Executive Summary

About Lwala Community Alliance

Founded by a group of committed Kenyans, Lwala is building the capacity of rural communities to advance their own comprehensive well-being. Lwala believes that local communities have untapped potential to solve the world’s most pressing health challenges. We leverage our communities to lead in the design, implementation, and evaluation of all of our interventions. Then, we partner with communities, government, and universities to build evidence of impact and infuse these insights into the formal health system. This bottom-up change promises holistic solutions that are custom-built for the systems they are meant to reform.

Key Impact Indicators

Households Enrolled in Community Health Worker Program

Cumulative

<table>
<thead>
<tr>
<th>North, East, and South Kamagambo</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 YTD</td>
</tr>
<tr>
<td>End of 2019</td>
</tr>
<tr>
<td>End of 2018</td>
</tr>
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Couple Years of Protection

YTD comparison

<table>
<thead>
<tr>
<th>North, East, and South Kamagambo</th>
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<tbody>
<tr>
<td>2020 YTD</td>
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<td>2019 YTD</td>
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Skilled Delivery Rate

2020 YTD

| North Kamagambo | 100% |
| East Kamagambo  | 98%  |
| South Kamagambo | 95%  |

COVID-19 Response

Community health workers (CHWs) trained and deployed across Migori County

- 2,500 CHWs
- 418 COVID-19 response CHWs

Personal protective equipment (PPE) procured to protect frontline health workers and continue essential health services

- 250,000 surgical masks
- 7,400 face shields
- 11,000 N-95 masks
- 500 infrared temperature readers

Well-Child Visits

14% increase in well-child visits from April - September 2020, compared to the same period last year.

HIV Patient Care

Q3 2020

98% viral suppression among patients enrolled on HIV care. This is an all-time high for this important indicator of HIV-positive patient health.

Expanding Our Model

Lwala continues to support the national policy process for community health and the professionalization of CHWs.

We have convened a coalition of civil society organizations to advocate for and support coordinated implementation of community-centered universal health coverage (UHC).

We continue to provide technical advisement, and support public participation in the Migori County community health services policy process.

Lwala is supporting a Ugandan organization to start their CHW program.
Letter from the Directors

While this report covers our work through the end of September, we are starting here by sharing what we are facing right now. In late September, we began to see more cases of COVID-19 in our county. As a result, Lwala started routine testing of our staff and community health workers (CHWs). In October, several staff, CHWs, and community members tested positive.

With a significant number of frontline health workers at Lwala Community Hospital testing positive, and many others exposed, we made the decision to redirect outpatient services from Lwala Community Hospital to nearby partner facilities. Our healthy CHWs remain in service in the community – equipped with personal protective equipment (PPE), and completing daily wellness checks.

We are supporting all COVID-19 positive staff and community members with home-based care, clinical care and food security packages, as appropriate. We continue to pay staff and CHWs who are on leave due to quarantine and offer them mental health counselors. We are conducting repeat testing, extensive contact tracing and contact monitoring.

Because of the stalwart support of our partners, our team has been preparing resources and systems to respond to this exact moment. Our priorities have been to protect health workers, bolster the health system to maintain essential health services, and stem the spread of the virus. To do this, Lwala has supported partner health facilities to heighten infection prevention protocols and increase well-patient outreaches, equipped CHWs with personal protective equipment (PPE) and new safety protocols, supported Ministry of Health to improve commodity logistics, and directly provided essential drugs and PPE to our network of partner facilities.

All of these resources make it possible to protect our health workers and communities. And, the years of work we’ve put into bolstering quality at our partner facilities means that our patient population has multiple safe choices for health services. As a result of this work, we are encouraged to see that skilled deliveries, well-child visits, contraceptive uptake, and HIV care adherence have improved since March.

And yet, we know our difficult work has only just begun. We know that we do not have the testing capacity that we need, and we are not alone in seeing a surge of cases. President Kenyatta has called for an emergency summit to review the surge of cases across the country in October. Our hope is that Kenya will decide to increase its investment in testing and continue to reinforce public health guidelines. Your support means even more to us now than ever before.

Onward in solidarity,

Ash Rogers                Julius Mbeya
Executive Director          Managing Director
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COVID-19 RESPONSE

At Lwala, we are focused on ensuring the safety of our health workers, continuing essential health services, and protecting communities from the spread of COVID-19.

Supporting Kenya’s National Response to COVID-19

We are supporting the national response to COVID-19 through the Ministry of Health’s community health division. Lwala provided technical assistance to national-level Ministry of Health to produce the following national guidelines:

1. ‘Guidelines on Continued Provision of Community Health Services in the Context of Coronavirus Pandemic in Kenya’. Amongst other inputs, Lwala contributed CHW workflow protocols for these guidelines and pushed for PPE standards for all CHWs. These guidelines presented a roadmap for counties across Kenya to keep CHWs deployed and providing essential services in the midst of COVID-19 outbreaks.

2. ‘Home Based Isolation and Care Guidelines for Patients with COVID-19’. Before the guidelines were released, many asymptomatic and mild cases of COVID-19 (and sometimes suspected cases) were held in isolation and quarantine centers across the country. This increased the burden on the health system, put patients at further risk, and heightened stigmatization. Now, CHWs are supporting Ministry of Health officials to keep asymptomatic, mild, and suspected cases at home while monitoring them closely.

3. ‘Behaviour Change Communication in the Context of COVID-19 Infection Prevention and Control (IPC)’. These guidelines clarify and reinforce adherence to COVID-19 measures in health facilities. Now, training on this content is being delivered to health workers across Kenya, including in Migori County.

As the in-country liaison to the Ministry of Health for the COVID-19 Action Fund for Africa (CAF-Africa), Lwala is pushing forward processes to procure personal protective equipment (PPE) for health workers, including community health workers (CHWs) across Kenya. This work started with Lwala and our partners successfully pushing for CHWs to be included in national estimates for PPE and quantifying that need nationwide. In fact, Lwala presented twice to the Kenyan Senate to advocate for policymakers to include CHWs in PPE coverage.

Migori County

Implementing national guidelines at the county-level

Lwala is supporting Migori County to implement the national guidelines described above, and advocating for routine testing for frontline health workers across Migori County. We are leveraging the social capital and distribution infrastructure of existing cadres of CHWs and community committees to rapidly deliver reliable information, continue essential health services, and scale-up COVID-19 home-based care, contact tracing and contact monitoring.

Since March, we have worked with Ministry of Health to train 2,500 existing CHWs across Migori County on an adapted protocol to continue essential services in the context of COVID-19. Of these 2,500, we have trained and deployed 418 COVID-19 response community health workers (CR-CHWs) across the County, and 80 supervisors to provide supportive supervision to these CR-CHWs. 2 CR-CHWs have been deployed to each community health unit across Migori County to support home-based care, contact tracing, and contact monitoring for a population of over 1 million people.
To drive effective management of this cadre by Ministry of Health, Lwala has trained and coached 16 community focal persons from the Ministry of Health (2 in each sub county). The sub-county community health focal persons are supporting the CHW supervisors and COVID-19 response roll-out across the entire county. The Ministry of Health is providing equipment, commodities, supervision, Lwala is providing personal protective equipment (PPE). Together, Lwala and Ministry of Health are cost-sharing CHW stipends.

A patient encourages neighbors to de-stigmatize COVID-19

Godson, a 25-year-old public health officer, lives with his mother and sister in Suna West Sub-County, Migori County. In August, he tested positive for COVID-19. Almost immediately after he received his test results, his sub-county care team arrived to determine whether he should receive home-based care or facility care. Godson had mild symptoms, and his home had adequate space and ventilation to self-isolate away from his family, so he was approved for home-based care. Robert, Godson’s CR-CHW, then arrived to describe the COVID-19 protocols. Every day, Robert visited Godson to take his temperature, check on his symptoms, and provide encouragement.

Godson recovered, and his family continued to test negative for COVID-19. He says that the psychological effects of isolation were the most challenging part of the experience. It was difficult to be separated from his mother and sister, and painful to know that neighbors were scared of contracting the virus from him.

Godson commends the support Robert provided as his CR-CHW, including the health education provided to his sister and mother. His feedback about the real effects of stigma between neighbors has been an important lesson as we continue to respond to the virus. In fact, Godson encouraged Lwala to share his story with community members across Migori County. He believes that if more people understand the serious potential of the virus – emotionally and physically – they might take more precautions for themselves, and be more supportive of neighbors who test positive.

Rongo Sub-County

We have further contextualized our response in our direct service area, serving 90,000 people. As with our national and county-level technical assistance, at the sub-county level we are focused on protecting health workers, continuing essential health services, and stemming the spread of COVID-19.

Community education and health services

We are providing open-air well-patient outreaches that follow social distancing guidelines. Essential services available at the outreaches include: antenatal care visits, contraceptives, well-child visits and childhood immunizations. Plus, we continue to share

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1 Names have been changed, and photos omitted, to protect the privacy of the individuals depicted.
COVID-19 prevention messaging via radio, bulk SMS and Whatsapp platforms. Twice weekly radio shows broadcast across Migori County (total population 1 million), plus neighboring Homa Bay and Kisii Counties, for a total reach of approximately 3.5 million people. Over 11,600 unique recipients are receiving WhatsApp and SMS reminders about COVID-19 prevention and other essential health topics.

**Procuring PPE for frontline health workers**
So far this year, Lwala has procured more than 500 infrared temperature readers, 11,000 N-95 masks, 250,000 surgical masks, and 7,400 face shields. Plus, thousands of medical aprons, goggles, coveralls, shoe covers, gowns, and head caps. We have equipped facility health workers and CHWs across Rongo Subcounty with adequate PPE in order to safely continue providing health services.

**CHW screening, testing, and support**
Before conducting any household visits, CHWs continue to use Lwala’s custom-built digital tool on a mobile device to conduct self-wellness checks, PPE supply checks and household phone screens for COVID-19 prior to home visits. This tool enables CHWs to roll out WHO and UNICEF Integrated Community Case Management (iCCM) guidelines, and maintain essential services.

The chart at right shows tracks the daily percentage of CHWs who report having all required PPE (face mask, gloves, hand sanitizer, and spirit swabs) to perform their household visits. The charts below show CHWs’ responses to the self-wellness checks. Supervisors are alerted via automated text if any CHWs on their team are experiencing symptoms, are COVID-19 exposed or have run out of PPE or cleaning supplies. CHWs remain at home until they receive supervisor approval to redeploy. Supervisors are also notified automatically if a household screening call results in a suspected case.
All CHWs have received refresher training on how to conduct low-touch household visits. Plus, ongoing supportive supervision meetings allow CHWs to discuss the most common and challenging household questions of the week. This household-level feedback loop helps Lwala quickly and accurately share information, and maintain community trust.

We continue to provide all CHWs and frontline health staff with **mental health counseling**. Team members have accessed both group therapy and individual sessions since June.

**Lwala Community Hospital and 8 Partner Health Facilities**

We have developed detailed essential primary care guidelines for all health facility personnel, and equipped all of these workers with PPE. We have also intensified infection prevention control – including protocols for donning and doffing PPE, setting up holding bays, waste management and occupational health and safety.
In addition to the digital tools for CHWs, Lwala developed a health facility gate screening tool. The facility gate screening tool assesses all visitors to Lwala Community Hospital and our 8 partner facilities for COVID-19 symptoms.

Since April, we have used our gate screening tool to conduct nearly 70,000 COVID-19 screenings across 9 facility entry points.

**OUR IMPACT**

**Systems Change**

**Growth Strategy**
We are successfully providing direct service delivery in 3 out of the 4 sublocations in our subcounty—North, East, and South Kamagambo—reaching a population of 90,000. We will bring our full community-led health model to the rest of Rongo sub-county (population 150,000) in 2021.

**National Engagement**
We continue to support the national policy process for community health and the professionalization of CHWs. This work advances our goal of government adoption and implementation of community-led health principles and delivery of high-quality health care for all.

Lwala has convened a coalition of civil society organizations, called Community Health Units for Universal Health Coverage (CHU4UHC), to advocate for and support coordinated implementation of community-centered universal health coverage (UHC). UHC is one component of the Kenyan government’s “Big 4” policy agenda, and Lwala is working with the Ministry of Health to advise policy makers on community health service recommendations. As part of this national policy support, Lwala participated in the delegation to draft Kenya’s new Community Health Strategy 2020 – 2025.

On behalf of CHU4UHC, we have presented twice to the Kenyan Senate, advocating for effective community health response to COVID-19 and resource allocation to community health. Plus, we are actively contributing to national guidelines and policy documents that are used across the country to respond to the pandemic.

Lwala is also participating in the Electronic Community Health Information System (eCHIS) technical working group that is expected to develop an eCHIS strategy for the country. The eCHIS will ultimately support UHC and improve health outcomes by creating a reliable flow of data between community and national levels.
Global engagement

Lwala is applying lessons from our community-led health model to advance high-quality health for all. We see ourselves as part of a global movement to advance universal health coverage by strengthening community health systems.

This year Lwala has provided technical assistance to Komo Learning Centres (KLC) in Uganda to start their CHW program. A pre and post-test using the CHW AIM tool, which outlines guidelines for creating and operating CHW programs, has shown a 3 point increase in this first year of the program. Key improvements were made in CHW recruitment and training. When COVID-19 appeared, KLC decided to continue building a strong community health system in their sub-county. Since the beginning of the pandemic, they have trained 50 CHWs, built capacity at local health centers, and proactively communicated COVID-19 information with their communities. The new CHW cadre was also able to provide an emergency food supply and mental health package, which would have been impossible before the launch of the CHW program.

Lwala is an active member of the Community Health Impact Coalition (CHIC), a coalition of 17 leading expert organizations implementing CHW models around the world. Together, we have co-authored several tools on optimizing community health systems that have been published and made available to a global audience. So far this year, we contributed to:

- ongoing support for the COVID-19 Action Fund for Africa (CAF-Africa), a joint fund raising $100 million to ensure CHWs across Africa are protected with PPE
- a resource wiki including COVID-19 protocols. These protocol resources have been accessed by UNICEF & ministries in multiple countries
22,677 households are enrolled in our community-led health model and regularly visited by a CHW. Our CHWs identify and track pregnancies, encourage facility deliveries, ensure on-time immunizations, test and treat common childhood illnesses, provide contraceptives, connect clients to health centers, and share general health information.

Supporting CHWs to provide essential health services
This quarter, Lwala and the Rongo Sub-County Ministry of Health assessed all 23 community health units in Rongo Sub-County to determine their level of functionality and identify areas of support. Following the assessment, CHWs in South Kamagambo and Community Health Committees (CHCs) in East Kamagambo received additional training.

88 CHWs in South Kamagambo were trained on an additional technical skills module, including conducting rapid diagnostic tests for malaria and facilitating low-touch malnutrition screening.

108 community health committee (CHC) members from East Kamagambo received a week-long training on governance and community health services, effective communication and networking, resource mobilization, financial management, and information systems. CHCs are responsible for mobilizing communities to be involved in health promotion and disease prevention activities.
The 6 partner facilities that have worked with Lwala for at least one year have significantly improved over their baseline performance on the Health Facility Assessment (HFA).\(^2\) HFAs showed an average 36% improvement in quality improvement (QI) index scores compared to 2018 baseline performance. HFAs are aggregate scores which analyze the 6 WHO health system building blocks: service delivery, workforce, patient data, medicines and supplies, financial management, and leadership.

The latest assessment shows the effects of COVID-19 across our partner facilities. Our facilities scored an even or slightly lower percentage compared to their previous performance in Q1 2020. This is attributed to limited in-person health facility management committee meetings, and commodity and supply chain disruptions across the county. To limit the negative effect of these factors, Lwala has focused on the following facility support interventions since March:

1. **Facility COVID-19 protocol and supplies:** We have supported facility staff with PPE, lab supplies, and on-the-job training related to new COVID-19 guidelines. This has

\(^2\) The Ongo and Kitere facilities had their baseline assessments in Q1 2020, so their data sets will become more comprehensive for comparison over time.
contributed to a 4% increase overall in staff satisfaction and confidence compared to Q1 2020.

2. **Health Facility Management Committee (HFMC) and Community Health Committee (CHC) engagement:** Functional CHCs form the foundation of the community health system, bringing communities closer to their health providers, ensuring transparency in resource allocation and commodity distribution, and elevating community demands in policy and budgeting processes. A fully functioning CHC and HFMC relationship allows community concerns to be addressed, and projects developed to improve health care provision. Plus, it strengthens government accountability to communities. When large in-person meetings stopped following COVID-19 guidelines, Lwala supported HFMCs and CHCs to meet virtually twice per quarter. Until it is safe to meet in person, these meetings will continue virtually at the same interval.

3. **Commodity distribution:** In May, Lwala procured commodities to address the gap of drug stock-outs in partner facilities through the end of the year. This emergency stop-gap is not a long-term plan, so we are encouraged by continuous HFMC inventory tracking, and accountability improvement with the county procurement team. Despite nationwide disruptions in supply chain, average stock out percentage dropped from 63% to 11% in 2020, and no facilities have expired drugs on-site. Note: only facilities that have a 0% stock-out rate meet the performance standard in the health facility assessment scoring mechanism, so despite a significant decrease in the number of stock-outs since May, some facilities have not seen that component of their score improve.

4. **Facility data set improvement:** Incomplete data sets were a major gap identified in the previous round of Health Facility Assessments. Daily facility registers were not completely filled, and monthly summaries had missing information. To address this, Lwala supported every partner facility to develop a 4-month data quality improvement project (March-June 2020). Key projects included: weekly data reviews to check for completeness, and replacing tattered reporting tools. Data quality mentorship is ongoing, and a priority for all facility mentorship sessions.
Patient Satisfaction Scores

There was an overall patient satisfaction rate of 83% across 7 partner facilities, which is a 3% decrease compared to the previous assessment. There was also an average 3% decrease in patient likelihood to refer others to partner facilities based on the services they received. These decreases are attributed to longer patient wait times. To follow distancing guidelines and avoid overcrowding, facilities increased their number of service delivery points. This changed the normal flow of patient services, and required additional staff movement to cover each delivery point. Through facility mentorship sessions, we have confirmed that patients and staff are now adjusted to the new structure.

Clinical training partnerships

Obstetric Hemorrhage Initiative and Helping Babies Breathe training accelerated in Q3, carefully following COVID-19 safety protocols. To drive this increase in training despite COVID-19, Lwala maximized the trainer-of-trainer model for in-person follow-up and support supervision after initial training. Plus, we started WhatsApp groups for trainees of both initiatives, which allows health care providers from across facilities to share questions and lessons learned. The objective of this work is to increase the life-saving interventions available to women experiencing obstetric hemorrhage, and newborns in the first minutes of life. These interventions, then, reduce maternal and infant mortality.
Obstetric Hemorrhage Initiative

To date, we have trained 105 facilities across Migori County on the Obstetric Hemorrhage Bundle, including 57 new facilities trained since the end of June. To date, we have trained 781 clinical workers and 117 trainer-of-trainers (TOTs) across Migori County on the Obstetric Hemorrhage Bundle, including 121 clinical workers and 65 TOTs since the end of June.

The Non-Pneumatic Anti-Shock Garment (NASG) is a key component of the Obstetric Hemorrhage bundle, and studies have shown a 67% reduction in maternal mortality rate when using NASG\(^3\). To date, we have distributed 220 NASG, including 114 garments distributed since June.

Helping Babies Breathe

To date, we have trained 210 health workers across 51 facilities to implement Helping Babies Breathe. This includes 156 health workers and 16 facilities trained in 2020.

This year, we have recorded 11,825 deliveries at those facilities, including 671 babies not breathing at birth. Of those, 509 have been successfully resuscitated.

Lwala Community Hospital received a SafeNet Health Standards score of 72. This was Lwala’s second SafeCare assessment after our baseline score of 57 received in 2017. The average score of facilities in the SafeCare program in Kenya is 48. The assessment evaluates facilities on 13 service elements, including: outpatient services, human resources management, patient and family rights and access to care, diagnostic imaging services, and inpatient care. Lwala Community Hospital’s most improved service elements were primary healthcare (outpatient) services, human resources management, inpatient care, laboratory services, and governance and management.

<table>
<thead>
<tr>
<th>Most Improved SafeCare Standard</th>
<th>Baseline Score</th>
<th>3rd Assessment</th>
<th>% Change</th>
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<tbody>
<tr>
<td>Primary Healthcare (Outpatient) Services</td>
<td>52%</td>
<td>86%</td>
<td>34%</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>62%</td>
<td>93%</td>
<td>31%</td>
</tr>
<tr>
<td>Inpatient Care</td>
<td>48%</td>
<td>72%</td>
<td>24%</td>
</tr>
<tr>
<td>Laboratory Services</td>
<td>62%</td>
<td>86%</td>
<td>24%</td>
</tr>
<tr>
<td>Governance and Management</td>
<td>65%</td>
<td>85%</td>
<td>20%</td>
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We have incorporated feedback from the latest assessment into our plans for future improvement. Key quality improvement projects include:

- Installing a nurse call system in patient wards, and ensuring that patients are aware that they are entitled to a timely response from a nurse when they call
- Developing a policy document that further defines how health care data is processed and accessed
- Developing and implementing additional standard operating procedures describing how occupational health and safety activities are completed

Maternal Health

Skilled delivery rate
So far this year, we have achieved a 100% skilled delivery rate in North Kamagambo, a 98% skilled delivery rate in East Kamagambo, and a 95% skilled delivery rate in South Kamagambo.

This year, we have conducted 6 open maternity days across facilities, reaching a total of 368 pregnant or lactating mothers. Half of these events were conducted in South Kamagambo – where we began providing direct services at the beginning of this year. Open maternity days are an opportunity for pregnant women and their families to interact with health care providers and visit the maternity unit to demystify birthing practices and mitigate any fears regarding child birth in the facility. Open maternity days also include discussions of:

- male partner involvement in maternal and child care
- danger signs during pregnancy, delivery, and after delivery
- exclusive breast feeding, maternal and child nutrition, and creating a birth plan
This year, our facilities have helped women access delivery services – even during COVID-19 lockdown curfews. After starting virtual meetings, one partner facility’s health facility management committee (HFMC) found a solution to an issue common across Kenya. At Kangeso Health Center, a woman in labor could not access care due to curfews at night. Her village chief is a member of the HFMC. Using his status in the community, and on the HFMC, **he worked with the head of police to procure documents that allow patients to travel at night during curfew.** This solution was promoted during a virtual HFMC meeting, and then shared across all 9 partner facilities to be replicated in their communities.

**Child Health**

**Increased well-child visits across facilities**

In response to the pandemic, a key goal for Lwala has been to support the health system to maintain essential health services. Vulnerable people worldwide have experienced additional barriers to care and we know this leads to additional morbidities and mortalities. To mitigate this risk in our communities, Lwala supported partner facilities to increase well-patient outreaches, prepared CHWs to provide health services and COVID-19 prevention information, supported the sub-county Ministry of Health to improve commodity logistics, and provided facilities with PPE and essential drugs and commodities. As a result, we are encouraged to see that – across our partner facilities – well-child visits have sustained.

After a lull earlier in the year, well-child visits across Lwala Community Hospital and our 8 partner facilities have gained traction and exceeded 2019 visits, despite COVID-19.

Overall, well-child visits have increased because of an intentional effort to increase open-air well-patient outreach events. Through Lwala’s support of these partner facilities, we boosted well-child outreach attendees and well-child facility visits.
With this overall increase, we have seen a shift in visit distribution. Since 2019, Lwala Community Hospital has seen a gradual decline in well-child visits. This has happened alongside an increase in well-child visits at Lwala’s nearest partner facilities. Minyenya and Ndege Oriedo are the two facilities closest to Lwala Community Hospital, and they were our first quality improvement partner facilities. Increasing the capacity of those facilities has improved their maternal and child services, which has increased community trust in the care they can receive there. This increased facility capacity, community trust, and outreach effort has increased well-patient visits in these partner facilities and reduced overcrowding at Lwala Community Hospital.
Early Childhood Development

After conducting a baseline study of early childhood development knowledge and parenting norms, 82 CHWs in North Kamagambo were trained on nurturing care and facilitation skills. The Nurturing Care Framework for Early Childhood Development (ECD) suggests that, to reach their full potential, children need: good health, adequate nutrition, safety and security, responsive caregiving and opportunities for learning. The framework was launched by the World Health Organization, UNICEF and the World Bank Group, in collaboration with the Partnership for Maternal, Newborn & Child Health and the Early Childhood Development Action Network, in 2018.

Since the end of June, 3,414 adult caregivers received messages about ECD and nurturing care during outreach events and CHW visits. From the baseline study conducted, it was evident that some components of ECD are not widely known to caregivers but CHWs and other healthcare workers can successfully deliver ECD messages. The baseline study includes interviews with 301 households in North Kamagambo with at least one child under 4 years old. Preliminary findings include:

- Clinic workers and CHWs are the household’s main source of information about early childhood development
- Fathers have relatively low rates of playing with or reading to the child

Further analysis will provide direction on future research, CHW training curriculum, and ECD interventions.
We have conducted 31,165 nutrition screenings of children in North Kamagambo this year, including 10,975 screenings this quarter. 15 malnutrition cases were referred to Lwala Community Hospital for treatment this quarter, which is down from 23 in Q2 2020. Malnutrition screenings are being conducted during well-child outreaches and facility visits, and through low-touch protocols during CHW household visits.

With the emergence of COVID-19, we were concerned that the number of under-5 malnutrition screenings could decrease. To prevent this, we added continuous nutrition mentorship for CHWs. During weekly community meetings, community health assistants and community health nurses encourage and remind CHWs to continue screening under-5 children for early malnutrition detection. Plus, CHWs have been trained on how to provide a low-touch middle-upper arm circumference (MUAC) reading, and how to support mothers to do the reading themselves. With active, consistent screening, we can detect wasting cases more quickly.

**Vulnerable household support**

With the emergence of COVID-19, we expected a surge in malnutrition cases because of changes in the economy. In Q2, Lwala provided a food package for 445 vulnerable households in North Kamagambo. In July, we shifted from food supplies to cash transfer support. Since July, we have supported **1,132 households across North, East, and South Kamagambo with a cash transfer**. In September, we supported 3 COVID-19 positive households with food and soap commodities, and provided 365 households with spinach and bulb onion seeds and ongoing technical support to improve their home gardens. Given that COVID-19 is an ongoing threat to our communities, seed inputs will provide longer-term support to our most vulnerable households.
**Vulnerable household eligibility**
To ensure transparency with our communities, the cash transfer program has clear eligibility requirements. Our process brings together CHWs and village elders to identify – from their close community understanding – potential households. Then, each household is evaluated with an 11-category index. Based on those results, the household is qualified or disqualified. Overall, communities have welcomed the intervention on behalf of their most vulnerable neighbors.

**Sexual and Reproductive Health**

**Reproductive health services continue after initial slowdown**

We have provided 16,317 Couple Years of Protection (CYP) so far in 2020, compared to 11,313 CYP in the same period last year. CYP is a measure of birth control distributed, based on the number of years of pregnancy prevention it provides. A key driver of that increase is our expansion in South Kamagambo, which started in October 2019.

The number of clients accessing contraceptive services dipped in the month of April, but stabilized at the end Q2 and increased in Q3. As COVID-19 travel restrictions and stay-at-home orders began in April, there was confusion about which interventions were permitted, and fear that if a patient went to a health care facility and exhibited any symptoms, they would be placed in a holding center. To dispel these fears and encourage health-seeking behavior to continue, we focused on public education activities including posters in prominent places, doubling radio broadcasts, increasing well-patient outreaches, and using a public address system community-
by-community. Since the end of June, we have facilitated 46 family planning-specific well-patient outreaches, reaching 3,943 people.

Youth Friendly Corners were converted to COVID-19 isolation centers at the end of Q1 2020. We are filling this service gap through youth-focused family planning well-patient outreaches. Youth Peer Providers are also filling part of this service gap with the Dial-A-Condorm program. In 2020 so far, 78 Youth Peer Providers have distributed 57,215 condoms through the Dial-A-Condorm program, including **20,355 condoms in Q3 2020**. This is nearly a **10% increase over Q3 2019**. With large outreach events halted due to COVID-19, the Dial-A-Condorm program has been a safe and popular way to continue condom distribution. We are encouraged by the strong uptake of Youth Peer Provider services, especially while schools and Youth Friendly Corners are closed.

Plus, to provide more options for early adolescents, we are piloting a program where Youth Peer Providers also distribute oral contraceptives – including emergency contraceptives. In Q3, we completed our baseline focus groups and determined that adolescents need detailed training on what emergency contraceptive pills are, how and when to use them, and their side effects. We also confirmed that training and distribution would be best received from a younger person, i.e. YPPs. We are focusing on this range of services to prevent further increase in teen pregnancy rate, sexually transmitted disease transmission, and intimate partner and sexual and gender-based violence.
**HIV and WASH Integrated Care (HAWI)**

**Continuously improving hygiene practices and infrastructure to limit illness**

Lwala is actively serving **1,968 individuals in the HAWI program**, including 221 people newly enrolled in 2020. Everyone enrolled in the program receives both HIV and WASH support and becomes a WASH leader in their community.

Before COVID-19, eligible patients could pick up larger batches of their ARVs from clinics, reducing the number of times they needed to travel to the clinic. In March 2020, Lwala worked with the HIV support groups to implement an additional option for ARV delivery. To limit travel and crowding risk for immunocompromised patients during COVID-19, ARV distribution is now available at the household level for eligible patients. Since launching household distribution in Q2, zero clients have defaulted on appointments or been lost to follow-up. Even more, the percent of patients who achieve viral suppression is at an all-time high of 98%. The chart below shows the inverse of this rate, by tracking the number and percent of patients with unsuppressed viral loads. Note the sharp decline in viral load failure in 2020. In an assessment conducted by the University of Maryland in Q3, Lwala Community Hospital received top scores.
for anti-retroviral treatment retention across Migori County.
So far this year, we have built **2,436 handwashing stations**. This compares to 1,602 handwashing stations in the same period last year. Proper hand-washing and water quality is particularly important in preventing the spread of infections like COVID-19, so building these stations was a top priority for the WASH team this quarter.

To date, **682 latrines have been built and 36 existing latrines have been improved in 2020**. We have nearly reached saturation in the number of new latrines to be built in North Kamagambo, so we are now maintaining and improving existing latrines. The unusual influx of rain so far this year has caused latrines to enlarge and collapse. In response, WASH committees within each community organized with their neighbors to re-build or fix the latrines.

**Education**

All Kenyan schools were closed in response to COVID-19 in March, and the Ministry of Education announced a partial re-opening (Grades 4 and 8) in October.

**Supporting schools to re-open safely**

While schools have been closed since March 17, we have continued to work with school Boards of Management (BOMs) to prepare a safe learning environment for teachers and students. When the Ministry of Health instructed all schools to come up with a response team, Lwala helped 5 schools mobilize funding for handwashing stations, water points, and student and teacher masks. At Lwala Primary School, for example, the school BOM installed a fence around the school so that visitors cannot access the grounds without screening. All 5 schools also completed infrastructure projects in Q3 to prevent over-crowding of students.

In October, when Grades 4 and 8 re-opened, we supported 13 schools with temperature readers, **3,680 surgical masks for teachers** (20 per teacher), and **2,650 reusable cloth masks for students** (2 per student). In addition, we helped these schools establish COVID-19 screening protocols for students.

**Facilitating education and mentorship during school shutdowns**

In June, we increased our radio lessons from three times per week to every day for 1 hour. This includes one day focusing specifically on topics for girls. Increasing the number of radio events has allowed us to include all 5 key subjects for grades 6, 7, and 8. Students in those classes are more likely to drop out before secondary school if they do not receive specific attention.

Throughout school shutdowns, we continued to provide mentorship for girls to ensure they can return to school. **67 girls who had dropped out prior to schools closing** have received follow-up mentorship through phone calls and one-on-one meetings this year. During the follow-up sessions, a teacher mentor speaks with the girl and her guardian(s) about how to continue learning during COVID-19, self-care, and sexual and reproductive health. Plus, **368 girls at-risk of not returning when schools re-open were mentored** to prevent dropouts and teen pregnancy.

Mass text has been an effective way to reach households with phones. Since March, 11,713 community members (CHWs, household members, education committee members, Youth Peer Providers, and teachers) received 22 different Dholuo text messages from Lwala programs. The
messages included key information about upcoming clinic outreach events, radio lessons, sexual and reproductive health, and sexual and gender-based violence prevention.

**Working with RELI to prepare for competency-based curriculum**

Plus, we continued our strategic work with the Regional Education Learning Initiative (RELI). RELI is composed of more than 70 member organizations, all working together to ensure inclusive learning for all children in East Africa. Our current work with RELI centers on preparing the community for the new nationwide, competency-based curriculum. Our goal is to improve student outcomes by proactively raising awareness of the new curriculum amongst caregivers, teachers, and students. This is important work to continue even while many schools are closed; we expect education disparities while schools are closed and do not want the new curriculum to compound learning gaps.

**Economic Empowerment**

**Savings and loan cooperative**

So far in 2020, Lwala village’s savings and loan cooperative has recruited 19 new members, bringing total membership to 212. This cooperative operates independently and provides pro-poor financing to staff and community members.

**Village Enterprise**

Through Village Enterprise’s business loan program, business owner groups pool their savings, loan it out, and receive their savings back plus interest. To reduce gatherings and physical currency exchange in the context of COVID-19, loans and savings are now distributed to enterprise groups through M-Pesa – Kenya’s popular mobile phone money transfer service.

Loan repayment for this year’s business saving groups have been timely. This year, **10 out of 16 business saving groups have received their savings back.**

**Measurement and Research**

**Research & Evaluation**

Lwala conducted a representative phone-based survey to establish a baseline of Lwala’s new Early Childhood Development program. Over 300 caregivers were surveyed to share information about knowledge and behavior related to the “Nurturing Care for Early Childhood Development Framework” areas: health, nutrition, well-being, positive parenting and play-based communication.

In August, Lwala conducted baseline focus groups to determine adolescent’s knowledge and perspective on use of emergency and oral contraceptive pills. Key findings from the discussions determined that adolescents need detailed training on what emergency contraceptive pills are, how and when to use them, and their side effects. We also confirmed that training and distribution would be best received from a younger person, i.e. YPPs. We are focusing on this range of services to prevent further increase in teen pregnancy rate, sexually transmitted disease transmission, and intimate partner and sexual and gender-based violence.
**COVID-19 Response**

The M&E team continues to support Lwala’s digital tools to facilitate COVID-19 screening and reporting through Commcare tools for facilities and CHWs, and PowerBI visualization for fast tracking and reporting.

**Leadership**

Lwala’s Managing Director spoke at [Princeton in Africa’s virtual panel](#) on Adapting Public Health Structures for COVID-19. The panel discussed Lwala’s COVID-19 response, and how community health services can offer “health as an everyday experience, not just something you experience at a facility”.

A Lwala and Ministry of Health community health worker was interviewed by Johnson & Johnson Global Health and Devex as part of the #BackTheFrontline series. In an excerpt [featured on Devex’s social media](#), the CHW described additional challenges facing CHWs during COVID-19.

At the AIDS2020 virtual conference, Lwala joined the Frontline Health Workers Coalition and Living Goods to discuss digital tools developed for CHWs during COVID-19. Lwala’s Monitoring & Evaluation Systems Administrator described the CHW mobile app in use before COVID-19, and key enhancements made to protect CHWs and households in the context of COVID-19.

Lwala’s Impact Director has joined a national-level Ministry of Health Technical Working Group created to facilitate the development of a strategic plan for Kenya’s first Electronic Community Health Information System (eCHIS). In September, Lwala participated in a 3-day workshop to support development of a strategic framework and national community health digital module.

Lwala presented during the [NetHope Virtual Global Summit 2020](#). The panel discussion, called “Building Data Confidence for Sustainable Digital Systems”, included peers from Medic Mobile and DataKind. Lwala’s presentation centered on how we are building confidence in health worker generated data to track patients, provide appropriate and timely care, and build integrity in national-level data.
STAFF SPOTLIGHT

Elizabeth Ochieng, nursing officer

Elizabeth has served Lwala for the last 4 years as a nurse. Driven by Lwala’s core values of integrity and flexibility, she prides herself in the quality care she offers to her clients on a daily basis without discrimination. She is particularly passionate about working in the maternity ward. Elizabeth’s colleagues describe her as a mentor and a polite and dedicated midwife, with a focus on patient care. She says, “I like the moments when women share the challenges they face during labor, and I get an opportunity to help them in their times of need.”

Elizabeth cites the many continuing medical education (CME) units provided by Lwala as a key way that she has improved her midwifery, mentorship, and clinical care skills.

Moving forward, she is excited to continue working on the partograph project. A partograph is a World Health Organization (WHO)-recommended tool that is used to monitor a mother’s progress during labor. The partograph is a visual representation of a woman’s labor over time, and is used to analyze cervix, uterine contraction, and fetal emergence over time. The partograph is especially recommended for monitoring slow, difficult labor progress.

This ongoing training and close team-work has allowed Elizabeth to adeptly handle emergencies. Recently, she was faced with a dual challenge of a mother experiencing post-partum hemorrhage, and her baby needing resuscitation. Together with her team members, she used the skills learned through Obstetric Hemorrhage Initiative and Helping Babies Breathe training to save the lives of both mother and baby.

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COMMUNITY STORY

Home delivery of anti-retroviral medication improves quality of care and quality of life

Patience is the assistant secretary of her HIV support group, and the mother of three children. She has been on HIV care for 11 years, and knows that it is crucial to maintain her anti-retroviral (ARV) treatment and appointment adherence. She is a role model for her support group, and encourages her peers to stay on care – even when it is difficult. Patience is a small-scale farmer, and over the years, she has needed to borrow funds from her neighbors in order to travel to appointments.

In March 2020, Lwala worked with HIV support groups to provide an additional choice for ARV distribution. To limit travel and crowding risk for immunocompromised patients during COVID-19, ARV home delivery is now available for eligible patients. Eligibility requirements include: stable HIV treatment for at least six months, a suppressed viral load for the last six months, and stable, regular health monitoring results.

Patience quickly agreed to receive her ARVs at home. Home delivery has helped her save the time and money that she previously spent traveling to the clinic. Plus, she appreciates that her community health worker can sit with her to discuss the drugs, challenges, and any other health questions. She says, “home distribution has relieved the burden of travelling expenses to and from the facility for drugs, and when community health workers visit, they have enough time for health talks.”

Now, Patience can use the money she is saving on transport to pay debts owed to the neighbors who previously helped her with those costs. Plus, she has been able to purchase more seeds for her kitchen garden.

Patience is optimistic that she will not default on her treatment and continue to achieve viral suppression. She encourages her support group members to achieve good adherence, and speak to their CHWs about any questions. Since offering home delivery, and limiting the number of HIV-positive patients traveling to clinics, we have seen a 100% care adherence rate.
OUR MODEL

Health Systems Strengthening
Lwala’s model has generated ample evidence of success including a child mortality rate of 29.4 per 1,000 live births compared to the regional average of 82 per 1,000 live births, a 300% increase in contraceptive uptake, and virtual elimination of mother-to-child transmission of HIV. As a result, the Ministry of Health invited us to scale our model throughout Migori County to reach a population of 1 million people. We will meet this challenge through a three-pronged approach: direct service delivery, government technical assistance, and peer replication.

Within Migori County, Lwala’s strategy is to provide direct service delivery in all of Rongo sub-county and to expand our community-led health model through government engagement and peer replication throughout the rest of Migori County – reaching 1 million people.

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5 Household Survey Data (2019).


15 Sourced from Lwala Community Alliance’s routine monitoring data, collected at the household level through a customized data collection platform using CommCare, Open Fn, and Salesforce.
Direct Service Delivery

COMMUNITY COMMITTEES
We organize community committees to launch their own initiatives in areas including: water, sanitation, & hygiene, HIV/AIDS, reproductive health, and nutrition. We also train community members to participate on health facility management committees and equip them to drive improvements in the health system.

COMMUNITY HEALTH WORKERS
In collaboration with Ministry of Health, we recruit, train, pay, supervise, and digitally empower transformed traditional midwives and government community health workers to extend high-quality care to every home. Our Community Health Workers identify and track pregnancies, encourage facility deliveries, ensure on-time immunizations, test and treat common childhood illnesses, provide contraceptives, connect clients to health centers, and provide health information.

COMMUNITY-LED HEALTH MODEL

DATA
Real-time data, collected by our mobile application, enables our team and government policymakers to make patient-centered, evidence-based decisions. Additionally, in partnership with the Vanderbilt Institute of Global Health, we are in the midst of a rigorous program evaluation which will track outcomes over time, alongside comparison sites.

HEALTH FACILITIES
We provide onsite quality improvement support and training to government health facilities. This support is built around the World Health Organization’s six building blocks of health systems: service delivery, health workforce, information systems, supply chain, finance, and governance. We also provide onsite clinical trainings, targeting lifesaving care for mothers and infants during delivery. Our approach emanates from our center of excellence – Lwala Community Hospital.
To provide direct services, Lwala implements our community-led health model. The model rests on 4 key pillars:

**Government Technical Assistance**

We engage stakeholders at every level, from global audiences to local opinion leaders to mainstream our evidence-based innovations and advocate for a strengthened health system. At the global level we work with forums like the international [Community Health Impact Coalition](#), which is a consortium innovative leaders in global health including Partners In Health, Project Muso, Last Mile Health, and more. With this coalition we contribute to the production of new guidelines and develop best practices to influence community health work on a global scale. The [CHW AIM](#) tool is an example of this effort.

Lwala is committed to supporting Kenya’s ambitions to achieve universal health coverage. As such, all of our work is done in partnership with the Ministry of Health at national, county, and local levels. In partnership with government, we are testing innovations designed for nationwide scale. We engage with national health working groups where we share our successes and advocate for national replication of proven interventions. To engage at the regional level, we are a member of the Inter-County Coordination for Human Resources for Health working group, which represents 6 counties in the Lake Victoria region. We use this platform to share our successful Community Health Worker model and advocate for the adoption of best practices. In Migori County, we work closely with the government to codify Lwala’s principles into law and leverage government cohorts to oversee our implementation. By working with Migori County, we influence the health outcomes of 1 million people.

**Peer Replication**

The third prong of our community-led health model expansion is peer replication. There are a number of community-led organizations in our region that are looking to implement a cohesive model to create impact. Lwala believes in leveraging partnerships with like-minded organizations, so we sign Memorandums of Understanding with peer organizations to share expertise and best practices. We supply peer organizations with our Community Health Worker training curriculum and community health program guide as a “starter kit” to operating a community-led health model in return for cost-sharing and knowledge exchange. We are excited about the various ways in which our partners bring our model to life in their own communities.

**Quality Improvement**

Lwala believes that in order to provide quality healthcare access, Community Health Worker initiatives must be tied to quality facility-based care. Government health centers provide the majority of the health services in Kenya despite experiencing frequent shortages in staff, training, medicines, electricity, running water, and other essential resources. These systemic challenges reduce quality of care provided to patients, feed distrust in the health system and ultimately influence the overall health of families and communities. Lwala unites community members and health workers to lead health facility management committees. Together, they implement a cycle of continuous improvement. Along the way, Lwala provides comprehensive assessments, coaching, training, and occasional resources to help facilities reach their goals of providing high-quality, patient-centered care.
Health Facility Management Committees – We start by organizing Health Facility Management Committees at each government facility. These are Ministry of Health entities meant to build accountability in the health system, but they are typically dormant in rural areas. In the past, these committees have existed in name only, leaving the facilities without vital oversight structures. We revitalize them, ensure they are led by a representative group of community members, and put them at the center of an iterative quality improvement process.

Health Facility Assessments – We utilize a unique Health Facility Assessment Tool that we developed with the guidance of a Quality Improvement Consultant. The tool measures facility performance against the 6 World Health Organization building blocks for health systems strengthening. Within the building blocks, we score the facility on 30 specific performance objectives that we pulled from Kenya Ministry of Health and World Health Organization guidelines. The Health Facility Assessment Tool also incorporates scores from three tools implemented on an ongoing basis: a patient satisfaction survey, staff satisfaction survey, and case observation guidelines. We digitized the tools on our customized CommCare application. The evaluation is conducted on mobile tablets which enables rapid analysis and programmatic responses. Some of the components of our Quality Improvement Initiative include:

Clinical Mentorship – As a part of our Health Facility Assessments, we conduct case observations at our partner facilities. Mentorship sessions include real-time skills development while observing direct patient care. Case observations help our quality improvement team identify service areas that need strengthening. To conduct Case Observations, our trained Nurse Mentor and Quality Improvement Officer observe patient care on 6 service delivery areas: integrated management of childhood illnesses, child immunization, postnatal care, newborn care, labor and delivery, and antenatal care. They score the providers on criteria that we developed using World Health Organization and Ministry of Health guidelines. Then, they aggregate the scores to give healthcare providers structured and transparent feedback on their service delivery. Insights from case observations are also incorporated into facility improvement planning efforts, focusing efforts where the need is greatest.

Patient Satisfaction Survey – Our patient satisfaction survey evaluates patient experience based on 3 key clinical quality measures: patient wait time, patient engagement, and clinical process. Each of these measures has numerous indicators ranging from average time attended to by a clinician to whether confidentiality is respected by clinicians. We analyze these surveys using a sophisticated scoring matrix which generates overall patient satisfaction scores. Suggestions and comments taken from patients during the
patient satisfaction surveys help to inform priority areas for facility work improvement plans.

**Clinical Staff Rotation Program** – This rotation provides a 2-week immersive, peer-based training experience across our partner facilities, after which staff transfer the skills they’ve gained to other peers at their own facilities. We believe that this cross-learning is a significant factor driving high rates of adherence to standards across all of our partner facilities.

**Facility Improvement Planning** – Using the information gathered during the Health Facility Assessments, we create tailored work improvement plans for each facility. We generate these plans through a collaborative process with the facility management teams. In order to achieve the goals set out in the facility improvement plans, we work with Health Facility Management Committees to implement a ‘Plan Do Study Act’ (PDSA) cycle as illustrated by the graphic.

**Community health workers**

Core to our model is the recruitment, training, supervision and payment of traditional birth attendants as Community health workers (CHWs). Traditional birth attendants are the women in the community who have delivered healthcare to their communities for generations. But, because they have been cut off from formal health systems, the home births they provide are often dangerous for mother and baby. We transform these women from the largest competitors to skilled deliveries to the greatest champions of maternal and child health. These transformed CHWs find and provide care to every pregnant mother, child under-5, and person living with HIV.

**Integrated Supervision Structure** – Incorporating government supervision is integral in pursuit of our mutual goal of universal access to health care. We train government community health assistants as supervisors for our community health worker cohort. The community health assistants use our mobile data collection system and a supportive supervision structure for community health worker management. This integrated structure is an important element of our collaboration with the Ministry of Health.

**Community Health Workers** – CHWs link mothers to the formal health system by identifying early symptoms of high-risk pregnancies, ensuring adequate maternal nutrition, and accompanying mothers for a safe, facility-based delivery. Next, each child is enrolled in our CHW program at birth, allowing us to manage immunization timelines and track growth. CHWs provide home-based screening for the deadliest childhood conditions, including malaria, pneumonia, respiratory infection, malnutrition, and diarrhea. When a child does get sick, CHWs provide care and treatment in the home and refer complicated cases to the local clinic—making certain
that no child slips through the cracks. We employ community health worker-driven data by equipping our network of community health worker with tablets and our customized mobile application. The community health worker leverage this technology to monitor their caseload, collect data, and receive real-time decision support. Our approach ensures that illnesses are identified early, and no vulnerable community member slips through the cracks.

**Community Transportation & Referral System** - Community health workers work with a handful of motorcycle taxi drivers in each community unit who are trained as expert referrers. These drivers are given shifts to be on-call for emergency cases. Since community members already use motorcycle taxis for transportation, this system leverages an existing community structure to support healthcare access.

**Maternal Health**

We are engaging mothers at every step of their healthcare journey. Lwala community health workers identify pregnant women as they proactively visit homes in their village. Then, they link mothers to the formal health system, identifying symptoms of high-risk pregnancies, ensuring adequate maternal nutrition, promoting prenatal care visits, and supporting safe delivery at a facility. They also follow up on postpartum care, provide breastfeeding support, and educate new mothers on a range of contraceptive options. Additionally, Lwala is improving maternal care at the health systems level. We are supporting government health facilities to improve the quality of prenatal and postnatal care. And, we are working with community committees to improve access to emergency transportation for pregnant women.

**Antenatal Care** – Antenatal care visits ensure healthy deliveries and protect both babies and mothers. Our community health workers make sure that every mother gets antenatal care. They map and enroll every pregnant woman into our community health worker program, ensuring that they attend 4 or more antenatal care visits before they deliver and educating them on pregnancy danger signs, diet, and behaviors. At the facilities, clinicians also provide education to mothers on a healthy prenatal diet, danger signs in pregnancy, and the importance of a birth plan.

**Skilled Delivery** – Our high skilled delivery rate speaks to the positive feedback loop we have created between our community health workers, the community, and our partner facilities. We harness the power of traditional midwives in the community and incorporate them into our community health worker cadre. These community stakeholders in turn drive clients towards the clinics, building goodwill and strong ties with the people we serve.

**Tackling Maternal Death** – Almost 99% of mortalities from obstetric hemorrhage occur in developing nations. We have partnered with Massachusetts General Hospital, Harvard Medical School, Kisumu Medical Education Trust, and the Ministry of Health to implement the WHO’s Obstetric Hemorrhage Bundle. The bundle approach uses misoprostol, the uterine balloon tamponade, and

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the non-pneumatic anti-shock garment (NASG), and more to save mothers experiencing obstetric hemorrhages. A key component of the Obstetric Hemorrhage Bundle is the non-pneumatic anti-shock garment (NASG), which has been shown to reduce mortalities related to obstetric hemorrhages by 67%9. This low-technology, reusable tool constricts blood flow to the lower extremities while redirecting blood flow to the vital organs, giving women an additional 72 hours to get treatment. The bundle will prepare every facility in Migori County to safely treat obstetric hemorrhage, effectively reducing maternal deaths.

Child Health

Lwala is changing this injustice through our community-led health model. Digitally empowered community health worker enroll all children at birth, track child growth, and ensure on-time immunizations. They provide home-based screening and treatment for the deadliest childhood conditions, including malaria, pneumonia, malnutrition, and diarrhea. Community health workers also connect children to local health clinics. Lwala works with community members, health workers, and government to ensure these local clinics have the resources, training, and systems to provide quality care from conception to adulthood – making certain that no child slips through the cracks.

Elimination of Mother-to-Child Transmission of HIV – We test every pregnant woman for HIV at her first antenatal care visit and again during labor. This allows us to enroll every baby born to an HIV-positive mother into the elimination of mother-to-child transmission component of our HIV program. This program provides the mother with specialized support throughout her pregnancy and immediately following birth. During monthly meetings, hospital staff lead educational sessions on drug adherence, infant feeding, and nutrition. In addition, an HIV-positive mentor mother provides counseling and support to encourage women to accept their status and be proactive about HIV care.

Immunization – Community health workers are dedicated to ensuring that every child in our community is vaccinated. At each household visit, community health workers check the child’s immunization records against the vaccines that they should have received. If the child is behind on any vaccines, they refer them to a health facility and sometimes even bring the vaccine directly to their household. This process is supported by our robust data system, which allows community health workers to track every child and ensure that no child slips through the cracks.

Malaria Community Case Management – We combat malaria in 2 ways: facility-based testing at our 9 partner facilities and through community case management. Equipped with rapid diagnostic tests and medication, our community health workers can diagnose and treat malaria cases in their clients’ homes. Our data shows that the malaria burden decreases significantly after the Ministry of Health conducts wide-spread indoor residual spraying. Therefore, we advocate for the Ministry of Health to repeat the spraying program every year.

Helping Babies Breathe – Birth asphyxia - when babies are born not breathing - is one of the major causes of newborn death in regions with limited resources. Helping Babies Breathe, a curriculum developed by the American Academy of Pediatrics, was designed specifically for this context and teaches lifesaving neonatal resuscitation techniques in the first minutes after birth. Helping Babies Breathe techniques have been shown to reduce neonatal mortality by up to 47% and fresh stillbirths by 24%.10

Tramuto Foundation/Health eVillages Nutrition Initiative

Adequate nutrition during the first 1,000 days between conception and a child’s 2nd birthday is one of the best investments in a child’s health, education, and wellness. Lwala provides preventative support to all pregnant and breastfeeding women, young children, and people living with HIV and other chronic illnesses. We screen individuals for vulnerability and provide a holistic package of support to get families on a long-term path to nutrition security.

Prevention – Community health workers provide nutrition counseling to all households and screen pregnant women, children, and people living with HIV for nutrition vulnerability. For expectant and new mothers, community health workers emphasize the importance of exclusive

breastfeeding for the first 6 months of a child’s life and provide lactation support. Individuals are also provided routine vitamin supplementation and deworming treatment.

**Food Security** – If a household qualifies as high-risk of malnutrition our community health workers enroll the family into our gardening for nutrition program. Through this, qualified households receive counseling, fortified flour, nutrition training, gardening training, and seed inputs. This program supports families to identify, grow and prepare nutrient-dense foods. Gardening facilitators visit individual homes to provide gardening coaching and collaborate with community health workers to ensure the household gets on a path of food security.

**Clinical Care** - If a child is diagnosed with severe acute malnutrition, they are referred to the hospital for clinical care. These patients receive high-quality inpatient care, therapeutic food, and counseling for the family. Once the child is discharged, the family is enrolled into the gardening for nutrition program and a long-term care plan is developed with the community health worker.

**Mother Care Groups** – In mother-to-mother support groups, we provide expectant and new mothers with an integrated health package including family planning and maternal nutrition. We emphasize the importance of establishing a proper nutritional foundation for babies during the critical “golden window” of the first 1,000 days of life. To encourage teen mothers to join our mother care groups, we create groups specifically designed for teen mothers where they do not have to fear facing stigma from older mothers.

**Early Childhood Development**

In 2020, Lwala expanded our model with a new Early Childhood Development (ECD) program. This program uses play and cognitive stimulation to incorporate a child-centered approach to early learning. By integrating this program into our community-led model, we are addressing holistic outcomes for children in our communities through social, environmental, and developmental approaches.

The ECD program structure leverages the World Health Organization’s Nurturing Care for Early Child Development Framework. Community health worker in our innovation hub are establishing parenting groups for caregivers with children between 0 – 4 years old, and play groups for children to participate in play-based learning. Caregivers are supported to use locally available materials to develop toys and picture books. During parenting group sessions, community health workers provide training and support to the parents on maternal & child health, nutrition, sanitation, responsive and skillful parenting.

In addition to community-based programming, community health workers will provide ECD-focused education to caregivers with children under 4 during every household visit. They will be closely monitoring growth milestones and other key indicators through Lwala Mobile, a customized CommCare application that provides our community health worker and programs coordinators with real-time data.

**Sexual and Reproductive Health**

When women and couples have the tools to choose when they get pregnant, the result is better health outcomes for mother and child. Lwala understands that while women and girls may have
a desire to access reproductive health services, relatives and community leaders are often the
gatekeepers to these services. Thus, we increase confidential access to services, while
challenging social norms and increasing buy-in for reproductive rights. We start by training and
empowering community committees, male forums, community health workers, and youth
advocates. Each of these groups plans and launches their own reproductive health initiatives to
educate their neighbors, distribute and promote contraceptives, and confront cases of abuse.

**Community Engagement** — Our community engagement strategy is to create overlapping forums for
conversations around reproductive health and rights. This approach allows us to reach a diverse
set of the population in settings that feel most comfortable to them. Several of the
engagement forums include:

*Sexual and Reproductive Health Committees* — Community reproductive health committees
are at the heart of our model. These committees are made up of religious leaders,
local political leaders (village chiefs), teachers,
and a diverse group of men, women, and
youth. Our committees promote contraceptive
access, male involvement in contraception use,
and family health in general. The committees
hold regular advocacy events to discuss long-
acting contraceptives, child protection and
rights, and domestic violence. 50–70 people
attend each event.

*Male Forums* — We conduct male
forums on the topics of teenage
pregnancy, adolescent and
youth reproductive health,
HIV/AIDS, maternal care, and
more. Men are an essential
target group because they are
often the gatekeepers to women
and children’s health. In male-
only forums we directly explore
norms of masculinity and create
a safe environment for men to
challenge each other on harmful
assumptions. Men are also
given a chance to look at contraceptive commodities and understand their uses and side effects.
These forums take place in venues where men already congregate – motorcycle taxi stages, gold
mines, local pubs, and football games.
Youth Peer Providers – This program is designed to make adolescents feel more comfortable talking about and accessing sexual and reproductive health services by delegating the services to people their own age. To remove barriers that may discourage youths from accessing contraceptive services, Youth Peer Providers are stationed in the community to ensure privacy and sensitivity. Our Youth Peer Providers distribute over 5,000 male condoms per month. At outreaches, community members can access informational material, STI and HIV testing services, and contraception.

Twak Mar Rowere Radio Program – Every Thursday afternoon we host a radio show focused on issues related to sexual and reproductive health, HIV, STDs, family planning, and gender-based violence. The show, whose name means “A sharing platform for young people,” features a different staff member or stakeholder each week. We have a rotating schedule of Youth Peer Providers, community health workers, community committee members, and healthcare providers that join the show. Each week, the hosts select a topic to discuss for the first half of the show, then they spend the second half taking listener calls and questions.

Service Provision – The goal of the service provision element of the model is to open as many access points to contraceptives as possible. We provide short-term and long-term methods consistently, and host designated clinic days for permanent methods.

Our various contraception distribution networks include:

Health Facilities – We support facility-based services with a focus on long-term methods, implants and IUCDs, at our partner primary care facilities. At our partner facilities, we provide reproductive health training, conduct on-site clinical mentorship, drive continuous quality improvement, and ensure a reliable supply of contraceptive commodities. Finally, we also partner with Marie Stopes to provide permanent methods during clinic days within government facilities.

Community Health Workers – We provide our community health worker with male and female condoms, two types of birth control pills, and emergency contraception to distribute to community members during their household visits and outreaches. As condoms and pills are short-term contraceptive methods, home-based distribution facilitates consistent contraceptive use by providing refills to clients directly in their homes. Community health workers also generate demand for long-acting reversible contraceptives such as implants and IUCDs. The community health workers refer their clients to a health center where they can access long-term contraceptive methods, creating a cycle of positive health-seeking behavior.

Youth Friendly Corners – We operate 7 Youth Friendly Corners to provide services to adolescents and youth. We’ve learned that while integrating family planning services throughout all clinical departments increases uptake for women who have already had a pregnancy, it discourages uptake from a critical age group – youth aged 14 - 24 without children. Young people are more likely to access services if they can do so away from the general patient population. Thus, we equip, staff, and supply youth friendly corners as separate spaces near government facilities. These corners provide games, youth leadership training, and access to reproductive health services in a friendlier environment than a typical health center.
**Dial-a-Condom** – Our Youth Peer Providers developed what they describe as “Uber for Condoms.” Youth in our communities are given mobile phone numbers for peers who have a consistent supply of condoms. They are able to order condoms on demand without having to travel to a health facility or risk being seen taking a condom from a public dispenser.

**Sayana Press** – Lwala’s Sexual and Reproductive Health Coordinator is a county-level Trainer-of-Trainers on Sayana Press in Migori County. Lwala spearheads the distribution of this injectable contraceptive to trained facilities. Sayana Press is an injectable contraceptive, much like Depo-Provera, which is approved for self-administration. Prior to Lwala’s training and distribution of Sayana Press, this innovative contraceptive method was unknown to the Ministry of Health.

**HAWI – HIV and Water, Sanitation, & Hygiene Integrated Care**

Lwala’s comprehensive HIV programming empowers people with HIV to lead healthy, productive lives, while eliminating new infections. All HIV-positive individuals and their allies are encouraged to join a program called HAWI (“Good Luck” in Dholuo). HAWI groups are trained in critical health topics and community organizing. Participants provide psychosocial support to each other and launch health initiatives in their communities. Each participant in HAWI is also regularly visited by a community health worker. Research shows that HIV-positive individuals are more susceptible to malaria, diarrhea, and other enteric diseases. Therefore, we implement WASH interventions in conjunction with HIV care to reduce the relative risk for malaria and diarrheal diseases among people living with HIV/AIDS.

Our HAWI model empowers community members to proactively address HIV and elevate WASH standards in their own communities. The model is composed of 5 key components: 1) Community Health Worker monitoring, 2) support groups, 3) WASH committees, 4) community-led total sanitation (CLTS), and 5) water infrastructure.

**Community-Led Total Sanitation (CLTS)** – Community-led total sanitation is a process to promote WASH practices in our villages with community members at the helm.

- First, community health workers train community groups on WASH topics. These new WASH champions then teach their own communities about WASH and support their peers to construct latrines, handwashing stations, and drying racks. We typically select the highest performing HAWI clients to spearhead this community-led process because they are proven WASH champions.

- Next, community WASH groups promote proper WASH practices with their peers in their own communities. The leaders follow up with their neighbors and organize Action Days to construct latrines and safe water sources for those who are unable to construct them on their own, such as widows and the elderly.

- Finally, once the WASH groups have catalyzed their own communities to build WASH infrastructure, villages can declare themselves Open Defecation Free. This designation denotes that every household is covered by a high-quality latrine and handwashing station, which are used appropriately and without fail. The Ministry of Health then verifies that this designation is accurate and officially certifies the village as Open Defecation Free.
The highest performing community-led total sanitation villages who have achieved Open Defecation Free status then qualify for water infrastructure rehabilitation, which further improves WASH standards in their own community.

**WASH Committees** — Lwala activates community WASH committees who lead their villages in constructing latrines, building handwashing stations, and securing safe water. If a household is unable to build their own latrine, their neighbors step in to get the job done. As this happens, villages declare open defecation-free status, signifying community-wide sanitation. WASH committees work to move up the sanitation ladder, upgrading latrine infrastructure and securing safe water sources.

**Water Infrastructure Rehabilitation** — Once a village is certified as Open Defecation Free, it qualifies for water infrastructure rehabilitation. It is crucial to perform rehabilitation only in Open Defecation Free villages to ensure that improved water sources will not become contaminated. In addition, this criterion serves as an incentive for villages to accelerate Open Defecation Free processes.

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Lwala Community Hospital is our center of excellence for providing quality clinical care and support services to the community we serve. Our services are at the cutting-edge of rural healthcare provision including mobile HIV-care enrollment, low-technology garments to address obstetric hemorrhage, and a high-capacity laboratory that can perform blood transfusions. In turn, our clinical staff provide training and mentorship to government health workers to increase the capacity of all health workers in the area.
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Clinical Standards Strengthening – Lwala partners with Lifenet, PharmAcess, the Ministry of Health, USAID, and our own Quality Improvement Initiative to have routine assessments completed at the facility. These assessments critically examine the quality of care at our hospital and often are accompanied by additional technical trainings for our clinical staff. Between assessments, our clinical staff write concrete work improvement plans to address the identified weaknesses.

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Breaking Barriers
Broadened Horizons – Increasing girls’ access to education and developmental pathways is critical to the progress of the communities we serve. The goal of the Broadened Horizons program is to mentor girls who have dropped out of school and to support them to re-enroll. To incentivize parents to keep girls in school, we provide small grants to help them pay for school fees. The parents attend weekly training sessions for three months, and we disburse a $30 grant per term. In addition, the girls themselves are given uniforms, books, and pens once they have re-enrolled in school.

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Health

Youth Friendly Corners – We operate a total of 7 Youth Friendly Corners in the communities we serve. These innovative health centers have a dual purpose: providing healthcare services, such as contraception, to youths in a private environment, and creating a safe space to spend time with peers when youths are not in school. Stigma and lack of anonymity are major barriers to
adolescents and youth accessing contraceptive services. These Youth Friendly Corners are key in our efforts to reduce HIV infection and pregnancy among youth.

**School Health Clubs** – Every week, students and teachers at the government-run primary schools hold health club meetings. Over 2,000 girls and boys in grades 6 to 8 attend the clubs during after-school hours. The health club patrons are Lwala-trained teachers who implement a curriculum entitled Life Skills that discusses comprehensive sexual and reproductive health, contraception, gender-based violence, children’s rights, and more. We incorporate a curriculum entitled Young Love to address the high prevalence of intergenerational relationships that often lead to teenage pregnancy and HIV-infection. Since teachers often resist teaching sex education during class, the school health club program enables students to learn about sexual and reproductive health and other health matters after school.

**Better Breaks** – We hold 3 Better Breaks sessions every year to give kids a fun, safe, and educational activity to enjoy during school vacations. During Better Breaks sessions we administer pregnancy tests, provide contraception, and test kids for HIV. We survey the attendants of our Better Breaks sessions on topics such as contraception access, gender-based violence, and perceptions of safety in the community.

**Economic Empowerment**

**Village Enterprise**
To provide economic opportunities to our community, we partner with Village Enterprise, an expert in poverty graduation for the “ultra-poor.” Village Enterprise identifies the poorest members of the community through a poverty assessment. The assessment uses the Progress Out of Poverty Index (PPI), which measures household wealth and ranks households into four wealth categories. Those in the lowest category, ultra-poor, qualify to be enrolled into Village Enterprise, making them eligible for micro-grants and business skills training.

**Business Groups** – Village Enterprise groups all of the enrollees into 3-person business groups to receive training and start a business as a team. Village Enterprise provides each 3-person business group with a start-up grant of $100 USD and the entrepreneurs are required to contribute $10 USD of their own money to ensure their commitment. Village Enterprise supports farming, retail, livestock, and skilled service jobs.

**Business Savings Groups** – Village Enterprise makes groups of ten businesses, or thirty people, to create larger business savings groups. After covering their costs and paying themselves, the participants invest their profits into the business savings group. The participating businesses can then borrow from this common pool of money to grow their businesses and they pay interest on the loan to grow the money pool for the entire group. We track business savings groups from inception to graduation.

**Community Bank**
Lwala Community Bank is a savings and loans cooperative, which operates independently and provides pro-poor financing to staff and community members. The bank is designed to increase access to fair and reliable microfinance and financial products for rural communities.
member pays into the bank when they join, and after six months they are eligible to begin taking loans from the common pool of money. The assets held by the bank grow as the borrowers pay back interest on their loans. The loan products are specifically designed for the community’s needs – focusing on agriculture and other small businesses. Lwala also supports mentorship by encouraging successful business owners to mentor newer members and to motivate other entrepreneurs to join the bank.

Measurement

Our Monitoring & Evaluation (M&E) system enables our team at Lwala, service providers, and government policy makers to make client-centered, evidence-based decisions. This means that we are building data collection systems while pushing analysis and conclusions at all levels of staffing, from frontline workers to government officials. We are using emerging technologies and platforms such as mUzima and CommCare to inform evidence-based decision-making and create information systems that drive systemic change.

Lwala’s performance M&E starts with an overarching impact framework designed to assess our collaboration with the community to improve overall health, agency, and wellbeing. The impact framework consists of a suite of key performance indicators (KPIs) and associated targets aligned with our ambitious goals. We evaluate our progress on our KPIs and compare our results with external results on comparable indicators to understand our impact. Our KPIs are chosen because they are indicators tracked at an international level, in Kenya, and specifically in Migori County (e.g., rate of skilled deliveries).

Program Evaluation

Over five years, we are measuring Lwala’s multi-sectoral impact through a quasi-experimental stepped-wedge design, collecting repetitive cross-sectional survey data. Overtime, we’ll be able to look at relative changes in Lwala sites compared to control sites to better understand the impact of our interventions. The study focuses on maternal and child health, but also collects a wide range of socio-economic data to help us understand more about the drivers of health outcomes. The sampling frame factors in approximately 4,500 households and sample size was calculated using a binomial test to compare one proportion to a reference value. We use Cox regression models with clustering at the household level to estimate hazards ratios for survival analysis. We have completed 2 rounds of data collection to date. Over time, we’ll look at relative changes in Lwala sites compared to control sites to better understand the impact of our interventions. As the study progresses our evidence will increase in nuance and rigor.

Findings will be disseminated during routine meetings with all key stakeholders and will be utilized for policy and program planning as well as for quality improvement. This ongoing research and evaluation effort will provide both the hyper-local data needed to inform program implementation and generalizable conclusions about the effect of multifaceted, wraparound program strategies on health outcomes in low-income settings beyond this project.

Research Partnership with Vanderbilt Institute for Global Health

Faculty at Vanderbilt Institute for Global Health support Lwala’s Monitoring & Evaluation activities, and partner with us to publish academic studies. We also leverage the expertise of Vanderbilt biostatisticians to set up survey designs and analyze data.
Technology-Enhanced Iterative Learning

Lwala manages a data system designed for supervision on tailored client care and a sophisticated beneficiary-centered database. The system is built in a Salesforce platform, which houses health and demographic information for more than 50,000 individuals. Through a customized CommCare application, community health workers access and input information about their clients in real-time and the data is automatically updated in our database. All of our data is then uploaded to Power BI, a powerful analytics tool that allows for easy and instant data manipulation, transformation, and visualization.
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**Youth Friendly Corners** – We operate a total of 7 Youth Friendly Corners in the communities we serve. These innovative health centers have a dual purpose: providing healthcare services, such as contraception, to youths in a private environment, and creating a safe space to spend time with peers when youths are not in school. Stigma and lack of anonymity are major barriers to
adolescents and youth accessing contraceptive services. These Youth Friendly Corners are key in our efforts to reduce HIV infection and pregnancy among youth.

**School Health Clubs** – Every week, students and teachers at the government-run primary schools hold health club meetings. Over 2,000 girls and boys in grades 6 to 8 attend the clubs during after-school hours. The health club patrons are Lwala-trained teachers who implement a curriculum entitled Life Skills that discusses comprehensive sexual and reproductive health, contraception, gender-based violence, children’s rights, and more. We incorporate a curriculum entitled Young Love to address the high prevalence of intergenerational relationships that often lead to teenage pregnancy and HIV-infection. Since teachers often resist teaching sex education during class, the school health club program enables students to learn about sexual and reproductive health and other health matters after school.

**Better Breaks** – We hold 3 Better Breaks sessions every year to give kids a fun, safe, and educational activity to enjoy during school vacations. During Better Breaks sessions we administer pregnancy tests, provide contraception, and test kids for HIV. We survey the attendants of our Better Breaks sessions on topics such as contraception access, gender-based violence, and perceptions of safety in the community.

**Economic Empowerment**

**Village Enterprise**

To provide economic opportunities to our community, we partner with Village Enterprise, an expert in poverty graduation for the “ultra-poor.” Village Enterprise identifies the poorest members of the community through a poverty assessment. The assessment uses the Progress Out of Poverty Index (PPI), which measures household wealth and ranks households into four wealth categories. Those in the lowest category, ultra-poor, qualify to be enrolled into Village Enterprise, making them eligible for micro-grants and business skills training.

**Business Groups** – Village Enterprise groups all of the enrollees into 3-person business groups to receive training and start a business as a team. Village Enterprise provides each 3-person business group with a start-up grant of $100 USD and the entrepreneurs are required to contribute $10 USD of their own money to ensure their commitment. Village Enterprise supports farming, retail, livestock, and skilled service jobs.

**Business Savings Groups** – Village Enterprise makes groups of ten businesses, or thirty people, to create larger business savings groups. After covering their costs and paying themselves, the participants invest their profits into the business savings group. The participating businesses can then borrow from this common pool of money to grow their businesses and they pay interest on the loan to grow the money pool for the entire group. We track business savings groups from inception to graduation.

**Community Bank**

Lwala Community Bank is a savings and loans cooperative, which operates independently and provides pro-poor financing to staff and community members. The bank is designed to increase access to fair and reliable microfinance and financial products for rural communities. Each
member pays into the bank when they join, and after six months they are eligible to begin taking loans from the common pool of money. The assets held by the bank grow as the borrowers pay back interest on their loans. The loan products are specifically designed for the community’s needs – focusing on agriculture and other small businesses. Lwala also supports mentorship by encouraging successful business owners to mentor newer members and to motivate other entrepreneurs to join the bank.

**Measurement**

Our Monitoring & Evaluation (M&E) system enables our team at Lwala, service providers, and government policy makers to make client-centered, evidence-based decisions. This means that we are building data collection systems while pushing analysis and conclusions at all levels of staffing, from frontline workers to government officials. We are using emerging technologies and platforms such as mUzima and CommCare to inform evidence-based decision-making and create information systems that drive systemic change.

Lwala’s performance M&E starts with an overarching impact framework designed to assess our collaboration with the community to improve overall health, agency, and wellbeing. The impact framework consists of a suite of key performance indicators (KPIs) and associated targets aligned with our ambitious goals. We evaluate our progress on our KPIs and compare our results with external results on comparable indicators to understand our impact. Our KPIs are chosen because they are indicators tracked at an international level, in Kenya, and specifically in Migori County (e.g., rate of skilled deliveries).

**Program Evaluation**

Over five years, we are measuring Lwala’s multi-sectoral impact through a quasi-experimental stepped-wedge design, collecting repetitive cross-sectional survey data. Overtime, we’ll be able to look at relative changes in Lwala sites compared to control sites to better understand the impact of our interventions. The study focuses on maternal and child health, but also collects a wide range of socio-economic data to help us understand more about the drivers of health outcomes. The sampling frame factors in approximately 4,500 households and sample size was calculated using a binomial test to compare one proportion to a reference value. We use Cox regression models with clustering at the household level to estimate hazards ratios for survival analysis. We have completed 2 rounds of data collection to date. Over time, we’ll look at relative changes in Lwala sites compared to control sites to better understand the impact of our interventions. As the study progresses our evidence will increase in nuance and rigor.

Findings will be disseminated during routine meetings with all key stakeholders and will be utilized for policy and program planning as well as for quality improvement. This ongoing research and evaluation effort will provide both the hyper-local data needed to inform program implementation and generalizable conclusions about the effect of multifaceted, wraparound program strategies on health outcomes in low-income settings beyond this project.

**Research Partnership with Vanderbilt Institute for Global Health**

Faculty at Vanderbilt Institute for Global Health support Lwala’s Monitoring & Evaluation activities, and partner with us to publish academic studies. We also leverage the expertise of Vanderbilt biostatisticians to set up survey designs and analyze data.
Technology-Enhanced Iterative Learning

Lwala manages a data system designed for supervision on tailored client care and a sophisticated beneficiary-centered database. The system is built in a Salesforce platform, which houses health and demographic information for more than 50,000 individuals. Through a customized CommCare application, community health workers access and input information about their clients in real-time and the data is automatically updated in our database. All of our data is then uploaded to Power BI, a powerful analytics tool that allows for easy and instant data manipulation, transformation, and visualization.