Vision of a Healthy Village Program Results

Nana-Mambéré, Central African Republic Pilot Project

A study evaluating the impact of Water for Good's
Pilot Vision of a Healthy Village program in the Nana-Mambéré region

July 2026

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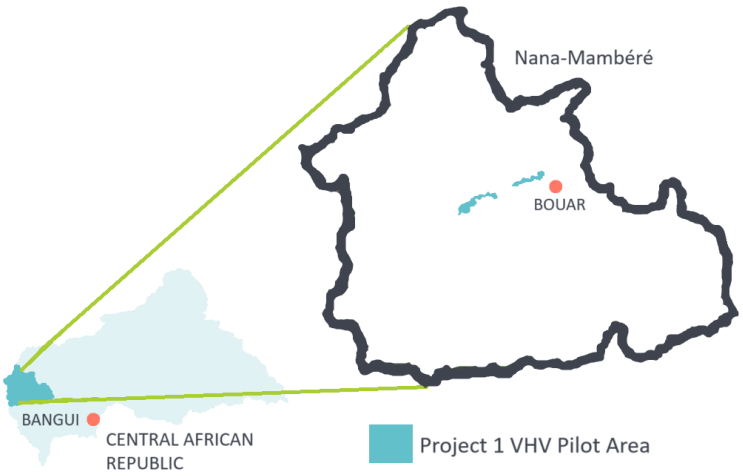
The Problem

Sub-Saharan Africa is estimated to have the lowest rates of water, sanitation, and hygiene (WASH) coverage globally. In rural Central African Republic, safe access to WASH is largely inadequate, with an estimated 73% of people lacking at least basic access to drinking water, 94% lacking at least basic access to sanitation, and 88% lacking basic access to handwashing facilities in 2024.[1]

Nana-Mambéré, Central African Republic

The Nana-Mambéré Préfecture is administratively divided into four sous-preféctures with a total population of approximately 371,863.[2] Water for Good implemented a pilot Vision of a Healthy Village project in this region, operating in two rural communes (Béa-Nana and Herman-Brousse) serving 4,292 people across 14 sub-villages with WASH programming. This pilot project was operated with a limited number of villages on an abbreviated timeline, to test the efficacy of the VHV program in the Central African Republic.

Figure 1. Map of the project area



During the baseline study conducted in this region in April 2025 (before project implementation had begun), Water for Good found that while access to improved water was relatively high, access to sanitation and hygiene and WASH knowledge were limited:

- 71% of respondents reported using an improved water source (designed to deliver safe water)[3] in both the dry and rainy seasons. Households reported a median roundtrip journey time of 25 minutes to collect their water.
- While many respondents had access to improved water, few respondents (12%) had hygienic water storage containers (covered, narrow-mouthed, and clean).
- 55% of households were observed to have improved latrines (hygienically designed to prevent contact with human feces)[4]. Observed latrine quality was poor; a total of 1.7% of households had improved latrines with dignity (including a solid slab and complete privacy).
- Proper handwashing facilities were not common at households; 2.8% had a handwashing station with soap/ash and water near their latrine, and 1.6% had one near their kitchen.

[1] WHO/UNICEF Joint Programme for Water Supply, Sanitation and Hygiene (2022). Retrieved from: https://washdata.org/data/household#!/dashboard/7653
[2] Institut Centrafricain des Statistiques et des Etudes Economiques et Sociales (2024). Retrieved from: https://www.icasees.org/index.php/actualites/rgph-4/207-population-de-la-republique-centrafricaine-en-2021-et-2024.
[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.

Water for Good's Program

Water for Good has been providing new water access and maintenance services in Central African Republic since 2004. Following a merger in 2024 with Lifewater International, Water for Good sought to test its flagship model in the Central African Republic—the Vision of a Healthy Village (VHV) Program. This program would introduce not only sustainable access to safe water but improve access and behaviors regarding sanitation and hygiene.

While the VHV typically operates on a three-year timeline, this pilot project was implemented in 15 months with a smaller project population than a typical project. This pilot project was implemented from April 2025 through June 2026 in the Bouar sous-préfecture of Nana-Mambéré. 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 Nana-Mambéré préfecture through safe water, sanitation, and hygiene.*

As a part of this project, water points were constructed in communities. Between baseline and endline, five water points were constructed, and all villages were confirmed to have an improved water point.

In addition to the construction of water and sanitation infrastructure, the project emphasized intensive behavior change activities at the household-level. For this purpose, 219 Community Conversation events were undertaken, in which the communities learned about 14 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 in the project area were equipped with training on maintaining a healthy environment for students, to prevent WASH-related diseases. Key outputs of the pilot project are displayed in Table 1.

Table 1. Nana-Mambéré Project 1 outputs as of July 2026

Outputs	Number (Percent)
Healthy Homes[5]	555 (67%)
Open Defecation Free villages	14 (100%)
Trained water committees	3
New and rehabilitated water points completed	5
Healthy Villages[6]	4 (29%)

[5] Healthy Homes are verified to be drinking safe water in the dry and rainy seasons, use safe water storage containers, have improved latrines with dignity (with walls, a roof, a pit cover, and a door), two handwashing stations with soap/ash and water (one near the latrine and one near the kitchen), a hygienically raised dish drying rack, a bathing shelter that allows water to drain without pooling, and a clean compound.
[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. One additional village was registered as a Healthy Village after the endline data was collected.

Study Methods

For this study, the following data were utilized:

Household survey: Household Knowledge, Attitudes, and Practices (KAP) surveys were conducted in April 2025 and July 2026, combining both observation and interview data. At baseline and endline, 303 households were surveyed via a probability proportional to size method of the 14 villages in the project areas. In both studies, enumerators chose which households to randomly sample in each village using the EPI Sampling method.[7]

Data was collected electronically by enumerators through mWater, a mobile data collection software platform, and downloaded into Excel where it was 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.

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

Key Indicators

Table 2. Summary of key data from baseline and endline household KAP survey of the pilot project

Theme	Indicators	Baseline	Endline	P-values[8]
Health Indicators	% of households with at least one child under 5 that had diarrhea in past 7 days	42%	19%	<0.01
	% of respondents reporting that child health has improved in the past year	44%	63%	0.06
	% of respondents reporting that their health has improved in the past year	37%	62%	<0.01
Water Indicators	% of households using an improved primary drinking water source in the dry and rainy season[9]	71%	98%	<0.01
	% of households drinking safe water (source and/or treatment)	72%	98%	<0.01
	Median journey time to fetch water (travel to/from water source plus queue time) during dry season[10]	25 mins	17 mins	0.68
	% of households storing water safely (observed)[11,12]	12%	83%	<0.01
Latrine Indicators	% of households with latrines that are improved[13] (observed)[14]	55%	99%	<0.01
	% of households with latrines that are improved with dignity (slab, walls, roof, pit cover, and door) (observed)[15]	1.7%	79%	<0.01
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)	58%	96%	<0.01
	% of households with handwashing facility and materials (soap/ash and water or sanitizer) located close to latrine (within 10 paces) (observed)[16]	2.8%	83%	<0.01
	% of households with handwashing facility and materials (soap/ash and water or sanitizer) inside or near the kitchen (observed)[17]	1.6%	83%	<0.01
	% of households using a hygienic (raised) drying rack (observed)[18]	35%	99%	<0.01
	% of households with a bathing shelter (observed)[19]	3.4%	90%	<0.01
	% of households with a clean compound (no visible rubbish or feces) (observed)	36%	94%	<0.01
Healthy Homes	% of households meeting all Healthy Home requirements on the day of monitoring[20]	0.0%	57%	<0.01

[8] 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's strong enough evidence to suggest the result is not just due to chance. If the statistical significance for a key indicator is marked as "Yes", it has a p-value <0.05

[9] 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

[10] This includes all households for whom we had sufficient data to evaluate their water fetching time (n=107 at baseline; n=114 at endline)

[11] This includes all households for whom we had sufficient data to evaluate their water storage containers (n=290 at baseline; n=301 at endline)

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

[13] 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.

[14] This includes all households for whom we had sufficient data to evaluate their sanitation facility (n=294 at baseline; n=302 at endline)

[15] This includes all households for whom we had sufficient data to evaluate their sanitation facility (n=294 at baseline; n=302 at endline)

[16] This includes all households for whom we had sufficient data to evaluate their handwashing facility (n=250 at baseline; n=302 at endline)

[17] This includes all households for whom we had sufficient data to evaluate their handwashing facility (n=250 at baseline; n=302 at endline)

[18] This includes all households for whom we had sufficient data to evaluate their area for drying dishes (n=250 at baseline; n=301 at endline)

[19] This includes all households for whom we had sufficient data to evaluate their bathing shelter (n=237 at baseline; n=295 at endline)

[20] This includes all households for whom we had sufficient data to evaluate Healthy Home criteria (n=200 at baseline; n=289 at endline)

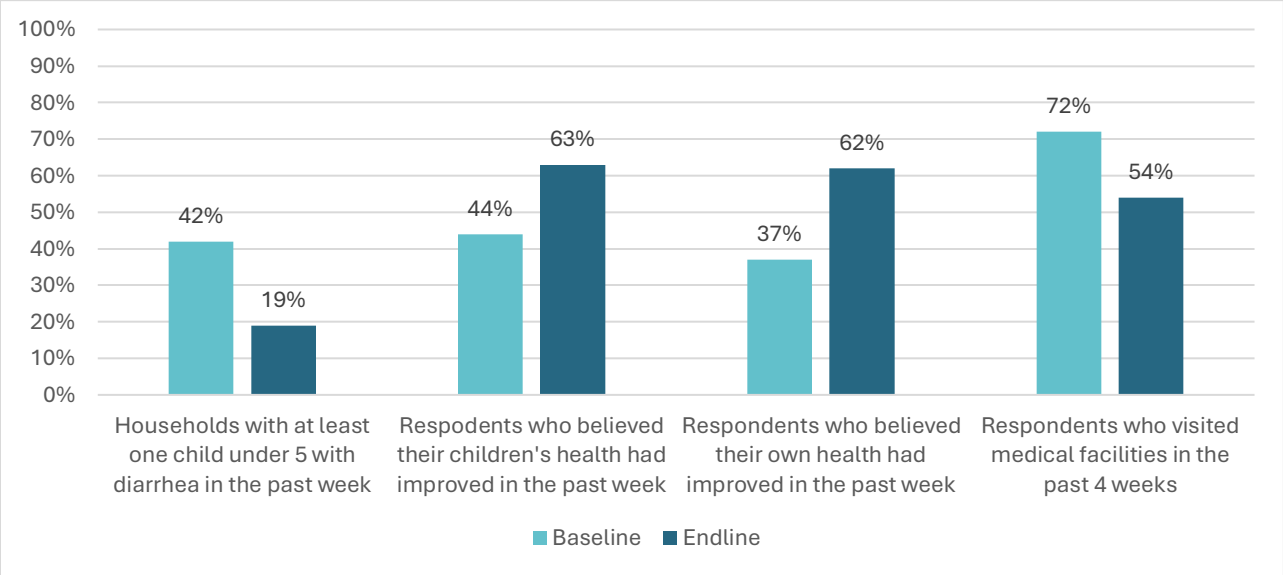
Health

Diarrhea is the third leading cause of death for children under 5 globally, resulting in approximately 443,832 deaths per year. The majority of these deaths are attributed to inadequate WASH.[21]

Key improvements in health were observed between baseline and endline in the Nana-Mambéré pilot project. The percentage of households who reported having at least one child under five that had diarrhea in the past week decreased from 42% at baseline to 19% at endline. Additionally, the percentage of respondents who believed that their children's health had improved in the past year increased from 44% at baseline to 63% at endline. Similarly, the percentage of respondents reporting their own health had improved increased from 37% at baseline to 62% at endline (p-value <0.01).

The percentage of respondents who reported missing work due to illness or caring for someone ill was the same between baseline and endline (55%). Fewer respondents at endline had visited medical facilities in the four weeks prior to the survey (72% at baseline, compared to 54% at endline). Similarly, the median amount spent on medical care decreased from $6.20 USD per family to $2.63 USD per family.

Figure 2. Health results from baseline and endline



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"[22]. Basic access to water increased from baseline to endline, from 33% to 68%. The percentage of households who reported being satisfied with their water service increased from 39% at baseline to 84% at endline.

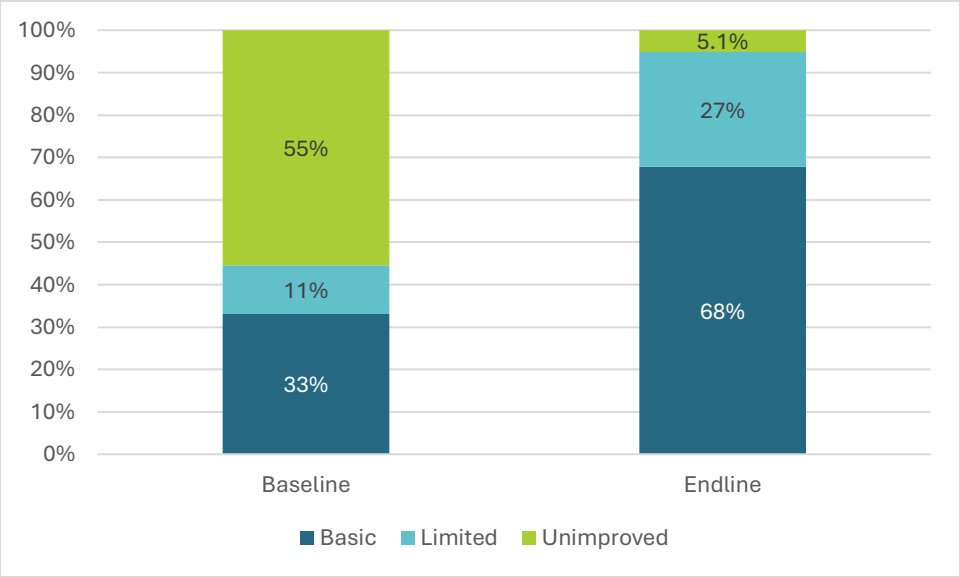
[21] WHO (2024). Retrieved from: https://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease

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

Table 3. Drinking water source types in the dry and rainy seasons

	Source type	% of respondents	Median water fetching time	% with basic access
Baseline	All sources Improved Unimproved	100% (n=107) 65% (n=70) 35% (n=37)	25 mins 22 mins 28 mins	33% (n=52)
Endline	All sources Improved Unimproved	100% (n=114) 98% (n=112) 1.8% (n=2)	17 mins 17 mins 19 mins	68% (n=80)

Figure 3. Respondent water access according to JMP standards

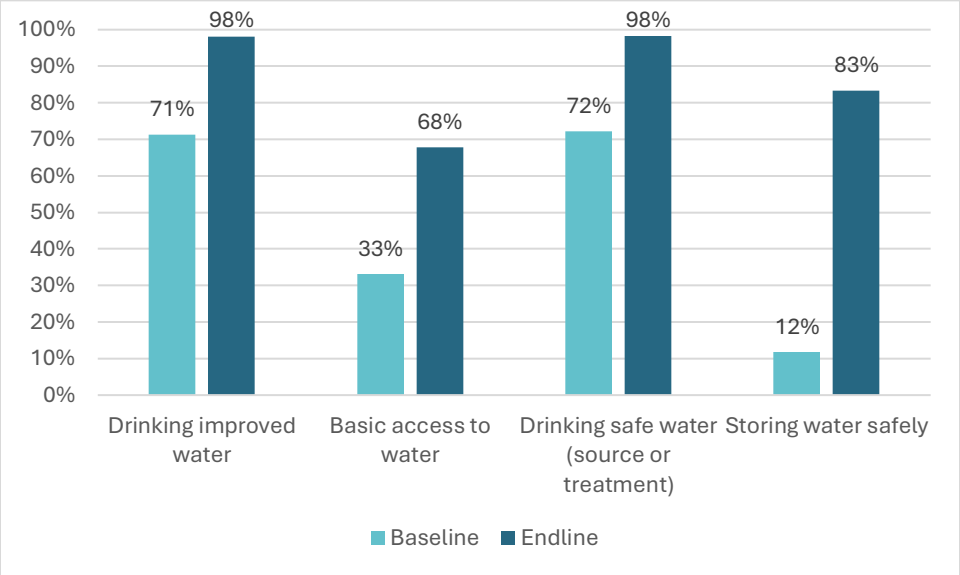


Water For Good also trains households about the importance of using safe water fetching and storage containers to reduce the risk of contamination. Containers are considered to be safe if they are covered, narrow-mouthed (4 cm or less), and clean. The percentage of households observed to have safe water storage containers on the day of data collection increased from 12% at baseline to 83% at endline.

A household is considered to be drinking safe water if they fetch water from an improved source in both seasons, or if they do not use an improved source, they always treat their water with an acceptable water treatment method.[23] The percentage of households drinking safe water increased from 72% at baseline to 98% at endline.

[23] Effective water treatment methods include boiling, adding chlorine, using a biosand filter, using a ceramic filter, or solar disinfection.

Figure 4. Water key indicators at baseline and endline



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.

The percentage of households with latrines increased from 62% at baseline to 99% at endline. Enumerators observed the households' latrines to assess their quality. Of those who allowed enumerators to see their latrines (n=178 at baseline, n=300 at endline), all had dry pit latrines (100% at baseline, 100% at endline). All improved latrine with dignity components improved between baseline and endline, and as a result, more households have latrines well-equipped to prevent the spread of WASH illnesses and protect their dignity and safety (Figure 4.).

Overall, the percentage of households with improved latrines increased from 55% at baseline to 99% at endline (p-value <0.01), and the percentage of households with improved latrines with dignity increased from 1.7% at baseline to 79% at endline (p-value <0.01). The percentage of households with basic access to sanitation (defined as having an improved latrine that is not shared with other households) increased from 8.2% at baseline to 84% at endline.

Figure 5. Observed household latrine quality

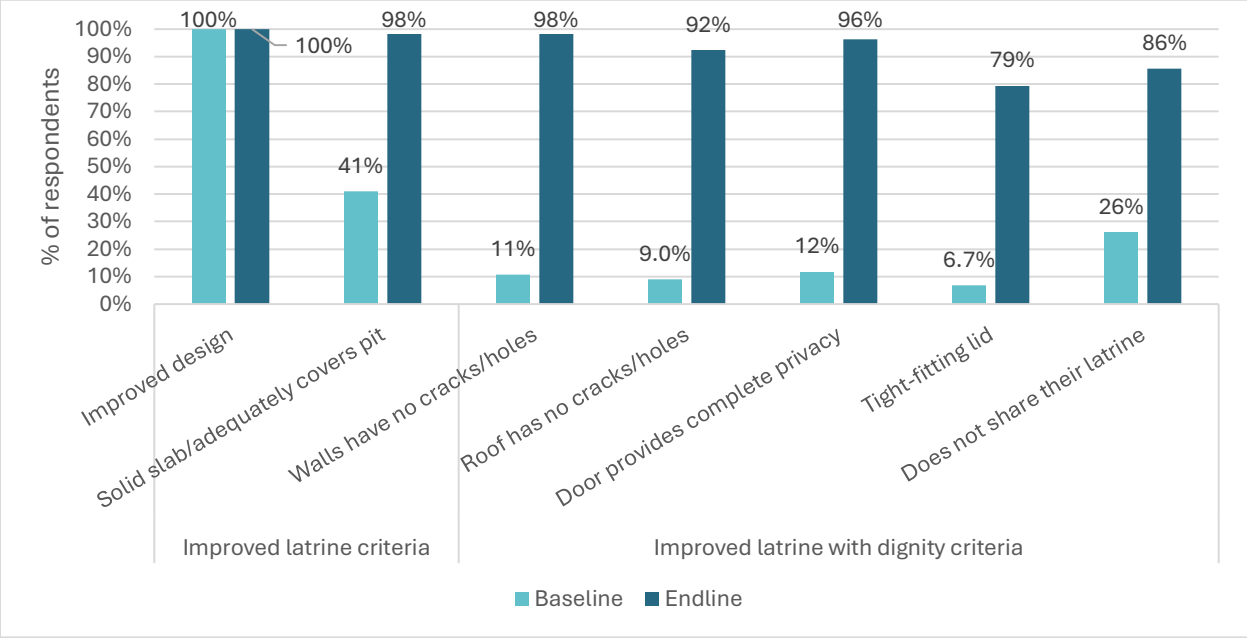
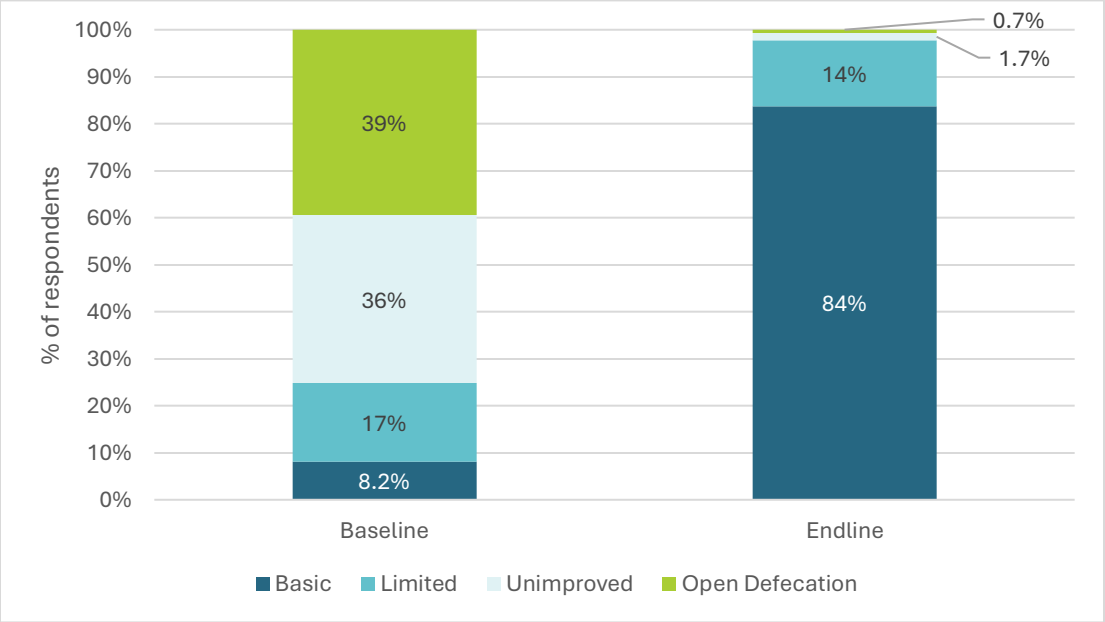


Figure 6. Household sanitation access according to JMP latrine standards



Hygiene

Handwashing

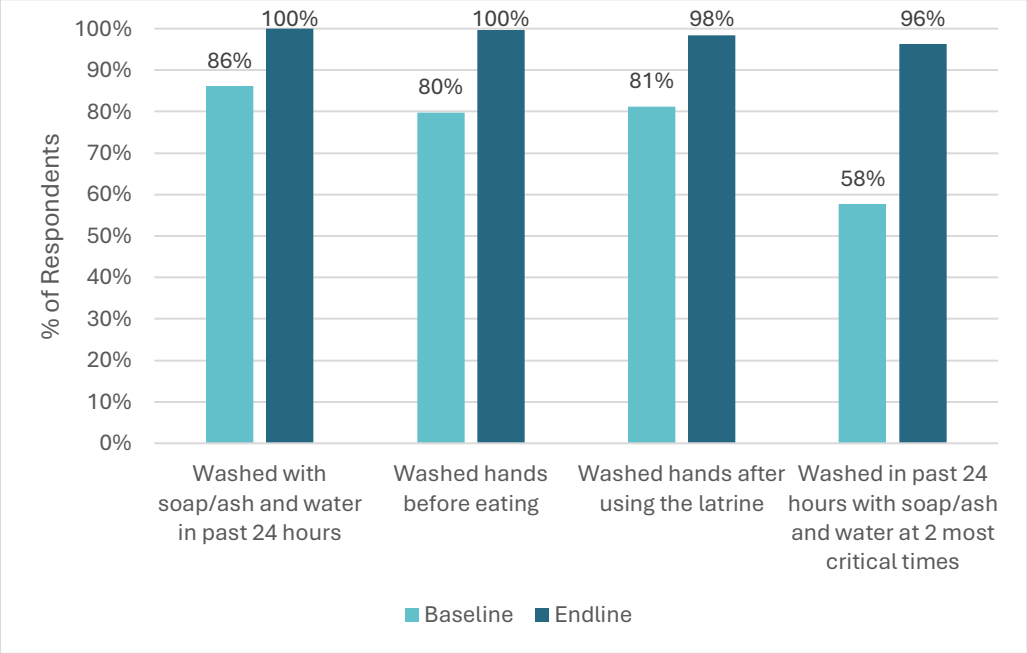
Handwashing facilities and self-reported handwashing behaviors were investigated in each study. Water for Good trains households to keep two handwashing facilities at home: One near their latrine, and one near their kitchen/cooking place. Having handwashing facilities in these two locations nudges household members to wash their hands before eating/cooking and after using the latrine. Households are also

trained on the importance of keeping their handwashing facilities consistently stocked with soap/ash and water to reduce the spread of disease.

The prevalence of handwashing stations near the latrine with the appropriate materials (soap/ash and water) significantly increased from baseline to endline, from 2.8% to 83% (p-value <0.01), as well as the presence of handwashing devices with appropriate materials near the kitchen (1.6% to 83%).

Additionally, the percentage of respondents who reported washing their hands after defecation/using the latrine increased from 81% to 98%, and the percentage who reported washing their hands before eating increased from 80% to 99.7%. 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) increased from 58% at baseline to 96% at endline (p-value <0.01).

Figure 7. Self-reported handwashing behavior in the 24 hours prior to the survey



Waste Management

Enumerators also observed the households' waste management. The percentage of households observed to have feces on their compound decreased from 21% at baseline to 3.0% at endline, and the percentage observed to have rubbish on their compound decreased from 62% to 3.0%. Overall, the percentage of households observed to have clean compounds increased from 36% at baseline to 94% at endline (p-value <0.01).

Conclusion

Water, sanitation, and hygiene conditions in the Nana-Mambéré pilot project area improved between baseline and endline. Households were educated on WASH disease pathways and mobilized to improve their household WASH infrastructure. In collaboration with locally selected WASH Facilitators, Water for Good staff encouraged households to develop healthy WASH behaviors, including handwashing, safe water storage, and clean compound management. As a result, households are equipped to reduce the spread of WASH illnesses in their communities.

Access to improved WASH infrastructure improved between the two studies, including community water sources, household latrines, and handwashing stations. These structures enable household members to adopt and maintain healthy WASH behaviors.

Health was also found to improve between the two studies; household prevalence of child diarrhea decreased from 42% to 19%. While this is an improvement from baseline, the VHV aims to reduce child diarrhea by 90%. The continued high prevalence at endline may be due to the shortened timeline of the project (implemented in one year instead of three), as the shortened timeline resulted in lower healthy home achievement (67% of households were registered, as opposed to the typical 90%). Additionally, while institutional training is a key supportive element for cultivating and maintaining WASH behaviors in VHV communities, institutions (including schools, health facilities, and churches) were only partially engaged as a part of this pilot project.

This evaluation demonstrates the potential benefits of scaling this pilot project into a full implementation of the Vision of a Healthy Village model in the Central African Republic. Future projects should consider the unique cultural, social, and economic factors impacting WASH access and behaviors. These results suggest that the VHV may sufficiently empower communities to improve their WASH conditions and reduce the spread of diarrhea, thereby advancing the economic potential of children and families in the region.