

# SAVING MOTHERS THROUGH SAFE SANITATION

Mother Baby Friendly Hospital Initiative WASH Report

JUNE 2016



## PARTNERING ORGANIZATIONS

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**Save the Mothers (STM)** is an international nonprofit organization working to ensure that no mother or baby is lost due to preventable causes related to pregnancy and child birth. To advance this vision, STM operates two innovative programs. The *Master of Public Health Leadership* program builds the capacity of local leaders in the developing world to reduce maternal mortality within their own communities and spheres of influence. The *Mother Baby Friendly Hospital Initiative* works within hospitals and health centers to ensure that women receive timely, high-quality, dignified, and respectful health care during pregnancy and childbirth.

**Wish for WASH**, LLC is a social impact organization that strives to save lives by bringing innovation to sanitation through culturally specific research, design and education. In 2010, founder, Jasmine Burton, was inspired to “do something” about the sanitation problem in our world when she learned that pubescent girls in the developing world frequently drop out of schools because they lack toilets. Wish for WASH, LLC creates strategic partnerships and utilizes a human centered design approach to build, distribute, and make recommendations for sanitation aides and educational materials for use in resource constrained communities around the world.



## Introduction

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Both **maternal mortality** and **water, sanitation, and hygiene (WASH)** are two of the most significant issues facing the developing world today—and they are intricately linked.

Each year, 289,000 women die during pregnancy and childbirth, and many more suffer from severe birth injuries, such as obstetric fistula; with the highest numbers in sub-Saharan Africa.<sup>1</sup> In Uganda, 16 mothers perish daily as a result of pregnancy- and childbirth-related complications, adding up to a maternal mortality ratio of 343 per 100,000 live births.<sup>2</sup>

At the same time, 32 million people in Uganda lack access to adequate sanitation and over 8,000 children die every year from diarrhea caused by unsafe water and poor sanitation.<sup>3</sup> Women living in poor sanitation environments are three times as likely to die from maternal health-related issues compared to women who do not, while women living under poor water conditions have a maternal mortality ratio 50 percent higher than those that do not.<sup>4</sup>

Access to clean and functional toilets is, therefore, not only a basic necessity, but it is also integral to ensuring the health and safety of mothers and newborns, as unsanitary conditions, especially in hospitals and health facilities, can quickly spread disease and lead to death. Improving WASH conditions at health facilities, by ensuring access to clean, safe, functional toilets for patients and staff, is one way to begin addressing these issues.

## Background on this Project

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Save the Mothers' Mother Baby Friendly Hospital Initiative (MBFHI) seeks to improve maternal and neonatal morbidity and mortality by ensuring that mothers and babies are provided high-quality lifesaving care at health facilities. The MBFHI is currently operating in nine hospitals throughout Uganda, where it implements a ten-component framework to improve maternal and neonatal health care. One of the key components is ensuring mothers and newborns are provided with **high-quality, respectful, and dignified care**, which includes access to clean, safe, and functional toilets.

During its 2015-2016 bi-annual MBFHI hospital visits, Save the Mothers met with dozens of hospital administrators, health workers, and patients, who identified improvements in the areas of water, sanitation, and hygiene – and specifically toilet facilities – as a key priority. To address the sanitation and hygiene issues identified by health facilities, Save the Mothers reached out to Wish for WASH, a social impact organization that strives to save lives by bringing innovation to sanitation,



*From left to right, Wish for WASH founder, Jasmine Burton, Save the Mothers' fellows Mary Ajwang and Taylor Hendricks at Mityana Hospital.*

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<sup>1</sup> World Health Organization (WHO, 2015): Maternal mortality. <http://www.who.int/mediacentre/factsheets/fs348/en/>

<sup>2</sup> The World Bank. Maternal mortality ratio (modeled estimate, per 100,000 live births). <http://data.worldbank.org/indicator/SH.STA.MMRT>.

<sup>3</sup> Water Aid, Where We Work, Uganda: <http://www.wateraid.org/where-we-work/page/uganda>

<sup>4</sup> L. Benova, O. Cumming, and O.M.R. Campbell. "Systematic review and meta-analysis: association between water and sanitation environment and maternal mortality." *Tropical Medicine and International Health*, Vol. 19, No. 4, pp 368–387, April 2014. <http://onlinelibrary.wiley.com/doi/10.1111/tmi.12275/pdf>.

for support in providing actionable recommendations based on hospital needs assessments. The connection was made possible through the Global Health Corps (GHC) network, as Wish for WASH founder, Jasmine Burton and Save the Mothers' development and program staff are 2015-2016 Global Health Corps fellows.<sup>5</sup>

The Wish for WASH and Save the Mothers teams developed an assessment tool to collect information from an array of hospital stakeholders, including doctors, nurses, maintenance workers, patients, and hospital administrators. In May 2016, the team conducted site visits and assessments at five MBFHI facilities (Kawolo District Hospital, Mityana Hospital, Mukono Health Center IV, St. Charles Lwanga Buikwe Hospital, and St. Francis Naggalama Hospital) to identify current WASH challenges in the facilities and provide a menu of recommendations for how to most effectively and efficiently address the identified problems.

This report is a compilation of Wish for WASH and Save the Mothers' findings, in addition to key recommendations that are tailored to the needs identified at each health facility.

## Key Findings

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Hospital visits revealed certain key challenges that are shared by multiple MBFHI facilities.

### ***Lack of consistent access to utilities.***

Water and power supplies are essential for ensuring that toilets are clean, functioning, and safe for mothers and newborns. Without water, patients and staff cannot wash their hands or bathe, cleaning staff cannot clean the washrooms, and flush toilets cannot properly function. Water sources at the MBFHI sites range from groundwater to the national water grid to rainwater collection systems. Challenges related to inconsistent water supply often stemmed from the rising costs of using the National Water Supply, unreliable water supplies, as well as infrastructure related issues such as old/leaky pipes or broken down water pumps. Flush toilets strain the resources of the health facilities, as they use much more water than pit latrines.

Inconsistent power supply is also a challenge that impacts the proper functioning of toilet facilities, as lack of power or a generator in facilities that pump their own water means there is no water when the power is out. Electricity is a limited resource and it can be costly for facilities to pump their own water.

### Key Recommendations

- Invest in 3-5 rainwater collection units for all facilities; **Potential partner:** *H2OforAll*
- Invest in solar-powered generators or a solar energy source panel to power generators; **Potential partner:** *We Care Solar, Village Energy*
- Install low-cost water filters (like Life Straw) in existing health facility sinks to ensure the cleanliness of the water coming from the faucets despite old/leaky pipes; **Potential partner:** *H2OforAll*
- Advocate for National Water Supply contracts that ensure that water supply costs remain the same for 1 fiscal year for health facility planning purposes

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<sup>5</sup> Learn more about Global Health Corps here: [www.ghcorps.org](http://www.ghcorps.org).

### **Misuse and malfunction of toilet facilities.**

The hospitals visited have a combination of pit latrines, flush (both squat and sit), and EcoSan<sup>6</sup> toilets (waterless, dry flush toilets).

One of the key challenges identified in nearly every facility was patients' lack of understanding about how to use flush toilets, and thus, the misuse and malfunction of toilet facilities. Patients often throw cotton pads and other large debris into the toilets (as they would in a pit latrine), causing the pipes to become clogged and leading to expensive maintenance and repairs – or eventual shutdown of the facilities. Because many patients are from rural communities and are not familiar with flush toilets, they may also stand on sit toilets and/or urinate or defecate in showers. This leads to issues of cleanliness and malfunction of the plumbing system.

At one facility, waterless, composting toilets (called EcoSan toilets) were installed, but too many patients and staff use the toilets each day, which causes them to fill up too quickly. The facilities are unable to completely compost this amount of waste over this short period of time, so the cleaning staff have to interact with non-composted, and pathogen-filled fecal matter daily. In addition to the hyper-cleaning required to maintain the EcoSan toilets, the facilities require education and maintenance around using the composted waste as fertilizer. This type of toilet does not accommodate the hospital's high-volume outpatient wing, and it requires an unsustainable amount of resources from the hospital. It therefore, needs to be replaced with a more user-friendly facility for this intended demographic and volume.

#### **Key Recommendations**

- Conduct behavior change/education campaigns about how to properly use the toilets and dispose of waste; **Potential partners:** *Communication for Healthy Communities, project of FHI360, or Communications for Development Foundation of Uganda*
- Invest in signage in and around toilet facilities that visually explains how to properly use the toilets; **Potential partners:** *Communication for Healthy Communities, project of FHI360, or Communications for Development Foundation of Uganda*
- Provide waste bins (non-removable) in the facility
- Install culturally-appropriate toilets (including those appropriate to the resources of the facility), such as lined ventilated improved pit (VIP) latrines that are deep and dark and have a pit latrine pan as the user interface/toilet (made by American Standard)

### **Overworked and underequipped cleaning staff.**

In many of the hospitals, cleaning staff (both internal and externally-contracted) are responsible for cleaning the entire facility, including the toilets. This often means that toilets are not cleaned frequently enough, as staff are unable to spend the requisite amount of time in the facilities.

Most hospitals hire outside contractors to provide cleaning services, and these individuals are, according to hospital administrators and cleaning staff themselves, severely underpaid (e.g., less than \$250 per month for 16 cleaning staff, or less than 50 cents per day, per cleaner). They also lack supervision and are not provided with adequate cleaning supplies, protective gear, or direction. Cleaning staff reported that their protective gear wears out and is not replaced frequently enough, so they often work with holes in their shoes.

In public hospitals, the district is typically responsible for hiring the contracting company that provides cleaning services, and, therefore, the hospitals have very little power to advocate for changes.

<sup>6</sup> About EcoSan toilets: <http://www.wateraid.org/news/news/ecosan-toilets>.

### Key Recommendations

- Hire cleaning staff in a revolving/seasonal fashion, where the ratio of cleaning staff to toilets in the facility is 1:5 at any given time
- Assign cleaning staff to rotate on and off toilet duty (e.g., staff work on toilets for 6 months and then rotate to another type of cleaning in the hospital)
- Advocate for increased investment in WASH/health sector as a strategy for ensuring safe motherhood; *Potential partners: Communication for Healthy Communities, FHI360, Communications for Development Foundation of Uganda, UNFPA*
- Write grants specifically to boost resources for hospital cleaning costs (private not-for-profit facilities), framed as a way to improve the quality and safety of health facilities

### ***Lack of provision of basic necessities.***

Our team found that toilets in many of the health facilities lacked basic supplies needed to ensure health, cleanliness, and safety, including toilet paper, soap, dust bins, and toilet brushes. Health facilities cited two major issues related to the provision of basic necessities in toilets: financial resources and theft.

Often times, hospitals are unable to afford even basic items such as toilet paper and soap for their facilities, so they encourage patients to bring their own provisions to the hospital (on top of all of the other medical supplies that patients are often expected to bring along with them). On the other hand, some hospital staff mentioned that they had previously supplied these items, but due to theft, the hospital was forced to stop providing them.

Theft was identified as an issue in all of the health facilities, and there is a need to create a community of trust and accountability within the health facilities to enable these basic necessities to remain available for patients.

### Key Recommendations

- Post behavior change communication messaging and posters around the health facilities to promote a culture of health and to discourage theft; *Potential partners: Communication for Healthy Communities, project of FHI360, or Communications for Development Foundation of Uganda*
- Install “permanent” fixtures (e.g., cement the dust bins into the bathroom floors, provide hand sanitizer/liquid soap that is bolted to the wall, provide mobile bucket with extension cord)
- Hire a guard to manage the bathroom usage, who will allocate a specified amount of toilet paper to users, who will enforce the behavior change messages, and who will report to the maintenance team if and when something breaks or needs to be fixed

### ***No facilities support for post-partum mothers, elderly, or people with disabilities.***

During the visits, our team discovered that the toilet facilities were not particularly well-suited for accommodating post-partum mothers, elderly patients, or individuals with disabilities. In some cases, the pathways to reach the toilets were unsafe, long distances from the ward, and not well-lit. The toilets themselves were not equipped with handrails, bars, or any other mechanisms to assist with the special needs of these populations. A number of post-partum mothers with whom our team interacted mentioned that they found it difficult to utilize the squat toilets, particularly after a C-section. Some pregnant/laboring mothers also fear using the pit latrines, as they believe their babies could accidentally fall into the pits.

### Key Recommendations

- Ensure there are paved pathways to all health facility toilets (to ease walking and wheelchair access)
- Ensure there is lighting provided on all walkways that lead to a toilet within the health facility (e.g., motion censored lights, solar lights, a guard who sits outside at night and shines a flashlight down the pathway)
- Add simple hand rails or bars on the interior wall of the superstructure to ensure that people of all abilities can squat if needed
- Ensure that all pit latrine holes are funneled downward to reassure pregnant mothers of their safety

### Conclusion

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This collaboration between Wish for WASH and Save the Mothers is intended to bring WASH-related improvements into the Mother Baby Friendly Hospitals, thereby improving the quality and safety of maternal and newborn health care provided at these facilities. A number of the findings can be addressed through simple infrastructural upgrades, which will largely require one-time upfront investments. On the other hand, ongoing behavior change education campaigns in the hospitals will be needed to address issues related to misuse of toilet facilities. Finally, some of the issues require advocacy at local and national levels to increase and sustain resources for WASH-related activities. This report will be utilized to solicit funding from private and public sources, with the intention of implementing as many of the recommended improvements as possible.

## INDIVIDUAL CLINIC ASSESSMENTS

### KAWOLO HOSPITAL

#### Key Findings

Kawolo Hospital is a public district hospital located in Lugazi, 40 km east of Kampala. The hospital conducts an average of 360 deliveries/month and patients come primarily from rural communities in the surrounding districts, as well as from Kampala. It has a total of 11 toilets: 8 flush toilets – only 1 functional, and 3 pit latrines with 6 pits total. Kawolo utilizes three different water sources: the national water grid, a solar-powered borehole built by H2OforAll (a Canadian NGO), and rainwater collected in four tanks.



*Pit latrines at Kawolo Hospital*

Toilet cleaning services and fecal sludge management are both provided by externally-contracted companies. Patients at the facility feel the hospital should build more toilets, provide soap at the handwashing station, and clean the toilet facilities better.

Key Challenges	Recommendations
Inadequate number of toilets (and hospital would prefer flush toilets)	<ul style="list-style-type: none"> <li>Install some pour flush toilets as a compromise between pits and fully mechanical-flush toilets*</li> </ul>
Patients misuse flush toilets	<ul style="list-style-type: none"> <li>Conduct education and training on use of flush toilets, this can be done during patient admission</li> <li>Post a guard in the bathrooms who reminds each user about how they use the toilet before using it and checks units after</li> <li>Post behavior change communication posters and messaging throughout and around the health facility</li> <li><b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> </ul>
Inadequate number of rainwater collection tanks	<ul style="list-style-type: none"> <li>Invest in more rainwater collection tanks (the 4 tanks they have now only last 2 days during dry season)</li> <li><b>Potential partner:</b> <i>H2OforAll</i></li> </ul>
Exorbitant costs for emptying pit latrines	<ul style="list-style-type: none"> <li>Negotiate a long-term contract with a private company that is mutually beneficial (i.e., ensures the company long-term business and the hospital reoccurring waste management services)</li> <li>Advocate for increased funding to support hospital WASH-related activities through awareness campaigns about the connection between WASH and safe motherhood</li> <li><b>Potential partners:</b> <i>Communication for Healthy Communities, project of</i></li> </ul>

	<i>FHI360; Communications for Development Foundation of Uganda, UNFPA</i>
External staff responsible for cleaning are underpaid and lack equipment and motivation	<ul style="list-style-type: none"> <li>• Hire cleaning staff in a revolving/seasonal fashion, where the ratio of cleaning staff to toilets in the facility are 1:5 at any given time, and staff rotate on and off 'toilet duty,' ensuring responsibility is shared</li> <li>• Reallocate budget to hire more cleaning staff in order to maintain the quality of the health facility</li> </ul>
Lack of sustainable power source	<ul style="list-style-type: none"> <li>• Invest in a generator and re-budget for fuel</li> <li>• Install a solar panel power source system</li> <li>• <b>Potential partner:</b> <i>We Care Solar, Village Energy</i></li> </ul>
Utility infrastructure issues (leaky/old pipes)	<ul style="list-style-type: none"> <li>• Repair the infrastructure problems/install new pipes for water transport</li> <li>• <b>Potential partner:</b> <i>H2OforAll</i></li> </ul>
<p>* Our contact at the hospital mentioned a new national policy in Uganda that public health facilities may not construct any new pit latrines. However, our team was unable to find any information to confirm. This will need to be confirmed with local government officials prior to any construction activities.</p>	

## MITYANA DISTRICT HOSPITAL

### Key Findings

Mityana Hospital is a 100-bed public district hospital located in Mityana town, about 70km from Kampala. The hospital conducts an average of 600 deliveries/month and patients come primarily from rural communities around Mityana, Kyenjojo, Kyambuga, and Mpigi, as well as from Kampala. It has a total of 60 toilets: 20 flush toilets in outpatient, 16 flush toilets in inpatient, 8 flush toilets for staff, 12 flush toilets in theater, and 4 pit latrines. However, the vast majority of flush toilets, built



as part of the hospital's renovation by the World Bank, are not in use

*Left is a photo of the current pit latrines at Mityana Hospital and right is a photo of some of the flush toilets at the facility*

due to financial and user-facing issues (i.e., patients were unfamiliar with how to use flush toilets, and threw trash and other debris into the toilets, clogging them and causing system malfunctions; and the water costs for these toilets were too high for the hospital). Mityana is currently using water from the national water grid, though it is expensive, because the facility's water pump is broken. Fecal sludge management for the pit latrines is provided by an externally-contracted company. An external company is also contracted to provide toilet-cleaning services, but they do not currently meet the hospital's needs. Patients at the facility feel the hospital should provide buckets for cotton and pads, provide toilet paper, educate patients on how to use flush toilets, and improve/build more functional toilets. The

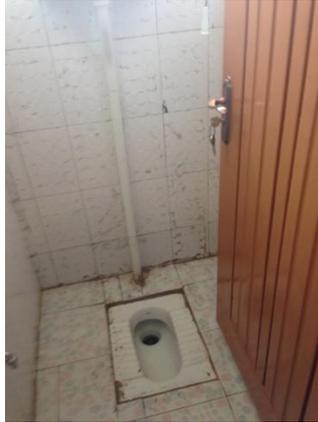
hospital is currently in a “defect liability” period with the Work Bank (through December 2016) during which time they can contact the World Bank or its Chinese contractor to fix any and all defects found in the facility.

Key Challenges	Recommendations
Water pump is currently broken	<ul style="list-style-type: none"> <li>Invest in a new functioning pump with a lifespan of at least 10 years</li> <li><b>Potential partner:</b> <i>H2OforAll</i></li> </ul>
Hospital does not have the financial resources for so many flush toilets that use the National Water Grid	<ul style="list-style-type: none"> <li>Diversify water supply by investing in a water treatment system that would allow them to use ground water</li> <li><b>Potential partner:</b> <i>H2OforAll</i></li> </ul>
Flush toilets are often not used because of how quickly they malfunction (because people throw trash in them)	<ul style="list-style-type: none"> <li>Provide bins or other receptacles for trash and ensure clear signage</li> <li>Post behavior change communication posters and messaging throughout and around the health facility</li> <li><b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> </ul>
Cotton/Pads are the main source of clogging (people do not throw them in the dust bins)	<ul style="list-style-type: none"> <li>Provide bins or other receptacles for trash and ensure clear signage</li> <li>Post behavior change communication posters and messaging throughout and around the health facility</li> <li><b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> </ul>
Inadequate financial resources for cleaning staff (recently moved to a larger facility)	<ul style="list-style-type: none"> <li>Write grants specifically to boost resources for hospital cleaning costs, framed as a way to improve the quality and safety of health facilities</li> <li>Advocate for increase public investment in WASH activities at hospitals</li> </ul>

## MUKONO HEALTH CENTER IV

### Key Findings

Mukono Health Center IV is a public health facility located in Mukono town, about 20km east of Kampala. The health center conducts roughly 500 deliveries/month and patients come primarily from rural communities around Lugazi, Naggalama, Mukono, Mityana, as well as Kampala. It has a total of 6 toilets, with 3 flush toilets (only 1 in use) and 3 pit latrines. Mukono Health Center IV is connected to the national water grid, but also has a rainwater collection system, which they keep in reserve and use when the national water supply is inconsistent. An external company is contracted to provide toilet-cleaning services, but they only employ two individuals to clean the entire health facility, including the toilets. The health center has not yet had to empty its pit latrines, but will hire an external contractor to provide fecal management. Maternity ward patients at the health facility feel that it is difficult for them to use the pit latrines, particularly when they are recovering from C-sections. They also expressed the need for more toilet facilities, better maintenance, increased privacy, and soap and other hygiene materials.



Left to right: squat, pit latrine, and shower options that are currently being utilized at Mukono Health Center IV.

Key Challenges	Recommendations
Rubbish bins too small, fill up quickly	<ul style="list-style-type: none"> <li>• Install larger waste bins in/around toilets</li> <li>• Create a compost system for waste</li> </ul>
Patients urinate and defecate around pit latrines (on the ground) and in the showers	<ul style="list-style-type: none"> <li>• Ensure adequate signage around showers/toilets to encourage proper usage</li> <li>• <b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> <li>• Install new tiles on the floors (easier/more hygienic to clean if people go to the bathroom on them)</li> <li>• Grid shower drains and grade the floors to slope into drains</li> <li>• Increase the size of shower drains</li> <li>• Install new toilets/seats over the pits (tile around them)</li> </ul>
Protective gear for cleaners is insufficient	<ul style="list-style-type: none"> <li>• Hospital should keep a supply of protective cleaning gear</li> <li>• Hold funds in reserve to replace protective gear quarterly</li> </ul>
Lack of facilities/support for people with disabilities	<ul style="list-style-type: none"> <li>• Install tilted bars on the walls of all toilets</li> <li>• Install 1 sit/flush toilet for use by disabled patients</li> </ul>
Path to the bathroom is dangerous/long	<ul style="list-style-type: none"> <li>• Pave the path to the bathroom/toilets</li> <li>• Install solar lights on the path and in the bathrooms</li> <li>• <b>Potential partner:</b> <i>We Care Solar, Village Energy</i></li> </ul>

## ST. CHARLES LWANGA BUIKWE HOSPITAL

### Key Findings

St. Charles Lwanga Buikwe Hospital is a private not-for-profit hospital located in Buikwe town, about 70 km from Kampala. It is a joint project of the Archdiocese Caritas Prague and the Lugazi Diocese. The hospital conducts about 85 deliveries/month and patients come from a wide range of rural communities in the Central Region of Uganda, including Jinja, Iganga, and Mbale. They also come from Island Communities like Buvumu, which tend to have higher rates of certain conditions, like HIV/AIDS. Buikwe Hospital has a total of 14 toilets, with 8 flush toilets (mostly squat, but some are sit toilets) and 2 pit latrines with 6 pits total. The hospital uses piped water and also has two rainwater collection units; it is

not connected to the national water grid. The hospital has two internal staff who are responsible for cleaning the entire facility, and they are provided with salary enhancements for cleaning the toilets three times per day. Buikwe Hospital contracts with an external company for fecal sludge management. Patients at the hospital expressed that the hospital needs more toilet facilities, but would prefer pit latrines as they are unsure how to use flush toilets. They also would like the toilets to be cleaned better and more often.



*The squat and sit flush toilet options with the tinted ceramic at Buikwe Hospital.*

Key Challenges	Recommendations
Lack of sustainable power source	<ul style="list-style-type: none"> <li>Invest in a genset with a fuel supply line in the budget</li> <li>Invest in solar power energy</li> <li><b>Potential partners:</b> We Care Solar, Village Energy</li> </ul>
Insufficient rainwater collection units	<ul style="list-style-type: none"> <li>Install more rainwater collection units</li> <li><b>Potential partner:</b> H2OforAll</li> </ul>
Inadequate pits (and not deep enough)	<ul style="list-style-type: none"> <li>Install more and deeper pit latrines (especially for outpatient department and maternity ward)</li> </ul>
Ceramic near sinks, toilets, and tile appears stained and dirty	<ul style="list-style-type: none"> <li>Replace all ceramic items with new ceramic (toilet bowls, tiles, sinks) so that people use them and not think they are broken or dirty; choose a dark color (black, blue) so that water stains will be hidden</li> <li>Investigate the water supply to see what minerals in the water are causing the tile erosion</li> </ul>

## ST. FRANCIS NAGGALAMA HOSPITAL

### Key Findings

St. Francis Naggalama Hospital is a private not-for-profit hospital located in Naggalama, Mukono District, about 40 km from Kampala. The hospital conducts about 120 deliveries/month and patients come from

primarily rural communities surrounding the hospital. Naggalama Hospital has a total of about 83 toilets on the premises, with 50 flush toilets, 30 EcoSan toilets, and 3 pit latrines. They pump their own groundwater, using a generator when the power supply is unstable, and are not connected to the national grid. The hospital contracts with an external company to provide cleaning services at the facility. Naggalama has not yet had to service the toilets. Patients at the hospital would like to see more toilets at the hospital, as well as more consistent water supply.



Left to right: the Ecosan user interface and back end waste removal chamber; far right, indoor squat toilets in maternity ward.

Key Challenges	Recommendations
EcoSan toilets are not being used correctly/overused (too many OPD patients use per day and they do not use it right and it fills up too quickly)	<ul style="list-style-type: none"> <li>• Replace EcoSan toilets with 6 regular pit latrines*</li> <li>• Conduct patient education and awareness campaign on how to use the EcoSan toilets</li> <li>• Install adequate signage explaining the use of EcoSan toilets</li> <li>• Designate certain toilets to be used for set periods of time, and alternate between them</li> <li>• <b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> </ul>
EcoSan toilets do not compost quickly enough and cleaning staff have to interact with non-composted waste	<ul style="list-style-type: none"> <li>• Replace EcoSan toilets with 6 regular pit latrines*</li> </ul>
Patients are not used to using a flush toilets, so causes blockage	<ul style="list-style-type: none"> <li>• Conduct patient education and awareness campaign on how to use the flush toilets</li> <li>• Install adequate signage explaining the use of flush toilets</li> <li>• Provide receptacles for trash and other debris</li> <li>• <b>Potential partners:</b> <i>Communication for Healthy Communities, project of FHI360; Communications for Development Foundation of Uganda</i></li> </ul>
Pit latrines are old	<ul style="list-style-type: none"> <li>• Update pit latrines (structure and maintenance)</li> </ul>
<p>* Our contact at the Kawolo Hospital mentioned a new national policy in Uganda that public health facilities may not construct any new pit latrines. However, our team was unable to find any information to confirm. This will need to be confirmed with local government officials prior to any construction activities.</p>	