

# Our response to COVID-19 in rural Uganda

PROGRAM UPDATE AND INTERIM FINDINGS  
JULY 2020



THE  
WATER  
TRUST

## SUMMARY

In April 2020, The Water Trust launched a behavior change campaign across the districts of Masindi and Kiryandongo (total population: >600,000) to address critical gaps in the knowledge, attitudes, and practices observed in the area. This report summarizes the initial learnings from our work engaging communities through radio and public address systems at rural trading centers, and summarizes trends we observe in our two rounds of phone survey data.

While this report focuses on our behavior change campaign, The Water Trust has also supported the 10 highest priority health centers in each of the two districts with critical equipment and supplies necessary to allow for health workers and cleaners to keep patients and themselves safe. In addition, The Water Trust continues to construct and rehabilitate water points and provide in-person training and coaching to communities, with the consent of local government, to adopt hygienic behaviors and maintain their water points through the self-help groups we helped communities form.

Looking forward, we aim to continue our behavior change campaign in western Uganda and expand this important work throughout the country.

## HIGHLIGHTS

- Promoting risk-reducing behaviors through radio: Radio program tailored to local knowledge gaps and languages significantly increased uptake of handwashing and distancing. (p. 2)
- Critical gaps in rural trading centers: Our baseline assessment finds very poor hygiene and distancing practices – much worse than the practices self-reported among the general population. We share the results and our approach to improving market norms. (p. 3)
- Trends in knowledge, attitudes, and self-reported practices: We observe significant improvement in mask-wearing from very low levels in March-April survey. High uptake of handwashing remains, while mask wearing and physical distancing have significant room for improvement. Knowledge of how to mix disinfectant with bleach is very low. (p. 4-6)
- Additional important gaps : There remains a lack of knowledge on how to safely manage COVID-19 in the home and an elevated risk of violence against women and children. (p. 6-7)
- Additional learning: We share lessons learned on limitations with Interactive Voice Response and phone surveys. (p. 7)

## PROMOTING RISK-REDUCING BEHAVIORS THROUGH RADIO

The Water Trust hosted eight talk radio shows across Masindi and Kiryandongo districts (total population: >600,000) on COVID-19. Shows were 60-90 minutes each and covered topics ranging from risk-reducing behaviors to managing stress. The estimated audience of the programs ranged from 6,000 to 160,000 based on the limited data available.

We evaluated the short-term impact of the radio campaign through phone surveys with people who had listened to one of the radio stations a week prior to our campaign's inception. We conducted surveys before and after the campaign with 75 people, of which 64% reported to have listened to at least one of our radio programs. This small sample size was due to budget limitations. Surveys were conducted one to two months apart.

### Short-term results

Conditional on having listened to at least one show, the average listener heard two shows. We asked listeners to rate, on a 0 to 10 scale, would they recommend these radio shows to a friend or neighbor. The average rating was 7 and 64% responded >8, and 11% responded <2. To estimate the impact of the program on knowledge, attitudes, and practices, we conducted a difference-in-difference analysis. This approach contrasts the change over time of respondents who listened to at least one show with those who did not listen to at least one show.

Our analysis suggests the following effects:

- Reduction in going out in public (28 percentage points)
- Reduction in physical contact with people outside the home (26%)
- Increase in handwashing (38%), due largely to a significant reduction in handwashing by non-listeners.
- Increase in knowledge that transportation for medical emergencies is permitted (26 percentage points).
- Reduction in belief that they will contract COVID-19 (2-point decrease on 0-10 scale).
- Modest indication of impact on perception of mask effectiveness (12%), reduction in socializing (14%), and support for the current level of restrictions (13%).

We found no evidence of impact on a number of indicators, including but not limited to: mask wearing, belief that one knows how to care for a person with COVID-19, belief that one's actions will determine if one contracts COVID-19, and taking motorbike rides with someone from outside the household.

### Conclusions

The survey results indicate that radio programs can play an important role in catalyzing changes in knowledge, attitudes, and practices. We think that key factors for the program's success include conducting a survey with radio listeners to identify the largest and most critical gaps to inform the radio program's design, allowing for listener participation, using various local languages, and including influential community leaders on the programs.



"I listened to two radio talk shows, hosted by The Water Trust. The first show discussed the spread of coronavirus and preventive measures. I liked the discussion especially on how households can practice good hygiene during coronavirus.

"I recommended it to my uncle and brother who have separate households and informed them about the date and time of the next show that discussed how one can stay safe while outside home. I even invited my parents and all my siblings to listen to the next show.

"I am very confident that none of my family members can catch coronavirus because of the precautions my family are taking. We wash our hands regularly using the hand washing facility we constructed, we limit our movement outside home and when one must travel, they carry with them the face mask and hand sanitizers.

"Before the talk show, my family did not know such details about coronavirus and were not taking precautions seriously."

Mildred Ayebale, 20



## CRITICAL GAPS IN RURAL TRADING CENTERS



In May and June, The Water Trust staff travelled across Masindi and Kiryandongo districts with a mounted speaker system to broadcast behavior change messages. The photo above highlights one of the more hygienic markets we encountered, with visible water containers for handwashing next to vendor stands.

The Water Trust reached 77 rural trading centers and markets, with an estimated 35,000 people hearing the messages. The reach of the messages may have been greater still. The vehicle played messages as it traveled the districts and a phone survey of local radio station listeners found that 46% reported hearing a message from The Water Trust. As the population of the area is greater than 600,000, the reach may be significantly more than 35,000.

Our staff evaluated the conditions in the local trading centers prior to our intervention. The average market had 113 vendors with 456 people in the area. Our assessment revealed that high-risk behaviors were commonplace:

83% of trading centers have low levels (<25%) of social distancing

92% of trading centers have low levels (<25%) of mask wearing

7% of vendors estimated to have a handwashing facility

<3% of vendors have at least one risk-reducing protocol (e.g., roped off shop, prompts for customer spacing.)

Our approach aims to trigger uptake of these risk-reducing behaviors. We plan to conduct followup visits in the months ahead to monitor progress and reinforce messages.

### Our approach to local markets

- Travel to local markets in truck with mounted speaker system and megaphone.
- Rapidly assess situation : staff evaluate the common practices in the local market and identify priorities to address with community.
- Generate interest: music with COVID-19 messages plays from loud speaker for 3-5 minutes.
- Raise awareness of key practices : Participatory discussion, rather than a lecture, is key. Overcome the challenge of a large number of people by asking questions that can be answered by hand raising (e.g., “Raise your hand if you think most people here are wearing a mask,”) and call on people to expand on what problems they see.
- Introduce doable actions : Explain the different actions that shopkeepers, buyers, people socializing in the market, and local leaders all can take to make this a safe, hygienic market. Address concerns or obstacles that listeners raise.
- Ask for public commitment: Ask listeners to raise their hands if they commit to take up the top five risk-reducing behaviors, and get local leader contact information for followup.

## TRENDS IN KNOWLEDGE, ATTITUDES, AND SELF-REPORTED PRACTICES

We conducted phone surveys in Masindi and Kiryandongo districts in March-April and May-June 2020. These data provide both a snapshot of current knowledge, attitudes, and self-reported practices, as well as trends observable over time. We do not attribute the changes over time to our engagement, beyond any effects observed in the radio program evaluation on page 2. The findings below guide our thinking on which topics may benefit from further emphasis in behavior change messaging.

The Water Trust conducted phone surveys with two pools of respondents: (a) “radio listeners”: people who had called into a local radio lottery for mobile minutes a week prior to The Water Trust’s radio campaign, and (b) “TWT participants”: random households in rural communities previously or currently supported by The Water Trust with water, sanitation, and hygiene promotion.<sup>1</sup> In the summary below, we note any differences in the findings across these groups (they were minimal.) If only one survey is cited, we include the survey source of the finding.

### Risk perception

The perceived likelihood of contracting COVID-19 is low both in the first survey (March-April) and the most recent survey (May-June) among both the radio listeners and TWT participants. We do not observe any critical gap in knowledge or attitudes in this area.

- On a 0 to 10 scale, with 0 being not at all likely and 10 certain to contract COVID-19, the average response ranged from 2.5 to 3.4 across both groups and time periods.
- 28% believe it’s highly likely they would become severely ill if they contracted COVID-19, and 35% believe it is very unlikely they would become severely ill. There is no detectable trend over time. (TWT Participants)
- A significant majority (82-88%) attribute their lower perceived risk of contracting coronavirus to the precautions they are taking rather than a belief that COVID-19 is not a threat.
- Virtually all (99-100%) agree that precautions significantly reduce their risk regardless of their rating of their likelihood of contracting COVID-19.
- 37% increase in the perception that one’s own actions will determine if they contract COVID-19, an increase from 59% to 81% of respondents. The increase in prevalence of COVID-19 in the area may have led more respondents to believe their actions will determine if they contract it or not. (radio listeners)

### Physical distancing

There is evidence that respondents are limiting their trips to local markets and attempting to physically distance. The extent is difficult to ascertain through phone surveys. Taking into account our observation of distancing practices at local markets, distancing should remain a priority in behavior change messaging, though with the understanding that it will not always be possible.

- 68% decrease in the number of people the average household reports having physical contact with in last 24 hours since the first survey in March-April. (radio listeners)
- No change in the rate of self-reported socializing with friends outside the home, with 14% of respondents reporting they had done so in the last 24 hours. (radio listeners)

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<sup>1</sup> Of the radio listeners, 115 people were surveyed in round one and 103 in round two. Of the TWT participants, 135 people were surveyed in round one and 91 were surveyed in round two. This sampling approach was initially taken out of concern that the radio listener group may be significantly different than The Water Trust’s targeted communities. However, at this point there is little evidence for that hypothesis. Unlike the radio program evaluation, this analysis includes all respondents even if we could not reach them for both rounds of data collection.

- Low rate (4%) of self-reported use of shared motorbikes (known as boda bodas) in the prior 24 hours, though this self-reported data may understate the practice as there were legal restrictions on shared transit at the time of the survey. (radio listeners)
- 42-54% of respondents believed their neighbors were minimizing trips to the local market, and keeping a two-meter distance in public and when fetching water. The reported rates of distancing were similar but lower among TWT participants. (radio listeners)
- 18 percentage point increase in belief that maintaining a two-meter distance is very effective in reducing COVID-19 risk, increasing from 21% to 39% of respondents (TWT participants)

## Masks

The March-April survey revealed very low levels of mask wearing, belief in the effectiveness of masks, and belief that one could wear (and implicitly acquire) a mask. In the May-June survey, there is a clear trend of an increased perception of mask effectiveness as well as perceived capability to wear a mask. This change is likely attributable to the significant push by the government of Uganda to encourage the use of masks, evidence by its commitment (not yet realized) to provide masks free of charge to all citizens. At the same time, mask wearing still requires additional encouragement to reach the levels of acceptance and self-reported practice achieved with handwashing with soap.

- 48% increase in percentage of respondents who believe masks are very effective in reducing COVID-19 risk, from 33% to 49%. The increase is larger for TWT participants. (radio listeners)
- 25 percentage point increase in radio listener respondents who believe they are capable of wearing (and, implicitly, acquiring) a mask or face covering, from 24% to 49%. TWT participants had a 39 percentage point increase, from 2% to 41%.
- The increased perceived ability to practice mask-wearing (49%) is still much lower than handwashing with soap (79%), though slightly higher than keeping two meters' distance outside of the home (35%). (TWT participants)
- No difference in perception of mask effectiveness in reducing risk of contracting vs. transmitting COVID-19. (radio listeners)
- 64% of respondents report wearing a mask for at least part of their time in public, an increase from 28% in the month prior. (radio listeners)
- When asked what behaviors respondents believe their neighbors took the day prior, 49% reported their neighbors wore a face mask when at the local market. This is similar to the rate that believe their neighbors are minimizing trips to the local market (54%), and significantly less than handwashing with soap (95%). (radio listeners)

## Hygiene

Survey responses across both populations indicate very high uptake of handwashing with soap, with lower rates of disinfecting surfaces and a significant knowledge gap in creating disinfectant solution from commonly available resources (i.e., bleach, chlorine). Given the very low rates of handwashing with soap in the area prior to COVID-19, there may be an opportunity to shift social norms permanently to some extent. In addition, the low knowledge about mixing disinfectant is an important gap to address in messaging campaigns in the future.

- 99% of households report a handwashing facility with soap at home, similar to the rate in the first survey. (radio listeners)
- 79% report they are able to wash hands with soap and 77% believing the practice is very effective. (TWT participants)



- The self-reported daily rate of handwashing with soap per day remains high (12.5 times). However, respondents who did not listen to a radio show reported a lower rate (11) than the month prior (16). (radio listeners)
- When asked what risk-reducing behaviors they believe their neighbors are undertaking, virtually all (95%) reported handwashing with soap, significantly more (40 percentage points) than any other behavior. (radio listeners)
- A minority thought their neighbors were using disinfectant or soap before (23%) or after (18%) using their local water point. (radio listeners)
- 85% of respondents were unaware of how much bleach or chlorine to mix with water to produce a disinfectant. The 15% with some idea produced a range of answers that varied in accuracy. (radio listeners)

### **Additional takeaways from phone surveys**

*Uncertainty remains on how to safely manage COVID-19 in the home or village.*

Half of respondents do not know how they would care for a family member with COVID-19 while keeping the rest of their family safe (radio listeners). This rate has not improved in the last month. Notably the Uganda strategy has been to remove and centralize COVID-19 cases rather than home quarantine. There has been some positive change, as TWT participants reported significant increases (>50%) in their perceived capacity to keep their family safe if they have a COVID-19 case in their family or village. Taken together, these results suggest there has been meaningful but inadequate progress to address a large gap in perceived capacity to safely manage COVID-19 risk within the community. It will be important to address this knowledge gap prior to any change in this strategy – a change that may be necessary as the caseload increases.

*Increased awareness that travel for medical emergencies is permitted, but confusion remains.*

Awareness increased by 22% from the month prior (radio listeners). Still only 45% of respondents understand transportation for medical purposes is permitted. 17% of respondents report someone in their household has delayed or been unable to complete health care visits since the schools were closed. Comments from respondents suggest this is due more to the cost than fear of sanction. It is worth noting as restrictions on travel relax, this confusion should be less of a problem.

*Violence against women and children remains a significant risk.*

Fights among adults and children in the household are reported to have increased (37%) since schools were shut down in March (radio listeners). Of a small sample of women (n=36), 39% agreed or strongly agreed that they or their children were at risk of violence from a husband or family member (TWT participants). While the majority (80%) report that they know how to get help if they see or experience violence against women or children, only 18% are aware of the special hotlines set up for this purpose (radio listeners). The majority know only to refer to their local chief or police. A significant majority in both surveys (90-97%) believe that if someone in their community sought help to deal with violence against women or children, they would receive positive support from their local chief and neighbors.

*Most women report they are able to hygienically manage their menstruation.*

Most women (93%) report they have the knowledge and materials they need to hygienically manage their menstruation this month, and 82% of all respondents report that all of the women and adolescent girls in their household had the knowledge and materials necessary to hygienically manage their menstruation in the prior month (radio listeners).

*Most support the government's restrictions, though respondents are more polarized.*

The plurality (41%) supported maintaining the current level of restrictions, followed by 31% supporting the removal of some or all restrictions, and 27% supporting more restrictions (radio listeners). In contrast to the March-April survey, the share that support the current policy has decreased (from 56% to 41%), with slightly more respondents shifting to support fewer restrictions. In addition, while 80% previously disagreed that the threat is exaggerated by government and the media, now only 59% disagree, with the remainder in agreement or unsure (TWT participants.)

*Self-reported mental health outcomes have improved since immediately following the shutdown.*

In May-June, TWT participants reported lower rates of anxiety, depression, and loneliness from the month prior. For example, the percentage of respondents reporting being depressed not at all or less than one day in the prior week increased from 50% to 66%. This pattern was consistent across questions, likely due to issues around translating technical terms (e.g., depression, anxiety, loneliness) to local languages. At the same time, the trend across time is suggestive of improved mental health over time.

## ADDITIONAL LEARNING

### Challenges with Interactive Voice Response (IVR)

IVR technology has the potential to allow for targeted delivery of pre-recorded audio messages to promote risk-reducing behaviors. We piloted IVR across the five most common languages in our operating area. This pilot was unsuccessful due to significant technical problems that made the service and user experience unreliable. For example, the mobile operator was unable to ensure reliable delivery of the recorded messages and there were often significant delays between the user selecting and the system's response to that choice. Our technical partner noted that the technical capacity and reliability in Kenya is much higher than in Uganda. We are evaluating whether SMS might be an effective alternative to IVR.

### Limitations with phone surveys

In our typical work we rely more on observational assessments of hygiene and sanitation facilities and practices than self-reported outcomes. We have tried different strategies to reduce the impact of social desirability bias. That said, we have found questions like "Do you have soap or disinfectant at your water point?" to be very unreliable when we compared to data from in-person observation.

The most striking example of this issue is evident in our work with rural trading centers. In our radio listener survey, 86% of respondents reported that their local market had handwashing stations next to most stands or stores, yet our physical assessments found less than 10% with a station. While the surveys were conducted several weeks after The Water Trust's behavior change campaign

## ABOUT THE WATER TRUST

The Water Trust empowers rural, low-income communities in Uganda to create and sustain access to clean water and hygiene. Since 2008, we have helped more than 250,000 people across more than 600 communities. We aim to expand our impact beyond Uganda by pioneering and evaluating innovative approaches to behavior change challenges in water and sanitation.

Learn more at [watertrust.org](http://watertrust.org). For more information, contact The Water Trust at [info@watertrust.org](mailto:info@watertrust.org).

began, it is unlikely this intervention explains the variation. On-site assessments remain critical, and, when not practical, a survey design that minimizes the likelihood of biased reporting.

### Future research

The Water Trust will continue its public information campaign and regularly survey households to ensure it continues to be tailored to the changing needs of this audience. Through phone surveys, we will evaluate the impact of this campaign as well as monitor changes in public sentiment related to COVID-19. We are pursuing funding to expand this campaign both within these districts as well as to 10 to 15 other radio stations across Uganda, potentially reaching 10 to 15 million people.

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