

Baseline Survey Findings

Uganda Kaliro VHV

May 20, 2016

I. BACKGROUND

In March 2016 Lifewater International started a new program in Kaliro District of eastern Uganda. Over 3 years Lifewater will target 4 parishes in the district, 2 in Nawaikoke Sub-County and 2 in Bumanya Sub-County. The program will reach all households and government primary schools in the 4 parishes, for a total of approximately 5,500 households, 14 primary schools, and 30,000 people. Lifewater will use its Vision of a Healthy Village strategy to reach vulnerable children and families with improved WASH access and behavior change. In addition to extensive behavior change programming at multiple levels, Lifewater will complete the following hardware:

Table 1: Planned Outputs

Outputs	Fiscal Year			Total
	1	2	3	
Water				
Drilled Wells	14	12	17	43
Hand Pump Repairs	4	3	0	7
Schools				
Rain Tanks	6	4	3	13
VIP Latrine Blocks	12	8	6	26
Latrine Block Repairs	5	4	2	11

II. METHODS

For this analysis, the following data were used:

- **Household survey** conducted in April 2016: Lifewater staff surveyed 399 households, capturing data electronically through mobile phones and uploading the data into the Akvo system. Sample households were selected from the 4 target parishes, with the number of samples determined using probability proportional to size. Which communities to sample and how many from each location was determined prior to conducting the survey, and households were selected randomly at the time of the survey using the “spin a bottle” method. There were 194 households sampled in Bumanya and 205 in Nawaikoke. Lifewater HQ analyzed the survey data using Excel and Uganda staff analyzed the focus group discussion (FGD) data. Lifewater HQ drafted the baseline report and received feedback and contextual information from Uganda staff.
- **Focus group discussions** conducted in April 2016: Lifewater Uganda staff completed 8 focus group discussions (FGDs): 1 group of men, 1 of women, 1 of male pupils and 1 of female pupils in each of the sub-counties. Uganda staff analyzed the qualitative data and drafted a report.

Relevant information has been integrated into this baseline report, and the separate complete report is also available.

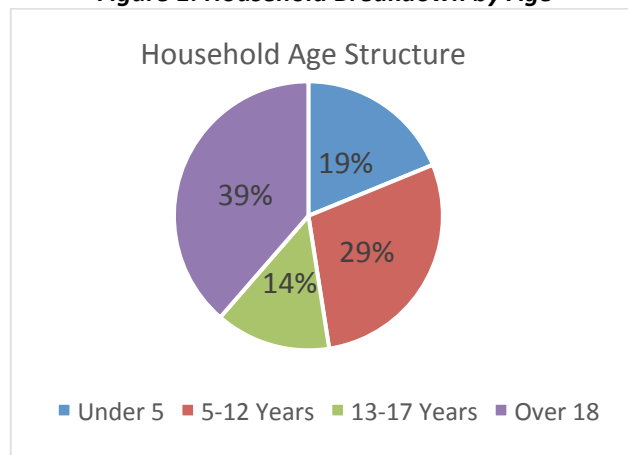
- **NOTE:** In April 2016 Lifewater staff also completed a survey of primary schools in the 4 parishes, for a total of 18 schools. A separate report has been written that details the WASH situation at each of these schools.

III. RESULTS

A) Respondent Characteristics and Household Age Structure

- **Respondents:** The average age of respondents was 38 years. Of total respondents, 69% were female. The highest level of education for about half (52%) of respondents was some primary school, and just 26% completed primary or more. 22% had never received any formal education. In both sub-counties, female respondents were less educated than male respondents. Females were about half as likely to have completed primary or more compared to males (20% vs 37%).
- **Family structure:** The average family size is 6.2 in Bumanya and 6.4 in Nawaikoke, with 6.3 overall. Households have an average of 1.2 children under 5 years old, 2.7 youth ages 5-17, and 2.5 adults 18 and older. Overall, 19% of the population is under 5 years old, 62% is under 18, and 39% is over 18. See Figure 1 below.

Figure 1: Household Breakdown by Age



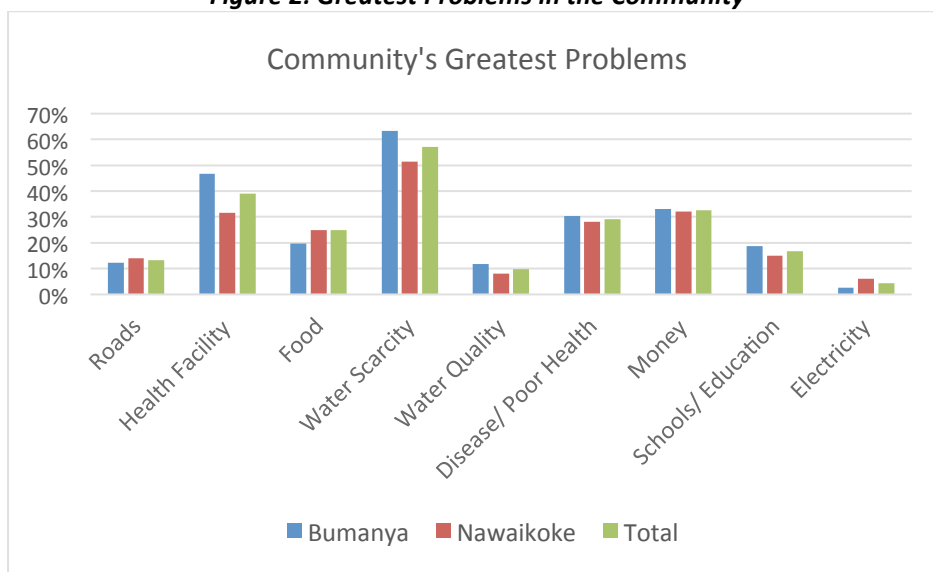
B) Education and Economic Activity

- **Enrollment:** School enrollment is high among all school-age children in both sub-counties. Overall, 97% of children 5-12 and 96% of those 13-17 were enrolled in school. When asked why their children were not enrolled in school, the most common reason was that there are not enough funds (26%). However, very few responded to that question because of the high enrollment rates.
- **Female economic activity:** 98% of women are engaged in some form of economic activity, primarily agriculture/crops (90%). Other common activities include daily labor (20%) and small trading (14%).
- **Household wealth:** When asked how their household wealth had changed since last year, just over half said it decreased (52%), 14% said it increased, and 33% said it stayed the same. Slightly more said it decreased in Nawaikoke compared to Bumanya (56% vs 48%). Those who said it increased was just 14% in both sub-counties.

C) Community Resources and Challenges

- *Greatest resources:* When asked to name the greatest resources of the community, the most common response was people/culture/religion at 84% in Bumanya and 71% in Nawaikoke. Overall, 75% said agriculture/crops and 43% said land.
- *Greatest problems:* When asked about the community's greatest problems, the most common responses were water scarcity (57%), health facilities (39%), money (32%), and disease/poor health (29%). Water quality was less of a concern at just 10%.

Figure 2: Greatest Problems in the Community

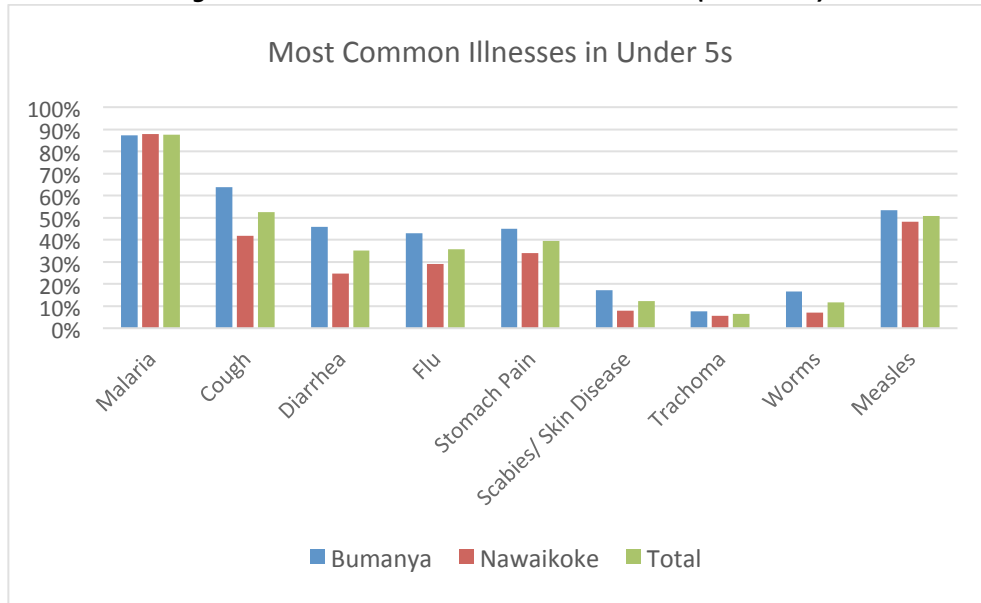


- *Most significant change in past year:* The most common response was “nothing” at 41%. The next most frequent responses were drought (7%), food shortages/hunger (5%), poverty/reduced income (5%), and good rains (5%). Of the top ten responses, six were negative. 11 respondents said “too much death” and 12 said “too much disease.” No one made a direct mention to God or faith.

D) Health and Diarrhea

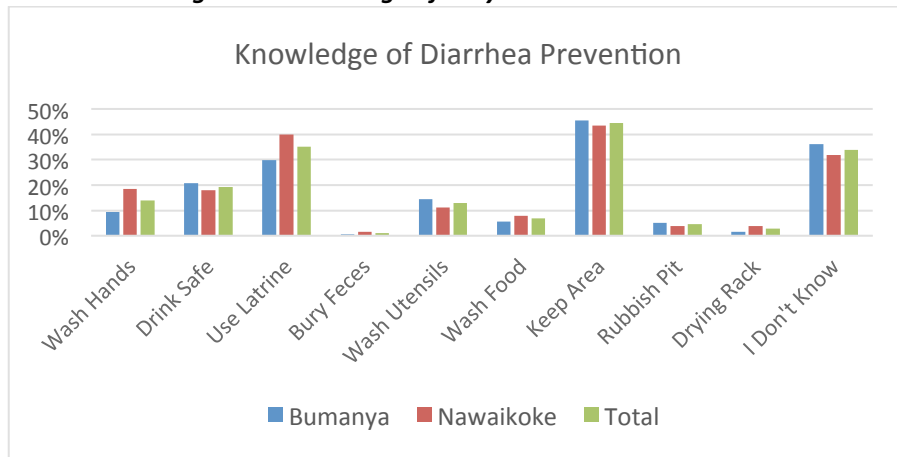
- *Child health:* Respondents reported that the most common illnesses among children in their household were malaria (88%), cough (53%), measles (51%), stomach pain (39%), flu (36%), and diarrhea (35%). However, there was noticeable variation between sub-counties. In Bumanya, respondents were more likely to report nearly all of the illnesses, including diarrhea (46% in Bumanya compared to 25% in Nawaikoke). When asked how the health of their children has changed in the past year, 34% said it declined, 30% said it improved, 36% said it stayed the same. Those who said it declined was slightly higher in Bumanya (36% compared to 32% in Nawaikoke). In both sub-counties, children in the household missed 2.2 days of school in the 2 weeks prior to the survey due to illness (all children in the household combined).
- In FGDs, participants talked about malaria, measles, diarrhea, trachoma, pneumonia, and jiggers as the dominant illnesses among children under five, with malaria being the illness of biggest concern. Measles, trachoma, pneumonia, and jiggers are all hygiene-related illnesses.

Figure 3: Most Common Illnesses in Under 5s (Perceived)



- **Child diarrhea:** Diarrhea incidence was very high. Overall, 36% of children under five had diarrhea in the 7 days prior to the survey (37% in Nawaikoke and 35% in Bumanya).
- **Careseeking and treatment:** When the child had diarrhea, just 34% said the child was given ORS. No one reported using SSS (according to staff, SSS is discouraged by the government). Overall, 63% gave the child the same or more to drink and eat, which is recommended for home treatment of diarrhea. Caregivers were more likely to withhold food than fluid. 80% offered the same or more to drink, while 68% offered the same or more to eat. Of those with diarrhea who are breastfeeding, 88% continued to receive breastmilk during their diarrheal episode.
- **Diarrhea prevention:** There is very low knowledge about ways to prevent diarrhea. When asked how to prevent diarrhea, 34% overall said they did not know. Just 35% said using a latrine, 14% said washing hands, and 19% said drinking safe water. The most common response was keeping their area clean at 44%. There was slight variation between districts, with those in Nawaikoke more likely to say using a latrine (40% compared to 30% in Bumanya) and washing hands (19% compared to 9%). For more details, see Figure 4 below.

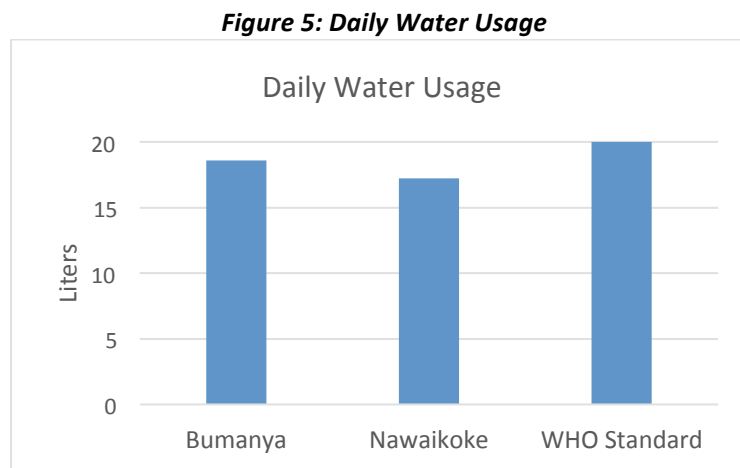
Figure 4: Knowledge of Ways to Prevent Diarrhea



- *Respondent health:* When asked how their health has changed in the past year, 52% said it declined, 16% said it improved, and 31% said it stayed the same. On average, respondents missed 4.9 days of work in the 2 weeks prior to the survey because of illness.
- *Medical expenses:* The average amount of medical expenses in the 4 weeks prior to the survey was 47,364 UGX (\$14.14 USD) in Bumanya and 66,092 UGX (\$19.73 USD) in Nawaikoke. Overall, the average amount was 56,912 UGX (\$16.99 USD). Just 1 household reported having spent nothing on medical expenses in the past month. 36% of respondents did not know how much was spent.

E) Water Usage

- *Daily water usage:* The average household uses 5.6 jerry cans per day, which means 112.2 liters per household. Considering average household size, this is 17.8 liters per person per day. This amount is less than the 20 liters/person/day minimum for consumption and basic hygiene recommended by WHO.¹ See Figure 5 below for a comparison between districts and with the government standard.



- *Source of income:* 19% of respondents in Bumanya and 40% in Nawaikoke said they use their primary water source for income. The most common types of activities include watering cattle, making bricks, and selling the water to others.
- *Water fetching:* Adult women are the most likely to fetch water for their families. 74% of respondents said adult women fetch the water, 46% said female children, 40% said male children, and 29% said adult males.
- *Water source satisfaction:* Overall, 31% of respondents are satisfied with their water sources. This is slightly higher in Nawaikoke at 34% compared to Bumanya at 28%. The main reason for satisfaction is because they have access to boreholes, the source functions well, they have safe/clean water, and the water is near the home. 68% are not satisfied with their water sources. The most common reasons were not enough boreholes for the population, long wait times in the queue, the boreholes are too far, and the borehole water tastes salty.
- *Yearly water access trends:* Overall, trends in water usage vary little between the rainy season and the dry season. Almost all respondents use a safe drinking water source, nearly always a

¹ http://www.who.int/water_sanitation_health/emergencies/qa/emergencies_qa5/en/

borehole/well. Though safe water access is high, people wait a long time in the queue to get their water. The average total journey for drinking water takes more than 2.5 hours during the dry season and more than 1.5 hours during the rainy season.

F) Water Sources

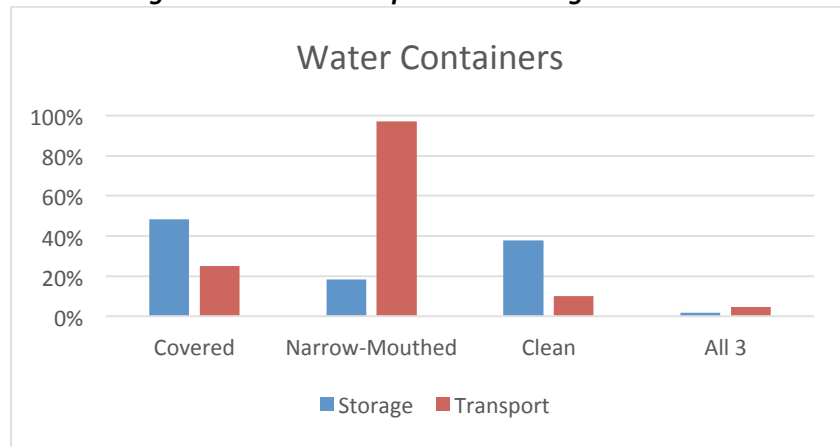
- *Dry season sources:* In the dry season, 98% of respondents reported using a safe water source for their drinking water. The most common source is a borehole/well, used by 96% of respondents. 98% of respondents said their source is public.
- *Distance and time spent (dry season):* The average household reported traveling 807 meters to the dry-season water source (one way), spending 26 minutes getting there, and waiting for 1 hour and 47 minutes in the queue. This is a total journey time of nearly 2 hours and 40 minutes. Those in Bumanya wait an average of 130 minutes in the queue and have a total journey time of more than 3 hours. Overall, the median wait in the queue is 1.5 hours (2 hours in Bumanya and 1 hour in Nawaikoke) and the median distance is 500 meters.
- *Rainy season sources:* In the rainy season, 98% of respondents reported using a safe water source for their drinking water. As in the dry season, the most common source in the rainy season is a borehole/well (92%). Just 5% said they use rainwater. 94% of respondents said their source is public.
- *Distance and time spent (rainy season):* The average household reported traveling 734 meters to the rainy season water source (one way), spending 25 minutes getting there, and waiting for 52 minutes in the queue. This is a total journey time of 1 hour and 41 minutes. The median wait in the queue is 30 minutes and the median distance is 400 meters.
- FGD participants said most households fetch water at least twice a day. When asked what they would do with their time if the distance to the water point were reduced by half, most said they would spend more time farming to have more food for their families. One participant said, ***“The children who go to fetch water will be safe because when it’s a long way, anything can happen on their way. When women go to get water from far their husbands lose trust in them because they spend a long time and this brings suspicion and lack of trust.”*** Asked the same question, one pupil said, ***“There would be more time spent in the class because now the borehole the school uses is out of the school fence across the road.”***

G) Water Storage and Treatment

- *Treatment frequency:* Just 5% of households reported always treating their drinking water, 9% said they treat it sometimes, and 86% never treat their water. The main reason given for not treating water is that it is already safe and there is no need (73%). 8% said they don’t know how to treat their water.
- *Treatment methods:* The most common water treatment method was boiling (89%). Just 5% use a chlorine treatment method and 5% strain through cloth.
- *Water transportation (observed):* Enumerators observed water transportation containers at 99% of households. Containers were likely to have narrow mouths (97%) but much less likely to be covered (25%) and clean (10%). Just 5% were narrow-mouthed, covered, and clean.
- *Water storage (observed):* Enumerators observed water storage containers at 98% of households. Overall, 18% had narrow mouths, 48% were covered, and 10% were clean. Just 2% of those observed met all 3 requirements (covered, clean, and narrow-mouthed) for safe water storage.
- It is clear that most households use different containers for transporting and storing their water. According to field staff, households often use jerry cans for transport and locally-made large clay

jars for water storage. See Figure 6 below for a comparison of storage and transport container characteristics.

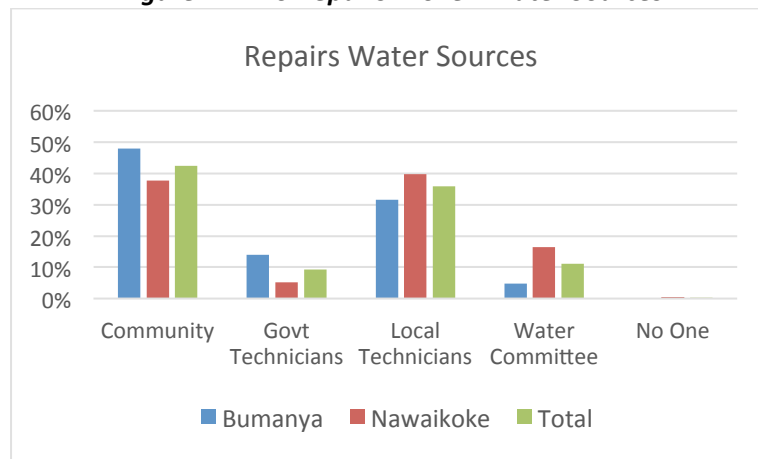
Figure 6: Water Transport and Storage Containers



H) Water Source Management and Functionality

- *Management and performance:* Almost all respondents said their primary water source is managed by a committee (94%). Of those who said their source had a committee, 55% rated the committee’s performance as good while 22% said it is fair and 16% said it is poor. Another 7% said the committee is not active. The primary reasons for a good performance rating were that the committee performs proper maintenance and repair (64%), there is good community participation (47%), and the source is kept clean (29%). The primary reasons for a poor rating were the source is not clean (33%), fees are not kept safely (26%), fees are too high (24%), and fees are not spent properly (22%). Fees are an area of concern for those who think the committee is not performing well. One FGD participant said, **“Children should be stopped from coming to the water source because they defecate at the water source and even play in the water source.”**
- In the FGDs, participants had differing opinions on who is responsible for the water source. Some said it is the responsibility of men in the community, others said a caretaker, and others said the water user committee. One participant said, **“The males are responsible for the water source. They mobilize the community and clean the water source.”**
- *Payment:* 96% pay for their water, the majority when repair is needed (90%) rather than on a regular basis. The average amount paid per repair is about 3,000 UGX (\$0.90 USD).
- *Functionality:* 93% of respondents said their primary drinking water source broke down at some point in the past year (97% in Nawaikoke and 89% in Bumanya). However, the water points were not broken for long. 62% said their water source was broken for less than a week in the past year, 28% said less than a month, and 10% said more than a month.
- *Repairs:* The sub-counties differed on who repairs the water source when broken. In Bumanya, 48% said the community, 32% said local technicians, 14% said government technicians, and 5% said the water committee. In Nawaikoke, 38% said the community, 40% said local technicians, 5% said government technicians, and 16% said the water committee. Just 1 person surveyed said that no one repairs the water source when broken. See Figure 7 for more details.

Figure 7: Who Repairs Broken Water Sources



I) Compound Cleanliness

- *Trash disposal:* The most common methods of trash disposal are scattering/littering on the ground and throwing into the compost/garden/animals (both at 44%). Overall, 24% of people use a rubbish pit or pail.
- *Feces around compound:* 38% of households had feces and/or rubbish visible around the compound. In Bumanya, latrine users were more likely than those without latrines to have clean compounds (63% vs 40%). In Nawaikoke, latrine ownership made no difference in compound cleanliness.
- *Child feces:* 84% of respondents said they put their child's feces in the latrine and 11% said the all children use the latrine. Just 1% said their children practice open defecation. However, FGD participants said it is common for mothers of exclusively breastfed babies to pour the feces in the compound rather than into the latrine.

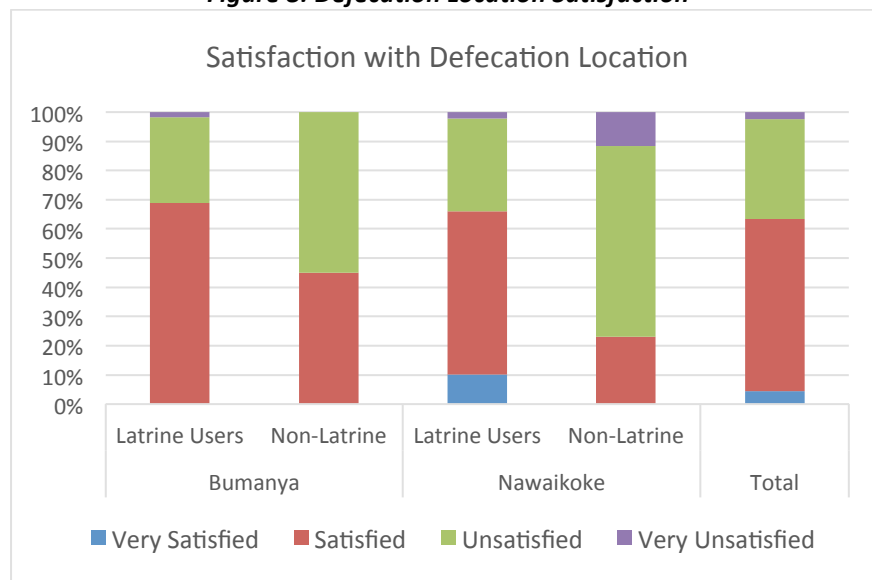
J) Latrines

- *Latrine observation:* Enumerators observed 353 total latrines. Of all surveyed households, 43% had an improved latrine (pit latrines with slabs that adequately covered the pit, not shared between households). Just 3% had latrines that were "improved with dignity" (an improved latrine that also has whole walls, a whole roof, and complete privacy). Those in Bumanya were slightly more likely to have an improved latrine (45% compared to 41% in Nawaikoke). All observed latrines were pit latrines and 95% looked like they were used regularly. 83% had slabs made of natural material (17% made of cement) and only 3% had lids for the pit. However, those in Bumanya were twice as likely to have a cement slab than those in Nawaikoke (23% vs 12%). Most latrines were located 10-30 meters from the household (81%), while 9% were less than 10 meters and 10% were more than 30 meters away. Enumerators observed that 60% of latrines were safe from flood and runoff.
- *Latrine maintenance:* Maintenance was very poor, with just 14% of observed latrines being clean, 11% having no smell, 4% having no flies. Only 2% were clean with no smell and no flies. Latrines in Nawaikoke were maintained better than in Bumanya, with 18% clean (compared to 10%) and 15% no smell (compared to 7%). Overall, 20% of latrines had feces and/or used paper outside the pit, with 22% in Bumanya and 17% in Nawaikoke.
- *Latrine use:* Overall, 94% of respondents said those in their household defecate in a latrine and 6% said they practice open defecation. Of total people surveyed, 78% said their household

always uses a latrine for defecation. When asked who in the household uses the latrine, 98% said women, 93% said men, 89% said children, and just 7% said the elderly.

- **Ownership:** 32% of households who use a latrine share it with other households. This practice is more common in Bumanya at 36% compared to Nawaikoke at 27%. Of those who share, the average number of households using the latrine is 2.5. Among those who do not own a latrine, the main reason is that they had one but it's no longer usable (55%). *NOTE: This question was only answered by those who said their family doesn't use a latrine, while it should have also been asked of those who share a latrine/don't have one of their own. There were just 20 respondents.*
- **Difficulty to build:** 40% of respondents said it is easy to build a latrine, 36% said it is moderately difficult, and 22% said it is very difficult. Just 1% said it is very easy to build a latrine. In Bumanya, those who use a latrine think latrines are easier to build than those who don't use a latrine: 75% of those who don't use a latrine said it is moderately or very difficult to build a latrine, compared to 53% of latrine users. 46% of latrine users said it is easy while just 25% of non-latrine users said the same. Latrine use did not make a difference in perceived difficulty among those in Naiwakoke.
- **Satisfaction:** When asked how satisfied respondents are with their place of defecation (both latrine users and non-latrine users), just 5% said very satisfied, 59% said satisfied, 34% said unsatisfied, and 3% said very unsatisfied. Rates differed between sub-counties as well as latrine users vs non-users. In Nawaikoke, 66% of latrine users were either very satisfied or satisfied, compared to 23% of non-latrine users. In Bumanya, 45% of those who practice open defecation were satisfied with this defecation location. Figure 8 shows a breakdown by latrine use and sub-county.

Figure 8: Defecation Location Satisfaction

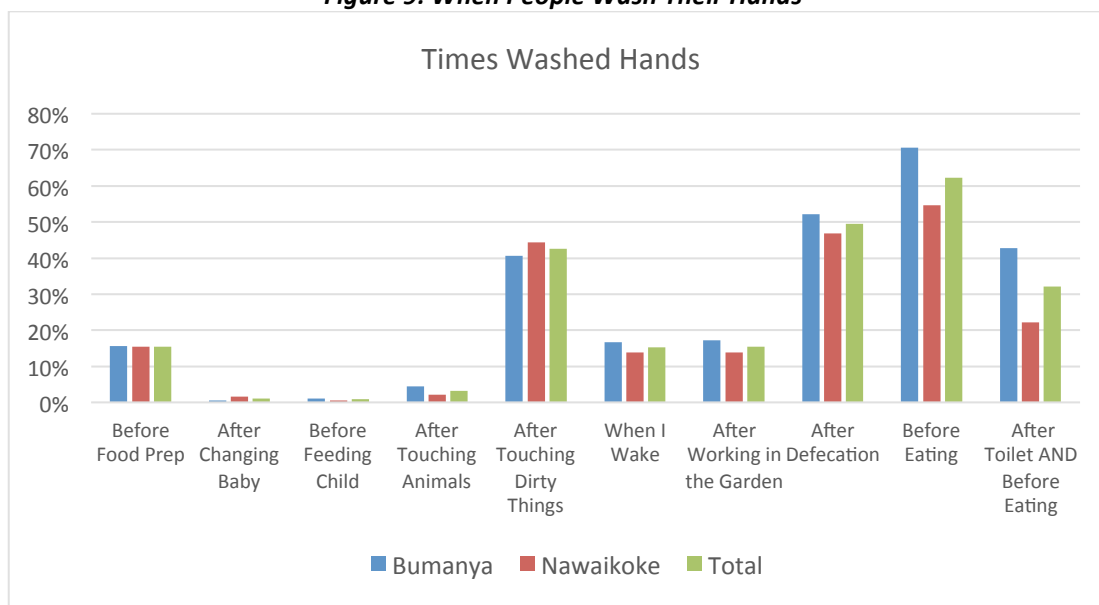


- **Latrine benefits:** The most commonly named benefits of using a latrine were cleanliness (78%), health/disease (67%), and comfort (15%). There was not much variation between sub-counties.
- **Disadvantages of defecation location:** 41% of respondents said there are no disadvantages to their defecation location. This was higher in Bumanya at 47% compared to Nawaikoke at 36%. In both sub-counties, structural issues were the most common disadvantage (27%), followed by lack of privacy (15%). In Nawaikoke, 20% said it attracts flies and 10% said bad smell.

K) Hygiene

- *Handwashing station observation:* Enumerators observed a total of 107 handwashing stations, reflecting 27% of surveyed households. Of all households surveyed, 12% had an appropriate device with necessary supplies (i.e., soap and water) that they showed to enumerators. Of the observed stations, 43% of devices didn't reuse water and had necessary supplies. The average number of devices among those observed was 1.4. Of observed, 43% had evidence of regular use, 68% didn't reuse water (e.g. tippy tap, sink, tap), and 15% were within 10 paces of the latrine. Concerning necessary supplies, 79% had water and 54% had water and soap (no one had ash).
- *Handwashing practice (reported):* Overall, 94% of respondents said they washed their hands in the 24 hours prior to the survey. Of total surveyed, 57% said they washed their hands with soap/ash and water in the past 24 hours. Just 1 respondent reported using ash.
- *Times for handwashing (practice):* Overall, 20% said they used soap/ash and washed at the 2 most critical times during the past 24 hours (after defecation and before eating). 32% of those surveyed said they washed their hands at the 2 most critical times (with or without soap). This was nearly twice as high in Bumanya than Nawaikoke (43% compared to 22%). The most common times for handwashing were before eating (62%), after defecation (49%), and after touching dirty things (43%). Among caregivers, just 1% said they washed their hands after handling child feces/changing the baby. Only 1% of caregivers washed before feeding or breastfeeding their child. Among food preparers, just 17% said they washed before cooking or handling food.

Figure 9: When People Wash Their Hands



- *Knowledge of times for handwashing:* Respondents were more likely to name important times to wash hands than they were to actually practice them. 82% said after defecation and 83% said before eating. However, almost no one knows that after handling child feces and before feeding a child are important times to practice handwashing, and just 20% know that they should wash hands before cooking/preparing food.

- *Handwashing benefits and difficulties:* The most common reported benefits of handwashing were removes dirt/makes hands clean (62%), prevents disease/diarrhea (49%), removes germs (45%). Though among the most common reasons provided, disease prevention and removing germs were provided by less than half of respondents. When asked what makes handwashing difficult, nearly half said there were no difficulties (47%). Another 21% said they lack water, 19% said they forget, 19% said they are too busy, and 17% said it's not important/no need. Cost of soap was a concern for 9% of respondents.
- *Hygiene education:* Education on hygiene and sanitation is very low. 29% said they have ever received hygiene/sanitation education and just 8% said there is currently someone teaching hygiene/sanitation in their community. Of those who said there is education happening currently, 63% said it is from health workers (VHTs/CHWs), 20% said a government agency, and 20% said the village chief.
- *Bathing:* Nearly everyone reported washing their body every day (97%). The most common source of bath water was a borehole/well at 87%, and the next most common response was surface water at 7%. Enumerators observed bath shelters at 75% of households. Those in Nawaikoke were slightly more likely to have a bath shelter than those in Bumanya (78% compared to 72%).
- *Menstrual hygiene management:* Most female FGD participants said it is difficult to manage their menstruation because of difficulty in obtaining necessary cotton pads, abdominal pain, and fear of stains. Some thought that using a latrine during menstruation was unsafe: ***“Women get infections from the latrines for example candida, and even when they are on menstrual period the blood spills around the pit.”*** Female pupils said they normally stay home from school during menstruation. One said, ***“The children laugh and say, ‘You’re smelling’.”*** Some received education about menstruation from teachers or female family members, while others were not aware.
- *Dish rack:* Enumerators found that 29% of households had a dish drying rack, and 96% of those were raised off the ground to protect from animals. When asked where the household members dry dishes, 47% said in a basin/bucket/basket, 29% said a drying rack, and 12% said on the ground.

IV. DISCUSSION

Water

The majority of the population in both sub-counties has access to safe water from boreholes. However, the concern is that there are not enough boreholes to serve the population adequately. Wait times are very long and some households travel long distances, leading to dissatisfaction and frustration. This is a concern because it can lead to problems within the community as well as people using less than recommended minimum quantities of water. In the FGDs, one participant said children are beaten when they resist adults trying to overtake them in the queue. Another said that children are put at risk when they have to travel so far to the water source, and husbands lose trust in their wives and become suspicious when the women are gone so long to fetch water. Respondents in the survey and the FGDs complained of salty water and metallic particles in the water. Some in the FGDs said they prefer the taste of pond water.

Safe water storage and transport are major issues. It appears that households use jerry cans to transport water from the source to the household, but most are not covered and few are clean. Most households

store their water in wide-mouthed containers, containers are usually dirty, and just half are covered. Even if a household has access to safe water from a borehole, it is likely that the water becomes contaminated prior to consumption, which will lead to health problems.

Most boreholes are managed by a water user committee (WUC), and respondents were generally pleased with the committee's performance. People pay when the borehole breaks rather than on a regular basis, and the WUC is quick to mobilize the necessary funds and have the borehole fixed. There does not seem to be any proactive collection of maintenance funds or preventative maintenance.

Sanitation

Nearly all respondents said they use latrines, though less than half have an improved latrine and very few (3%) have one that offers privacy and dignity. This is important, as latrines with privacy and dignity provide a safe place for women and girls to use the latrine. Latrine maintenance is very low, and many complained of structural issues with their latrines. About one-third of households share their latrine with others. Most child feces is put into the latrine, but FGDs said the feces of exclusively breastfed babies is often deposited on the compound. As a child's feces is more contaminating than adult feces, this represents a significant health problem for communities.

Although just 3% of the population have improved latrines with dignity, very few in either sub-county were very unsatisfied or very satisfied with their defecation location. Almost half of those who practice open defecation in Bumanya are satisfied with their defecation location, which is a potential challenge when attempting to trigger communities to change.

It is common practice to litter/scatter rubbish on the ground, feed it to the animals, or throw it into the garden. Just one-quarter of respondents have a rubbish pit. Many compounds are not kept clean—almost 40% of households had rubbish and/or feces visible on their compound. Less than one-third had dish drying racks, preferring instead to let their dishes dry in a basin/bucket/basket. Each of these corresponds with a Healthy Home behavior (i.e., compound clean of feces and rubbish and drying racks outside to sanitize dishes in the sun away from animals), and has a direct impact on the health of the home.

Hygiene

Handwashing is a very serious issue in both sub-counties. Though almost everyone said they washed their hands that day, few washed them at the times that are most important for disease prevention (before cooking/eating and after defecating/handling feces). Very few washed before cooking and almost no one knew the importance of washing hands after changing or before feeding a child. Very few households had an appropriate handwashing device and necessary supplies on their compound.

Menstrual hygiene is a problem for many women and girls. FGD participants said they have difficulty obtaining cloth pads, they are embarrassed of smelling and staining their clothes, and female pupils often stay home from school during menstruation. This points to the importance of the WASH in Schools program, including building latrine blocks with private changing rooms for girls.

Health

Diarrhea incidence in children was very high. More than one-third of children under five had diarrhea in the week leading up to the survey. Surprisingly, diarrhea was not one of the most common illnesses reported by respondents. Malaria, measles, cough, stomach pain, and flu were all named with more

frequency than diarrhea. One reason diarrhea might not have been mentioned as a common illness is because it is not considered out of the ordinary for children in the area. Measles, pneumonia, jiggers, stomach pain, and flu are all often hygiene-related, so a WASH program would expect to have an impact on them in addition to diarrhea.

Most people did not withhold food or water from children with diarrhea, but only one-third gave the child ORS (increasing fluid intake and using ORS are critical behaviors in treating diarrhea). In FGDs, most participants said that children with diarrhea should be taken to a health facility. Medical expenses were quite high, with the average household spending 56,912 UGX (\$17 USD) in the past 4 weeks. Decrease in WASH-related illnesses should also decrease the amount of money spent on illness by households.

Knowledge was very low about the causes of diarrhea and ways it can be prevented, including significant misunderstandings. One-third of survey respondents did not know any ways to prevent diarrhea. One-third knew that latrines could prevent diarrhea, and even fewer knew to wash hands or drink safe water. In FGDs, some said that diarrhea is caused by mosquitoes.