 0.166 | 0.282 |
| Children who responded to the survey who mentioned three most important hygiene methods | 1.3% | -9.1% | 10.4% | 0.487 | 0.175 | **0.005** |
| Children who mentioned three most important nutrition efforts | 9.8% | 15.5% | -5.7% | 0.081 | 0.199 | 0.684 |

**Table 34: Comparison of change in indicators measured from the learners data between HGSMP and WFPSMP schools from baseline to midline for all boys and girls**

| | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| **Indicators** | **Diff. in HGSMP** | **Diff. in WFPSMP** | **DID** | | | **p value** |
| | | | **Diff.** | **β** | **SE(β)** | |
| | Total | | | | | |
| Highest Level of English literacy | -2.6% | 3.5% | -6.1% | -0.249 | 0.113 | **0.027** |
| Highest Level of Kiswahili literacy | -3.1% | 2.6% | -5.7% | -0.264 | 0.118 | **0.025** |
| Highest Level of numeracy | -7.1% | 1.3% | -8.4% | -0.427 | 0.120 | **<0.001** |
| Sometimes find it difficult to concentrate in class | 5.2% | 21.0% | -15.8% | -0.647 | 0.113 | **<0.001** |
| Parents/guardians who reported their children ate daily before going to school | 19.3% | 27.0% | -7.7% | -0.325 | 0.114 | **0.004** |
| Parents/guardians who reported their children ate daily after going to school | 10.5% | 8.3% | 2.2% | 0.252 | 0.121 | **0.038** |
| Parents/guardians indicating that their child had received school meals in the current school year | -1.6% | 25.5% | -27.1% | -1.337 | 0.132 | **<0.001** |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 16.6% | 26.3% | -9.7% | -0.409 | 0.116 | **<0.001** |
| Acceptable food consumption score (FCS) | 32.8% | 37.5% | -4.7% | -0.297 | 0.123 | **0.016** |
| Parents/guardians in target communities who could name at least three benefits of primary education | 3.9% | 0.3% | 3.6% | 0.197 | 0.117 | 0.092 |
| Children who responded to the survey who mentioned three most important hygiene methods | 1.3% | -11.4% | 12.7% | 0.575 | 0.124 | **<0.001** |
| Children who mentioned three most important nutrition efforts | 8.6% | 14.5% | -5.9% | 0.028 | 0.141 | 0.841 |

**Table 35: Indicators measured from the school checklist data distributed by WFPSMP, Control and HGSMP study arms**

| Variables | Baseline | | | Midline | | |
|---|---|---|---|---|---|---|
| | HGSMP | WFPSMP | p value | HGSMP | WFPSMP | p value |
| Passing score on a test of safe food preparation and storage | 73.9% | 43.5% | **0.036** | 54.5% | 60.9% | 0.668 |
| Sufficient kitchen for preparing pupils food | 60.9% | 30.4% | **0.038** | 31.8% | 73.9% | 0.005 |
| Kitchen have fuel efficient stoves in sufficient quantity | 52.2% | 34.8% | 0.234 | 27.3% | 34.8% | 0.586 |
| Enough utensils | 30.4% | 43.5% | 0.359 | 27.3% | 34.8% | 0.586 |
| Store have pallets | 52.2% | 47.8% | 0.768 | 40.9% | 52.2% | 0.449 |
| Storage locked | 65.2% | 73.9% | 0.522 | 90.9% | 95.7% | 0.524 |
| Storage ventilated | 65.2% | 60.9% | 0.760 | 59.1% | 43.5% | 0.295 |
| Humidity free storage | 56.5% | 69.6% | 0.359 | 40.9% | 30.4% | 0.463 |
| Store have weighing scale | 30.4% | 30.4% | 1.000 | 31.8% | 26.1% | 0.672 |

**Table 36: Comparison of change in indicators measured from the school checklist data between WFPSMP, Control and HGSMP schools from baseline to midline**

| Indicators | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| | | | DID | | | |
| | HGSMP | WFPSMP | Diff | β | SE(β) | p value |
| Passing score on a test of safe food preparation and storage | -19.40% | 17.40% | -36.80% | -1.563 | 0.877 | 0.074 |
| Sufficient kitchen for preparing pupils food | -29.10% | 43.50% | -72.60% | -3.072 | 0.907 | **0.001** |
| Kitchen have fuel efficient stoves in sufficient quantity | -24.90% | 0.00% | -24.90% | -1.068 | 0.887 | 0.229 |
| Enough utensils | -3.10% | -8.70% | 5.60% | 0.212 | 0.896 | 0.813 |
| Store have pallets | -11.30% | 4.40% | -15.70% | -0.629 | 0.843 | 0.456 |
| Storage locked | 25.70% | 21.80% | 3.90% | 0.188 | 1.416 | 0.578 |
| Storage ventilated | -6.10% | -17.40% | 11.30% | 0.443 | 0.86 | 0.606 |
| Humidity free storage | -15.60% | -39.20% | 23.60% | 1.023 | 0.881 | 0.245 |
| Store have weighing scale | 1.40% | -4.30% | 5.70% | 0.279 | 0.92 | 0.761 |

**Table 37: Indicators measured from the school checklist data distributed by WFPSMP, Control and HGSMP study arms**

| Timepoint | Baseline | | | | | Midline | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | HGSMP | | WFPSMP | | | HGSMP | | WFPSMP | | |
| Indicator | Mean | SE | Mean | SE | p value | Mean | SE | Mean | SE | p value |
| **Gender** | Boys | | | | | | | | | |
| Number of students enrolled in schools | 243 | 38 | 163 | 33 | 0.117 | 205 | 24 | 201 | 36 | 0.936 |
| Number of students regularly (80%) attending school | 137 | 22 | 142 | 29 | 0.907 | 149 | 18 | 149 | 26 | 0.997 |
| **Gender** | Girls | | | | | | | | | |
| Number of students enrolled in schools | 186 | 24 | 127 | 30 | 0.129 | 188 | 26 | 153 | 31 | 0.383 |
| Number of students regularly (80%) attending school | 105 | 14 | 110 | 26 | 0.862 | 137 | 19 | 113 | 23 | 0.424 |
| | Total | | | | | | | | | |
| Number of students enrolled in schools | 430 | 54 | 290 | 62 | 0.095 | 392 | 50 | 354 | 66 | 0.642 |
| Number of students regularly (80%) attending school | 243 | 30 | 252 | 54 | 0.884 | 285 | 36 | 261 | 49 | 0.697 |

**Table 38: Comparison of change in indicators measured from the school checklist data between WFPSMP, Control and HGSMP schools from baseline to midline**

| Indicator | Difference-in-Difference (DID) | | | | | |
|---|---|---|---|---|---|---|
| | HGSMP | WFPSMP | DID | | | |
| | Mean | Mean | Diff | B | SE(β) | p value |
| **Gender** | Boys | | | | | |
| Number of students enrolled in schools | -39 | 38 | -77 | -76.94 | 66.81 | 0.253 |
| Number of students regularly (80%) attending school | 11 | 7 | 4 | 4.34 | 48.19 | 0.929 |
| **Gender** | Girls | | | | | |
| Number of students enrolled in schools | 2 | 26 | -24 | -24.31 | 55.55 | 0.663 |
| Number of students regularly (80%) attending school | 31 | 2 | 29 | 28.85 | 41.62 | 0.49 |
| | Total | | | | | |
| Number of students enrolled in schools | -37 | 64 | -101 | -101.24 | 116.70 | 0.388 |
| Number of students regularly (80%) attending school | 42 | 9 | 33 | 33.01 | 86.98 | 0.705 |

## Annex 11 – Effect of the intervention on specific indicators

One year since rollout of the intervention in 2016, the results at midline have shown strong evidence of positive effect of the school meals programme (SMP) on a number of indicators. Table X and Y shows a summary of effects on specific indicators at both student and school level. The effects are classified into two main effects; 1) Effect of WFPSMP on indicators, 2) Sustainability of indicators by HGSMP.

***Effect of WFPSMP:***

WFPSMP had significant positive effect on the following six indicators.

- Highest Level of numeracy
- Sometimes find it difficult to concentrate in class
- Parents/guardians who reported their children ate daily before going to school
- Parents/guardians who reported their children ate daily after going to school
- Parents/guardians indicating that their child had received school meals in the current school year
- Parents/guardians indicating that their child had received school meals in the week of the survey
- Passing score on a test of safe food preparation and storage
- Sufficient kitchen for preparing pupils food
- Kitchen have fuel efficient stoves in sufficient quantity

However there was a significant negative effect on the following three indicators.

- Parents/guardians in target communities who could name at least three benefits of primary education
- Children who responded to the survey who mentioned three most important hygiene methods
- Children who mentioned three most important nutrition efforts

***Sustainability of indicators by HGSMP:***

HGSMP had significant positive or marginal effect on the following three indicators.

- Parents/guardians who reported their children ate daily after going to school
- Parents/guardians in target communities who could name at least three benefits of primary education
- Children who responded to the survey who mentioned three most important hygiene methods

However there was a significant negative effect on the following nine indicators.

- Highest Level of English literacy
- Highest Level of Kiswahili literacy
- Highest Level of numeracy
- Sometimes find it difficult to concentrate in class
- Parents/guardians who reported their children ate daily before going to school
- Parents/guardians indicating that their child had received school meals in the current school year
- Parents/guardians indicating that their child had received school meals in the survey week
- Acceptable food consumption score (FCS)
- Sufficient kitchen for preparing pupils food

**Conclusion**

- As at midterm evaluation, the results show strong evidence of positive effect of the WFPSMP on most of the indicators.
- After transitioning of school from WFP to government, the results show strong evidence of negative effect on most of the indicators.
- Looking forward to see how the trend continue in the next one year

**Table 39: Effect of intervention on specific indicators at student level**

| Indicators | Effect of WFPSMP | | | | | Sustainability of indicators by HGSMP | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP | Control | Change | p value | Effect | HGSMP | WFPSMP | Change | p value | Effect |
| Highest Level of English literacy | 1.4% | 0.4% | 1.0% | 0.761 | Comparable | -2.6% | 3.5% | -6.1% | **0.027** | Negative |
| Highest Level of Kiswahili literacy | 0.5% | 1.6% | -1.1% | 0.604 | Comparable | -3.1% | 2.6% | -5.7% | **0.025** | Negative |
| Highest Level of numeracy | -1.0% | -9.0% | 8.0% | **0.002** | Positive | -7.1% | 1.3% | -8.4% | **<0.001** | Negative |
| Sometimes find it difficult to concentrate in class | 19.4% | 2.5% | 16.9% | **<0.001** | Positive | 5.2% | 21.0% | -15.8% | **<0.001** | Negative |
| Parents/guardians who reported their children ate daily before going to school | 23.3% | 12.6% | 10.7% | **<0.001** | Positive | 19.3% | 27.0% | -7.7% | **0.004** | Negative |
| Parents/guardians who reported their children ate daily after going to school | 18.3% | -12.0% | 30.3% | **<0.001** | Positive | 10.5% | 8.3% | 2.2% | **0.038** | Positive |
| Parents/guardians indicating that their child had received school meals in the current school year | 30.7% | 4.2% | 26.5% | **<0.001** | Positive | -1.6% | 25.5% | -27.1% | **<0.001** | Negative |
| Parents/guardians indicating that their child had received school meals in the week of the survey | 18.8% | 5.0% | 13.8% | **0.001** | Positive | 16.6% | 26.3% | -9.7% | **<0.001** | Negative |
| Acceptable food consumption score (FCS) | 37.3% | 33.5% | 3.8% | 0.128 | Comparable | 32.8% | 37.5% | -4.7% | **0.016** | Negative |
| Parents/guardians in target communities who could name at least three benefits of primary education | -1.2% | 7.4% | -8.6% | **0.001** | Negative | 3.9% | 0.3% | 3.6% | 0.092 | Marginal |
| Children who responded to the survey who mentioned three most important hygiene methods | -8.0% | 7.1% | -15.1% | **<0.001** | Negative | 1.3% | -11.4% | 12.7% | **<0.001** | Positive |
| Children who mentioned three most important nutrition efforts | 13.0% | 14.0% | -1.0% | **<0.001** | Negative | 8.6% | 14.5% | -5.9% | 0.841 | Comparable |

**Table 40: Effect of intervention on specific indicators at school level**

| Indicators | Effect of WFPSMP | | | | | Sustainability | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | WFPSMP | Control | Change | p value | Effect | HGSMP | WFPSMP | Change | p value | Effect |
| Passing score on a test of safe food preparation and storage | 24.7% | -19.1% | 43.8% | **0.036** | Positive | -19.4% | 17.4% | -36.8% | 0.074 | Negative |
| Sufficient kitchen for preparing pupils food | 11.0% | -29.1% | 40.1% | **0.036** | Positive | -29.1% | 43.5% | -72.6% | **0.001** | Negative |
| Kitchen have fuel efficient stoves in sufficient quantity | 10.7% | -21.1% | 31.8% | 0.068 | Positive | -24.9% | 0.0% | -24.9% | 0.229 | Comparable |
| Enough utensils | 10.7% | 5.0% | 5.7% | 0.661 | Comparable | -3.1% | -8.7% | 5.6% | 0.813 | Comparable |
| Store have pallets | -11.0% | -2.4% | -8.6% | 0.794 | Comparable | -11.3% | 4.4% | -15.7% | 0.456 | Comparable |
| Storage locked | 12.6% | 19.6% | -7.0% | 0.689 | Comparable | 25.7% | 21.8% | 3.9% | 0.578 | Comparable |
| Storage ventilated | -6.5% | -1.1% | -5.4% | 0.824 | Comparable | -6.1% | -17.4% | 11.3% | 0.606 | Comparable |
| Humidity free storage | -42.5% | -24.8% | -17.7% | 0.795 | Comparable | -15.6% | -39.2% | 23.6% | 0.245 | Comparable |
| Store have weighing scale | -7.9% | 0.7% | -8.6% | 0.707 | Comparable | 1.4% | -4.3% | 5.7% | 0.761 | Comparable |
| Number of students enrolled in schools | 13 | -40 | 54 | 0.456 | Comparable | -37 | 64 | -101 | 0.388 | Comparable |
| Number of students regularly (80%) attending school | -21 | 7 | -28 | 0.556 | Comparable | 42 | 9 | 33 | 0.705 | Comparable |

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## List of Acronyms

ASALs - Arid and Semi-Arid Lands
BOM – Board of Management
CDE – Country Director of Education
CO – Country Office
CSO –Coping Strategy Index
CTS – Cash Transfer to Schools
DEQAS – Decentralized Evaluation Quality Assurance System
DID – Difference in Difference
ECD – Early Childhood Development
EMIS – Education Management Information Systems
FCS – Food Consumption Score
FGD – Focus Group Discussion
FPE – Free Primary Education
GoK – Government of Kenya
GPE – Global Partnership for Education
HGSMP – Home Grown School Meals Programme
IR – Inception Report
KI – Key Informants
KII – Key Informant Interviews
MGD – Mc Govern Dole
MOE– Ministry of Education
NASMLA – National Assessment System for Monitoring Learning Achievement
NER – Net Enrolment Rate
NGO – Non-Governmental Organization
ODK- Open Data Kit
PMF- Performance Measurement Framework
PPS – Probability Proportionate to Size
PSM- Propensity Score Matching
PSU – Primary Sampling Unit
PTA-Parents/Teachers Association
RG – Reference Group
RB – Regional Bureau
SACMEQ – Southern African Consortium for measuring Education Quality
SDG – Sustainable Development Goal

SIP – School Improvement Programme
SMC – School Meal Committee
SMP- School Meals Programme
SO -Strategic Objective
TOR- Terms of Reference
UN – United Nations
UNDAF – United Nations Development Assistance Framework
UNEG – United Nations Evaluation Group
UNESCO – United Nations Educational Scientific and Cultural Organization
UNICEF – United Nations Children's Education Fund
USDA – United States Department of Agriculture
UWEZO – Kiswahili for 'Capability'
WASH – Water Sanitation and Health
WFP- World Food Programme
WFPSMP-World Food Programme School Meals Programm

[Nairobi, October 2018]

**[Name of commissioning Office]**
**[Link to the website]**