

BASELINE KNOWLEDGE, PRACTICE AND COVERAGE (KPC) SURVEY REPORT

List of Abbreviations and Acronyms

CLTS Community-Led Total Sanitation

HWWS Hand Washing with Soap IGA Income generating activity

KPC Knowledge, Practice, and Coverage LQAS Lot Quality Assurance Sampling

MOA Ministry of Agriculture
MOE Ministry of Education
OD Open Defecation
ODF Open Defecation Free

SDG Sustainable Development Goals

VSL Village Savings & Loan

VSLA Village Savings Loans Association WASH Water, Sanitation and Hygiene

Executive Summary

This report presents the findings of baseline data collection that Come Unity conducted in Kajiado in July 2020. COME UNITY is a non-profit organization that addresses the complex issues of chronic poverty that have adversely impacted East African communities for generations. The purpose of the survey was to take a first measurement of the major long-term indicators for success of the program. The baseline measurements will be used to calculate change in indicators and undertake a statistical test of differences in the indicators at completion of the program, when the same survey will be conducted again in the program area.

The survey used LQAS (lot quality assurance sampling). A total of 95 respondents were surveyed in five supervision areas. The LQAS methodology involves the division of a program area into smaller management units or 'supervision areas' and for each area, assessing the level of performance compared to an established benchmark. Program area coverage was used as a benchmark or threshold against which supervision area coverage was measured. If the coverage of a supervision area is below the threshold, then it is considered a priority for an improved or enhanced intervention. A total of 10 enumerators collected data for two days.

Key findings summary

Indicator	Baseline Results
Percentage of households using an improved source for drinking water	38.90%
Percentage of households using an improved source for drinking water within acceptable reach	6.30%
Percentage of households using recommended household water treatment technologies	28.40%
Percentage of households that safely store drinking water	7.40%
Percentage of households using an improved toilet facility	42.10%
Percent of household with toilet facilities that meet cleanliness criteria (Partially)	21.10%
Percentage of households that disposed of the youngest child's feces safely the last time she or he passed stool	30.30%
Percentage of caregivers who know at least 3 out of 5 key occasions for hand washing	13.70%
Percentage of households with a dedicated handwashing device located within of near the home or toilet facility	71.60%
Percentage of households with all essential hand-washing supplies readily available	47.40%
Percentage of households that are engaged in a VSL group	81.10%
Percentage of households with VSL group member(s) that participate in a Come Unity supported IGA	3.90%
Percentage of households engaged in community organizations	26.32%
Percentage of households that participate in community/school gardens	2.11%
Percentage of caregivers of school-aged children in program site who can name at least three benefits of education	31.82%

The Water, Sanitation and Hygiene situation is an area of concern, over half the respondents (61.1%) did not have access to an improved source for drinking water and only few (6.3%) of households could access an improved source for drinking water within acceptable reach. Very few (7.4%) of the households safely stored their drinking water and only 28.4% of

households used the recommended household water treatment technologies. The proportion of households that knew at least 3 out of 5 key occasions for hand washing was low at 13.7%. Open defecation is very prevalent in the program area with 51.58% practicing open defecation which is a dangerous sanitation practice.

Based on the survey findings, the following actions were recommended;

- Installing Clean Water Sources
- Installation of water line to water points
- Sensitize the community on the importance of water treatment and how to do it
- Improve Access to & Use of Sanitation Infrastructure using Community-Led Total Sanitation (CLTS)
- Promotion of Hand Washing with Soap and water
- Promoting and Establishing Community/School/household Gardens
- Initiate Income-Generating Activities
- Promoting School Registration and Benefits of Education

1 BACKGROUND

1.1 Context Analysis

Kajiado County is located adjacent to the Capital City of Kenya, Nairobi. The landscape consists of beautiful plains, valleys and volcanic hills. Vegetation is scarce in low altitude areas and increases in higher altitude making it one of the few natural wildlife habitats in Kenya. Kajiado County, like many counties in Kenya, is water stressed where community members sometimes find themselves covering an average of 10km (6.2 miles) in search of water.

The Maasai people have been described as the community that has held to its cultural practices the longest despite civilization. Their culture has promoted both positive and negative aspects which have specifically put girls at a disadvantage. Given an option, a Maasai man would educate his son and offer his daughter for marriage. The Kenya and Demographic Health Survey (2014) reports that the practice of female genital mutilation (FGM) among the Maasai is at seventy-three percent. This has negatively affected the performance of girls in both academic and other development areas.

Come Unity has been operating in Kenya since 2007, focusing on education, provision of basic needs and implementing several sustainability programs. Realizing the importance of integrated programming for better effectiveness and more efficient use of resources, Come Unity is rolling out an integrative approach to programming. Kajiado is one of the areas which will receive additional support from the international office for implementation of the new integration strategy. Over the next three years, the funding will be directed to integration among different sectors and provide more focus on agriculture with the view to improve health and nutrition status of children and women by year 2022.

To assess the impact of the program, adequate baseline information is needed. Come Unity has been relying on qualitative data collected from community leaders and information provided by the government to plan interventions in Kajiado. The activities in Kajiado focused primarily on education and child sponsorship, however Come Unity acknowledges that there is need to improve and integrate programming in other areas in order to have a bigger impact and achieve the desired programme outcomes.

Come Unity conducted Knowledge, Practice, and Coverage (KPC) survey for the purpose of gathering information at a baseline. This type of survey measures people's knowledge (to a very limited degree), gathers extensive information on their practices (also known as "behaviors"), and the degree to which they are reached by services (e.g., assessing coverage with things like agricultural extension, and financial services). It is important to carry out a survey amongst a sample of the beneficiaries in the target group within the project. This is generally done several times over the life of the project, most commonly at baseline, follow-up (or midterm), and final. It is a complicated but rewarding process, and these surveys are the most common way for voluntary organizations like Come Unity to demonstrate results and share impact to donors and the rest of the world.

1.2 Objectives of the survey

The overall objective of the survey was to take a first measurement of the major long-term indicators for success of the program (Measure people's knowledge, gather information on

their practices and the degree to which they are reached by services). The baseline measurements will be used to calculate change in indicators and undertake a statistical test of differences in the indicators at completion of the program, when the same survey will be conducted again in the program area. The specific objectives were:

- 1. To set benchmarks against which programme impact can be monitored and evaluated.
- 2. To validate and strengthen programme targeting and technical approaches.
- 3. To strengthen understanding of existing needs/ opportunities

2 METHODOLOGY

2.1 Study design overview

The survey adopted a cross sectional descriptive design with quantitative data collection method. The survey applied Lot Quality Assurance Sampling (LQAS) sampling. LQAS is a method for assessing a program by analyzing the data produced by a small sample. It was developed in the 1920s for industrial quality control, then adapted in the mid-1980s to assess health programs. LQAS works by subdividing a program area or catchment area (CA) into smaller, the Supervision Area (SA). Five SAs were used for this survey. Typically, LQAS uses a sample size of 19 individuals from each SA. This resulted to a sample of 95 respondents from each universe for the entire program area. By combining data from five SAs, the LQAS methodology can determine coverage proportions of the entire catchment or project area with 95% Confidence Intervals of >+10% for multiple indicators. In addition to this, LQAS decision rules can identify SAs that perform below the program area average coverage or pre-selected targets. These areas are then prioritized. A detailed description of LQAS is included in annex 1.

This baseline was conducted across the two villages in Sajiloni location. Through LQAS, the area was divided into five supervision areas based on practical and programmatic considerations to best support project management, monitoring and supervision. The selection of the SA's was done in collaboration with the MOH and area chief during mapping of households in the area. The table below shows the number SAs based on a sample size of 19 respondents from each target group per SA, the total sample size:

Village	SAs Number	No of interviews per target group per SA
Inkusero	1	19
	2	19
	3	19
Elerai	4	19
	5	19

In order to detect a change of 20 percentage points from baseline to follow-up at 80% power and with a 95% confidence level with LQAS (design effect=1), a sample size of 74 was needed. This was increased to 95 in order to do the recommended 19 interviews in each of the 5 supervision areas.

2.2 Survey Questionnaire

Based on Come Unity indicators of interest, the LQAS Questionnaire was adapted from KPC Survey modules. The questionnaire was subdivided into modules according to the target respondents, as shown below;

- 1. Social Demographic Information
- 2. Water, Sanitation and Hygiene
- 3. Household Food Availability, Access and Consumption HDDS
- 4. Village Savings and Loans
- 5. Partnership and community Support
- 6. Education

Once the questionnaire was finalized in English, it was translated to Kiswahili and Maasai and then back to English in order to check the quality of the translation. The questionnaire was loaded in the open data kit (ODK) software data structure installed in electronic tablets and phones. The ODK was programmed to minimize errors in data capture.

2.3 Training and Fieldwork

A three-day training was carried out on 20th -22nd July 2020 for the enumerators prior to data collection. The training was interactive, involving practical exercises and scenarios for the selection of random numbers and names to illustrate the principle of randomization and ensure that all enumerators were competent in following random sampling procedures.

The training covered the following:

- Reviewing the survey questionnaires and interviewing skills, including role-play exercises
- Uses of surveys and random sampling, with specific focus on LQAS sampling
- The process of random selection of households and respondents
- Field practical for numbering and selecting households, selecting respondents and interviewing.

There were five interview teams made up of three people. A team leader from Come Unity or MOH was assigned per team. Data collection took place from 23rd - 24th July 2020. All potential respondents were asked to participate in the interview and a consent form was read to them in the language that they understood. Respondents were informed that the survey is a voluntary exercise and they could withdraw at any time or not answer certain questions. The informed consent forms were included as part of the questionnaires. Each interview in the survey was conducted in private and the information collected was treated in the strictest confidential manner.

Multiple sub-questionnaires could be administered to the same respondent in "parallel sampling" if the child of the respondent was eligible for more than one age-category. Daily feedback on data quality was done every morning to plan for the day activities and address any data gaps and quality concerns. During the fieldwork, the supervisors accompanied the interviewers and supervised the data collection process and ensured the correct sampling procedures were adhered to. Continued evaluation and correction of the processes and quality were rectified on a continuous basis as the survey progressed.

2.4 Data collection and analysis

The database and downloading of data were handled by Come Unity staff. A data tabulation and analysis framework were prepared on Microsoft Excel. The framework included entry forms, formulas to compute numerators and denominators for indicator calculations and a summary table linked with formulas to automatically calculate confidence intervals for each indicator. For all the agreed survey indicators, two levels of analysis were used. The first was a classification at the SA level, to identify priority SAs. This was done by setting a decision rule according to weighted program average

coverage. The second level aggregated the results of all the SAs. As stated above, the results were weighted, and a 95% confidence interval calculated.

3 FINDINGS AND DISCUSSIONS

Data was collected from 95 households in five supervision areas in order to calculate an average coverage of the project area for each indicator. A summary table of results by Supervision Area is available in Annex 2, indicating those SAs which do not meet average coverage for specific indicators. Survey results are categorized into modules: Social Demographic Information, Water, Sanitation and Hygiene, Household Food Availability, Access and Consumption HDDS, Village Savings & Loans, and Partnership & community Support

3.1 Social Demographic Information

For the purpose of this survey, a "household" was defined as the number of people living together and eating from the same cooking pot. The median age of the caregivers was 33 years. The survey results show that majority 91% of the respondents were married with only 6% reporting that they were single (Figure 1). Slightly more than half of the households earn an income through farming. The other notable sources of household income include business, hourly jobs and salaried jobs.

Figure 1 Marital status

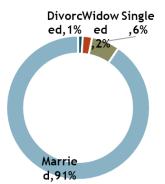
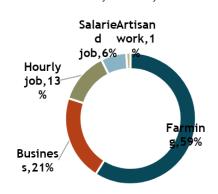
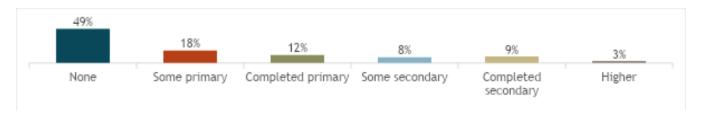


Figure 2 Main source of income for the household



Formal education attainment is correlated with reduced birth rate and an increase in the investment in one's own health and the health of their children¹. When it comes to education, every additional year in school is impactful and should be encouraged and valued. Figure 3 shows that slightly more than half 51% of respondents had received some formal schooling. 8% of the respondents in the program area had completed secondary while 3% had higher (University or College) education. It's also worth noting that 49% of the respondents had no formal education.

Figure 3 Highest grade level of education completed



¹ Herz, B. and Sperling, G.B. (April 2004) "What Works in Girls' Education." Senior Fellow for Economic Policy and Director of the Center for Universal Education. Retrieved from: http://www.cfr.org/publication/6947/what_works_in_girls_education.html

3.2 Water, Sanitation and Hygiene

Access to safe water and sanitation are basic determinants of health. Lack of access to safe drinking water and sanitation facilities and poor hygiene are associated with Acute Respiratory Infections (ARI) and diarrheal diseases².

Household drinking water

Safe drinking water is a necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants with harmful effects on human health. During this survey, the households using improved sources of drinking water were considered those using any of the following types of supply: piped water (into dwelling, compound, yard or plot, neighbor, public tap/standpipe), tube well/borehole, protected well, protected spring and rainwater collection.

Water Treatment and Safe Storage; Inconsistent and incorrect use is a major challenge in realizing the full potential of household water treatment and safe storage. Thus, there was need to monitor and evaluate uptake in order to develop effective mechanism to

encourage and sustain correct use of treatment and storage³.

Objective	Indicator	Baseline Results (95% CI)
Increase household access to safe and clean water	Percentage of households using an improved source for drinking water	38.9% (29.1%-48.8%)
	Percentage of households using an improved source for drinking water within acceptable reach (water that is either on the premises or within 30 minutes of household)	6.3% (1.4%-11.2%)
Increase safe water storage and treatment	Percentage of households using recommended household water treatment technologies	28.4% (19.4%-37.5%)
	Percentage of households that safely store drinking water	7.4% (2.1%-12.6%)

Table 1:Household drinking water indicators

The figure below summarizes main sources of water in the area.

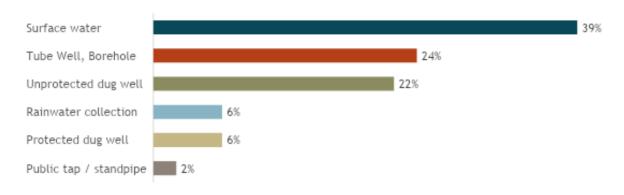


Figure 4: Sources of drinking water

Mills, J. and E. & Cumming, O. (JUNE 2016). Retrieved from: https://www.unicef.org/wash/files/The_Impact_of_WASH_on_Key_Social_and_Health_Outcomes_Review_of_Evidence.pdf

³ WHO (2012), A Toolkit for monitoring and evaluating household water treatment and safe storage programs. http://www.who.int/household_water/WHO_UNICEF_HWTS_MonitoringToolkit_2012.pdf.

Use of Improved Sanitation Facility

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrheal diseases. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation can reduce diarrheal disease and can lessen the adverse health impacts of other disorders responsible for death and disease among millions of children in developing countries. For the purpose of this survey, an improved sanitation facility for excreta disposal included flush or pour flush to a piped sewer system, septic tank, or latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet.

Objective	Indicator	Baseline Results (95% CI)
Increase household access to improved sanitation facility and improved sanitations practices	Percentage of households using an improved toilet facility	42.1% (32.2%-52.0%)
	Percent of household with toilet facilities that meet cleanliness criteria (Partially)	21.1% (12.9%-29.3%)
	Percentage of households that disposed of the youngest child's feces safely the last time she or he passed stool	30.3% (20.8%-39.9%)

Table 2: Sanitation facility and practices indicators

Analysis of relieving points revealed that over half of the households relieve themselves in bushes and other open places

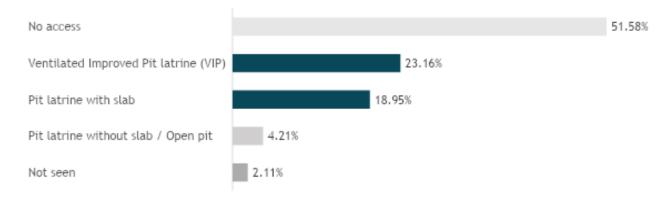


Figure 5: Kind of toilet facility

Hand Washing Practices

Hand washing with water and soap is the most cost-effective health intervention to reduce the incidence of both diarrhea and ARI for children under 5 years old. This is most effective when this is done by using water and soap after visiting a toilet or cleaning a child, before eating or handling food and before feeding a child. In this survey, caregivers of children were asked when they usually washed their hands with soap. Their responses were ticked off when they matched those from a detailed list on the questionnaire. This survey used observations and self-reported behavior to assess the likelihood that correct hand washing practices take place. The data collectors had to observe whether the sampled household had a specific place where people most often wash their hands and observe if water and soap are present at a specific place for hand washing.

Objective	Indicator	Baseline Results
Objective	Indicator	(95% CI)
Improve handwashing knowledge and practices among caregivers	Percentage of caregivers who know at least 3 out of 5 key occasions for hand washing	13.7% (6.8%-20.6%)
	Percentage of households with a dedicated handwashing device located within of near the home or toilet facility	71.6% (62.5%-80.6%)
	Percentage of households with all essential hand-washing supplies readily available	47.4% (37.3%-57.4%)

Table 3: Handwashing indicators

3.3 Household Dietary Diversity

According to Food and Agriculture Organization (FAO), "food security exists when all people at all times have the physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO 2000)4. The household dietary diversity score (HDDS) is meant to reflect, in a snapshot form, the economic ability of a household to access a variety of foods. Studies have shown that an increase in dietary diversity is associated with socio-economic status and household food security (household energy availability) (FAO 2011)⁵.

Household dietary diversity assessment was based on a 24-hour recall period. At the data collection, 12 food groups as described in FAO 2010 guideline were used. As shown in figure 6 below, there was a high consumption of seven food groups namely; Milk and milk products (96%), oils and fats (95%), cereals (88%), spices, condiments and beverages (88%), sweets (84%), vegetables (83.0%), legumes, nuts and seeds (83%).

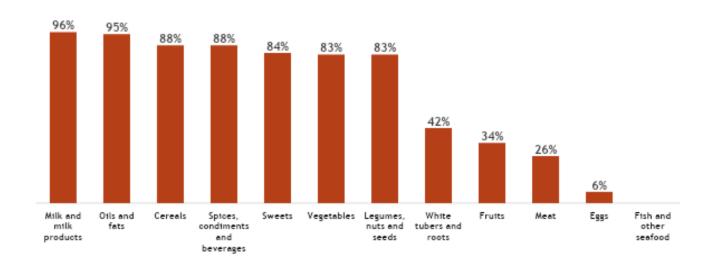


Figure 6: Household dietary diversity based on 24-hour food recall

 $^{\rm 4}$ FAO. 2002. The State of Food Insecurity in the World 2001. Rome.

⁵ Food and Agriculture Organization (FAO). (2011). Guidelines for Measuring Household and Individual Dietary Diversity. Retrieved from: http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/FAO-guidelines-dietary-diversity2011.pdf

A small proportion of households surveyed (2%) consumed less than 3 food groups classified as low dietary diversity. 13% consumed 3 to 5 food groups classified as medium dietary diversity while a majority (85%) consumed more than 5 food groups classified as high dietary diversity. However, this does not reflect the quality of diet consumed as the consumed included, sweets and sugars, cereals, milk and milk products, oils and fats and condiments as illustrated in figure 14 below.

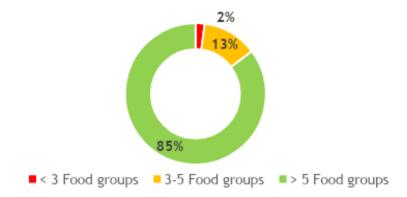


Figure 7: Household dietary diversity

3.4 Village Savings & Loan (VSL) Groups

Children are most healthy and able to thrive when families are financially stable and not worried about food or other basic human needs. Knowing that roughly half the world's population still lives on less than US\$2/day⁶, it becomes imperative to promote effective income generating activities that enhance individual well-being and create stronger and more stable communities.

Village Savings and Loan (VSL) groups are an effective mechanism in organizing small groups to build capital through simple saving and loan facilities where formal financial services may not otherwise be available. The VSL model is different than micro-credit in which it is a self-managed and self-capitalized microfinance methodology.

VSL group capital funds are generated by community members rather than an outside "lending organization." VSL groups are typically made up of 10-25 members which strikes a balance between being big enough to create a useful pool of funds yet small enough to keep meetings manageable. Apart from the savings and loans, VSL group members are encouraged to identify and establish income generating activities among the group or individually. These could include community gardens, establishing a small business, farming, or others. All income generating activities aim at increasing the capacity of members and communities at large to better serve children through providing them with all necessary needs for the physical, mental, and social development.

The objective of VSL interventions is to Increase opportunities for income generating activities (IGA).

Majority (81%) of the households surveyed were engaged in a VSL groups while a small proportion of households surveyed participated in a Come Unity supported IGA.

⁶ United Nations. Sustainable Development Goals 17 Goals to Transform our World. Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all. Retrieved from: http://www.un.org/sustainabledevelopment/economic-growth/





Figure 8:Percentage of households that are engaged in a VSL group

Figure 9: Percentage of households with VSL group member(s) that participate in a Come Unity supported IGA

3.5 Community partnership and support

Promoting and establishing community, and/or school gardens serves as both a food security mechanism and an income generating activity. It also helps foster community collaboration and solidarity especially among women. In an article published by the Agriculture and Food Security journal in 2013, it was stated that "overall, the literature supports the inclusion and promotion of home gardens as an eco-friendly sustainable agriculture practice to improve food security and enhance economic growth."⁷. The objective of community partnership and support interventions is to strengthen community and stakeholder participation. The proportion of households that participated in community/school gardens was 2.11%.

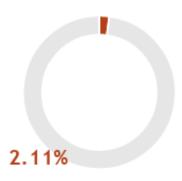


Figure 10: Percentage of households that participate in community/school gardens

3.6 Education

Every additional day, week, month, and year in school is impactful and should be encouraged and valued. As stated by the Universal Declaration on Human Rights, "Education is a fundamental human right⁸" in which all individuals, regardless of race, ethnicity, culture, or socioeconomic background should have access. Through quality education, students gain essential skills and knowledge to become change agents within their own lives, throughout their communities.

⁷ Galhena, D.H, Freed, R. and Maredia, K.M. (31 May 2013). Home gardens: a promising approach to enhance household food security and wellbeing. Retrieved from: https://agricultureandfoodsecurity.biomedcentral.com/articles/10.1186/2048-7010-2-8

⁸ UN General Assembly, Universal Declaration of Human Rights, 10 December 1948, 217 A (III). Retrieved from: http://www.refworld.org/docid/3ae6b3712c.html

When households are faced with financial insecurity and limited resources, it is often difficult to pay school fees and prioritize education. Cynicism, and a general lack of trust with an education system further divides parents' willingness and receptiveness towards enrolling their children in school. For this, it becomes critically important that to facilitate conversations with parents and community members about the economic and social benefits of education as to encourage school enrollment and motivate children towards success. The objective is to increase parent engagement and participation in education. The percentage of caregivers of school-aged children in program site who could name at least three benefits of education was 31.82%.



Figure 11: Percentage of caregivers of school-aged children in program site who could name at least three benefits of education

4 CONCLUSIONS

This report has attempted to analyze information collected through the KPC baseline survey conducted in the area targeted by the Come Unity Program. Specifically, it has provided baseline values for indicators in a wide range of areas, including: Water, Sanitation and Hygiene, Household Food Availability, Access and Consumption HDDS, Village Savings and Loans groups, Partnership and community Support. and Education. The findings from this study are expected to be used as the benchmark against which progress made by the Come Unity interventions in the target communities can be established.

The Water, Sanitation and Hygiene situation is an area of concern. Some of the notable issues of concern include; over half the respondents (61.1%) did not have access to an improved source for drinking water and only few (6.3%) of households could access an improved source for drinking water within acceptable reach (i.e. water that is either on the premises or within 30 minutes of household). Very few (7.4%) of the households safely stored their drinking water and only 28.4% of households used the recommended household water treatment technologies. The proportion of households that knew at least 3 out of 5 key occasions for hand washing was low at 13.7%. Majority of the households (71.6%) had a dedicated handwashing device located within of near the home or toilet facility, however, the proportion of households with all essential hand-washing supplies readily available was 47.4%. Open defecation is very prevalent in the program area with 51.58% practicing open defecation which is a dangerous sanitation practice.

Majority (81%) of the households were engaged in a VSL groups while a small proportion of households (3.09%) participated in a Come Unity supported IGA.

Very few households (2.1%) participated in any community/school gardens or community/ school managed IGAs.

A third (31.8%) of caregivers of school-aged children in program site who could name at least three benefits of education.

5 RECCOMMENDATIONS

Several program implications and actions for improving the situation of the surveyed communities have been identified following the analyses provided in this report. Those are summarized below.

Finding	Recommendation	Actors	Timelines
Low household access to safe and clean water	Installing Clean Water pipeline extension to the village.	Come Unity	
	Installation of water line to water points	County department of Health services & Come Unity	
Poor water treatment with only 28.4% treating their water despite high levels of open defection	Sensitize the community on the importance of water treatment and how to do it	County department of Health services	
Low household access (42.1%) to improved sanitation facility and poor sanitations practices	Improve Access to & Use of Sanitation Infrastructure using Community-Led Total Sanitation (CLTS)	County department of Health services and partners	
Low proportion of caregivers (13.7%) who know at least 3 out of 5 key occasions for hand washing	Promotion of Hand Washing with Soap and water	County department of Health services	
Low proportion of households (2.1%) that participate in community/school gardens	Promoting and Establishing Community/School/household Gardens	Come Unity & MoA	
Low proportion of households (3.9%) participating in a Come Unity supported IGA	Income-Generating Activities	Come Unity	
low proportion of caregivers (31.8%) of school-aged children in program site who could name at least three benefits of education	Promoting School Registration and Benefits of Education	MoE & Come Unity	

Annexes

Annex 1



Annex 2



Annex 3