BASELINE SURVEY FOR THE USDA McGOVERN-DOLE SCHOOL FEEDING PROJECT IN CAMBODIA





INTRODUCTION

The World Food Programme in Cambodia, 2011 - 2016

In support of national efforts to address food insecurity, poverty and malnutrition, the World Food Programme (WFP) instituted its first five year Country Programme (CP) in July 2011. The CP, which continues WFP's focus on education, nutrition and rural development, seeks to strengthen food and cash-based social safety nets in Cambodia and craft sustainable and scalable implementation models that can eventually be managed efficiently by the Royal Government of Cambodia. Long-term handover strategies are increasingly important at this stage given Cambodia's impending transition from low income to lower middle income status and the joint commitment to the establishment of a school feeding programme for children from poor households.

The education component of the CP, which consists of a school meals programme and food or cash-based scholarships, constitutes 75 percent of all WFP programming in the country. The School Meals Programme (SMP), initially launched in 1999, provides daily, on-site, hot and nutritious breakfasts to primary school students. Schools are selected for inclusion in the programme according to poverty levels and education performance (enrollment rates, dropout rates, etc). School meals are comprised of rice, canned fish, vitamin A-fortified vegetable oil, yellow split peas and iodized salt which help to alleviate short-term hunger and improve concentration. The objective of the SMP is to create incentives for children from poor families to enroll, regularly attend and complete their primary education. Currently, the SMP is implemented in 12 provinces which comprise of 1,377 primary schools and reach nearly 400,000 beneficiaries, equaling 20 percent of all primary school children in Cambodia.

The food and cash based scholarship programme (also referred to as Take Home Rations- THR) has been implemented in Cambodia since 2004. The target group for this intervention are poor and disadvantaged, primary school students in grades four to six. The programme is focused in these grades in particular as they have the highest dropout rates (with children leaving school to work). To ensure that poor and disadvantaged children are adequately

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The McGovern–Dole International Food for Education and Child Nutrition Program (McGovern-Dole program) helps support education, child development, and food security for some of the world's poorest children. It provides for donations of U.S. agricultural products, as well as financial and technical assistance, for school feeding and maternal and child nutrition projects in low-income, food-deficit countries that are committed to universal education.

The McGovern-Dole program was originally authorized by the Farm Security and Rural Investment Act of 2002. The legislation called for the use of $100 million in Commodity Credit Corporation (CCC) funds to launch the program in fiscal year 2003, with future funding coming from Congressional appropriators. The program was reauthorized in the Food, Conservation, and Energy Act of 2008. That legislation provides for the use of $84 million in CCC funds and allows for annual Congressional appropriations, which has been approximately $100 million annually in recent years. The program is administered by the U.S. Department of Agriculture's Foreign Agricultural Service and is named in honor of Ambassador and former Senator George McGovern and former Senator Robert Dole for their tireless efforts to encourage a global commitment to school feeding and child nutrition.

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targeted for inclusion in the programme, WFP prioritizes students from IDPoor[1] 1 households or children from households that may not have IDPoor cards but whose profile fit WFP criteria[2]. Scholarships are conditional on the student achieving an 80% attendance rate. Currently, scholarships are implemented in over 4,000 primary schools in 15 provinces (equal to 60% of primary schools in Cambodia), reaching 90,000 beneficiaries.

USDA/WFP Partnership

The Government of the United States of America (US), through the US Department of Agriculture (USDA) McGovern-Dole (MGD) Programme, has been a trusted partner of WFP in Cambodia, dating back to 2001. Since its inception, this partnership has ensured that more than 3.4 million children have benefited from School Feeding Programmes.

The most recent agreement, signed in 2013, provides US $ 20 million for an extension of school meals and/or food scholarships in three provinces (Battambang, Siem Reap, and Kampong Thom) for another three years. The goal of current USDA MGD programming is to improve the literacy of school age children and increase use of improved health and dietary practices, while simultaneously providing a safety net to vulnerable and at risk households and children. The Results Frameworks (RFs) for the MGD programme are shown in Annexes 1 and 2. Overall, 863 primary schools are targeted per year with 153,402 primary school students receiving onsite breakfasts and 12,221 students in grades 4-6 receiving scholarships (with priority to girls, when gender gaps exist).

Alongside the provision of school meals or scholarships, USDA funded programmes also focus on the following programme activities, including;

- Provision of school equipment and supplies(hygiene, sanitation, cooking equipment and literacy-related materials);
- Establishing school gardens and developing partnerships with farmers groups to supply food to schools;
- Building and rehabilitating school facilities (including latrines, store rooms, kitchens, wells and water stations);
- Awareness raising on hygiene, sanitation and nutrition;
- Capacity development on food safety through training of school administrators and teachers;
- Strengthening monitoring and evaluation.

1 The IDPoor system, officially referred to as the Identification of Poor Households Programme, is a standardized procedure, developed by the Ministry of Planning (MoP), to identify and classify poor households throughout the country. The IDPoor classification process occurs annually, on a rolling geographic basis, with the whole country covered every three years. IDPoor status is widely used, by both the government and the international community, as a key criteria for targeting assistance.

2 Given levels of work migration in Cambodia, certain poor households are not present (and thus not captured) in the rotating IDPoor classification rounds. WFP takes this into account by assessing poverty levels of households within their project areas to ensure that poor households and children (who happen not to have IDPoor cards) are not overlooked but rather given the opportunity to benefit from the scholarship programme.

Focus on Monitoring and Evaluation

To ensure that USDA McGovern Dole funding is having maximum impact, WFP is establishing an innovative M&E system that will not only enable more efficient outcome monitoring but also provide more responsive programme monitoring to address problems in implementation real-time[3]. To ensure that outcomes and impacts are monitored effectively, baseline, mid-line and end-line surveys are planned. The following report summarizes the findings from baseline survey, conducted in 2014.

METHODOLOGY

A quasi-experimental approach was selected as the preferred design for the baseline, mid and endline surveys; employing a control group to measure how key outcomes change in the absence of intervention.

While USDA McGovern-Dole monies support WFP's School Feeding Programme in the provinces of Siem Reap, Battambang and Kampong Thom, the baseline survey was only conducted in Siem Reap and Battambang. Kampong Thom province was excluded as only SMP and scholarships are currently being implemented with USDA support. Inclusion of Kampong Thom would have thus complicated the sampling procedures and analysis, resulting in additional costs with little added value. This same approach will be utilized for the mid and endline surveys.

Within Battambang and Siem Reap, 118 (of 531 possible) intervention schools were selected, using random, probability proportional to size sampling. A further 25 control schools (10 in Battambang and 15 in Siem Reap) were selected via a propensity score matching approach[4]. Amongst the selected intervention schools, 60 were receiving SMP and scholarships while 58 were only recipients of scholarships. A detailed list of selected schools can be found in Annexes 4 and 5.

Within each intervention school, a number of households were selected for inclusion using a random sampling approach. In schools with SMP and scholarships, 15 households with children in grades 1-3

3 WFP is working with InSTEDD, a company focused on providing innovative technical solutions for the development sector, to design a real time information sharing, monitoring and evaluation platform. This system will provide direct and instantaneous links between field monitors and programme managers, ensuring that problems can be identified and addressed immediately.

4 The Propensity Score Matching Approach is a statistical method that allows control clusters to be identified based on the same characteristics used to identify intervention clusters. It is intended to ensure that control clusters have very similar characteristics to the intervention clusters.

A Baseline Survey?

WFP has been engaged in School Feeding Programmes throughout Cambodia for approximately 15 years. As such, in many of the schools currently supported by USDA McGovern Dole funding, WFP is simply extending an existing/ ongoing School Feeding Programme (some of which was supported by USDA previously as well).

With such a long history of programme implementation, it is reasonable to ask---Can this survey really be considered a baseline? Can we expect to see (and quantify) improvements in the education or food security situation at this point in programme's history? Or are the major accomplishments of WFP's school feeding programme already 'factored in' to the observable improvements in the education sector?

These are difficult questions to answer. On one hand, there have been significant improvements in key educational indicators over the past decade, in which WFP's programmes have played a substantial role. On the other hand, there is still a subset of the population that continues to not receive the benefits of a full primary education, either due to the need to find work or for other reasons such as illness or poor health. Thus, WFP's school feeding programme is increasingly aimed at consolidating gains made to this point as well as continuing to targeting those children likely to fall through the cracks. With 13% of children still not completing primary school, however, it is clear that there is still a need for WFP programming and an opportunity for WFP to demonstrate impact.

were selected for inclusion in the SMP cohort, while five households with children in grade 4 were selected for the SMP and scholarship programme cohort. A further 10 households with children in grade 4 were selected for the scholarship programme cohort. Amongst control schools, 20 households with children in grades 1-4 were randomly selected.

It's important to note that the numbers of selected households per school was lower than intended in certain cases, as the number of children benefitting from the scholarship programme was fewer than the required 10 in certain schools. Thus, the actual number of households interviewed is 2,077 households as opposed to the 2,280 required by the sampling design.

Alongside household surveys, school assessments and teacher interviews were conducted. School assessments included basic information on the composition and performance of the school (number of children enrolled, attending, availability of advanced teaching materials, literacy testing success rates, etc) as well as specific information on the school's infrastructure (latrines, water sources, kitchens, school gardens, etc). The primary respondent in the case of the school assessment was the school's principal or chief administrator. In the case of teacher interviews, a total of 425 teachers, for grades 1-4, were interviewed in each selected school, an average of three teachers per school.

Data analysis was conducted using STATA software. Overall households and school level estimates for the intervention schools were weighted to reflect the proportion of the population benefiting from each programme.

More detailed information on the survey methodology, including specifics on the survey tools and the process of data collection and supervision, can be referenced in Annex 3.

SOCIOECONOMIC CHARACTERISTICS

Household Demographics

Demographic characteristics of households are presented in Table 1. The average household size in the intervention and control group was 5.5 persons, while the dependency ratio was just over 1 (1.1 for intervention group and 1.2 for control). Both household size and dependency ratios were higher than national averages (4.7 household members; 0.67 dependency ratio), as WFP targets the poorest who tend to have larger families with fewer productive households members (NIS 2009).

Who were the respondents in the household survey?

Respondents were largely female and most were the mothers of the primary school children benefiting from USDA MGD support. Overall, females comprised 86% of the respondents while 78% were mothers/ fathers. Notably, 18% of respondents were grandmothers/ grandfathers or aunts/ uncles, which is illustrative of the fact that many parents leave their children with relatives while they migrate to Thailand or to major urban centres in Cambodia looking for work.

Table 1: Background Characteristic of Head of Household

	Household size	Dependency Ratio	Males (%)	Females (%)	Marital Status			
					Single	Married	Widow/ widower	Divorce/ separated
SMP + Scholarships	5.4	1.1	74.1	25.9	0.7	80.4	16.7	0.2
Scholarships	5.8	1.2	77.1	22.9	1.2	78.6	16.4	3.8
SMP	5.4	1.1	76.9	23.1	1.0	84.3	12.6	2.1
Intervention Group(Weighted)	5.5	1.1	76.5	23.5	1.0	82.1	14.3	2.6
Control Group	5.5	1.2	83.0	17.0	04	86.6	10.6	2.4

Source: USDA household survey 2014

Table 1 also shows the sex of head of household as well as marital status. The percent of female headed households was much higher amongst the intervention group (23.5%) than the control (17.0%), again a result of WFP targeting criteria. More than three quarters of household heads were married, though the proportion of widows was slightly higher amongst the intervention group.

Educational Attainment and Literacy of Household Heads

As recognized by the USDA MGD programme, educational attainment is an important indicator of household well-being and often has significant effects on the extent to which households are able to maintain productive livelihoods and better manage difficulties. Overall, baseline findings show that a substantial percent of household heads have never attended school and, as a result, remain functionally illiterate (Table 2). Overall, this is true of one quarter of households from control schools and more than one-third of households from the intervention schools. This reflects the difficulties that Cambodia has had in terms of recovering its educational sector in the post Khmer Rouge years as the educated classes suffered disproportionally under Khmer Rouge rule.

Targeting criteria of beneficiaries—how should this affect baseline results?

To better understand the findings presented below, it is important to note that variation amongst the intervention groups is to be expected given the differing targeting criteria used for beneficiary selection in the SMP and scholarships programmes. The SMP is implemented in selected schools with underlying poverty issues, poor enrollment, high drop-out rates, etc. The scholarships programme, by contrast, is implemented in a larger number of schools, but is more finely targeted to children from IDPoor 1 households or children from households that fit IDPoor 1 criteria, but lack the actual status (due largely to work-related migration during IDPoor classification periods).

As children are selected for scholarships based on IDPoor selection criteria, these children and their households are expected to be amongst the most vulnerable, in terms of both the indicators used to define IDPoor status[1] as well as other key outcomes. Amongst the cohorts receiving scholarships, the children and households in the combined SMP and scholarships category are likely to be the most vulnerable as these are very poor children from particularly poor areas. The households of children receiving only the SMP are likely to have a similar profile to the households in the control group (given that controls were matched) but remain on average better off than the scholarships and SMP + Scholarships cohorts.

1. Indicators used to define IDPoor status include: dependency ratio, school attendance, housing condition, land tenure, acreage of rice produced, fishing assets, reliance on daily wage labour work, livestock ownership, fisheries production, borrowing of rice, percent of household that does not work, ownership of non-productive assets, means of transport, exposure to crisis or shocks, receipt of remittances

Table 2: Education and Literacy of Household Heads (percent)

	Highest Class Completed				Literacy			
	Never attended	Primary	Secondary	High School & above	Can read & write	Can sign only	Can read only	Cannot read & write
SMP + Scholarships	46.3	44.1	6.7	3.0	45.9	2.6	4.8	46.7
Scholarships	31.7	56.2	9.5	2.6	57.9	3.3	5.2	33.6
SMP	37.5	49.9	9.4	3.2	53.8	3.0	5.1	38.1
Intervention Group(Weighted)	37.5	50.6	9.0	3.0	53.5	3.0	5.1	38.4
Control Group	25.2	50.8	17.8	6.2	66.4	1.4	5.4	26.8

Source: USDA household survey 2014

Water and Sanitation

Respondents were asked to provide information on water and sanitation facilities. Again, findings largely reflect the relative poverty of WFP beneficiaries vis-a-vis households in the control cohort. Overall, 41% of households from the intervention cohort had access to improved water sources (hand pump, bought water, rain water, taped water and closed ring well), while an astounding 71% reported no toilet facilities. By contrast, 66% of households in the control cohort reported access to improved drinking water sources while only 45% reported no toilet facilities (which is a much lower- but still concerning- figure). Details regarding access to various drinking water sources and toilet facilities are shown in Table 3.

Livelihoods

In order to better understand the socioeconomic context at baseline, respondents were asked to provide information on the current occupation of each household member[5]. Figure 1 summarizes the findings, with livelihoods disaggregated by main and supporting livelihoods. Generally speaking, agriculture/ livestock was most commonly reported as the main livelihood. Notably, however, there was less reliance on agriculture/ livestock amongst households in the control cohort, with reliance on skilled and salaried work and small business more prominent. Also, amongst the poorest cohort, (those receiving food scholarships) pluralities relied on unskilled work, rather than agriculture/livestock, reflecting the fact that many of the very poor do not have access to land or productive assets. Trends in supporting livelihoods largely reflected the main livelihoods.

Table 3: Sources of Drinking Water and Toilet Facilities (Percent)

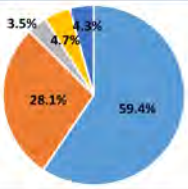
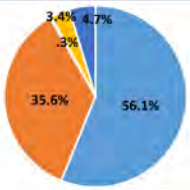
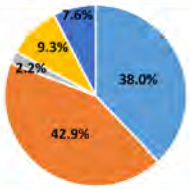
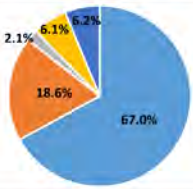
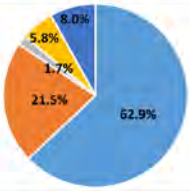
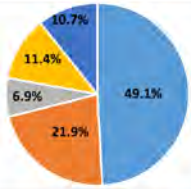
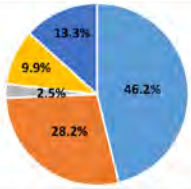
	Sources of Drinking Water			Toilet Facilities		
	Other	Unimproved sources	Improved sources	Flush latrine/toilet with water	Traditional pit latrine/partly open pit	Bush/open field/River/ pond site
SMP + Scholarships	1.1	59.8	39.1	18.5	1.1	80.1
Scholarships	0.0	48.1	51.9	29.1	5.2	64.7
SMP	0.7	58.5	40.8	26.2	3.0	70.6
Intervention Group(Weighted)	0.7	58.4	40.9	26.1	3.1	70.6
Control Group	3.0	31.4	65.6	52.4	2.4	44.8

Note: unimproved sources included pond/river/canal, open ring well/open spring & hand dug well (no ring)

Source: USDA household survey 2014

5 Livelihoods were classified into the following categories; 1) agriculture/ livestock 2) unskilled workers 3) skilled workers 4) wage/ salary workers and 5) small and medium enterprise/ business-men.

Figure 1: Main Livelihood, Income and Expenditure of Households

	Main livelihood of household head	Main livelihoods of non-breadwinner	Number of livelihoods	HH Income/ day (USD)	HH expenditure/ day (USD)	% of expenditure on food
SMP + Scholarships			1.4	4.90	4.6	35.8
Scholarships			1.5	5.10	5.4	43.1
SMP			1.0	5.20	5.4	34.1
Control Group			1.3	6.40	6.7	38.3

Agriculture/livestock ■ Unskilled worker ■ Skilled worker ■ Wage or salary worker ■ Business workers/SME

Source: USDA household survey 2014

Household Income and Expenditure

Alongside livelihoods, respondents were also asked to provide information on household income and expenditures. The various income streams identified were classified as farm, off-farm or remittances/ social transfers, with total incomes calculated by summing these. Overall, the bulk of household income was from off-farm sources, accounting for approximately 60% of all earnings. Farm income and remittances, by contrast, both accounted for roughly one-fifth of earnings. Household combined incomes totalled 5-6 USD per day across cohorts, though households amongst the control group earned 1.40 USD more per day (on average) or 23% more than households benefiting from USDA MGD support.

Food and non-food expenditures (both in cash and credit) were also assessed, with regular, small expenses collected over the past 30 days and more significant, less common expenses collected over the past 6 months. On average, between one-third and one-half of all expenditures were on food, varying only slightly amongst cohorts. Not surprisingly, the poorest cohort, those receiving food scholarships, reported the highest share of food expenditure, with 43% of all expenditures reportedly on food. Calculated per day, households spent as much (or slightly more) than they earned. Amongst the households from the intervention cohorts, total expenditures were 5.40 USD per day versus incomes of 5.20 USD. Likewise, amongst control households, expenditures totalled 6.70 USD while incomes were just 6.40 USD. Spending more than is earned is not a surprising finding given the debt loads that households in Cambodia experience. Figure 1 provides further details on household incomes and expenditures.

IMPROVED LITERACY OF SCHOOL AGE CHILDREN

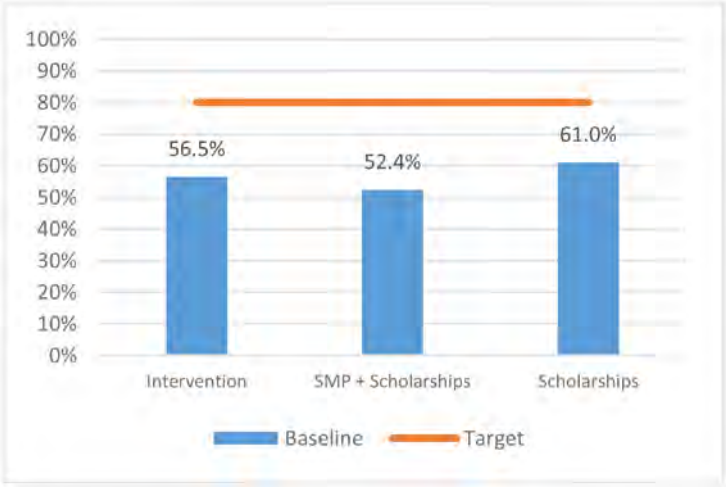
A primary objective of USDA McGovern-Dole funded projects is to improve literacy amongst school age children. To assess improvements in literacy, the baseline survey examined a proxy for literacy, namely whether children in grade 6 are reading at their grade level by the time they graduate primary school. In addition, the baseline survey assessed a series of indicators that are the building blocks to better literacy, including quality of literacy instruction, improved attentiveness while in school and improved attendance.

In terms of literacy, baseline information suggests that considerable progress is required if USDA MGD Programme targets are to be achieved. Overall, just over half (57%) read at their grade level at the time of graduation from primary school (Figure 2). This falls considerably short of the 80% target established for the USDA MGD project and, taken together with the findings below, suggests that the quality of schooling in Cambodia is still one of the most significant challenges.

Improved Quality of Literacy Instruction

To assess quality of literacy instruction, the baseline survey planned to examine the percentage of teachers who demonstrate improved literacy instruction as identified by supervisors. As it was difficult to define improved literacy instruction in a uniform way, however, enumerators and respondents had difficulty interpreting and answering the question. For the mid and endline surveys, WFP will work to better define this indicator for future use. The indicators for the various components under this objective, however, were collected and they are presented below.

Figure 2: Percent of student who, by the end of grade 6, demonstrate reading comprehension equivalent to their grade level as defined by national standards



More consistent teacher attendance

To measure improvements in teacher attendance, WFP examined overall teacher attendance rates as well as the percent of teachers who were present at school for at least 90% of the scheduled school days. Findings at baseline indicated that teacher attendance, while not quite achieving the target set for this project (at least 90% present for 90% of school days), is still quite good. Average teacher attendance was almost 85% for at least 90% of scheduled school days. This again suggests a problem of quality of schooling rather than a lack of commitment on the teacher's part. Detailed findings are shown in Figure 3.

Better Access to School Supplies and Materials

To measure access to school supplies and materials, WFP regularly monitors the following indicators which measure progress in terms of programme implementation:

- Number of schools receiving school supplies and materials
- Number of learning material packages provided to target schools
- Number of stationery packages provided to target schools
- Number of students (boys/girls) benefitting from the provision of school supplies

As the baseline survey was conducted immediately after the start of the project, progress on each front was minimal, with no schools having received these packages. Of course, this does not mean that schools do not have access to school supplies or stationaries, this simply indicates that no schools have received the improved packages to be delivered over the course of the USDA MGD project.

Improved literacy instructional material

To measure improvements in literacy instruction materials, the baseline survey assessed the percent of teachers who used the approved, national literacy curriculum as a part of their instructional materials as well as the number of classrooms (according to teachers/ school administrators) which had literacy materials sufficient for effective instruction. On average, baseline findings showed that just 60% of teachers in targeted schools utilized the national literacy curriculum in their teachings while approximately 2,969 (or 86% of) classrooms reported sufficient literacy materials for effective instruction (Figure 4). This suggests an interesting disconnect between teachers/ schools administrators and national policy makers, as to what is and what is not effective literacy instructional materials. With just 57% of grade 6 students reading at grade level,

Figure 3 Percent of teachers in target schools who attend and teach school at least 90% of scheduled school days per year (2012-2013)

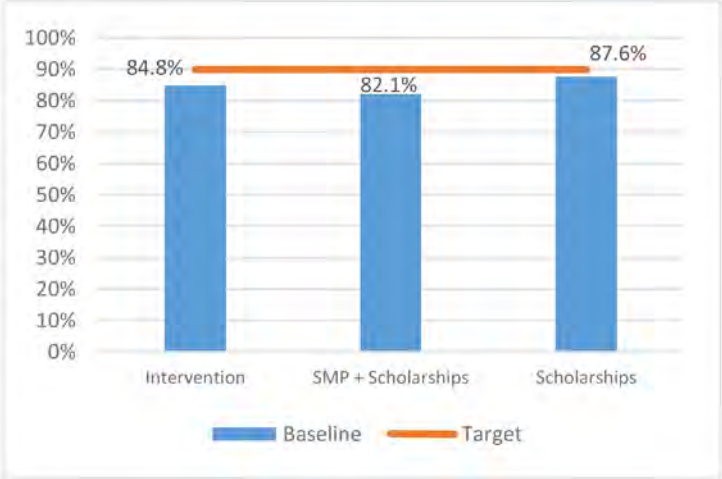


Figure 4: Percent of teachers using the national literacy curriculum and the related instructional materials

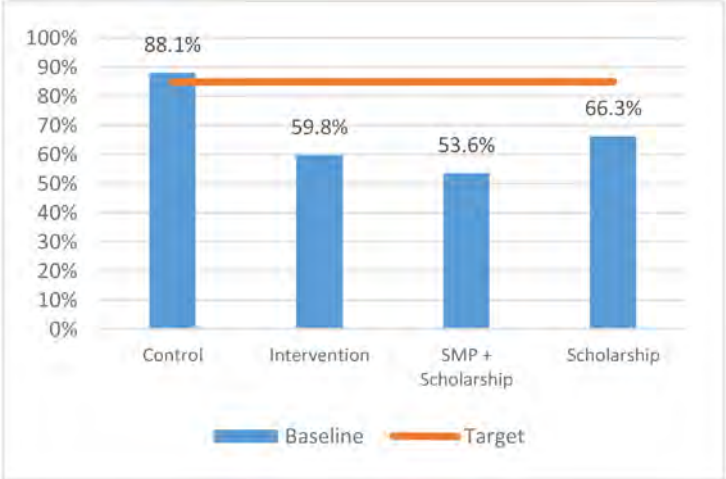


Figure 5: Percent of teachers in target schools who demonstrate use of new and quality teaching techniques or tools

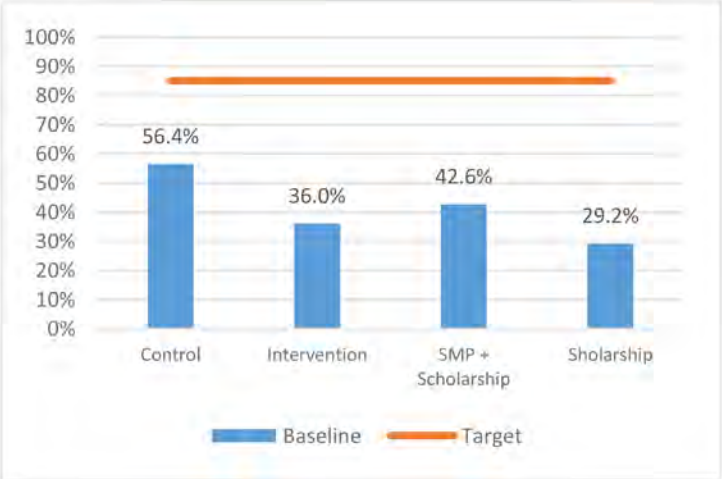
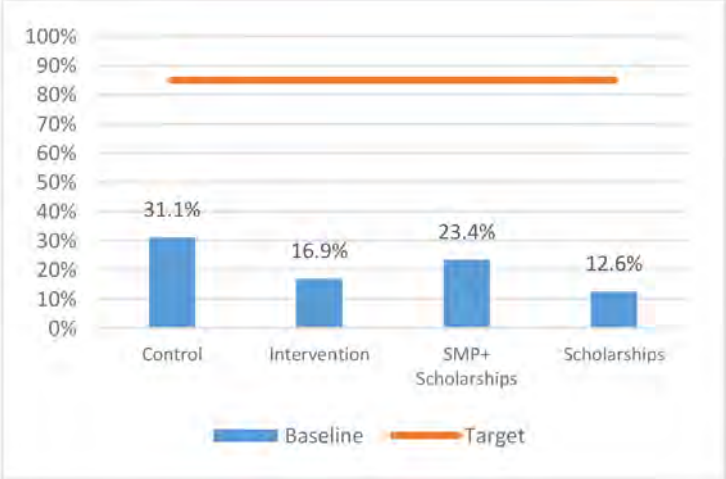


Figure 6: Percent of school administrators in targeted schools who demonstrate use of new techniques or tools



however, utilization of the national literacy curriculum appears to be a more useful proxy of literacy levels, suggesting a need to better train teachers and school administrators on what constitutes effective instructional materials. This will need to be a central focus of the USDA MGD programme if the targets on both fronts (85% for teachers using national literacy curriculum and 100% of schools with sufficient literacy instruction materials) are to be met.

Increased skills and knowledge of teachers

To assess increases in the skills and knowledge of teachers, the baseline survey examined the following indicators;

- Number of teachers/ educators/ teaching assistants trained or certified
- Number of teachers / educators / teaching assistants who successfully completed in service or received intensive coaching or mentoring
- Number of teachers in target schools with recognized teacher certification credentials
- Percent of teachers in target schools who demonstrated use of new and quality teaching techniques or tools

Baseline findings suggest that training, certification and mentoring of teachers or teaching assistants remains a big challenge and this unfortunately is reflected in the quality of instruction students receive. Overall, just over half (51%) of teachers, educators and teaching assistants were trained or certified while a slightly higher percent (57%) of teachers had recognized teacher certification credentials. The number of teachers, educators or teaching assistants who received intensive coaching or mentoring was negligible and just 36% of teachers reported the use of new, quality teaching techniques and materials. Findings and USDA MGD targets are shown in Figure 5.

Increased skills and knowledge of administrators

To assess increases in the skills and knowledge of teachers, the baseline survey examined the following indicators;

- Number of teachers/ educators/ teaching assistants trained or certified
- Number of administrators in target schools with recognized education certification credentials
- Percent of administrators in target schools who demonstrated use of new and quality teaching techniques or tools

Training and certification of school administrators and other officials appears to be a very significant challenge as well, with training and certification levels much lower than those seen amongst teachers. Overall, 10% of school administrators and other officials reported training or certification, while 12% of school administrators reported recognized education certification credentials (Figure 6). Not surprisingly, this translates to poor performance as well, with only 17% of school administrators reporting use of new, quality teaching methods.

Improved Attentiveness

To measure improved attentiveness, the baseline survey measured perceived or reported attentiveness through the eyes of both the student and the teacher, while also assessing indicators that impact attentiveness, including short term child hunger amongst others.

To assess attentiveness directly, teachers were requested to indicate the percent of students that they perceived as inattentive on a regular basis[6]. Students were likewise then requested to indicate how attentive they perceive themselves as being. Findings were quite consistent with teachers indicating that only 13% of students were inattentive on a regular basis while 88% of students reported being attentive (Figure 7). Findings suggest that attentiveness is nearing USDA MGD targets at baseline (of 10% for inattentiveness and 90% for attentiveness), though continued focus on this aspect during the project is required to ensure further progress.

Reduced short term hunger

To assess short term hunger, the baseline survey reports not only on child hunger but also on various programme implementation measures, including;

- Number of take home rations provided to students (boys/girls)
- Number of students (boys/girls) benefitting from a take home ration

Figure 7: Percent of students in target schools identified as attentive by their teachers

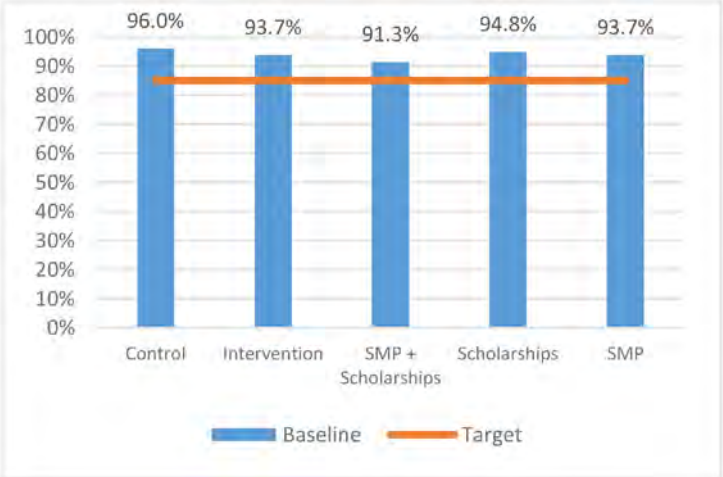
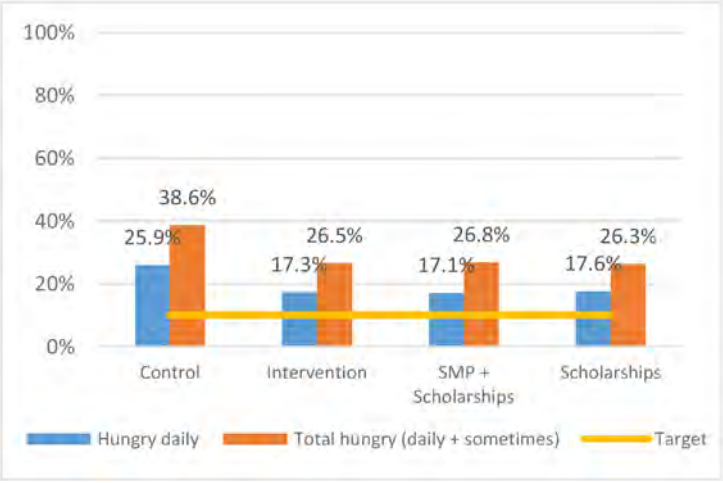


Figure 8: Percent of students in target schools who indicate that they are "hungry" or "very hungry" during the school day



6 Inattentiveness is defined as daily or sometimes inattentive

- Quantity of commodities (tons) provided for take-home rations provided to students (boys/girls)
- Number of students (boys/girls), cooks and storekeepers benefitting from school meals (breakfast)
- Number of daily school meals (breakfast) provided to students (boys/girls)
- Percent of students in target school consuming daily meals at schools
- Quantity of commodities (tons) provided for school meals, students (boys/girls), storekeepers and cooks

Again, as this is a baseline survey, programme implementation was negligible.

To measure child hunger, children were asked whether they were "hungry" or "very hungry"[7] during school days. On average, 26.5% of children reported they were hungry during the school day which is lower than the hunger levels seen amongst control schools but far exceeds the USDA MGD targets of 10% (Figure 8). As the school meals programme commences it is expected that the percentage of children reporting hunger will drop significantly, but to achieve the target programmes must function efficiently.

Notably, teachers indicated that hunger is seasonal with peaks in February and March, which interestingly fall outside of the traditional hunger gap (August-October).

Improved Attendance

The student attendance rate in the 2012-13 school year was not available as adequate attendance records are not kept at some schools. Therefore, it was only possible to estimate attendance rates via the actual head count of students present in classrooms on the day the schools were visited. The baseline survey also explored the percent of children that attended classes at least 80% of the time, as this is a common indicator that WFP uses for determining eligibility for food scholarships.

Overall, findings suggest fairly strong attendance, with estimated rates hovering quite near USDA MGD project targets. On average, 85% and 88% of children were present on the day intervention and control schools were visited, respectively, versus USDA MGD targets of 90%. Findings on the percentage of students who regularly attended school (>=80% of the time) was 78.2% whereas WFP's target is 80% (Figures 9 and 10).

To ensure that targets are met, WFP will continue to focus heavily on improving attendance, both by encouraging attendance directly and by improving the various indicators that impact attendance, including;

- Increased economic and cultural incentives
- Reduce health related absences
- Improving school infrastructure
- Increasing overall enrolment
- Increasing community understanding of the benefits of education

The specifics of these indicators at baseline are described below.

Increased Economic and Cultural Incentives

To assess increased economic and cultural incentives for education, the baseline survey examined the number of schools providing separate latrine facilities and the number of children at target schools that regularly receive school meals and/or food scholarships.

7 "Very hungry" equates to feeling constantly hungry while "Hungry" also includes children who were only hungry at certaint time during the day.

Figure 9: Estimated student attendance rate

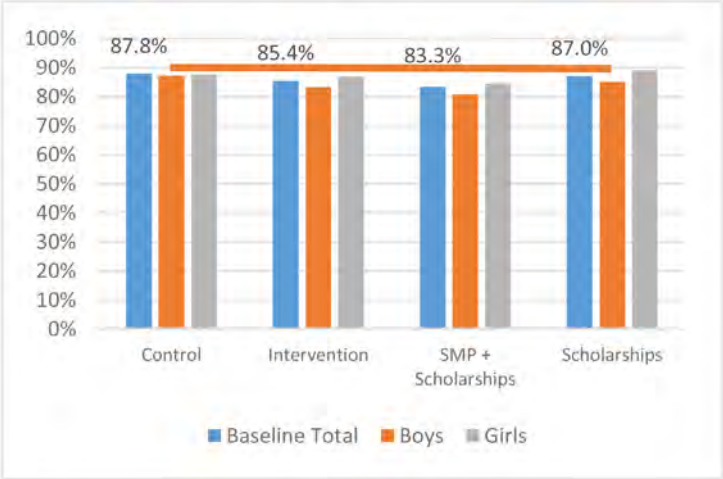
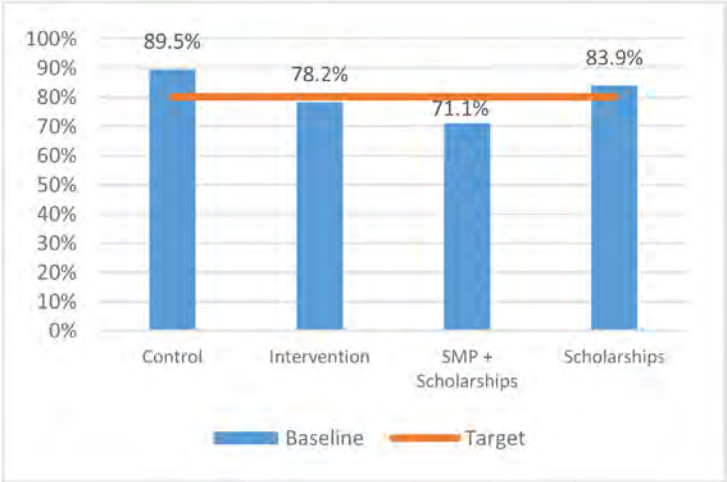


Figure 10: Percent of students regularly (80%) attending USDA supported classrooms/schools



Overall, progress on the provision of separate latrine facilities for boys and girls was far below USDA MGD targets. Overall, only 63% of schools reported separate facilities versus USDA MGD targets of 100%. While still only a baseline finding, this must be a primary focus area of WFP moving forward if targets are to be achieved.

As the programme was only just up and running when the baseline was conducted, the number of children receiving school meals and/ or food scholarships was negligible. As the programme rolls out, it is expected that there will be significant progress in meeting this objective. Findings and USDA MGD targets are shown in Figure 11.

Reduced health related absences

The reduction in health related absence from schools is another key area on which to focus. WFP has set the ambitious target that children should miss 5 days or fewer per year due to illness. Baseline findings, however, show that illness related absences are much higher than this, with children reportedly missing approximately 17 days per year due to illness (Figure 12). While health is related to a wide variety of factors (many of which the USDA MGD project has little control over), it is clear that this target will not be achieved without a sustained focus on the project components that relate to improved health and nutrition.

Improved School Infrastructure

To assess improvements in school infrastructure, WFP is monitoring the following programme implementation measures:

- Number of latrines at target schools rehabilitated or constructed
- Number of kitchens at target schools rehabilitated or constructed
- Number of energy-saving stoves at target schools rehabilitated or constructed
- Number of storerooms at target schools rehabilitated or constructed
- Number of school gardens at target schools rehabilitated or constructed
- Number of drilled wells/water stations at target schools rehabilitated or constructed
- Number of students benefitting from the rehabilitated or constructed latrines
- Number of students benefitting from the rehabilitated or constructed kitchens
- Number of students benefitting from the rehabilitated or constructed energy-saving stoves
- Number of students benefitting from the rehabilitated or constructed storerooms
- Number of students benefitting from the rehabilitated or constructed school gardens
- Number of students benefitting from the rehabilitated or constructed drilled wells/water stations

As the baseline survey was conducted immediately after the start of the project, progress on each front was minimal, with no infrastructure projects completed (either construction or rehabilitation) nor were children benefiting from these projects at the time of survey. Of course, this does not mean that no schools have access to this infrastructure, but no new infrastructure had been added by the time of the baseline survey.

Increased school enrollment

To assess school enrollment, the baseline survey examined the numbers of children enrolled as well as the percentage increase in students enrolled in school. Overall, 94% of targeted children were enrolled at time of baseline, representing a 2.4% increase in student enrollment since 2012-2013 school year (Figures 13 and 14). While overall enrollment is quite high, the percentage increase was only half of the targeted value of 5%. To achieve targets in the future, it will be necessary to ensure that communities are aware of the benefits of education.

Increased community understanding of the benefits of education

To measure progress in terms of better community understanding on the benefits of education, the baseline survey monitors the number of parents in target communities who are members of Parent Teacher Associations (PTAs) as well as the percentage of parents that can name at least three benefits of primary education. Progress on this front is mixed, with 84% of parents members of PTAs but only 18% able to name three benefits of primary education (Figures 15 and 16). As the USDA MGD target stands at 85%, it is clear that targets will not be achieved without a clear focus on community awareness raising activities on the benefits of primary education.

INCREASED USE OF HEALTH AND DIETARY PRACTICE

To assess the use of health and dietary practices, the baseline survey examined the following indicators (acting as proxies for this strategic objective):

- Percent of schools with soap and water at handwashing stations commonly used by students
- Number/ percent of schools using improved sanitation

Figure 11: The percent of schools providing separate latrine facilities

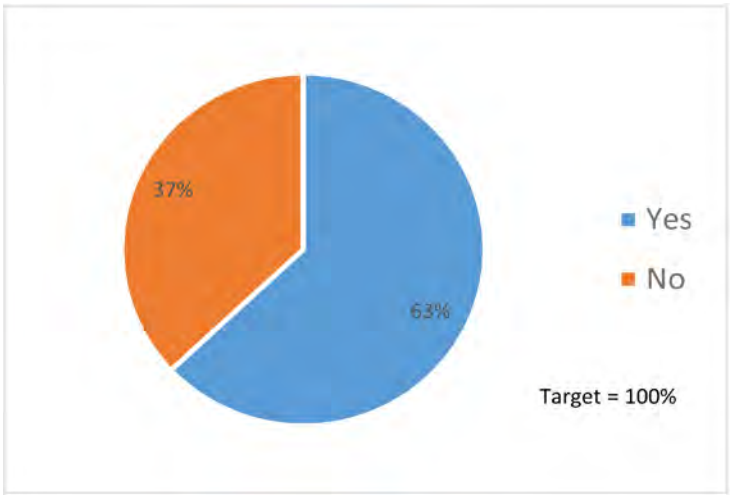


Figure 12: Average number of school days missed by students due to illness

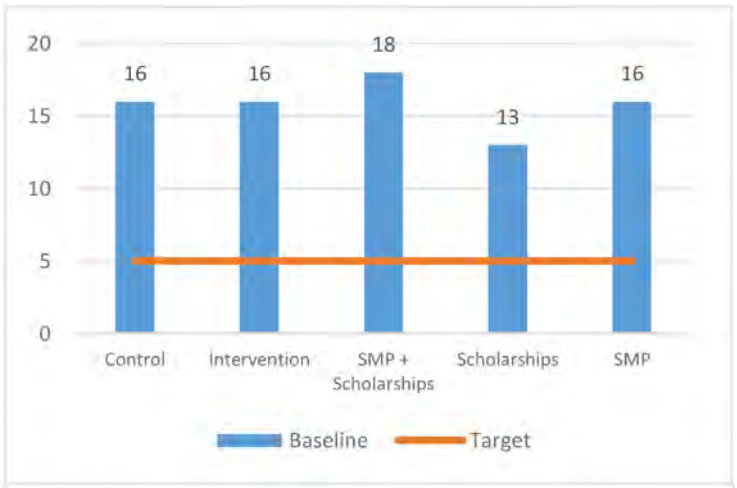


Figure 13: Percentage of targeted children enrolled

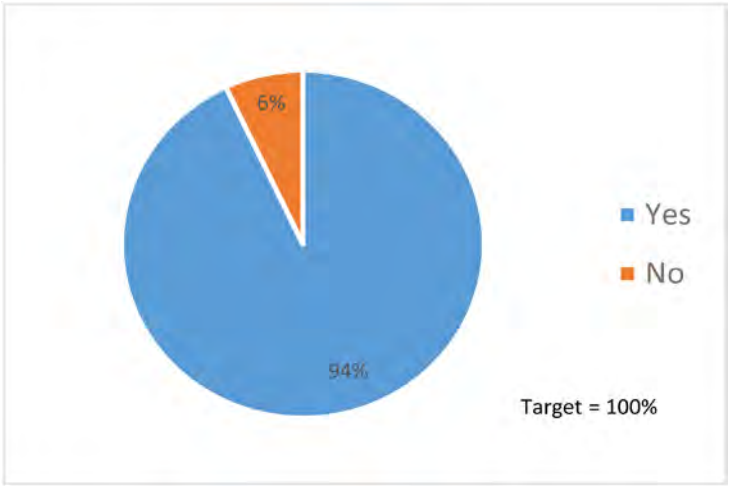


Figure 14: Percentage increase in students (girls, boys) enrolled in school

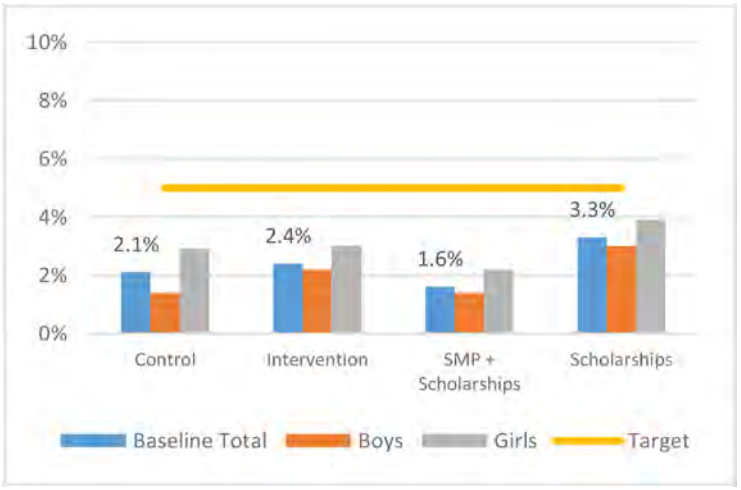


Figure 15: Percentage of parents who are members of PTAs

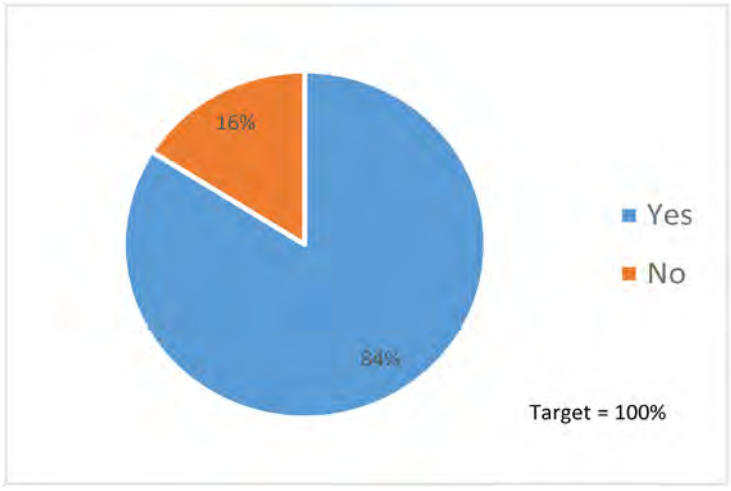
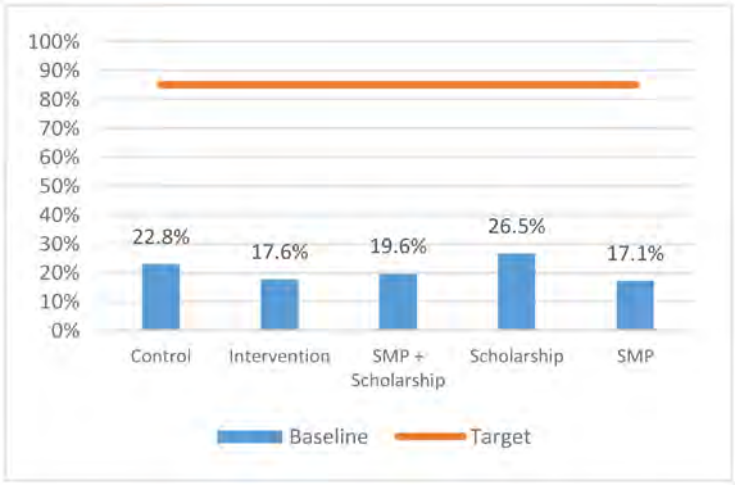


Figure 16: Percent of parents in target communities who can name at least three benefits of primary education



facilities (latrines)
- Percent of households in target schools that store food off the ground
- Percent of schools in target communities that clean cooking and eating equipment, consistent with accepted standards

While findings suggest that significant inroads have already been made in terms of health and dietary messaging to WFP's targeted populations and schools, all indicators at baseline fall short of USDA MGD objectives (Figures 17, 18, 19 and 20). Overall, 93% of targeted schools report improved sanitation facilities, falling just shy of the 100% USDA MGD objective. Likewise, 86% and 83% of schools report proper storage techniques (storing food off the ground) and use of clean cooking and eating utensils, respectively, again falling short of the 100% objective for food storage and the 90% objective for use of clean utensils.

The area where the least progress was observed is the availability of soap and water at handwashing stations. Amongst the targeted schools, only 64% reported properly equipped handwashing stations at baseline, falling well short of the 85% required by USDA MGD programme. Notably, control schools fared considerably worse than target schools however, with only 44% reporting soap and water at handwashing stations. Again, this likely reflects the sustained focus on these issues in targeted communities in previous years.

To better assess progress in health and dietary practices, WFP also examined a series of more specific indicators, looking at the following issues in more depth;

- Increased knowledge of health and hygiene practices
- Increased knowledge of safe food preparation and storage
- Increased knowledge of nutrition
- Increased access to clean water and sanitation
- Increased access to preventative health interventions
- Increased access to requisite food preparation and storage tools and equipment

Findings are shown by indicator below.

Increased Knowledge of Health and Hygiene Practices

To assess health and hygiene knowledge, the baseline survey explored parents' understanding of proper health and hygiene practices as well as their knowledge on where to find accurate information on health. Overall, findings indicate that parents are quite knowledgeable on where to access health information (with 94% reporting at least one local source of accurate health information---exceeding USDA MGD targets) but this does not necessarily translate into more first-hand knowledge on proper health and hygiene, as only 56% at baseline were able to identify three important health and hygiene practices (Figures 21 and 22).

Increased Knowledge of Safe Food Preparation and Storage

Safe food preparation and storage is assessed by examining what percent of cooks and storekeepers at target schools achieved a

Figure 17: Percent of schools with soap and water at handwashing stations commonly used by students

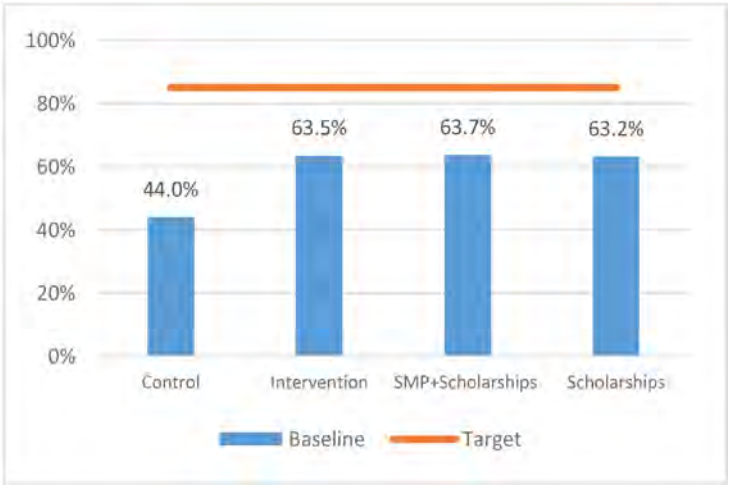


Figure 18: Percent of schools using improved sanitation facilities

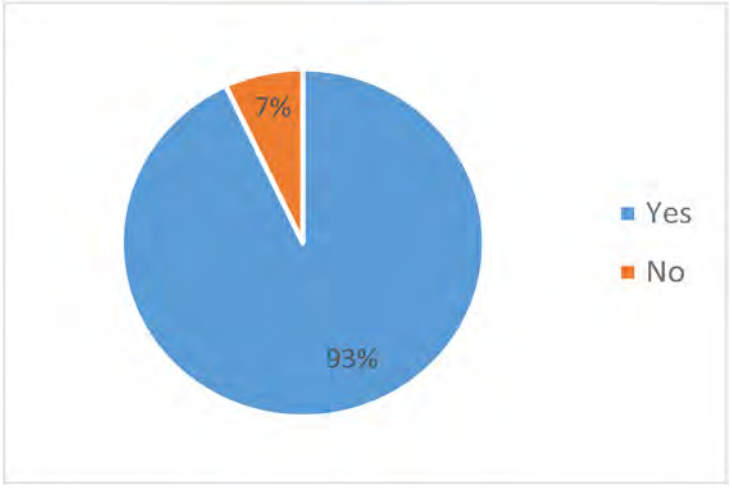


Figure 19: Percent of schools that store food off the ground

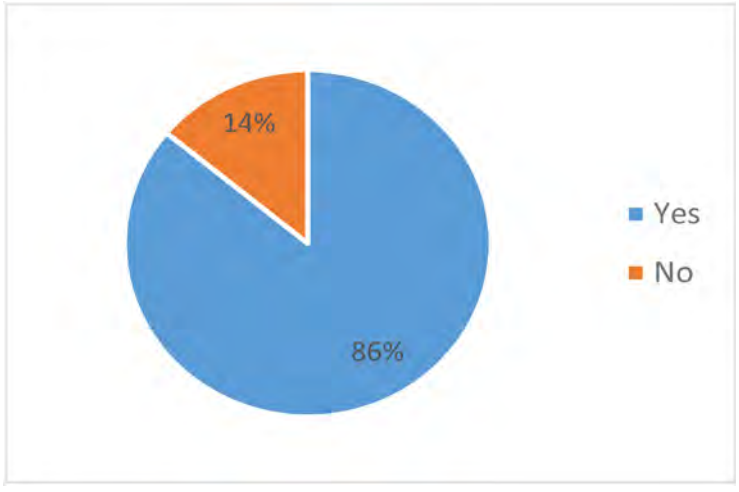
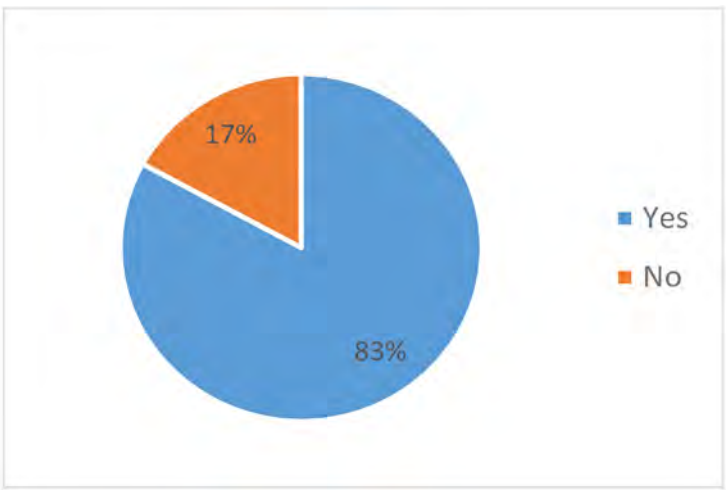


Figure 20: Percent of schools in target communities that clean cooking and eating equipment



passing grade on a safe food preparation and storage test. At the time of the baseline survey, this test was under development and training could not be provided to enumerators in time to ensure its inclusion in this round. It will be conducted in ensuing rounds. The test itself is shown in Annex 6. It should be noted, however, that WFP has been conducting safe food preparation and storage training for more than a decade, and it should be assumed that even without the test, a good number of schools will have some knowledge of these issues.

Increased Knowledge of Nutrition

To assess progress on improvements in nutrition knowledge, the baseline survey examined:

- The percentage of students and parents who can identify at least one local source of information on proper diets and nutrition .
- The percentage of cooks and storekeepers that have a passing grade on good nutrition and dietary practices

As mentioned in the previous section, the test for cooks and storekeepers was under development at the time of the survey and thus was not available for use. Therefore, it was only possible to assess baseline values on nutrition knowledge via students and parents abilities to identify a local source of quality nutrition and diet information.

Figure 21: Percent of parents who can identify at least one local source of information on good health practices

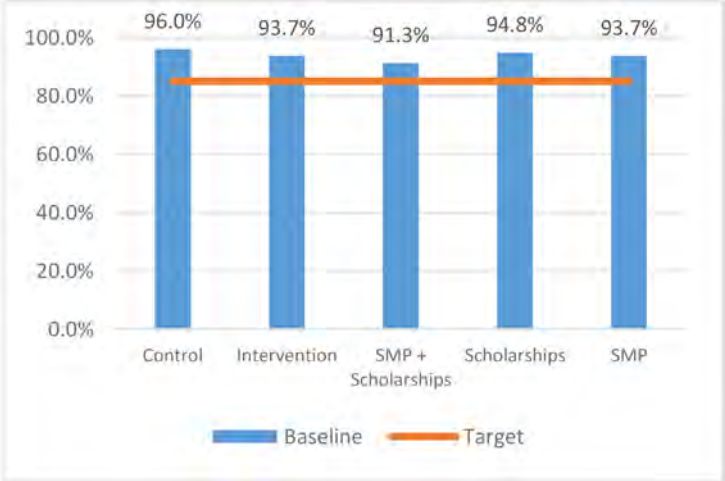


Figure 23: Percent of parents who can identify at least one local source of information on nutrition and diet

Overall, 88% and 92% of parents in the intervention and control cohorts, respectively, were able to identify at least one local source of information for proper diets and nutrition, exceeding at baseline the USDA MGD targets. Figure 23 details the findings for parents within the various intervention groups.

Increased Access to Clean Water and Sanitation

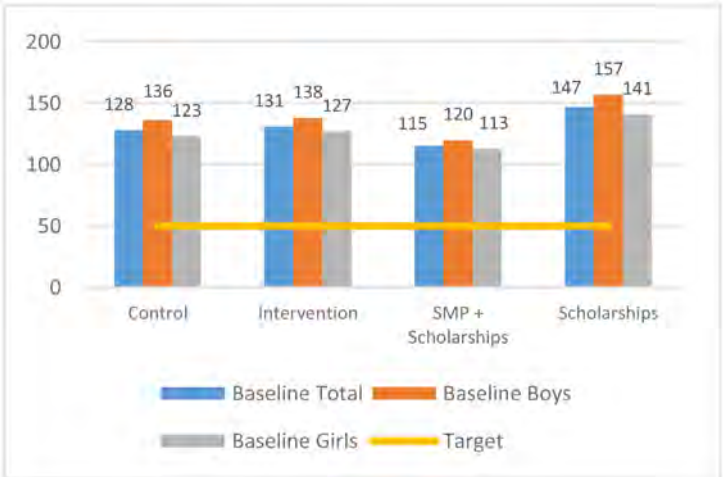
To measure access to clear water and sanitation, the baseline survey examined:

- The ratio of latrines (boys/girls) to students at target schools
- The percentage of schools with year round access to safe and clear water source
- The number of target schools that have latrines of sufficient quality that are in good repair

Looking at baseline results for all three indicators, it is clear that this is an area that needs a sustained focus over the project period. Overall, the ratio of students to latrines was 1: 131, with the ratio of boys to latrines at 1:138 and the ratio of girls to latrine at 1:127. USDA MGD targets by contrast are 1:50 for both boys and girls. Findings amongst control schools were equally far from USDA targets (Figure 24). Access to clean water (year round) and quality latrines was slightly better, with 67% and 78% of schools reporting access respectively. USDA MGD targets for both indicators is 100% of schools.

Figure 22: Percent of parents who can name at least three important health/ hygiene practices

Figure 24: Average ratio of latrines to students



Increased Access to Preventative Health Interventions

To examine access to preventative health measures, the baseline survey assessed the following:

- Percentage of children dewormed within the past 6 months
- The number of target schools with at least one month supply of soap (hand and dish soap)
- Number of students receiving daily school meals with micronutrient fortified commodities

In total, more than 80% of children have been dewormed in the past six months, while 70% of schools maintained stocks of soap. This demonstrates significant progress to date, but most of this success derives from programming in years past. The number of children receiving micronutrient fortified foods remains minimal, though this continues to be a priority for WFP. A major fortified rice trial has been completed and another may soon begin. Government buy-in and lack of private sector engagement continue to be the major obstacles to nationwide rice fortification.

Increased Access to Requisite Food Preparation and Storage tools and Equipment

To assess this, the baseline survey examines the number of target schools with improved food preparation and storage equipment. At baseline, no schools indicated such improved equipment. This will be a focus of moving forward.

FOOD SECURITY AND NUTRITION

As improvements in the overall food security and nutrition situation is central to WFP work, a section on key food security and nutrition indicators was included in the baseline survey. This allows WFP to not only track the key indicators in USDA MGD Programmes but to link improvements in these indicators to improvements in the overall well-being of beneficiaries.

A short look at the past and present in terms of food and nutrition security is included below, in order to put the findings of the baseline survey into perspective.

Household Food Consumption Score

To assess the quality of household diets, the baseline survey collected the Food Consumption Score (FCS). The FCS is a composite measure of dietary diversity, food frequency, and relative nutritional importance of different food groups. The FCS is calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. For detail of guidance for the indicator, please see the WFP Comprehensive Food Security and Vulnerability Analysis Guidelines[8].

Baseline findings indicate that dietary adequacy, at household level, is not a pressing problem at this time. On average, only 2-4% of households reported inadequate diets, depending on the cohort

8 United Nations World Food Programme (WFP). January 2009. Comprehensive Food Security & Vulnerability Analysis Guidelines. Rome, Italy.

Food security situation in Cambodia: An overview

Sustained economic growth in recent years has led to significant reductions in poverty, with poverty rates more than halving (from 48% to 18.8%) and per capita income nearly tripling since 2007. Economic gains have translated to substantial improvements in the quality of life for most Cambodians, the benefits of which have impacted multiple facets of life, including food security.

Food availability and access has improved considerably

Cambodia has been a self-sufficient, rice surplus country since 1995. The steady focus on the agricultural sector in recent years, however, has produced further dividends. Rice yields and overall production has increased, with paddy and rice surpluses doubling since 2006. In 2013, rice surpluses were estimated at just under 3.1 million MTs, with 21 of 24 provinces able to produce enough rice to cover needs. Building on these improvement the Royal Government of Cambodia aims to increase production even further, with goals of exporting 1 million MTs of milled rice as early as 2015.

As poverty has declined and food availability has improved, household food access has also improved. Economic gains have led to increased employment opportunities and higher wages, with average daily wage labour rates increasing from approximately 10,000 Riel/ day in 2009 to more than 16,000 Riel/ day in 2014. With wages increasing, household Terms of Trade (ToT) has improved accordingly, with households now able to afford sufficient food while utilizing a larger percent of their income to invest in greater productivity or cover other household expenses.

More disposable income appears to be translating to better diets as well. According to Cambodia Socio-Economic Survey (CSES) data, dietary diversity increased from 2004 to 2009 with households reducing their caloric intake of carbohydrates and increasing intake of fats and animal proteins. Greater diversification placed the average Cambodian diet within WHO's recommended norms for first time and led to declines in the percentage undernourished (from 37% in 2004 to 33% in 2009). Dietary improvements were most pronounced among the poorest quintile of the population, with the percent undernourished declining from 80% to 59% and the number of Kcal/ person/ day consumed increasing by 13.4% (an increase 5 to 10 fold higher than any other quintile).

Despite improvements, significant challenges remain

While millions have been lifted out of poverty, close to one-fifth of the population remains in poverty and another three million Cambodians remain vulnerable, hovering precariously close to the poverty line. The World Bank estimates that a loss of just 0.30 USD/ day would push these vulnerable populations back into poverty, roughly doubling the current poverty rate.

For the remaining poor and vulnerable, food security remains a challenge. Poor households often do not have access to the quantity or quality of food needed to meet nutritional requirements. Data from the CSES indicates that the poorest quintile of the population consumes only 1,690 Kcal/person/day, which is below the Minimum Dietary Energy Requirement (MDER) of 1,770 kcal/person/ day. Inadequate or borderline food consumption persists in the second and third quintiles as average consumption falls only just above the MDER but below the average per capita energy intake (2100 kcals/ person/ day) recommended by the World Health Organization.

Significant dietary inadequacy coupled with challenges to the health and education system have resulted in persistently high levels of malnutrition. According to the most recent data, 40% of children are stunted while 11% are wasted. Micronutrient deficiencies are also quite pronounced with 55% of pre-school children reportedly anemic.

examined (Figure 25). Households in the control cohort reported the best diets (1.2% inadequate) while households receiving scholarships reported the worst (4% inadequate)

Daily Average Dietary Diversity

To assess the quality of children's diets, the baseline survey also included the Individual Dietary Diversity Score (IDDS). The IDDS is a qualitative measure of food consumption that reflects an individual's access to a variety of foods, serving as a proxy for macro and micronutrient adequacy. The IDDS is an internationally-recognized indicator and its usefulness has been validated for several key age groups, including amongst children (FANTA, 2006). For more detail as to how to measure and analyze dietary diversity scores, please see the FAO Guidelines for measuring household and individual dietary diversity[9].

Findings from the baseline survey indicated that, in contrast to household level dietary adequacy, individual dietary diversity for children remains a significant challenge. Overall, 12% and 27% of the children in the intervention and control cohorts, respectively, reported inadequate dietary diversity (Figure 25). The significant difference in findings between those receiving school meals and those not (11-14% dietary inadequacy for the SMP cohorts verus 27-31% among children in other cohorts), however, suggested that school meals may be a particularly protective intervention. Greater dietary diversity among school age children can lower the burden of micronutrient deficiencies, while improving overall concentration and cognition.

Household Hunger Scale

To assess household food stress, the baseline survey also collected the Household Hunger Scale (HHS). The HHS measures and attempts to quantify perceptions of hunger within a household. The HHS has been specifically developed and validated for cross-cultural use so that the status of different population groups can be described in a meaningful and comparable way. For detail of guidance for the creation of the indicator, please see the Household Hunger Scale: Indicator Definition and Measurement Guide[10].

Baseline results indicated that hunger, by and large, is not a commonly perceived threat to households within WFP's target population. Fewer than 2% of households in any intervention cohort reported hunger and almost no household amongst the control groups reported hunger.

Coping Strategies

To assess whether food shortages are significant enough to change household behaviors, the baseline survey also examined coping strategies. To cover the multiple dimensions of coping behaviors, indicators of both consumption and livelihood coping were included. These are discussed below.

The Coping Strategies Index (CSI) is an important indicator of household food security status, as it measures modifications to household eating patterns in times of food shortage. The reduced CSI has been used in this survey; it is a sub-set of the context-specific CSI, with the specific set of behaviors included in the index all found to be relevant across cultures. For more detail on the reduced CSI tool, please see the CSI Field Method Manual[11].

9 Gina Kennedy, Terri Ballard, MarieClaude Dop. 2011. Guidelines for measuring household and individual dietary diversity. Food and Agriculture Organization of the United Nations (FAO). Rome, Italy.

10 Ballard Terri, Coates Jennifer, Swindale Anne, Deitchler Megan. Household Hunger Scale: Indicator Definition and Measurement Guide. Washington, DC: Food and Nutrition Technical Assistance II Project, FHI 360.

11 Daniel Maxwell, Richard Caldwell. January 2008. The Coping Strategies Index Field Methods Manual. Cooperative for Assistance and Relief Everywhere, Inc. (CARE).

Table 4: Reduced Coping Strategies Index

	Reduced CSI
Control	1.0
Intervention	2.6
SMP + Scholarships	3.2
Scholarships	2.9
SMP	2.6

Source: USDA household survey 2014

The mean reduced CSI for households in the control and intervention cohorts were 1.0 and 2.6, respectively. While the score itself is difficult to interpret, comparison of the mean CSI scores shows more widespread reliance on consumption-related coping mechanisms amongst households in the intervention rather than control cohorts. Overall, amongst the interventions cohorts, more than one-third of households reported changing consumption behaviors in the preceding week versus only one-fifth in the control cohort.

Looked at by specific coping behaviors, the most common coping strategy utilized was eating less-preferred and less-expensive foods, followed by reducing the quantity of food consumed by adults (so young children can eat) and borrowing/ relying on food from friends and relatives. Reductions in both the size and number of meals were the least common coping mechanisms utilized.

Notably, more than one third of households in the intervention and control cohorts reported eating less preferred/less expensive foods, while 25% and 18% reported reductions in the quantities of food adults consumed (so young children can eat), respectively (Figure 25).

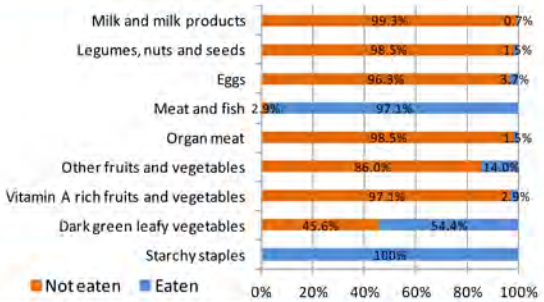
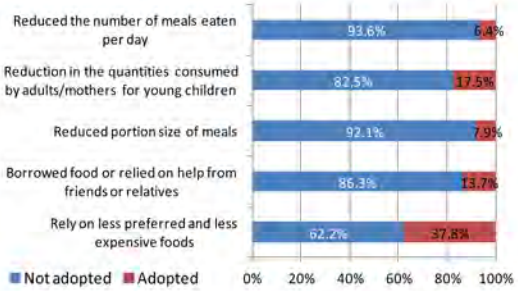
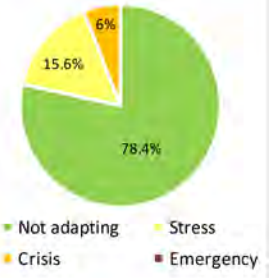
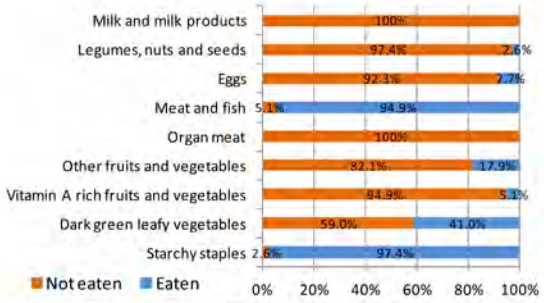
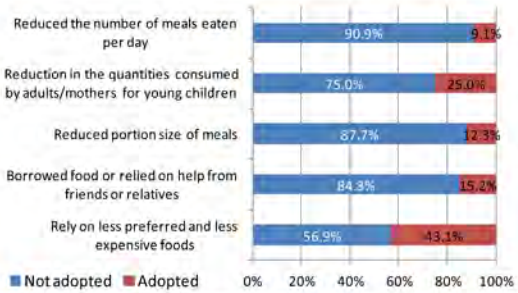
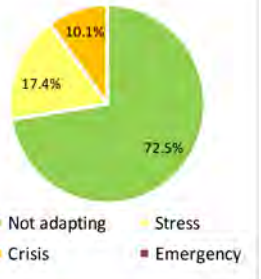
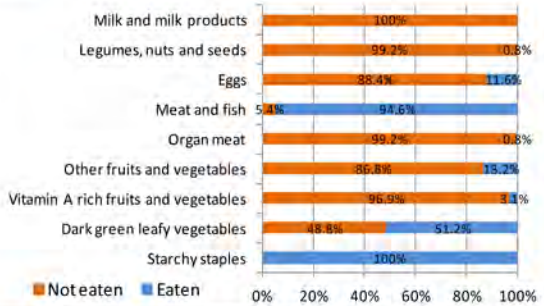
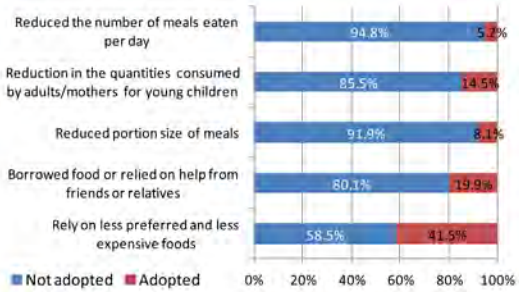
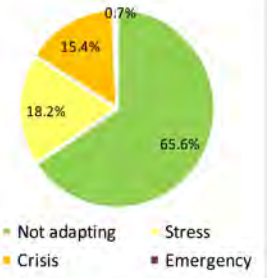
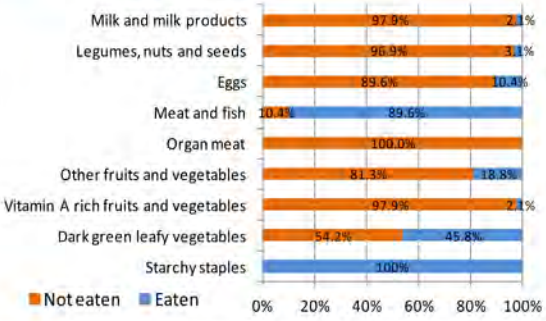
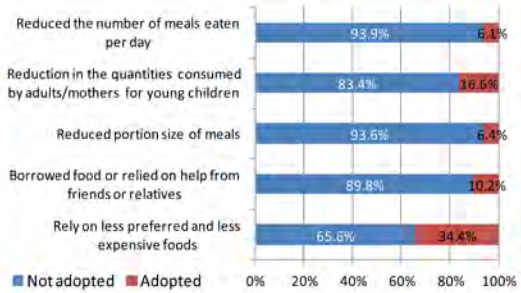
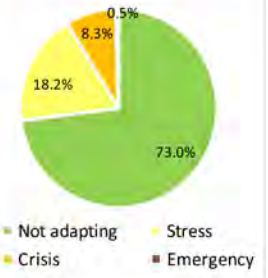
To look beyond food stress-related changes in eating patterns, the baseline survey also included a module on livelihood coping mechanisms. It is important to assess livelihood coping behaviors, as this often reflects the longer-term coping capacity of households as well as their capacity for future productivity. The indicator is derived from a series of questions regarding the household's experience with livelihood stress and asset depletion during the 30 days prior to the survey. All strategies are classified into three broad groups, including stress, crisis and emergency strategies. For further detail of the module, please look at the Technical guidance for WFP's Consolidated Approach for Reporting Indicators of Food Security (CARI).

Table 5: Livelihood Coping Strategies Categories

Stress *(Reduced ability to deal with future shocks)*	Crisis *(Reduce future livelihood productivity)*	Emergency *(Extreme depletion of livelihood assets and more difficulty in getting reversed)*
1. Sold household goods (radio, furniture, refrigerator, television, jewelry, clothes, utensils etc.) 2. Spent savings 3. Borrowed money / food from a formal lender / bank 4. Sent an adult household member sought work elsewhere (regardless of the usual seasonal migration)	1. Sold productive assets or means of transport (sewing machine, wheelbarrow, bicycle, ploughing tools, seeds etc.) 2. Reduced essential non-food expenditures such as education, health, etc. 3. Withdrew children from school	1. Sold house or land 2. Illegal income activities (theft, prostitution,etc.) 3. Begged

Households in the intervention cohorts reporting utilizing livelihood coping mechanisms more often than those in the control cohort (27% reporting versus 22%--Figure 25), with almost all of the reported coping mechanisms classified as stress or crisis strategies rather than emergency. Crisis coping strategies were most often reported (by 10-15% of households) amongst the cohort of households receiving

Figure 25: Food Consumption, Household Hunger Scale, Individual Dietary Diversity, Consumption Coping Strategies and Livelihood Coping Strategies

	% of Households with Inadequate Diets	% Reporting Moderate or Severe Hunger	% of Children with Inadequate Diet	Inadequate IDDS (% of children)	Consumption Coping Strategies (% of household)	Livelihood Coping Strategies (% of household)
Control	1.2	0.2	27.2			
SMP + Scholarships	4.0	1.8	14.1			
Scholarships	1.7	0.7	30.6			
SMP	2.8	1.0	10.9			

Source: USDA household survey 2014

food scholarships, which likely reflects their underlying vulnerability and poverty levels which are selection criteria for inclusion in such programmes.

USDA MGD/ WFP PROJECT ACHIEVEMENTS

Using the various information collected as a part of the USDA MGD evaluation (both baselines and follow ups), WFP is able to track progress in terms of project implementation as well as outcomes by creating and plotting composite/ index variables which track achievements across a host of indicators. The composite variables would include;

- Progress on educational programme implementation
- Progress on educational outcomes
- Progress on health and dietary practices programme implementation
- Progress on health and dietary practices outcomes

Composite variables are calculated by summing the actual completion percentages for all key USDA MGD indicators and then comparing this rate to the achievement thresholds[12]. It is then possible to plot actual process or outcome achievements in relation to each other to better understand the holistic effectiveness of WFP programming.

Progress to date on implementation and outcomes are shown in Figures 26 and 27. As this is only the baseline survey, it is expected that both process and outcome achievements would be low. In terms of project implementation, this was indeed the case. Only one-third to one-quarter of the health and dietary interventions were implemented at the time of baseline assessment versus less than 20% of the educational interventions. The situation was slightly better with project outcomes. Here, close to 70% of both education and dietary and health outcomes had already been achieved as of the baseline survey. This was true across programmes, likely reflecting the fact that similar programming has been ongoing in these schools for a decade or more.

Figure 26: Progress in to date in programme implementation by Results Framework (Baseline 2014)

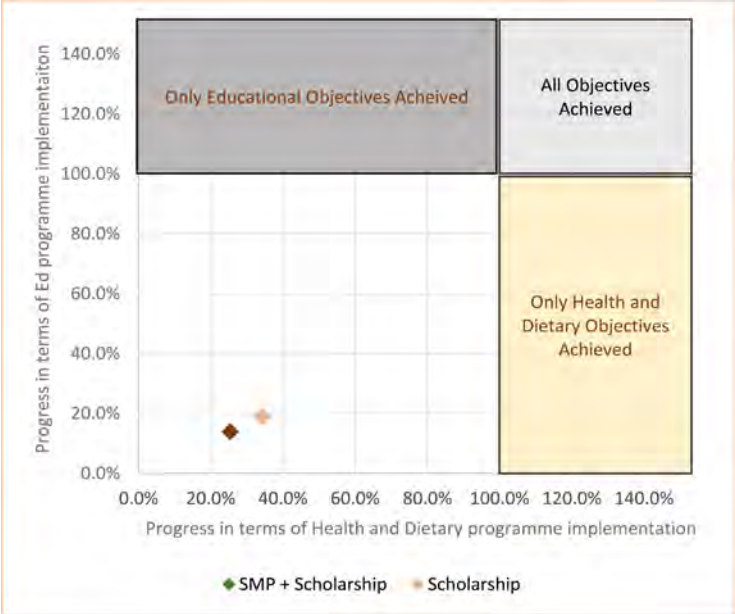
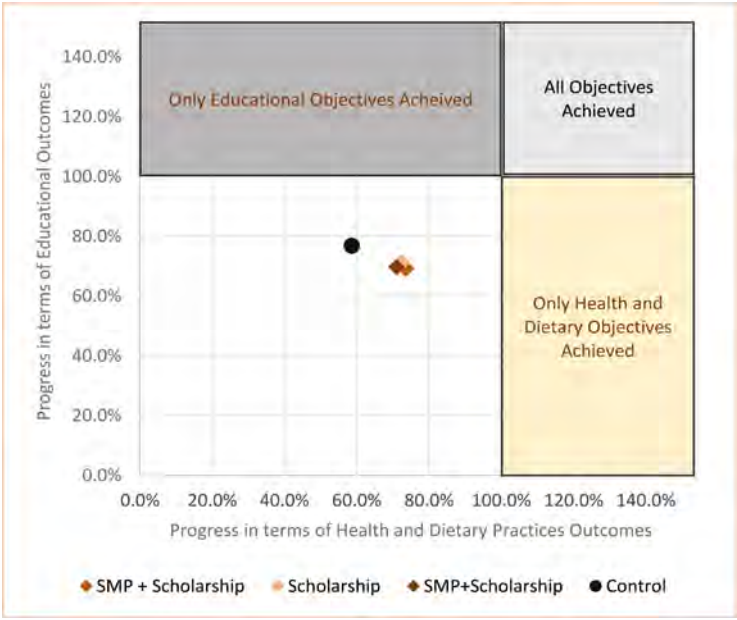


Figure 27: Progress in to date in achieving programme outcomes by Results Framework (Baseline 2014)



In the coming midline and endline surveys, it will be possible via this analysis to track WFP's accomplishments over the course of the project, with the goal being to achieve at least 100% of all process and outcome targets for the USDA MGD Result Frameworks.

MONITORING AND EVALUATION OF USDA MGD PROGRAMME: NEXT STEPS

WFP will have a real-time information sharing, monitoring and evaluation platform operational for the 2014-2015 school year, this will involve the rollout of mobile data collection devices for routine monitoring as well as evaluation activities. WFP will also shortly be rolling out a phone-based standardized complaint mechanism system for beneficiaries. This system will allow beneficiaries to report problems observed, free of charge and depending on severity connect them immediately to WFP management.

To maintain comparability in seasonality, WFP will proceed with the midline and endline surveys in March 2015 and 2016, respectively.

ANNEXES FOR USDA MGD BASELINE SURVEY

Annex 1: Results Framework: Strategic Objective 1- Improve Literacy of School Age Children

Annex 2: Results Framework: Strategic Objective 2- Increase Use of Health and Dietary Practices

Annex 3: USDA Baseline Survey Methodology

Annex 4: Selected Intervention Schools

Annex 5: Selected Control Schools

Annex 6: Sample test on safe food storage and preparation

Annex 7: Detailed Tables of Findings

12 See Annex 7 for the detailed calculations underlying this.

Annex 1: Results Framework: Strategic Objective 1 Improve Literacy of School Age Children

Result Title & Description (if custom)	Performance Indicator	Performance Indicator Target	Baseline #
Results Framework 1			
MGD 1 Improved Literacy of School-Age Children	Number of total individuals benefiting directly from USDA-funded interventions	315,168 individuals	0
MGD 1 Improved Literacy of School-Age Children	Number of total individuals benefiting indirectly from USDA-funded interventions	262,449 individuals	0
MGD SO1 Improved Literacy of School-Age Children	Percent of student (girls/boys) who, by the end of grade 6 demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	80 percent of students Boys: 80 percent Girls: 80 percent	56.5%
MGD 1.1 Improved Quality of Literacy Instruction	Percent of teachers who demonstrate improved literacy instruction as identified by supervisors	80 percent of teachers	(No baseline value)
MGD 1.1 Improved Quality of Literacy Instruction	Percent of teachers in target schools who demonstrate use of new and quality teaching techniques or tools	80 percent of teachers	36.0%
MGD 1.1.1 More Consistent Teacher Attendance	Percent of teachers in target schools who attend and teach school at least 90% of scheduled school days per year	90 percent of teachers	84.8%
MGD 1.1.1 More Consistent Teacher Attendance	Average teacher attendance rates (for each school and aggregated)	90 percent	94.4%
MGD 1.1.2 Better Access to School Supplies and Materials	Number of schools receiving school supplies and materials (learning material packages and stationery packages)	863 schools	0
MGD 1.1.2 Better Access to School Supplies and Materials	Number of learning material packages provided to target schools	2,589 learning material packages	0
MGD 1.1.2 Better Access to School Supplies and Materials	Number of stationery packages provided to target schools	2,589 stationary packages	0
MGD 1.1.2 Better Access to School Supplies and Materials	Number of students (boys/girls) benefitting from the provision of school supplies	172,600 students Boys: 88,026 Girls: 84,574	0
MGD 1.1.3 Improved Literacy Instructional Materials	Number of classrooms in target schools with literacy instructional materials sufficient for effective instruction	3,452 classrooms	2969
MGD 1.1.3 Improved Literacy Instructional Materials	Percent of teachers using the national literacy curriculum and the related instructional materials	85 percent of teachers	59.8%
MGD 1.1.4 Increased Skills and Knowledge of Teachers	Number of teachers / educators / teaching assistants trained or certified.	5,178 teachers / educators / teaching assistants	664
MGD 1.1.4 Increased Skills and Knowledge of Teachers	Number of teachers / educators / teaching assistants who successfully completed in service or received intensive coaching or mentoring	5,178 teachers / educators / teaching assistants	tbd

MGD 1.1.4 Increased Skills and Knowledge of Teachers	Number of teachers in target schools with recognized teacher certification credentials	3,452	1976
MGD 1.1.5 Increased Skills and Knowledge of School Administrators	Number of school administrators and officials trained or certified	3,452 school administrators	129
MGD 1.1.5 Increased Skills and Knowledge of School Administrators	Number of school administrators and officials in target schools with recognized education certification credentials	1,726 school administrators	224
MGD 1.1.5 Increased Skills and Knowledge of School Administrators	Percent of school administrators in targeted schools who demonstrate use of new techniques or tools	85 percent of school administrators	16.9%
MGD 1.2 Improved Student Attentiveness	Percent of students in target schools identified as inattentive by their teachers	10 percent of students	13.2%
MGD 1.2 Improved Student Attentiveness	Percent of students in target schools who indicate they are attentive or very attentive during class	90 percent of students	82.7%
MGD 1.2.1 Reduced Short-term Hunger	Percent of students in target schools who indicate that they are "hungry" or "very hungry" during the school day.	10 percent of students	33.8%
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Number of take home rations provided to students (boys/girls)	329,967 take home rations Boys: 148,485 take home rations Girls: 181,482 take home rations	0
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Number of students (boys/girls) benefitting from a take home ration	20,368 students Boys: 9,166 Girls: 11,203	0
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Quantity of commodities (tons) provided for take-home rations provided to students (boys/girls)	TOTAL: Rice: 3,300 tons Boys: 1,485 Girls:1,815	0
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Number of students (boys/girls), cooks and storekeepers benefitting from school meals (breakfast)	204,536 students Boys: 104,313 Girls: 100,223	0
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Number of daily school meals (breakfast) provided to students (boys/girls)	57,449,049 daily school meals (breakfast) Boys: 29,299,015 daily school meals (breakfast) Girls: 28,150,034 daily school meals (breakfast)	0
MGD 1.2.1.1 Increased Access to Food (School Feeding)	Persent of students in target school consuming daily meals at schools	95%	0

MGD 1.2.1.1 Increased Access to Food (School Feeding)	Quantity of commodities (tons) provided for school meals provided to students (boys/girls), storekeepers and cooks	TOTAL: Rice: 7,186 tons YSP: 849 tons Oil: 283 tons Students (boys): Rice: 3,319 tones YSP: 433 tones Oil: 144 tones Students (girls): Rice: 3,189 tones YSP: 416 tones Oil: 139 tones Storekeepers: Rice: 243 tons (12% Female) Cooks: Rice: 435 tons (70% Female)	0
MGD 1.3 Improved Student Attendance	Percent of students (girls/boys) regularly (80%) attending USDA supported classrssoms/schools	80 percent of students	78.2%
MGD 1.3.1 Increased Economic and Cultural Incentives (Or Decreased Disincentives)	Number of target schools that have separate latrines for boys and girls	863 schools	543
MGD 1.3.1 Increased Economic and Cultural Incentives (Or Decreased Disincentives)	Number of students (bopys/girls) at target schools who regularly receive take home food rations	12,221 students Boys: 5,499 Girls: 6,722	0
MGD 1.3.2 Reduced Health Related Absences	Average number of school days missed by students due to illness (for each school and in aggregate)	5 days	16-20 days
MGD 1.3.3 Improved School Infrastructure	Number of latrines at target schools rehabilitated or constructed	210 latrines	0
MGD 1.3.3 Improved School Infrastructure	Number of kitchens at target schools rehabilitated or constructed	90 kitchens	0
MGD 1.3.3 Improved School Infrastructure	Number of energy-saving stoves at target schools rehabilitated or constructed	450 energy-saving stoves	0
MGD 1.3.3 Improved School Infrastructure	Number of storerooms at target schools rehabilitated or constructed	90 storerooms	0
MGD 1.3.3 Improved School Infrastructure	Number of school gardens at target schools rehabilitated or constructed	600 school gardens	0
MGD 1.3.3 Improved School Infrastructure	Number of drilled wells/water stations at target schools rehabilitated or constructed	120 drilled wells/water stations	0
MGD 1.3.3 Improved School	Number of students benefitting from the rehabilitated or constructed latrines	63,000 students	0

Infrastructure			
MGD 1.3.3 Improved School Infrastructure	Number of students benefitting from the rehabilitated or constructed kitchens	27,000 students	0
MGD 1.3.3 Improved School Infrastructure	Number of students benefitting from the rehabilitated or constructed energy-saving stoves	135,000 students	0
MGD 1.3.3 Improved School Infrastructure	Number of students benefitting from the rehabilitated or constructed storerooms	27,000 students	0
MGD 1.3.3 Improved School Infrastructure	Number of students benefitting from the rehabilitated or constructed school gardens	429,204 students	0
MGD 1.3.3 Improved School Infrastructure	Number of students benefitting from the rehabilitated or constructed drilled wells/water stations	36,000 students	0
MGD 1.3.4 Increased Student Enrollment	Number of students (boys/girls) enrolled in school	258,900 students Boys: 132,040 Girls: 126,860	boys 125229 girls 118781
MGD 1.3.4 Increased Student Enrollment	Percentage increase in students (girls, boys) enrolled in school	5/5 percent	Total: 2.4% Boys: 2.2% Girls: 3.0%
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	85 percent of parents	17.6%
MGD 1.3.5 Increased Community Understanding of Benefits of Education	Number of parents in target communities who are members of PTAs (or similar school based community group)	4,315 parents	3,615
MGD 1.4.1 Increased Capacity of Government Institutions	Standard operating procedures and tools for management and oversight of school feeding programes by relevant government offices are operational	2 standard operating procedures and tools	0
MGD 1.4.2 Improved Policy or Regulatory Framework / FTF 2	Number of educational policies, regulations and/or administrative procedures in each of the following stages of development: Stage 1: Underwent the first stage of the policy reform process i.e. analysis (review of existing policy/regulation/administrative procedure and/or proposal of new policy/regulations/administrative procedures	Stage 5: 1 (National scholarship policy for primary schools) Stage 5: 1 (National school feeding policy)	Stage 1: 1 (National scholarship policy for primary schools) None 1 (National school feeding policy)
MGD 1.4.2 Improved Policy or Regulatory Framework	Government has a fully developed national primary education strategy/strategic plan that includes a policy framework	1 national primary education strategy/strategic plan	1
MGD 1.4.2 Improved Policy or Regulatory Framework	National school feeding policy is operational	1 national school feeding policy at stage 1	none
MGD 1.4.3 Increased Government Support	Establishment of a national school feeding unit within the government	1 national school feeding unit	none
MGD 1.4.4 Increased Engagement of Local and Community Groups	Number of Parent-Teacher Associations or similar school governance structures contributing to their school	863 groups	467
MGD 1.4.4 Increased Engagement of Local and Community Groups / FTF 1	Number of public-private partnerships formed (e.g., farmer associations)	1	none

Annex 2: Results Framework: Strategic Objective 2- Increase Use of Health and Dietary Practices

Result Title & Description (if custom)	Performance Indicator	Performance Indicator Target	Baseline #
Results Framework 2			
MGD 2: Increased use of Health and Dietary Practices	Number of total individuals benefiting directly from USDA-funded interventions	467,324 individuals	0
MGD 2: Increased use of Health and Dietary Practices	Number of total individuals benefiting indirectly from USDA-funded interventions	415,619 individuals	0
MGD 2: Increased use of Health and Dietary Practices	Percent of schools with soap and water at a hand washing station commonly used by students	85 percent of schools	63.5%
MGD 2: Increased use of Health and Dietary Practices	Number of schools using the available (improved) sanitation facility (latrine)	863 schools	801
MGD 2: Increased use of Health and Dietary Practices	Percent of schools in target communities that store food off the ground	100 percent of schools	86.4%
MGD 2: Increased use of Health and Dietary Practices	Percent of schools in target communities that clean cooking and eating equipment, consistent with accepted standards, prior to use	90 percent of schools	82.5%
MGD 2.1 Improved Knowledge of Health and Hygiene Practices	Percent of parents in target communities who can idenitfy at least three important health/hygiene practices	85 percent of parents	56.0%
MGD 2.1 Improved Knowledge of Health and Hygiene Practices	Percent of students (and parents) in target communities who can idenitfy at least one local source of information on good health practices (e.g., health center)	85 percent of students 85 percent of parents	93.7%
MGD 2.2 Increased Knowledge of Safe Food Prep and Storage Practices	Percent of cooks/storekeepers at target schools who achieve a passing score on a test on safe food preparation and storage	85 percent of cooks/storekeepers	0
MGD 2.3 Increased Knowledge of Nutrition	Percent of cooks/storekeepers at target schools who achieve a passing score on a test on good nutrition and dietary practices	85 percent of cooks/storekeepers	0
MGD 2.3 Increased Knowledge of Nutrition	Percent of students (and parents) in target communities who can identify at least one local source of information on nutrition and diet (e.g., health center)	85 percent of students 85 percent of parents	87.9%
MGD 2.4 Increased Access to Clean Water and Sanitation	Number of target schools with year around access to a clean and safe water source	863 schools	580
MGD 2.4 Increased Access to Clean Water and Sanitation	Average ratio of latrines (boys/girls) to students at target schools	1 latrine per 50 students	Total: 131 boys:1:138 girls: 1:127
MGD 2.4 Increased Access to Clean Water and Sanitation	Number of target schools that have latrines of sufficient quality (in good repair)	863 schools	673
MGD 2.5 Increased Access to Preventative Health Interventions	Number of target schools that have at least one month supply of soap (hand and dish soap)	863 schools	603

MGD 2.5 Increased Access to Preventative Health Interventions	Number of students (boys/girls) receiving daily school meals with micronutrient fortified commodities (rice, oil, salt)	204,536 students Boys: 104,313 Girls: 100,223	0
MGD 2.6 Increased Access to Requisite Food Prep and Storage Tools and Equipment	Number of target schools with improved food preparation and storage equipment	600 schools	0
MGD 2.7.1 Increased Capacity of Government Institutions	Number of government staff in the Ministry of Education Youth and Sports to monitor the safety of food in SFP	5 staff	0
MGD 2.7.2 Improved Policy or Regulatory Framework	Governnment water, sanitation and hygiene (WASH) standards for primary schools are established and implemented	1 WASH standard	0
MGD 2.7.3 Increased Government Support	Number of national and sub-national government staff working on school-based health and nutrition programmes	5	0

Annex 3: USDA Baseline Survey Methodology

1. Impact evaluation design for McGovern-Dole programme

Impact evaluation studies generally encounter three interrelated challenges: (1) establishing predicted outcomes in the absence of intervention (viable counterfactual outcomes or recalled information), i.e. what would have happened to participants had they not participated in the project; (2) attributing the impact to the treatment or intervention; (3) dealing with unprecedented lag times (if the number of observed years is quite large). Other issues that may confound impact evaluation studies include programme placement, selection bias, and policies affecting various measures. The most common sources of bias are programme placement where the locations or target populations are not randomly selected, and self-selection bias where households choose to participate or are purposively selected based on set criteria (Alston and Pardey 2001; Salter and Martin 2001 cited in Davis *et al*. 2010). The following are the main methods used to remedy these problems/challenges:

- **Randomisation/experimental approach**: a well-defined set of people is randomly selected for treatment and control groups.
- **Reflexive/ longitudinal comparisons**: no control group is needed, but baseline survey of participants is conducted before intervention.
- **Instrumental variables method**: these are used to predict programme participation under a restrictive assumption that the variables have no impact on the outcomes given participation.
- **Quasi-experimental and non-experimental approaches**: comparison or control group is constructed by matching; methods include propensity score matching and double-difference estimator (if baseline data is available) (Ravallion2001).

The experimental approach is not applicable for the McGovern-Dole (MGD) impact evaluation because schools participating in the Food for Education (FFE) programme in the two provinces are not randomly selected. The instrument variables approach, by contrast, is applicable but very difficult to apply to as finding instrument variables (IV) is a difficult task in empirical analyses (Ali and Abdulai 2010). The two approaches suitable for the USDA MGD impact evaluation would then include; 1) reflexive/ longitudinal comparisons and 2) the quasi-experimental approach with difference in differences (DD) analysis. Of these two options, the quasi-experimental approach was selected as it was deemed a more robust design. This approach allows evaluators to control for unobservable factors influencing the intervention project by using a counterfactual control group and baseline data.

2. Sampling Methods and Approach

This baseline (and ensuing impact evaluations) is designed to capture impacts of the USDA MGD FFE program on selective indicators as indicated in the results framework. To assess impact, baseline and follow up information is collected among schools targeted for USDA MGD assistance and compared to the same information collected amongst a set of comparisons schools which were not selected for assistance.

There are two types of sampling approaches, probability sampling and non-probability sampling. The most common types of probability sampling methods include: simple random sampling, stratified random sampling; systematic random sampling, cluster random sampling, and multi-stage random sampling. Non-

probability sampling methods include: purposive sampling and opportunity or accidental sampling. Probability sampling is typically used for quantitative research, while non-probability sampling is suited for qualitative research methods. In this respect, probability sampling was used to select the targeted schools to be examined in this evaluation.

2.1 Sample size and selection of schools

The evaluation for the USDA MGD programme uses a two-stage, probability proportional to size cluster sampling approach, with schools selected in the first stage of sampling and households selected thereafter (thus serving as the primary sampling units). The sample size was designed to provide accurate and precise results that minimize sampling error and provide estimates that are statistically representative of the various cohorts examined. Utilizing the most conservative approach, sample size was estimated based on a 95 percent confidence level, a power of 80 percent and an error term of 8%. This means there was at least an 80 percent chance of detecting changes and/or effects in the study samples (within the acceptable error) with a 95 percent confidence level.

The USDA MGD school feeding programme coverage is large, covering **863** schools in three provinces: Kampong Thom, Siem Reap and Battambang. USDA MGD supports schools, providing the following programmes: School Meal Programmes (SMP) and Food Scholarships (Take Home Ration--THR) programmes. In most cases, SMP and food scholarship programmes are implemented jointly or schools only receive food scholarships. Thus, to ensure a consistent sampling frame across programmes, only schools containing SMP alongside food scholarships or schools receiving only food scholarship were selected for the impact evaluation[1]. This resulted in a sampling frame composed of 531 schools, spanning five districts in Battambang and nine districts of Siem Reap province. According to the sample size requirements outlined above, it was necessary to randomly select (using PPS sampling) 118 of the possible 531 schools. In total, 60 schools with SMP and food scholarships were selected, alongside 58 schools with only food scholarships.

Sample size calculations were provided by Bethlehem (2009) (http://www.applied-survey-methods.com/samplesize.html).

To select control schools with similar characteristics to the target schools, researchers used propensity score matching methods. **T**he criteria for comparison schools included the following:

1) Be located near or in the same district as the target schools, and have similar geographic conditions;
2) Similar socioeconomic characteristics, infrastructure, and climate condition; and
3) Are not currently receiving school feeding assistance from WFP and/or other agencies.

Overall, in Siem Reap, 49 non-targeted schools were identified from lists provided by both the Ministry of Education and WFP. Of this 49, 25 were deemed suitable matches to target schools and 15 of these 25 were randomly selected for inclusion in the study. In Battambang, a similar exercise in WFP intervention districts revealed no suitable matches, thus researchers were forced to select schools that were located in adjacent districts which had not been targeted by WFP for intervention. In total, 15 schools were deemed as potential matches, with 10 randomly selected for inclusion.

[1] USDA MGD supported schools in Kampong Thom did not meet this criteria, as only SMP programmes were ongoing, with food scholarships provided but through alternate funding sources (not USDA). Inclusion of these schools was possible, but would have significantly complicated the design of the evaluation.

A detailed list of the schools selected can be found in Annex 6.

2.3 Selection of Household Respondents

Within each selected school, lists of SMP and food scholarship beneficiaries were created, with only children in grades 1-4 eligible for selection[2]. Using beneficiary lists, systematic random sampling was conducted by programme type to select children/ households for inclusion. Amongst the schools receiving SMP and food Scholarships, 15 children between grades 1 and 3 were selected for inclusion in the SMP cohort, while 5 children from grade 4 were selected for inclusion for inclusion in the SMP and THR cohort. In schools where only food scholarships were provided, 10 students were selected for inclusion in the food scholarship only cohort.

In control schools, children in grades 1-4 were included in the sampling frame. In this case, 20 children were systematically sampled from this listing for inclusion in the control cohort.

In total, the number of households included in intervention and control groups was intended to be 2,280, with 500 in the control cohort and 1,780 included in the various intervention cohorts (SMP=900; SMP+Scholarship=300; Scholarship=580). Due to significant variations in the number of children per school receiving scholarships, however, it was very difficult to find the number of scholarship beneficiaries required per school, leading to a reduction in sample size of slightly more than 25% in the food scholarship alone cohort (from 580 selected to 422). While this is a significant reduction, a sample size of more than 400 should be more than sufficient to capture changes in educational and health/ dietary outcomes.

Table 2.1 provides greater detail on the planned and actual sample sizes in each intervention and control cohort.

Table 2.1: School sample sizes for intervention and control groups

	Intervention group			Control group
	SMP+ THR	THR	Total	
Target schools				
SRP	240	108	348	-
BB	30	153	183	-
Total	**270**	**261**	**531**	
Schools sample				
SRP	53	24	77	15
BB	7	34	41	10
Total	**60**	**58**	**118**	**25**
Grand total				**143**

[2] Households with children in grades 5 and 6 were excluded as the children and the household would graduate from USDA MGD assistance prior to the end of the project period.

Households sample				
SRP	1060	192	1252	300
BB	140	272	412	200
Total	1200	464	1664	500
Grand total				**2164**

2.4 Selection of School Respondents

Respondents for school surveys were primarily principles, administrators or teachers, who were aware of both school infrastructure and supplies as well as students' record. Teachers from grades 1-4 were randomly selected, with an average of 3 teachers selected per intervention and control school.

3. Survey tools

While finding from the baseline survey are informed by numerous sources of information, two different structured survey instruments were used to collect additional data for the USDA MGD baseline survey; a household survey questionnaire and a school questionnaire. Household and school survey tools were adapted from the various tools used by WFP to assess the effectiveness of its Food For Education (FFE) programmes both in Cambodia and throughout the region. Tools were created in consultation with WFP's Monitoring and Evaluation (M&E) team to ensure that all necessary indicators were collected (see Annex 4 and 5 for detail). The household and school survey tools are elaborated on below.

3.1 Household questionnaire

The survey comprises nine sections as follow:

Section A and B: Household characteristics
This section is comprised of questions on household demographics, including household size, education information, age, occupation and other general information of household members. Information about the people who used to live in the household is also captured (section B).

Section C: Education
This section collects information about education background of school aged children, perception of education and perception of the school feeding program as an incentive to keep children in school.

Section D: Food consumption score and dietary diversity
This section explores the types of food consumed in the last 24 hours as well as the last 7 days. Consumption over the course of the past 7 days was asked at household level while consumption in the 24 hours was only assessed for primary school aged children.

Section E: Food and small non-food expenditure

The expenditure section contains questions about expenditures on both food and non-food items. Common, often repeated expenditures were collected over the past 30 days while irregular expenditures were collected over the preceding 6 months.

Section F: Household food security and coping strategies

Various indicators of household food security status (household hunger score, consumption and livelihood coping) were collected in this section. The indicators are typically collected in WFP surveys and comprise a compendium of indicators that WFP uses to classify food security status.

Section G: Anthropometry and health

One primary school aged child was randomly selected per household for inclusion in the anthropometric module. The weight, height, and age of this child[3] was measured/ collected as was the child's health condition over the past two weeks.

Section H: Household incomes and assets

This section contains questions on the household's main sources of income and household assets.

Section I: Other effects of school feeding

This section asks questions on other unanticipated effects of sending children to school as the results of school feeding program. These questions were asked to understand the full impacts of WFP programming, be they positive or negative.

3.2 School questionnaire

The school survey was adapted from a WFP school survey instrument with only slight modifications. It is comprised of six sections, including:

1. General information,
2. Improved quality of literacy instruction,
3. Improved school infrastructure,
4. Local organization and community groups,
5. Improved student attentiveness, and
6. Nutrition, health and dietary practices.

The full survey tool was only used to gather information from control schools; while for the intervention group it was customized to gather only necessary data. Data collection was organized in this way, because WFP previously conducted school assessments in all their target schools. In addition, a short survey for primary

[3] This information was used to calculate BMI-for-age indicators. Notably, findings were not reported on in the baseline survey as there is a lack of clear standards by which it was possible to assess and contextualize findings.

school teachers was also designed to gather necessary information to estimate short-term hunger reduction and improved student attentiveness (see Annex 5 for further detail).

4. Survey Data Collection

4.1 Selection of Interviewers

CDRI has a long established record in conducting quality household and enterprise surveys in Cambodia. It therefore has a pool of around 100 highly experienced and qualified enumerators to call upon. These enumerators are largely government officials residing at various Ministries (of Planning, Women's Affairs and Rural Development) and/ or provincial department officials. Other enumerators are selected from high school teachers and undergraduates.

In total, thirty enumerators were employed to carry out the USDA MGD baseline survey. They were formed into six groups, each comprising five enumerators with two team leaders/supervisors. Team leaders arranged fieldwork logistics, supervised data collection and sample selection, and undertook data quality and consistency control.

4.2 Training of Interviewers

The training of enumerators for field data collection took place over four days, from the 27th of February to the 2nd of March 2014, with 3 days designated for training on the questionnaire and one day for field testing.

On day 1 of the training, enumerators were briefed on the USDA MGD program and the objectives of the baseline survey. After the enumerators reviewed the questionnaire, the CDRI team explained the various sections in the afternoon. On day 2, the enumerators pre-tested the questionnaire in a school that has a school feeding program, but not USDA MGD assistance. The pre-test emulated real interview situations in that an enumerator administered the entire survey questionnaire, while a second enumerator noted any problems for discussion later. After the first interview, enumerators changed roles. On days 3 and 4, trainers further worked to clarify the problematic areas of the questionnaire and enumerators were allowed further practice interviewing one another.

4.3 Data collection and Supervision

Data collection was conducted by 6 enumeration teams, each comprised of 5 members. Two teams were dispatched to Battambang province, while four teams were assigned to Siem Reap. Each enumerator interviewed a maximum of four households/ schools a day, taking 21 days to complete household and school surveys.

During field data collection, supervisors from CDRI research team were present in the field with enumerators for the whole data collection period, facilitating field logistics, spot checking of household and school interviews and checking completed survey questionnaires to control for data quality and inconsistencies. All mistakes found were explained and corrected with each team to avoid similar errors happening in future interviews. As part of the training, enumerators and team leaders learned how to crosscheck data quality and consistency of data recording from one section to another. Therefore, interviewers were able to check the data they had recorded before handing the completed survey parts to team leaders/field supervisors, ensuring maximum quality control.

4.4 Data Entry and Data Cleaning

Completed survey questionnaires were transferred to CDRI office for data entry and cleaning. Three research assistants with working knowledge of CS-Pro and STATA handled data entry under the guidance of senior researchers. Double data entry was completed in the designated database template CS-PRO, while data cleaning was finally executed using STATA. Typing errors were corrected by double entry, while some inconsistencies were checked by reviewing survey questionnaires or calling respondent households to double-check responses. Data cleaning was a long process and despite thorough checking during data entry, some errors likely remain. Therefore, data cleaning continued during data processing and analysis and considered final once data analysis had been completed.

5. Data Analysis

USDA MGD baseline data was conducted in STATA with indicators calculated per in USDA MGD guidance as well as the results frameworks. Other food security indicators were calculated using guidance from WFP and other standard indicators guidance documents.

6. Limitations

The major limitations included:

1) Defining the control group: if the control is not appropriately selected, the impact (causal effects) of FFE cannot be assessed; only the trend can be estimated. Non-targeted schools by WFP in the same geographic areas in SRP and BB provinces are few, and therefore, selection of control schools for these provinces was challenging. While statistical procedures (ie propensity score matching) were used to select control schools from available non-target schools, the saturation of WFP programme coverage in certain districts made it impossible to find suitable controls. This forced researchers to find control schools in adjacent districts which were likely not to share similar characteristics to the intervention district, as they were not selected for inclusion in the programme at the beginning.
2) Reductions in sample size will require that differences between baseline and follow up surveys be larger to statistically see differences.
3) The final challenge may be the ability to detect impacts given all targeted schools have already been recipients of school feeding in years past. Therefore, changes in outcome indicators may be small and hence difficult to detect statistically.

Annex 4: Selected Intervention Schools

No.	School ID	School Name	Province	WFP Status	SMP+THR	THR	SMP	Total
Target Schools								
1	2040104003	Dach Proat	BB	THR	0	7	0	7
2	2040111007	Svay Chrum	BB	THR	0	7	0	7
3	2040206017	Hun Sen Khnach Romeas	BB	THR	0	8	0	8
4	2040301019	Lovea	BB	THR	0	8	0	8
5	2040309023	Boeung Samrong	BB	THR	0	6	0	6
6	2040407031	Dangkor Pen	BB	THR	0	8	0	8
7	2040509047	Boeung Sangker Lech	BB	THR	0	4	0	4
8	2040602011	Ta Hen	BB	THR	0	8	0	8
9	2040609013	Ta Hen(Kdol leu)	BB	THR	0	7	0	7
10	2040801069	Damnaksuth	BB	THR	0	5	0	5
11	2040803066	Samnang Preah Srey	BB	THR	0	7	0	7
12	2090101001	Chul Seima	BB	THR	0	8	0	8
13	2090201002	Chul Kiri	BB	THR	0	6	0	6
14	2090203037	Svay Sar	BB	THR	0	6	0	6
15	2090207036	Boeung O Cheang	BB	THR	0	8	0	8
16	2090306012	Lumphat	BB	THR	0	6	0	6
17	2090401004	Hun Sen O Anluok	BB	THR	0	8	0	8
18	2090504035	Phoum Kandal	BB	THR	0	8	0	8
19	2090601007	Kamprang Chas	BB	THR	0	8	0	8
20	2090607030	Kampong Chamlang Krom	BB	THR	0	7	0	7
21	2090607038	Kampong Lei Krom	BB	THR	0	6	0	6
22	2100105021	Tuol Chrey	BB	THR	0	8	0	8
23	2100208007	Damnak Ksan	BB	THR	0	8	0	8
24	2100209008	O Da	BB	THR	0	8	0	8
25	2100210023	Damnak Beng	BB	THR	0	8	0	8
26	2100211013	Spean Tumneap	BB	THR	0	8	0	8
27	2100305015	Samaki	BB	THR	0	8	0	8
28	2100306018	O Ta Sok	BB	THR	0	6	0	6
29	2130106001	Boeung Chhnas	BB	SMP+THR	3	0	15	18

No.	School ID	School Name	Province	WFP Status	SMP+THR	THR	SMP	Total
30	2130307024	Prey Sinh	BB	SMP+THR	3	0	15	18
31	2130402007	Kouk Poun	BB	SMP+THR	3	0	16	19
32	2130404009	Tuol Mates	BB	SMP+THR	8	0	12	20
33	2130408025	Boeung Raing	BB	SMP+THR	4	0	15	19
34	2130411012	Samrong	BB	SMP+THR	4	0	15	19
35	2130601015	Kauk Trom	BB	SMP+THR	4	0	15	19
36	2140104004	Prek Ta Ven	BB	THR	0	8	0	8
37	2140105005	Prek Chik	BB	THR	0	7	0	7
38	2140303008	Chraing Khpuos	BB	THR	0	8	0	8
39	2140404012	Tuol Koki	BB	THR	0	8	0	8
40	2140404013	Prey Ampoan	BB	THR	0	8	0	8
41	2140504017	Russey Kraing	BB	THR	0	8	0	8
42	17030102002	Khnar	SRP	SMP+THR	4	0	15	19
43	17030201025	Tuol Kruos	SRP	SMP+THR	5	0	15	20
44	17030302024	Mebonn	SRP	THR	0	5	0	5
45	17030305007	Ta Koh	SRP	SMP+THR	5	0	15	20
46	17030604012	Sras Kvav	SRP	SMP+THR	4	0	15	19
47	17030604027	Ta Pen	SRP	SMP+THR	5	0	15	20
48	17040107001	Anlung Samnar	SRP	THR	0	8	0	8
49	17040209006	Wat Kandal	SRP	SMP+THR	5	0	15	20
50	17040510016	Khnar Thnung	SRP	SMP+THR	5	0	15	20
51	17040516020	Kilometer Ta Chhim	SRP	SMP+THR	4	0	15	19
52	17040603022	Trapaing Veng	SRP	THR	0	8	0	8
53	17040707030	Kbal Kduoch	SRP	SMP+THR	4	0	16	20
54	17040907071	Chup Tnot	SRP	SMP+THR	3	0	15	18
55	17040910077	Sop Mong	SRP	SMP+THR	5	0	15	20
56	17041001038	Chamreun Rath	SRP	SMP+THR	5	0	15	20
57	17041002039	Phoum Boeung	SRP	SMP+THR	5	0	15	20
58	17041003040	Spean Touch	SRP	SMP+THR	3	0	16	19
59	17041106046	Damrei Chhlang	SRP	SMP+THR	3	0	15	18
60	17041107047	Kanseng	SRP	SMP+THR	5	0	15	20
61	17041211052	Lovea	SRP	SMP+THR	5	0	15	20

No.	School ID	School Name	Province	WFP Status	SMP+THR	THR	SMP	Total
62	17060403030	Lork Ta Ma	SRP	SMP+THR	5	0	15	20
63	17060405011	Prasat Khnar	SRP	SMP+THR	6	0	14	20
64	17060603013	Damnak Kchas	SRP	SMP+THR	5	0	15	20
65	17060717028	Sela Rumduol	SRP	SMP+THR	3	0	15	18
66	17060806029	Prey Longeang	SRP	SMP+THR	5	0	15	20
67	17060903019	Sranal	SRP	SMP+THR	5	0	15	20
68	17061003023	Hun Sen Ta An	SRP	SMP+THR	5	0	15	20
69	17061007025	Teuk Chum	SRP	SMP+THR	5	0	15	20
70	17070207066	Prasat Char	SRP	SMP+THR	4	0	15	19
71	17070209004	Peam	SRP	SMP+THR	4	0	15	19
72	17070307006	Kdei Run	SRP	SMP+THR	3	0	15	18
73	17070501011	Khnat	SRP	THR	0	8	0	8
74	17070507012	Wat Prasat	SRP	THR	0	8	0	8
75	17070803025	Trakiet	SRP	SMP+THR	8	0	12	20
76	17071006027	Ta Tork	SRP	SMP+THR	5	0	15	20
77	17071010030	Chambak He	SRP	SMP+THR	5	0	15	20
78	17071106032	Prasat	SRP	SMP+THR	4	0	14	18
79	17071109033	Pradak	SRP	SMP+THR	5	0	15	20
80	17071507048	Akthipadei	SRP	THR	0	8	0	8
81	17090201005	Bakorng	SRP	THR	0	8	0	8
82	17090508019	Pongror	SRP	SMP+THR	5	0	15	20
83	17090704025	Chea Sman	SRP	THR	0	8	0	8
84	17090807030	Wat Roluos	SRP	THR	0	5	0	5
85	17090901031	Kaun Sat	SRP	SMP+THR	5	0	15	20
86	17090905034	Suong	SRP	THR	0	7	0	7
87	17100103005	Thlork Andaung	SRP	THR	0	8	0	8
88	17100302015	Mouk Neak	SRP	THR	0	7	0	7
89	17100308018	Nokor Krao	SRP	THR	0	8	0	8
90	17100402020	Wat Svay	SRP	THR	0	8	0	8
91	17100901029	Po Banteay Chey	SRP	THR	0	8	0	8
92	17100902030	Phnom Krom	SRP	THR	0	8	0	8
93	17101307051	Bangkoang	SRP	THR	0	8	0	8

No.	School ID	School Name	Province	WFP Status	SMP+THR	THR	SMP	Total
94	17110114045	Prasat Sanloang	SRP	SMP+THR	5	0	15	20
95	17110203005	Samaki	SRP	THR	0	7	0	7
96	17110208008	Komrou Srok	SRP	THR	0	8	0	8
97	17110315044	Kauk Chan	SRP	THR	0	5	0	5
98	17110511023	Thnal Chek	SRP	THR	0	6	0	6
99	17110601024	Thlat	SRP	SMP+THR	6	0	0	6
100	17110604025	Kauk Sangker	SRP	SMP+THR	5	0	15	20
101	17110702030	Trapaing Khnar Po	SRP	THR	0	7	0	7
102	17110803033	Kaul	SRP	THR	0	6	0	6
103	17110807052	Popel Kandal	SRP	SMP+THR	5	0	15	20
104	17111001039	Boeung Ngot	SRP	SMP+THR	5	0	15	20
105	17111002063	Punleuvichea Chup Sman	SRP	SMP+THR	4	0	15	19
106	17111004041	Phkar Rumchek	SRP	SMP+THR	5	0	15	20
107	17111005050	Champei	SRP	SMP+THR	4	0	15	19
108	17111008042	Boeung Vean	SRP	SMP+THR	5	0	15	20
109	17130107025	Sre Robang	SRP	SMP+THR	5	0	15	20
110	17130201012	Kantuot	SRP	SMP+THR	5	0	15	20
111	17130202005	Khnar Krao	SRP	SMP+THR	5	0	15	20
112	17130305006	anlung thom	SRP	SMP+THR	4	0	15	19
113	17130501014	Ta Siem	SRP	SMP+THR	3	0	15	18
114	17140103001	Prasat	SRP	THR	0	8	0	8
115	17140105017	Vean	SRP	SMP+THR	5	0	15	20
116	17140309020	Khnar Phtaul	SRP	SMP+THR	6	0	14	20
117	17140311022	Trapaing Krasaing	SRP	SMP+THR	5	0	15	20
118	17140404015	Russey Tauch	SRP	SMP+THR	3	0	15	18
				Total	**276**	**422**	**879**	**1577**

Annex 5: Selected Control Schools

Control Schools								
No.	**School ID**	**School Name**	**Province**	**WFP Status**	**SMP+THR**	**THR**	**SMP**	**Total**
1	2010201018	Kanteu 2	BB					20
2	2010416011	Svay Prakeap	BB					20
3	2010504038	Thngor	BB					20
4	2010602022	Kampeuv	BB					20
5	2010704057	Chak Angkam	BB					20
6	2010711058	Chirork	BB					20
7	2010802031	Ta Kream	BB					20
8	2010805034	Ta Ngen	BB					20
9	2010806035	Prey Phdao	BB					20
10	2010809043	Pheakdei	BB					20
11	17070710053	Roka	SRP					20
12	17070802024	Mouk Pen	SRP					20
13	17090307038	Srei Vibol Ker	SRP					20
14	17090308045	Meta Kakruna Popel	SRP					20
15	17090706026	Kampong Thkov	SRP					20
16	17090902042	Boeung Thom	SRP					20
17	17100207007	Svay Dangkum	SRP					20
18	17100209009	Hun Sen Kruos	SRP					20
19	17100210010	Chea Sim Komar Angkor	SRP					20
20	17100214014	Kesaram	SRP					20
21	17100403021	Wat Damnak	SRP					20
22	17100405022	Chunlung	SRP					20
23	17100506041	Samaki Sahakum	SRP					20
24	17101002034	Thnal	SRP					20
25	17110401015	Wat Sdei	SRP					20
				Total				**500**
				Grand Total				**2077**

Annex 6: Sample test on safe food storage and preparation

TEST SCORING

Name : **School name :**

Gender : □ Male, □ Female **School Code :**

Title : □ Cook, □ Storekeeper **Total score :**

Safe Food Preparation and storage practices

This test contains multiple choice questions, each worth 1 point. Circle the best response for each question. Make sure that your answer is clearly marked. This test is worth a total of 9 points.

1. When do you usually wash your hand for food preparation?
   - ◉ before handling food and often during food preparation
   - ○ After using latrine
   - ○ After finish food preparation
2. When do you clean your cutting board?
   - ○ After using them
   - ○ Prior to using them
   - ○ Prior and after using them
3. When do you wash cooking equipment with soap (cooking pan, knife, plates, bucket or containers)?
   - ○ After using them
   - ○ Prior to using them
   - ○ Prior and after using them
4. Where do you store cooking ingredients?
   - ○ Keep them in cleaned containers and away from harmful materials.
   - ○ Keep them in plastic bag and hang on the wall
   - ○ Keep them with other materials
5. Are there measures in place to prevent food from contamination from pest, animal and poultry?
   - ○ _____
   - ○ _____

6. What is the best period of time to leave cooked food before serving to students?
   Less than 2 hours, More than 2 hours, 15 mn only
7. How do you store cooked food prior serving to students?
   Store cooked food in steel containers with cover at safe place
   Store cooked food in plastic containers without cover on the ground
   Store cooked food in plastic containers with cover off the ground
8. What is the most important thing to check food before cooking?
   Expiry date and package
   Packaging with colorful
   Source of food
9. What is a good source of water to cook and clean food?
   Tube well water, treat water, and drilled and mixed wells
   Water from river
   Water from commune pond

Nutrition and Dietary Practices

This test contains multiple choice questions, each worth 1 point. Circle the best response for each question. Make sure that your answer is clearly marked. This test is worth a total of 7 points.

1. Do you serve students with breakfast and vegetables regularly? Yes No
2. Is it good to have the same single type of food every day?" Yes No
3. Of the commodities cooked for breakfast, what commodities are fortified?
   Rice with Vitamin A
   Two (Vitamin A and Iodine) Yellow split pea with iodine
   Others Vegetable oil with vitamin A and salt with iodine

4. How do you know if the salt is iodized?
   - Mix cool cooked rice with lemon juice and iodine salt or test drop
   - I don't know how to test it
   - Others_____
5. How do you keep iodized salt?
   - Keep it in opened bag/container
   - Keep it in closed bag/container
   - Others
6. When do you usually put iodized salt while cooking food?
   - Put it during cooking time
   - Put it in cooked food and cover cooking pot after cooking
   - Others
7. Of food below commodity and with the same weight, which one provides the highest energy?
   - Rice and yellow split pea
   - Vegetable oil
   - Fresh or canned fish

Answer sheet

Safe Food Preparation and storage practices	**Nutrition and Dietary Practices**
1. before handling food and often during food preparation. 2. Prior and after using them 3. Prior and after using them 4. Keep them in cleaned containers and away from harmful materials 5. one score for any measures 6. 15mn or less than 2h 7. Store cooked food in steel containers with cover at safe place 8. Expiry date and package 9. Tube well water, treat water, and drilled and mixed wells	1. Yes 2. No 3. Others Vegetable oil with vitamin A and salt with iodine. 4. Mix cool cooked rice with lemon juice and iodine salt or test drop. 5. Keep it in closed bag/container 6. Put it in cooked food and cover cooking pot after cooking 7. Vegetable oil

Annex 6: Detailed Tables of Findings

Educational Outcome Variables	Targets	Baseline	SMP	SMP + Scholarship	Scholarship	Control
Percent of student (girls/boys) who, by the end of grade 6 demonstrate reading comprehension equivalent to their grade level as defined by national standards at USDA supported schools	80	56.5	52.4	52.4	61.0	
Percent of teachers who demonstrate improved literacy instruction as identified by supervisors	80					
Percent of teachers in target schools who demonstrate use of new and quality teaching techniques or tools	80	36	42.6	42.6	29.2	56.4
Percent of teachers in target schools who attend and teach school at least 90% of scheduled school days per year	90	84.8	82.1	82.1	87.6	78.5
Average teacher attendance rates (for each school and aggregated)	90	93.8	93.4	96.9	96.4	
Percent of teachers using the national literacy curriculum and the related instructional materials	85	59.8	53.6	53.6	66.3	88.1
Percent of school administrators in targeted schools who demonstrate use of new techniques or tools	85	16.9	23.4	23.4	12.6	31.1
Percent of students in target schools identified as inattentive by their teachers	10	13.2	12.3	12.3	14.1	15.6
Percent of students in target schools who indicate they are attentive or very attentive during class	90	87				
Percent of students in target schools who indicate that they are "hungry" or "very hungry" during the school day.	10	25.6	14.8	14.8	53.5	38.6
Percent of students (girls/boys) regularly (80%) attending USDA supported classrssoms/schools	80	78.2	71.1	71.1	83.9	89.2
Average number of school days missed by students due to illness (for each school and in aggregate)	5	16.5	16.5	18.2	13.2	16.5
Percentage increase in students (girls, boys) enrolled in school	5	2.4	1.6	1.6	3.3	
Percent of parents in target communities who can name at least three benefits of primary education	85	17.6	17.1	19.6	26.5	22.8

Educational Process Indicators	Targets	Baselines	SMP	Scholarship
Number of total individuals benefiting directly from USDA-funded interventions	315,168	0	0	0
Number of total individuals benefiting indirectly from USDA-funded interventions	262,449	0	0	0
Number of schools receiving school supplies and materials (learning material packages and stationery packages)	863	0	0	0
Number of learning material packages provided to target schools	2,589	0	0	0
Number of stationery packages provided to target schools	2,589	0	0	0
Number of students (boys/girls) benefitting from the provision of school supplies	172,600	0	0	0
Number of classrooms in target schools with literacy instructional materials sufficient for effective instruction	3,452	2969	2969	2969
Number of teachers / educators / teaching assistants trained or certified.	5,178	664	664	664
Number of teachers / educators / teaching assistants who successfully completed in service or received intensive coaching or mentoring	5,178	0	0	0
Number of teachers in target schools with recognized teacher certification credentials	3,452	1976	1976	1976
Number of school administrators and officials trained or certified	3,452	129	129	129
Number of school administrators and officials in target schools with recognized education certification credentials	1,726	224	224	224
Number of take home rations provided to students (boys/girls)	329,967	0		0
Number of students (boys/girls) benefitting from a take home ration	20,368	0		0
Quantity of commodities (tons) provided for take-home rations provided to students (boys/girls)	3,300	0		0
Number of students (boys/girls), cooks and storekeepers benefitting from school meals (breakfast)	204,536	0	0	
Number of daily school meals (breakfast) provided to students (boys/girls)	57,449,049	0	0	
Persent of students in target school consuming daily meals at schools	95	0	0	
Quantity of commodities (tons) provided for school meals provided to students (boys/girls), storekeepers and cooks---Rice	7186	0	0	

Quantity of commodities (tons) provided for school meals provided to students (boys/girls), storekeepers and cooks---YSP	849	0	0	
Quantity of commodities (tons) provided for school meals provided to students (boys/girls), storekeepers and cooks---Oil	283	0	0	
Number of target schools that have separate latrines for boys and girls	863	543	543	543
Number of students (bopys/girls) at target schools who regularly receive take home food rations	12,221	0		0
Number of latrines at target schools rehabilitated or constructed	210	0	0	0
Number of kitchens at target schools rehabilitated or constructed	90	0	0	
Number of energy-saving stoves at target schools rehabilitated or constructed	450	0	0	
Number of storerooms at target schools rehabilitated or constructed	90	0	0	
Number of school gardens at target schools rehabilitated or constructed	600	0	0	
Number of drilled wells/water stations at target schools rehabilitated or constructed	120	0	0	0
Number of students benefitting from the rehabilitated or constructed latrines	63,000	0	0	0
Number of students benefitting from the rehabilitated or constructed kitchens	27,000	0	0	
Number of students benefitting from the rehabilitated or constructed energy-saving stoves	135,000	0	0	
Number of students benefitting from the rehabilitated or constructed storerooms	27,000	0	0	
Number of students benefitting from the rehabilitated or constructed school gardens	429,204	0	0	
Number of students benefitting from the rehabilitated or constructed drilled wells/water stations	36,000	0	0	0
Number of students (boys/girls) enrolled in school	258,900	244010	244010	244010
Number of parents in target communities who are members of PTAs (or similar school based community group)	4,315	3,615	3615	3615
Standard operating procedures and tools for management and oversight of school feeding programes by relevant government offices are operational	2	0	0	0

Number of educational policies, regulations and/or administrative procedures in each of the following stages of development: Stage 1: Underwent the first stage of the policy reform process i.e. analysis (review of existing policy/regulation/administrative procedure and/or proposal of new policy/regulations/administrative procedures	2	0	0	0
Government has a fully developed national primary education strategy/strategic plan that includes a policy framework	1	1	1	1
National school feeding policy is operational	1	0	0	0
Establishment of a national school feeding unit within the government	1	0	0	0
Number of Parent-Teacher Associations or similar school governance structures contributing to their school	863	467	467	467
Number of public-private partnerships formed (e.g., farmer associations)	1	0	0	0

Health and Dietary Outcome Variables	Targets	Baseline	SMP	SMP+Scholarship	Scholarship	Control
Percent of schools with soap and water at a hand washing station commonly used by students	85	65	63.7	63.7	63.2	44.0
Percent of schools in target communities that store food off the ground	100	86.4	86.4	86.4		
Percent of parents in target communities who can idenitfy at least three important health/hygiene practices	85	56	56.1	46.4	60.2	58.6
Percent of students (and parents) in target communities who can idenitfy at least one local source of information on good health practices (e.g., health center)	85	93.7	93.7	91.3	94.8	96.0
Percent of students (and parents) in target communities who can identify at least one local source of information on nutrition and diet (e.g., health center)	85	87.2	87.8	87.0	89.3	92.2
Average ratio of latrines (boys/girls) to students at target schools	2	0.0076	0.0087	0.0087	0.0068	0.0078
% of children having received deworming medicine in the last 6 months	90%					

Educational Process Indicators	Targets	Baselines	SMP	Scholarship
Number of total individuals benefiting directly from USDA-funded interventions	467,324	0	0	0
Number of total individuals benefiting indirectly from USDA-funded interventions	415,619	0	0	0
Number of schools using the available (improved) sanitation facility (latrine)	863	801	801	801
Percent of schools in target communities that clean cooking and eating equipment, consistent with accepted standards, prior to use	90	43.8	43.8	

Percent of cooks/storekeepers at target schools who achieve a passing score on a test on safe food preparation and storage	85	0	0	
Percent of cooks/storekeepers at target schools who achieve a passing score on a test on good nutrition and dietary practices	85	0	0	
Number of target schools with year around access to a clean and safe water source	863	580	580	580
Number of target schools that have latrines of sufficient quality (in good repair)	863	673	673	673
Number of target schools that have at least one month supply of soap (hand and dish soap)	863	603	603	603
Number of students (boys/girls) receiving daily school meals with micronutrient fortified commodities (rice, oil, salt)	204,536	0	0	
Number of target schools with improved food preparation and storage equipment	600	0	0	
Number of government staff in the Ministry of Education Youth and Sports to monitor the safety of food in SFP	5	0	0	0
Governnment water, sanitation and hygiene (WASH) standards for primary schools are established and implemented	1	0	0	0
Number of national and sub-national government staff working on school-based health and nutrition programmes	5	0	0	0