Vision of a Healthy Village Program Results

Shinyanga, Tanzania
Project 1

A study evaluating the long-term impact of Water for Good's[1]
Vision of a Healthy Village program
in Shinyanga Project 1

April 2026

[1]Lifewater and Water For Good merged in 2024. Project implementation activities prior to January 2024 were conducted by Lifewater International.

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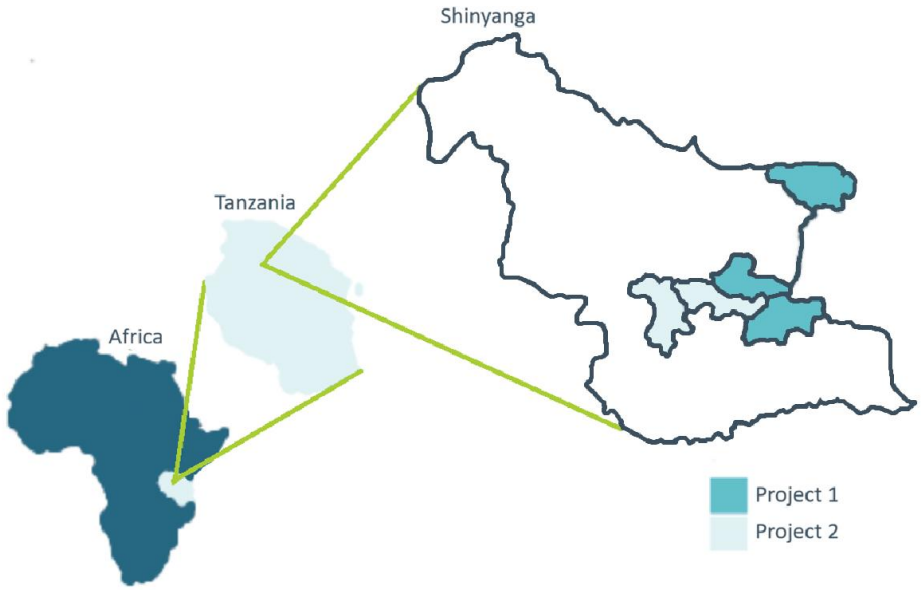
The Problem

Sub-Saharan Africa is estimated to have the lowest rates of water, sanitation, and hygiene (WASH) coverage globally. In rural Tanzania, safe access to WASH is largely inadequate, with an estimated 53% of people lacking at least basic access to drinking water, 77% lacking at least basic access to sanitation, and 85% lacking basic access to handwashing facilities in 2021.[2]

Shinyanga, Tanzania

The Shinyanga Rural District, in the Shinyanga Region of Tanzania, has a total population of 468,611 per the 2022 census. Water for Good's first Vision of a Healthy Village project in Tanzania operated in three rural wards (Mwantini, Mwamala, and Mwalukwa), serving 28,110 people across 82 sub-villages with WASH programming.

Figure 1. Map of the project area



During the baseline study conducted in this region in February and March 2021, Water for Good found that access to safe WASH facilities and WASH knowledge was limited:

- 34% of respondents reported using an improved water source (designed to deliver safe water)[3] in both the dry and rainy seasons. Additionally, households reported a median roundtrip journey time of 90 minutes to collect their water in the dry season.
- 36% of households were observed to have improved latrines (hygienically designed to prevent contact with human feces)[4].

[2]WHO/UNICEF Joint Programme for Water Supply, Sanitation and Hygiene (2021). Retrieved from: https://washdata.org/data/household#!/dashboard/new

[3]WHO/UNICEF Joint Programme for Water Supply, Sanitation and Hygiene (2016). Retrieved from: https://washdata.org/monitoring/drinking-water

[4]WHO/UNICEF Joint Programme for Water Supply, Sanitation, and Hygiene (2016). Retrieved from: https://washdata.org/monitoring/sanitation

- Proper handwashing facilities were not common at households; only 3.0% had a handwashing station with soap/ash and water near their latrine, and only 0.4% had one near their kitchen. Furthermore, 22% of respondents washed their hands with soap and water at the two most critical times (before eating and after using the latrine) in the 24 hours prior to the survey (self-reported).

Major flooding occurred in the project area directly before endline data collection in March 2024, after project activities had ended in December 2023. The flooding damaged many household latrines and other household WASH infrastructure. Program staff believe this damage significantly affected the endline results. The key finding and of this study is that after the devastating floods, communities rebuilt their household WASH facilities, and many built more durable structures than the ones that were lost. This recovery was community-led, with no additional intervention from Water for Good. These finding form a case study on climate resilience and long-term behavior change associated with the Vision of a Healthy Program.

Water for Good's Program

Water for Good implemented its first Vision of a Healthy Village (VHV) project in the Shinyanga Rural District of Tanzania from January 2021 through December 2023. The project focused on changing WASH behaviors (such as handwashing, water treatment, and latrine use) as well as constructing WASH infrastructure. The project had the following high-level goal: Reduce WASH-related diseases and improve the health and wellbeing of children and families in the Shinyanga district through safe water, sanitation, and hygiene.

Water points were constructed in communities, schools, and health facilities, and ventilated improved pit latrines were constructed at schools and health facilities. Between baseline and endline[5], 34 water points were completed and 18 ventilated improved pit latrines were constructed. Thirty-six additional water points were completed after the endline survey due to delays in construction. Water for Good also partnered with Tanzania's Rural Water Supply and Sanitation Agency (RUWASA), which committed to constructing 41 water points in the project area.

In addition to the construction of water and sanitation infrastructure, the project emphasized intensive behavior change activities at the household level. For this purpose, 421 Community Conversation events were undertaken, in which the communities learned about 18 WASH-related topics, such as handwashing and clean compounds. In the communities, trained volunteers made educational visits to every household in the project (at least quarterly) to motivate and support behavior change and to monitor progress. Additionally, communities were encouraged to obtain government Open Defecation Free (ODF) verifications and declarations. Schools and health facilities in the project area were equipped with training on maintaining a healthy environment for students and patients, to prevent WASH-related diseases.

Major flooding occurred in the project area shortly before endline data collection and damaged many household latrines and other WASH infrastructure. This damage is believed to have affected the endline results. Key outputs of Shinyanga Project 1 are displayed in Table 1.

Table 1. Shinyanga Project 1 outputs as of May 2026

Outputs	Number (Percent)
Healthy Homes	4,133 (94%)
Open Defecation Free village certifications	99 (97%)
Trained water point management committees	7
New and rehabilitated water points completed	70
New and rehabilitated ventilated improved pit latrines (VIPLs) completed	22
Healthy Villages[6]	24 (24%)

[5]Data for the baseline study were collected in February and March of 2021; data for the endline were collected in March 2024; data for the post-project evaluation were collected in April 2026.

[6]Healthy Villages are those that become Open Defecation Free (ODF), have access to safe water, functional water committees, and at least 90% Healthy Homes in their village.

Study Methods

For this study, the following data were utilized:

Household survey: Household Knowledge, Attitudes, and Practices (KAP) surveys were conducted in February and March 2021 (baseline), March 2024 (endline), and April 2026 (post-project), combining both observation and interview data. Using the probability proportional to size sampling method, 320 households were surveyed from the three wards. This is a population sample with a 90% confidence level[7] and a 5% margin of error.[8] Households were sampled from the 82 sub-villages in the project. In all studies, enumerators chose which households to sample in each village using the EPI Sampling method[9], which allows for random selection. Enumerators found the center of the village with the help of community leaders, spun a pen on the ground and walked in the direction it pointed, and surveyed every third household they encountered. If they reached the edge of the village before completing the required number of surveys, they returned to the center and started the process over.

Data were collected electronically by enumerators through mWater, a mobile data collection software platform, and downloaded into Excel where they were analyzed. If the data for an indicator were normally distributed, the average value is reported. If they were not normally distributed, the median is provided to give a more representative estimate.

School assessment data: Data on the 12 schools within the target area were collected in May 2026. Information on school water sources, sanitation facilities, school enrollment, absences, and dropouts were analyzed using Excel.

Health care facility assessment data: Annual case data from the two community health facilities within the target area, including cases of WASH-related illnesses in children under 5 from 2020 to 2025, were analyzed.

Qualitative data: Six focus group discussions (FGDs) and five in-depth interviews (IDIs) were conducted at post-project with key project stakeholders and community members. Data were analyzed using ATLAS.ti, a qualitative data analysis software tool. For each theme that emerged from the data, a detailed description was created.

Healthy Home Grading

In the analysis, a Healthy Home Grade was calculated for each household, representing its ability to prevent the spread of WASH-related illnesses through their WASH infrastructure and practices. Final grades are assigned from 0% (lowest) to 100% (highest, Healthy Home). Grades were weighted based on the importance of each Healthy Home component in preventing diseases such as diarrhea; the more critical the Healthy Home component, the higher the weight the component received in this grading method. Households were excluded from grading if they declined to allow assessment of one or more Healthy Home components. Table 2 displays the grading method utilized.

[7] How sure you can be of your results.

[8] The amount of error you are willing to tolerate.

[9] WHO (2008). Retrieved from: https://www.who.int/publications/i/item/module-7-the-epi-coverage-survey

Table 2. Healthy Home grading method

Healthy Home Criteria	Weight (out of 100%)
Having an improved latrine with dignity[10]	30%
Drinking safe water	22.5%
Latrine handwashing device with soap/ash and water	15%
Storing water safely	12.5%
Kitchen handwashing device with soap/ash and water	5%
Clean compound free of feces and rubbish	5%
Raised dish drying rack	5%
Improved bathing shelter	5%

[10]Having an improved latrine is 25% of the final grade, while having the other "with dignity" components (such as a door and complete roof and walls) is 5% of the final grade.

Key Indicators

Table 3 displays the key indicators at baseline, endline, and post-project. Results at endline were significantly affected by a major flooding event in the area directly prior to data collection. However, the post-project results suggest that the communities rebuilt their infrastructure and continued improving their hygiene practices, despite Water for Good's exit from the area two years prior to the post-project study

Table 3. Summary of key data from baseline, endline, and post-project household KAP survey of Shinyanga Project 1

					Statistical Significance[11]	
Theme	Indicators	Baseline	Endline	Post-project	Baseline to PPE	Endline to PPE
Health Indicators	% of households with at least one child under 5 that had diarrhea in past 7 days	30%	20%	5.5%	Yes	Yes
	% of respondents reporting that child health has improved in the past year	14%	30%	42%	Yes	Yes
	% of respondents reporting that their health has improved in the past year	15%	15%	38%	Yes	Yes
Water Indicators	% of households using an improved primary drinking water source in the dry and rainy season[12]	34%	34%	89%	Yes	Yes
	% of households drinking safe water (source and/or treatment)	45%	43%	98%	Yes	Yes
	Median journey time to fetch water (travel to/from water source plus queue time) during dry season[13]	90 mins	30 mins	13 mins	Yes	Yes
	% of households storing water safely (observed)[14,15]	6.4%	7.2%	63%	Yes	Yes
Latrine Indicators	% of households with latrines that are improved[16] (observed)[17]	36%	36%	84%	Yes	Yes
	% of households with latrines that are improved with dignity (complete walls, roof, and door, not shared by other households) (observed)[18]	0.0%	0.0%	71%	Yes	Yes
Hygiene Indicators	% of respondents who washed hands in past 24 hours (with soap/ash and water or alcohol-based rub) at the two most critical times (after defecation and before eating)	22%	25%	75%	Yes	Yes

[11] A p-value tells you how likely it is that your results happened by random chance. If the p-value is below 0.05, it usually means there is strong enough evidence to suggest the result is not just due to chance. Every indicator in this table had a p-value below 0.05 for both comparisons: baseline to post-project (which helps assess project outcomes) and endline to post-project (which helps assess whether outcomes were sustained after the endline survey).

[12] Improved sources of water include "those that have the potential to deliver safe water by nature of their design and construction, and include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water". WHO/UNICEF Joint Programme for Water Supply, Sanitation and Hygiene (2016). Retrieved from: https://washdata.org/monitoring/drinking-water

[13] This includes all households for whom we had sufficient data to evaluate their water fetching time (n=285 at baseline, n=235 at endline, n=313 at post-project).

[14] This includes all households for whom we had sufficient data to evaluate their water storage containers (n=298 at baseline, n=321 at endline, n=315 at post-project).

[15] Safe water storage containers are those that are narrow mouthed, covered, and clean/mostly clean.

[16] Improved latrines are "designed to hygienically separate excreta from human contact, and include: flush/pour flush toilets connected to piped sewer systems, septic tanks or pit latrines; pit latrines with slabs (including ventilated pit latrines), and composting toilets". WHO/UNICEF Joint Programme for Water Supply, Sanitation, and Hygiene (2016). Retrieved from: https://washdata.org/monitoring/sanitation. While the JMP does not require pit covers for pit latrines to be considered improved, Water for Good recognizes pit covers as an essential feature for reducing human contact with feces and therefore requires them.

[17] This includes all households for whom we had sufficient data to evaluate their sanitation facility (n=308 at baseline, n=321 at endline, n=316 at post-project).

[18] This includes all households for whom we had sufficient data to evaluate their sanitation facility (n=308 at baseline, n=321 at endline, n=316 at post-project).

	% of households with handwashing facility and materials (soap/ash and water or sanitizer) located close to latrine (within 10 paces) (observed)[19]	3.0%	29%	87%	Yes	Yes
	% of households with handwashing facility and materials (soap/ash and water or sanitizer) inside or near the kitchen (observed)[20]	0.4%	2.9%	75%	Yes	Yes
	% of households using a hygienic (raised) drying rack (observed)[21]	29%	57%	93%	Yes	Yes
	% of households with a bathing shelter that provides complete privacy and allows water to drain without pooling (observed)[22]	71%	84%	99%	Yes	Yes
	% of households with a clean compound (no visible rubbish or feces) (observed)	46%	36%	87%	Yes	Yes
Healthy Homes	Average Healthy Home Grade[23]	35%	41%	74%	Yes	Yes
	% of households meeting all Healthy Home requirements[24]	0.0%	0.0%	47%	Yes	Yes

[19]This includes all households for whom we had sufficient data to evaluate their latrine handwashing facility (n=236 at baseline, n=306 at endline, n=314 at post-project).

[20]This includes all households for whom we had sufficient data to evaluate their kitchen handwashing facility (n=236 at baseline, n=306 at endline, n=314 at post-project).

[21]This includes all households for whom we had sufficient data to evaluate their area for drying dishes (n=301 at baseline, n=316 at endline, n=314 at post-project).

[22]This includes all households for whom we had sufficient data to evaluate their bathing shelter (n=295 at baseline, n=308 at endline, n=315 at post-project).

[23]Healthy Home Grades describe a household's capacity to prevent waterborne illnesses such as diarrhea, according to the Healthy Home components they are observed to have on the day of the survey. For a more detailed explanation of the Healthy Home criteria and grading method, see Table 2 in Methods.

[24]This includes all households for whom we had sufficient data to evaluate Healthy Home criteria (n=221 at baseline, n=290 at endline, n=310 at post-project).

Health

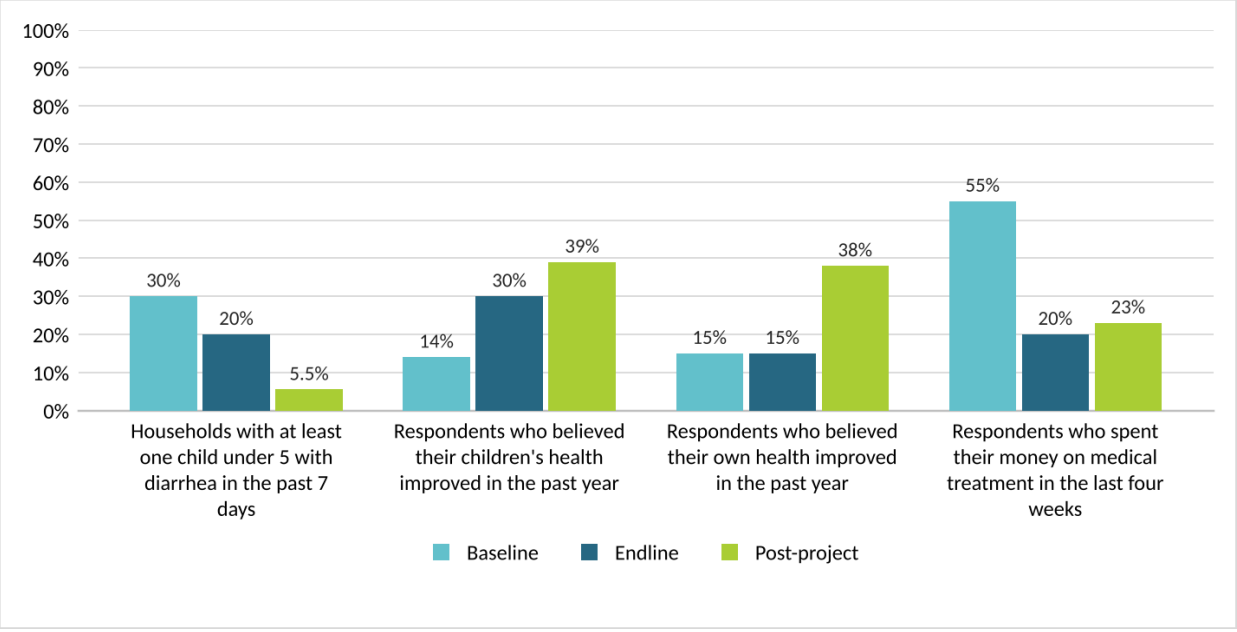
Diarrhea affects children under 5 especially severely. Unsafe water, inadequate sanitation, and poor hygiene practices contribute to approximately 1,200 daily child deaths globally from diarrhea alone.[25]

Key improvements in health were observed between baseline and post-project in Shinyanga Project 1. The percentage of households reporting at least one child under 5 who had diarrhea in the past week decreased from 30% at baseline to 20% at endline and to 5.5% at post-project (p-value <0.05). Additionally, the percentage of respondents who believed that their children's health had improved in the past year increased from 14% at baseline to 30% at endline and to 39% at post-project. Similarly, the percentage of respondents reporting that their own health had improved increased from 15% at baseline and endline to 38% at post-project (p-value <0.05).

In all three studies, many respondents had spent money on medical treatment in the four weeks prior to the survey (55% at baseline, 20% at endline, and 23% at post-project). Of the respondents who spent money on medical treatment, respondents at baseline spent a median of 17,000 TZS ($6.53 USD), compared to 15,000 TZS ($5.76 USD) at endline and 7,000 TZS ($2.69 USD) at post-project. Respondents also missed fewer days of work at endline and post-project compared to baseline; the percentage of respondents who had missed days of work in the past two weeks decreased from 60% at baseline, to 17% at endline and 18% at post-project. The median number of days of work missed also decreased, from seven days at baseline, to three days at endline, to one day at post-project.

During the qualitative interviews, a member of a social group reported that, "Economically, households have also experienced some positive impact because reduced illness has lowered medical expenses and reduced time lost from work or farming activities."

Figure 2. Key health indicators at baseline, endline, and post-project



[25]CDC (2015). Retrieved from: https://www.cdc.gov/healthywater/global/diarrhea-burden.html

Water

Water for Good is interested in understanding the level of "basic access" to drinking water within the project area, which is defined as "Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing".[26] Water for Good was able to assess the rate of basic access for 308 respondents for the dry season and 306 respondents for the rainy season at baseline, 321 respondents for both seasons at endline, and 289 respondents for both seasons at post-project. Basic access to water increased from 6.2% at baseline to 36% at endline and to 89% at post-project in the dry season, and from 32% at baseline to 20% at endline and to 96% at post-project in the rainy season (Table 4).

Table 4. Drinking water source types in the dry and rainy seasons

	Season	Source type	% of respondents	Median water fetching time	% with basic access
Baseline	Dry	All sources Improved Unimproved	100% (n=308) 46% (n=143) 54% (n=165)	90 minutes 120 minutes 74 minutes	6.2%
	Rainy	All sources Improved Unimproved	100% (n=306) 44% (n=135) 56% (n=171)	8 minutes 0 minutes 10 minutes	32%
Endline	Dry	All sources Improved Unimproved	100% (n=321) 82% (n=263) 18% (n=58)	30 minutes 26 minutes 43 minutes	36%
	Rainy	All sources Improved Unimproved	100% (n=321) 35% (n=111) 65% (n=210)	6 minutes 19 minutes 6 minutes	20%
Post-project	Dry	All sources Improved Unimproved	100% (n=289) 100% (n=289) 0.0% (n=0)	14 minutes 14 minutes N/A	89%
	Rainy	All sources Improved Unimproved	100% (n=289) 97% (n=281) 2.7% (n=8)	8 minutes 8 minutes 0 minutes	96%

In the qualitative interviews, participants were asked if they had seen any reduction in water services since the end of the project. Regarding water point breakdowns and repairs, participants reported that there had not been a reduction in the functionality of water points. When discussing the current water situation, a community member certified as a Healthy Home stated:

> "Despite occasional disconnections due to maintenance, I can still access water consistently."

Water for Good also trains households on the importance of using safe water fetching and storage containers to reduce the risk of contamination. Containers are considered to be safe if they are covered, narrow-mouthed, and clean or mostly clean. The percentage of households observed to have safe water

[26] WHO/UNICEF Joint Programme for Water Supply, Sanitation and Hygiene (2016). Retrieved from: https://washdata.org/monitoring/drinking-water

storage containers on the day of data collection was 6.4% at baseline and 7.2% at endline, and it increased to 63% at post-project. The percentage observed using safe water fetching containers initially decreased from 15% at baseline to 7.5% at endline, but it increased to 71% at post-project.

Figure 3. Water key indicators at baseline, endline, and post-project

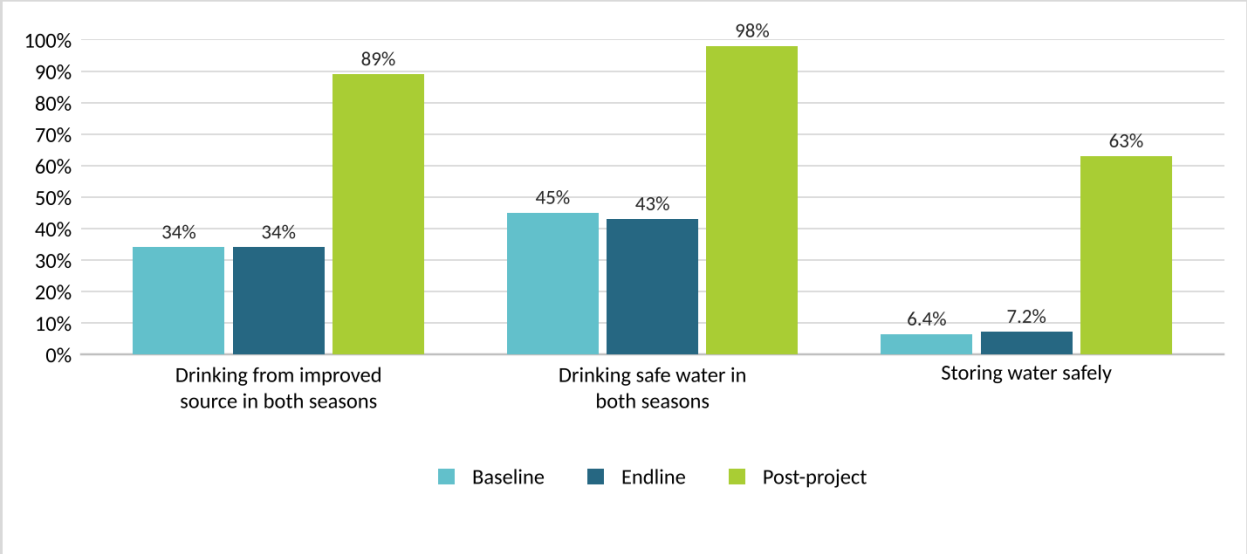
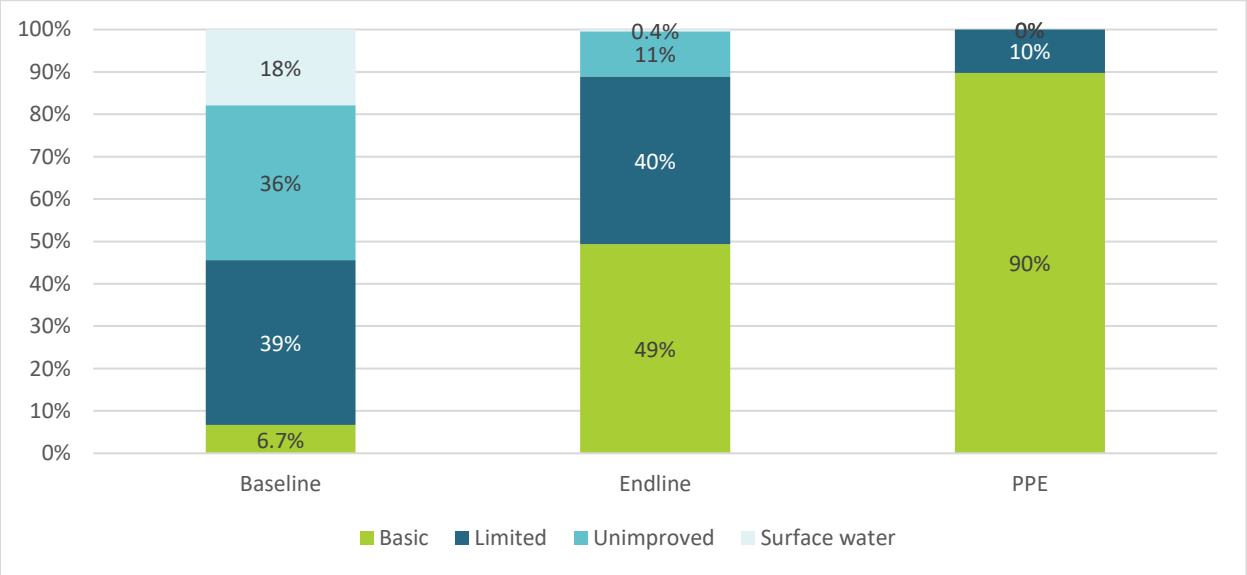


Figure 4. Water service according to JMP standards



In the qualitative interviews, participants reported treating their water and using safe containers. The increase in these behaviors in each study may be due to increased awareness of the connection between drinking unsafe water and illness. A participant in the Social Group, focus group discussion reflected on their community's health:

> "Community members also continue to practice key hygiene behaviors such as boiling drinking water and using safe containers for storage, which has helped reduce waterborne diseases like diarrhea."

Sanitation

Water for Good trains households to invest in "improved latrines with dignity", which meet all the criteria to be considered an improved latrine (designed to prevent the spread of disease through human feces) while also protecting the dignity of the users. Improved latrines with dignity are not shared with other households and have walls, a roof, a door that provides complete privacy, and a tight-fitting pit cover that keeps flies and insects out.

Interview respondents reported that before the Water for Good project that open defecation was still practiced in their community "due to a lack of facilities", but by the time of the project end in December 2023, 97% of all villages in the project were verified and registered as open defecation free. When asked about toilet use since the project, a participant in the mothers and female caregivers focus group reported:

> "After the project, there has been a major improvement. Most families now use improved latrines instead of open defecation."

Shinyanga staff noted that a major flooding event prior to endline destroyed many household latrines. This event is suspected to have significantly impacted the sanitation outcomes measured at endline.

Enumerators observed the households' latrines to assess their quality. Most respondents allowed enumerators to see their latrines (98% at baseline, 97% at endline, and 99% at post-project). A dry pit latrine was the most common type at baseline and endline (86% and 69%, respectively). This decreased to 41% at post-project, when 53% of households had a pour/flush latrine to an enclosed tank or covered pit. The percentage of households with a solid slab that adequately covers the pit decreased from 49% at baseline to 38% at endline and then increased to 80% at post-project. Overall, the percentage of households with improved latrines was 36% at baseline and 36% at endline, and it increased to 84% at post-project (p-value <0.05).

Latrine quality was also evaluated in terms of the privacy it provides to users. The percentage of households with tight-fitting pit covers increased from 3.0% at endline to 64% at post-project. The percentage with walls with no cracks or holes increased from 44% to 90%, the percentage with a roof without cracks or holes increased from 43% to 88%, and the percentage with a door that provides complete privacy increased from 43% to 87%. Additionally, the percentage of respondents who reported not sharing their latrine increased from 23% at endline to 96% at post-project. The percentage of households with improved latrines with dignity increased from 0.0% at baseline and endline to 71% at post-project (p-value <0.05).

Figure 5. Quality of observed latrines at baseline, endline, and post-project

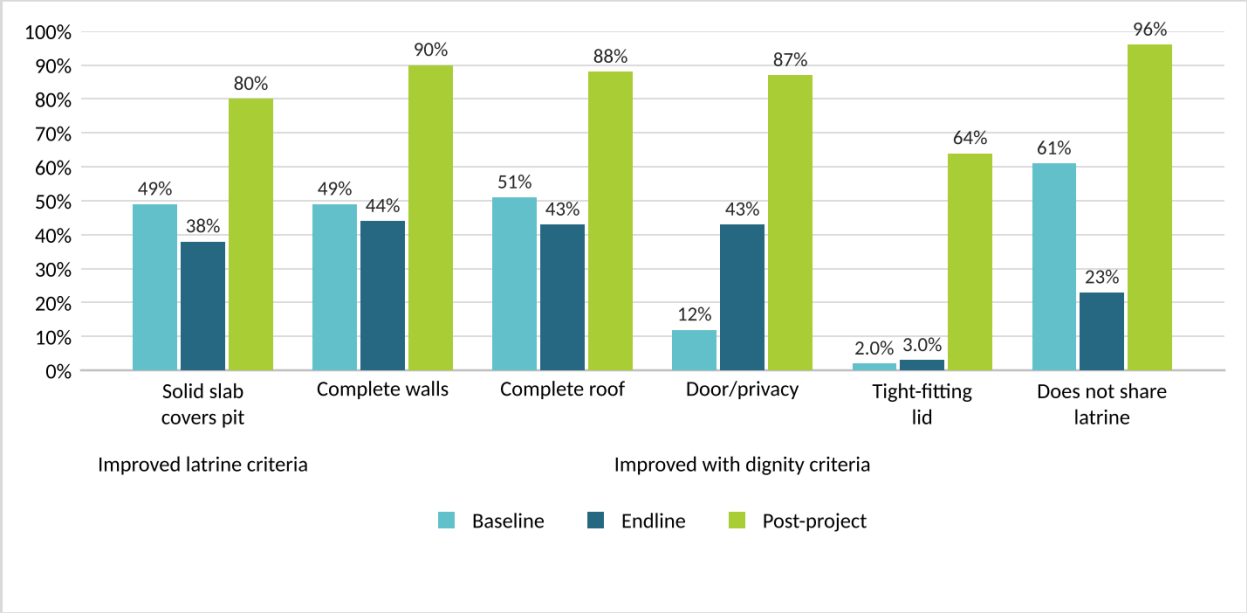


Figure 6. Observed improved latrines and improved latrines with dignity at baseline, endline, and post-project

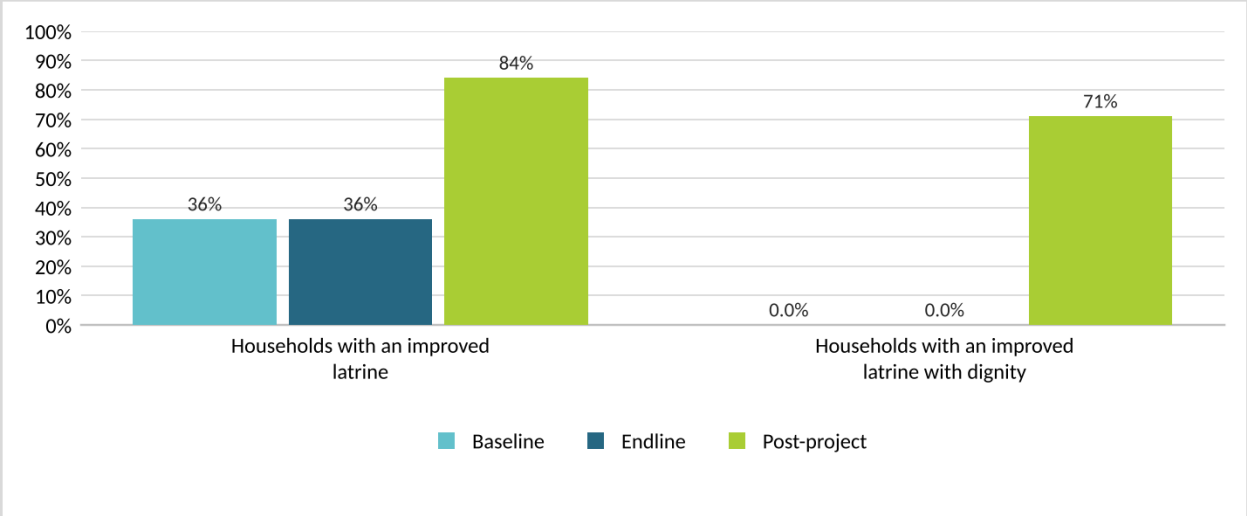
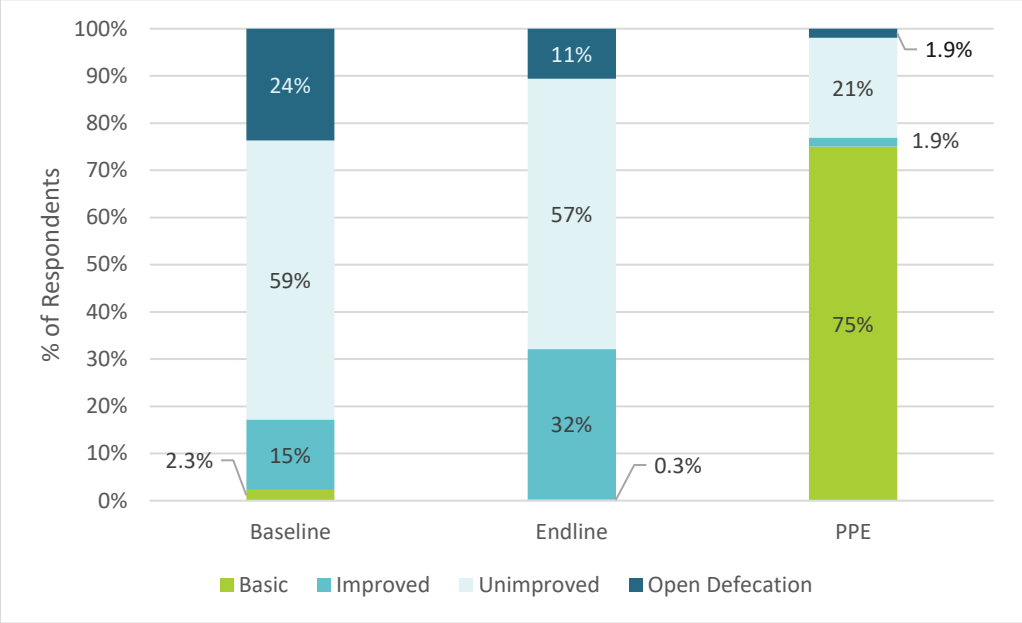


Figure 7. Observed latrine access according to JMP latrine standards



Environmental Conditions

Enumerators also observed the animal and waste management at respondents' households. The percentage of households observed to have a clean compound (free of feces and rubbish) on the day of data collection was 46% at baseline and 36% at endline, and it increased to 87% at post-project (p-value <0.05). Rubbish was observed on 63% of compounds at endline, compared to 11% at post-project, and visible feces were observed on 22% of compounds at endline, compared to 4.8% at post-project. A social group participant noted that some households have built fences for animals to improve environmental hygiene.

Hygiene

Handwashing facilities and self-reported handwashing behaviors were investigated in each study. During endline data collection, staff noted that flooding had caused significant damages to many households' handwashing stations. This data suggests that many households chose to rebuild their handwashing stations by the time of endline.

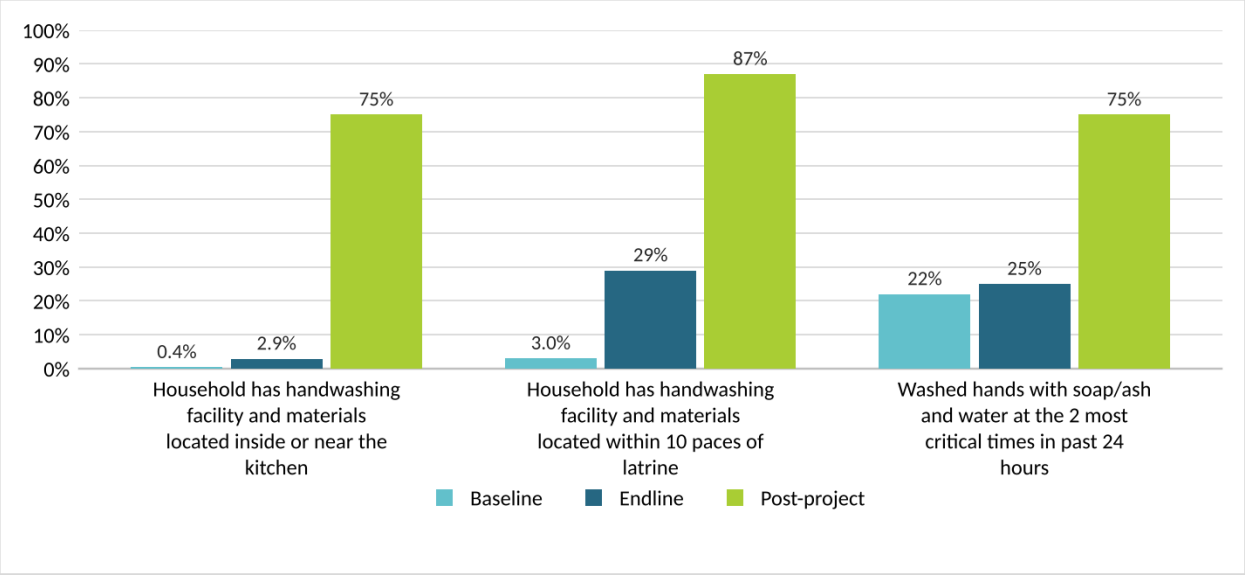
The prevalence of handwashing stations near the latrine with the appropriate materials (soap/ash and water) increased from 3.0% at baseline to 29% at endline and to 87% at post-project (p-value <0.05). Similarly, the percentage of households with handwashing facilities and materials inside or near the kitchen increased from 0.4% at baseline to 2.9% at endline and to 75% at post-project. The percentage of respondents who reported washing their hands after defecation increased from 69% at endline to 95% at post-project, and the percentage who reported washing their hands before eating increased from 58% at endline to 81% at post-project. Overall, the percentage of respondents who washed their hands with soap/ash and water at the two most critical times (before eating and after defecation) was 22% at baseline and 25% at endline, and it increased to 75% at post-project (p-value <0.05). Figure 6 visualizes these changes in handwashing facilities and practices.

The percentage of households observed to have a bathing shelter increased from 71% at baseline to 84% at endline and to 99% at post-project (p-value <0.05). The percentage of households observed to have a raised dish drying rack increased from 29% at baseline to 57% at endline and to 93% at post-project (p-value <0.05).

Many respondents during qualitative interviews emphasized handwashing at critical times and the use of proper materials as a regular part of their WASH practices. A community member who maintains a certified Healthy Home said:

> "I am maintaining handwashing with soap and clean water after using the washrooms, before cooking."

Figure 8. Handwashing facilities and self-reported handwashing behavior



Healthy Homes

Households also received Healthy Home grades based on the survey to characterize their capacity to prevent WASH-related diseases through their household's WASH behaviors and conditions. Final grades are assigned from 0% (lowest) to 100% (highest, Healthy Home). Among households in which enumerators observed all Healthy Home criteria (n=221 at baseline, n=290 at endline, and n=283 at post-project), none met all criteria at baseline or endline (0.0%), and 47% met all criteria at post-project. The average Healthy Home grade was 35% at baseline, 41% at endline, and 74% at post-project.

This suggests that most households were not equipped to prevent the spread of WASH-related diseases at baseline and endline, but at post-project, many were. At post-project, 53% of households had a Healthy Home grade of 70% to 79%, and 16% of households had a grade of 90% to 100%, compared to 0.7% of households in this range at endline.

The increase from endline to post-project suggests that households have maintained and built on Healthy Home standards since the end of the project, despite Water for Good's exit from the project area. The Healthy Home criterion most often missed at baseline and endline was an improved latrine with dignity (0.0% of households were observed to meet it). At post-project, the criterion most often missed was storing water safely (66% of households were observed to meet it).

Figure 9. Healthy Home criteria met by households in each study

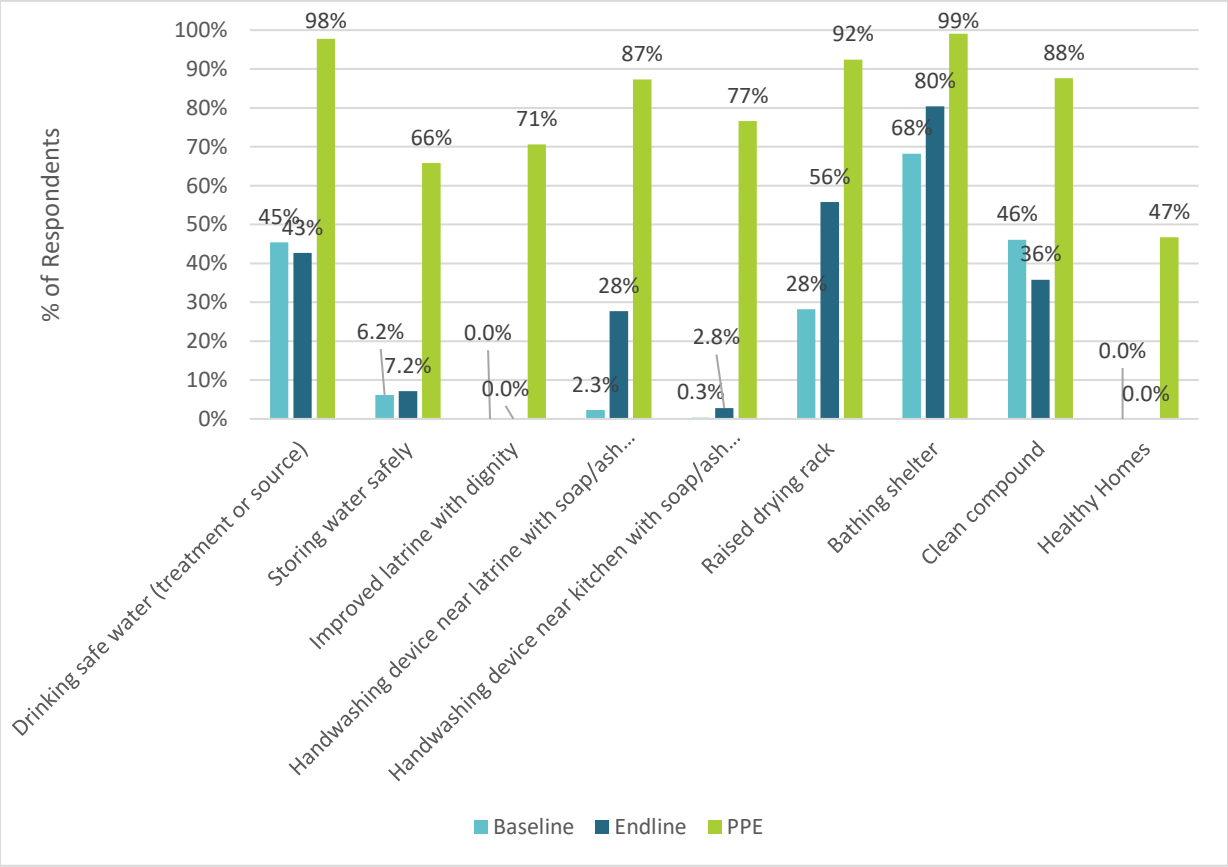
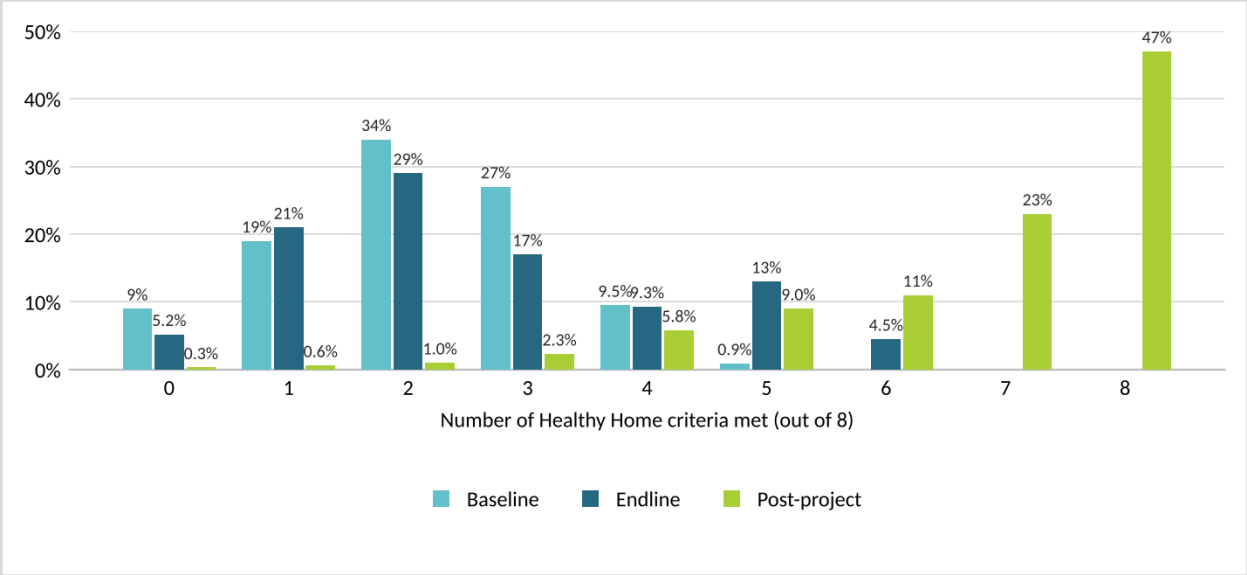


Figure 10. Number of Healthy Home criteria achieved by households, from baseline to post-project

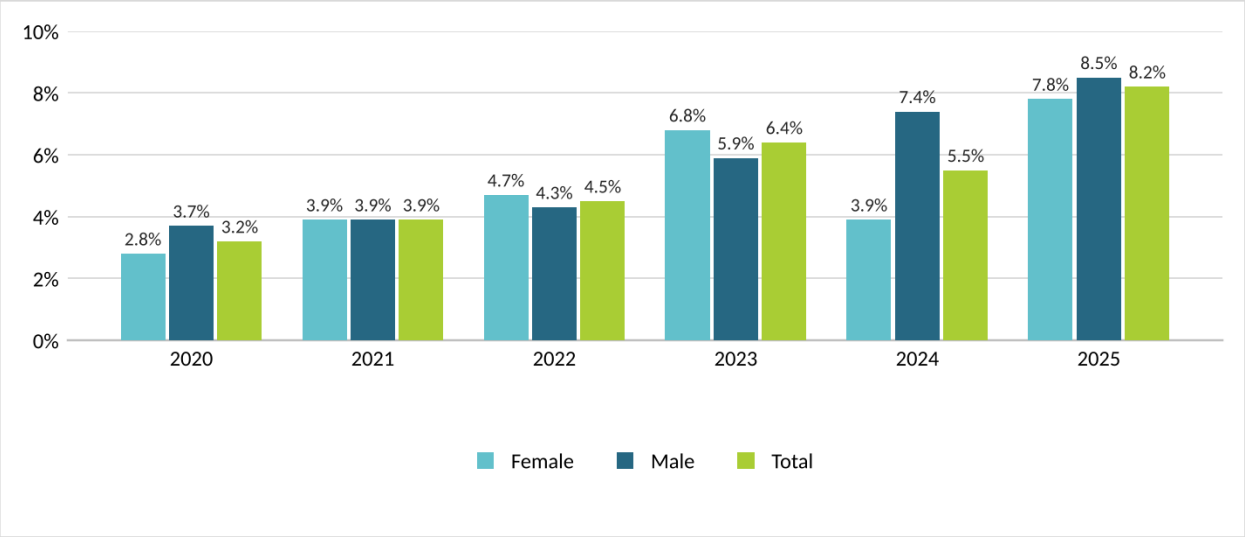


Community Institutions

Schools

Water for Good worked in 12 schools in the Shinyanga Project 1 area from January 2021 through December 2023. Data on student enrollment, absenteeism, and dropouts were collected from the year before the start of the project through the year of the post-project evaluation (2020 to 2025). Total enrollment in the project schools increased from 5,969 students in 2020 to 7,617 in 2024, and then decreased to 6,899 in 2025. Absenteeism remained low, at about 0.1% of total school days in every year. The overall student dropout rate increased from 3.2% in 2020 (193 students) to 8.2% in 2025 (563 students), as shown in Figure 8. Program staff noted that school enrollment data may not be fully reliable.

Figure 11. Dropout rates at Shinyanga Project 1 schools, by year and sex



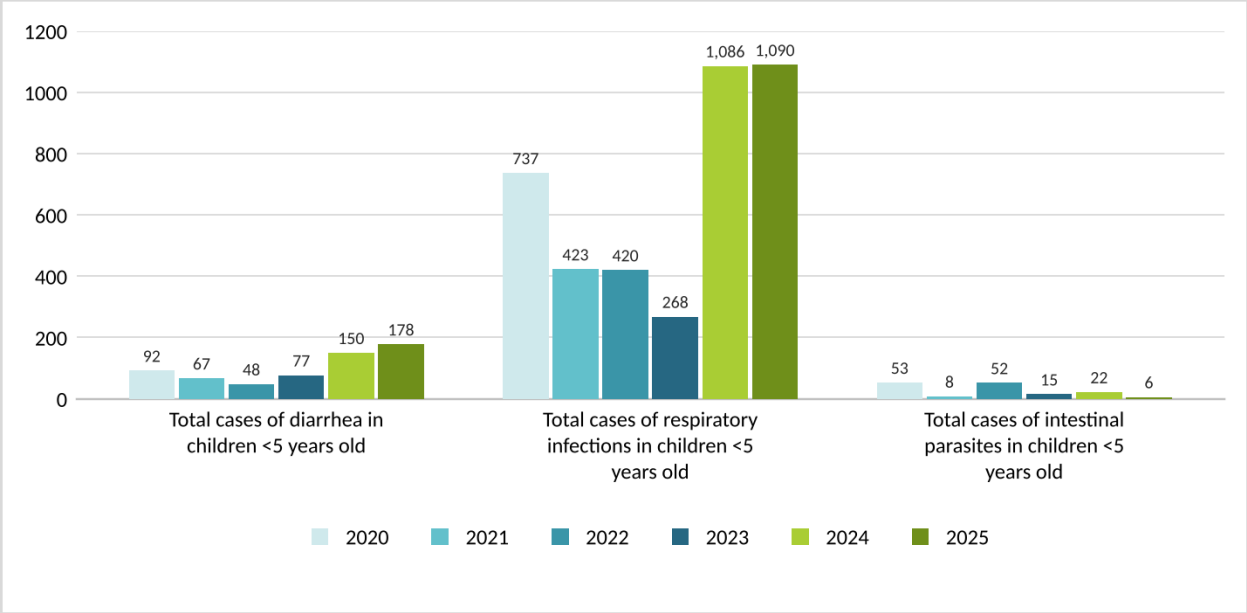
In the qualitative interviews, participants described different trends in attendance and dropouts than what this data suggests. Participants in the teachers' focus group said:

> "Previously, some students arrived late or missed classes due to water shortages and poor sanitation conditions. However, with reliable access to water and improved sanitation facilities, students now come to school on time and attend classes more regularly."

Health Facilities

Annual case data collected from the two community health facilities in the project area produced inconsistent results regarding changes in the WASH-related disease burden. Cases of diarrhea in children under 5 were 92 in 2020 and 77 in 2023, and then increased to 150 in 2024 and 178 in 2025. Cases of respiratory infections in children under 5 decreased from 737 in 2020 to 268 in 2023, and then increased sharply to 1,086 in 2024 and 1,090 in 2025. These trends are inconsistent with what community members described in the qualitative interviews and may reflect limitations in how cases were recorded or reported.

Figure 12. Health facility case data for children under 5 years old



During the qualitative interviews, participants frequently mentioned a decrease in WASH-related illnesses and a reduction in health care expenses. No participants directly mentioned observing a change in the burden of disease at community health facilities. A social group in a focus group discussion stated:

> "Economically, households have also experienced some positive impact because reduced illness has lowered medical expenses and reduced time lost from work or farming activities."

A group of key elders shared a similar view:

> "Waterborne diseases that were previously common […] have significantly reduced."

Conclusion

This study looked at conditions in the Shinyanga Project 1 area two years after the endline survey and 28 months after project activities ended in December 2023. Its main findings are climate recovery and behavior change sustainability; major flooding shortly before endline data collection in March 2024 damaged many household latrines and handwashing stations, and program staff observed this to have significantly affected households in the area who had built and maintained WASH infrastructure. By April 2026, every household indicator in Table 3 was higher than at endline, and higher than at baseline.

The change in latrines was significant. The percentage of households with improved latrines was 36% at both baseline and endline, and it was 84% at post-project. Improved latrines with dignity (complete walls, roof, and door, and not shared) went from 0.0% at baseline and endline to 71%. Households also had stronger structures than at endline; the percentage with walls without cracks or holes rose from 44% to 90%, and the percentage with a solid slab covering the pit rose from 38% to 80%. Program staff observed that communities responded quickly to the flooding, and that many households built more durable latrines than the ones that were lost.

Hygiene infrastructure recovered in a similar way. Handwashing stations with soap or ash and water near the latrine increased from 29% at endline to 87% at post-project. Stations near the kitchen increased from 2.9% to 75%. Handwashing behavior also increased at post-project, likely as a result of rebuild handwashing stations.

These factors may have influenced child illness rates across the three studies; the percentage of households reporting a child under 5 with diarrhea in the past week fell from 30% at baseline to 20% at endline to 5.5% to post-project.

This study was not designed to test why communities recovered, but some findings point to likely reasons. Knowledge was already high at endline, even while infrastructure was damaged. For example, 89% of respondents could name a benefit of handwashing at endline, compared with 27% at baseline. By the end of the project, 94% of households were registered as Healthy Homes and 97% of villages were verified as Open Defecation Free. Interview participants also described continuing to boil water, use safe containers, and wash their hands after the project ended. Program staff interpreted the speed of rebuilding as a sign of improved knowledge and strong community ownership.

Program staff also observed a second factor. After Water for Good left the area, local leaders and enforcement structures (including local militia) required households to have latrines, with penalties for those without them. This study did not measure the effect of these requirements. It is likely, however, that they contributed to the unusually large number of households that built improved latrines with dignity between endline and post-project. The recovery therefore appears to have happened without additional household-level support from Water for Good, but not without outside influence. It reflects household effort, knowledge built during the project, and local leadership together.

Several limits apply. This study had no comparison group, so it cannot show that the program caused these changes, or rule out other contributors such as government programs, other organizations, or households' own resources. Thirty-six water points were completed after endline because of construction delays, and RUWASA committed to building 41 more, so the rise in improved water source use (34% at

endline to 89% at post-project) does not reflect community-led recovery alone. Some gaps also remain. Only 47% of households met all Healthy Home criteria, and safe water storage was the criterion most often missed (66% met it). Health facility and school records were inconsistent or limited, so they do not clearly show changes in disease burden or school attendance.

Based on this experience, the Shinyanga team recommended that future projects in flood-prone areas emphasize durable latrine construction from the start, including stronger materials, stable slabs, and siting that reduces the risk of collapse. Where local enforcement structures already exist, Water for Good can work with them while encouraging collaborative, positive approaches. These findings will be used to inform future project implementation.