



Lwala Community Hospital, Lwala, Kenya

Date: July 31, 2019	Prepared by: Zorica Radanovic
I. Demographic Information	
1. City & Province: Lwala Village, Kameji Sub-location, North and East Kamagambo Locations, Rongo District, Migori County, Kenya	
2. Organization: Real Medicine Foundation (www.realmedicinefoundation.org) Lwala Community Alliance (www.lwalacommunityalliance.org)	
3. Project Title: Lwala Community Hospital	
4. Reporting Period: April 1, 2019 – June 30, 2019	
5. Project Location (region & city/town/village): Lwala Village, Kameji Sub-location, North and East Kamagambo Locations, Rongo District, Migori County, Kenya	
6. Target Population: North Kamagambo and East Kamagambo locations and those surrounding—approximately 60,000 people	
II. Project Information	
7. Project Goal: Lwala Community Alliance (LCA) is a community-led, nonprofit health and development innovator working in Migori County in rural western Kenya. Through Lwala Community Hospital, the organization provides approximately 50,000 patient visits each year. The mission of the organization is to build the capacity of rural communities, including their neediest residents, to advance their own comprehensive well-being. The hospital is part of a larger effort to achieve holistic development in Lwala and the surrounding community, including educational and economic development.	
8. Project Objectives:	
<ul style="list-style-type: none"> • Improve patient care and clinical operations • Improve access and facility infrastructure • Expand and improve quality of education programs • Professionalize the organization through better policies and practices • Properly procure and account for physical, financial, and human resources • Increase impact of health outreach programs • Build capacity of community members in income generating activities • Include community in program planning, monitoring, and evaluation 	
9. Summary of RMF-sponsored activities carried out during the reporting period under each project objective (note any changes from original plans):	
<ul style="list-style-type: none"> • Funded maternal and child health costs including: <ul style="list-style-type: none"> ○ Personnel costs for nurse Caren Siele and clinical officer Wycliffe Omwanda 	
10. Results and/or accomplishments achieved during this reporting period:	
<p>Hospital Program <i>IMPACT: Sustained reduction of morbidity and mortality through complete and comprehensive access to quality healthcare for the people of Rongo Sub-County</i></p> <ul style="list-style-type: none"> • We have seen 26,712 total patient visits at Lwala Community Hospital so far in 2019. • In the second quarter of 2019, we saw 31,630 patient visits across all seven facilities. 	

- In 2018, we maintained a 98% elimination rate for HIV-exposed children. In November, we graduated our cohort of 63 HIV-exposed infants from the elimination of mother-to-child transmission (eMTCT) program. Of the 64 children that were enrolled into this cohort in May 2017, only one child has tested positive. A cohort of 83 HIV-exposed infants are currently enrolled in this program and will graduate in November.
- We received an 89% average score on a capacity assessment led by the Ministry of Health and the University of Maryland. We were scored across 12 service delivery areas and received a 100% on Quality Improvement!
- The first Open Maternity Day was hosted at Lwala Community Hospital to help familiarize expectant mothers with labor and delivery practices and to educate them on delivery and postnatal care procedures. We encourage them to make suggestions on how to improve their experiences. We received a recommendation to supply warm drinks and a light meal after delivery.
- We championed our Baby-Friendly Hospital initiative by providing additional training for clinicians on kangaroo mother care (skin-to-skin contact), immediate breastfeeding, HIV-exposed infants, and newborn care. We will survey mothers post-delivery to ensure our clients are feeling the impact of our continued efforts to improve their care.
- We installed a new oxygen piping system in Lwala Community Hospital this quarter. This allows for inpatient treatment for oxygen deficiency. Our inability to provide on-premise oxygen supply was a key driver of patient referrals to other clinics. This new system will allow us to improve patient care and in turn, reduce referral costs.
- We installed two new pieces of equipment, a phototherapy machine and an incubator, to support care for infants born at Lwala Community Hospital. The phototherapy machine allows us to treat infants with jaundice and the incubator is used after delivery and for premature newborns. This machinery will improve newborn treatment and reduce referrals to other facilities.
- We enrolled over 1,332 HIV-positive clients into care through the mUzima mobile application. This application is a new technology that we are piloting to ensure 100% linkage to care by facilitating mobile enrollment in HIV care from the community. We are using this tool to continue exceeding the WHO targets for HIV care, 90% of whom are tested, enrolled, and/or on sustained therapy.
- We enrolled 182 clients into the National Health Insurance Fund and 838 into the LindaMama maternal health insurance program. These insurance programs reimburse Lwala Community Hospital for the services provided.
- This year we will scale-up the non-pneumatic anti-shock garment (NASG) intervention to treat obstetric hemorrhage, a leading cause of maternal death. To date, we have trained 17 facilities, including three tertiary facilities and 178 clinical officers, on the NASG, and distributed 40 garments. We plan to train approximately 30 more clinics.

Public Health Program

IMPACT: Improved and sustained positive health-seeking behavior of the people of Rongo Sub-County

- 11,426 children under-five regularly received care from our cadre of 204 Community Health Workers across our innovation hub (North Kamagambo) and expansion site (East Kamagambo), a 70.2% increase from our quarter two 2018 enrollment rates.
- So far, 39 villages have been internally verified as Open Defecation Free (ODF), and 35 of these villages have already received third party verification of their Open Defecation Free status and are awaiting official celebration. Lwala has been tasked to lead all villages in North Kamagambo to become Open Defecation Free this year. To achieve Open Defecation Free status, we continue to provide education to community members on the consequences of poor sanitation and the benefits of latrine construction through an intensive community-led total sanitation (CLTS) initiative. After a village is declared Open Defecation Free, it becomes eligible for a water access project.
- Lwala has continued to exceed its target of fully immunizing 90% of children under five. In 2019, we have achieved an immunization rate of 97%, which is higher than the county rate of 57% (DHIS 2014).
- Through our community-led reproductive health model, we have drastically increased contraceptive uptake. So far in 2019, we have provided 7,773 couple years of protection, which measures the number of years a couple is protected from pregnancy.

Education Program

IMPACT: Improved graduation rates, educational results, and health outcomes for school-aged girls and boys of North Kamagambo

- In April, 28 girls re-enrolled school as a part of our Broadened Horizons program, joining the 120 girls who re-enrolled in term one. The Broadened Horizons mentorship program focuses on supporting girls' re-entry into the school system after dropping out. 148 is the highest number of girls we have ever re-enrolled in school to date!

- For the 2019 school year, we provided 780 girls with school uniforms and 1,012 girls with sanitary pad kits. We also provide mentorship to 394 girls in school who have been identified as high-risk students by their teachers to ensure they remain enrolled in school.

Economic Development Program

IMPACT: Increased economic opportunities to promote self-reliance and sustained livelihoods for the people of North Kamagambo

- In order to provide financial access to even the most impoverished community members, Lwala partners with the organization Village Enterprise. Village Enterprise provides training and microgrants to community members so that they can start their own small businesses.
 - Since Lwala began partnering with Village Enterprise in March 2017, 5,169 people have been measured by the Progress Out of Poverty Index (PPI); 3,706 have qualified as ultra-poor, and 2,616 have enrolled in the Village Enterprise program. Our enrollees have increased average household savings by 62% to \$43.12 USD, and average household consumption increased from \$273 to \$352. Both of these measures are standard indicators in measuring economic wellbeing and reflect how our innovative partnership with Village Enterprise is improving the livelihood of our community members.

Monitoring and Evaluation

The M&E Team is responsible for all data collection and data management for the organization and is a support system for the program teams to successfully track and improve their activities.

- Lwala published a [peer-reviewed article](#) with Vanderbilt University in *PLOS ONE* (the Public Library of Science journal) on our achievements in under-5 mortality in Rongo-Sub County.¹ This cross-sectional survey found a significant decrease in under-five mortality following the establishment of Lwala Community Alliance. Between 1999–2006, before Lwala’s intervention, the under-five mortality rate was 104.8 deaths per 1,000 live births. After Lwala’s intervention, this rate was 53 deaths per 1,000 live births, and in the last five years this number has decreased further to 29.5 per 1,000 live births. This is compared to regional data which shows the under-five mortality rate is 82 deaths per 1,000 live births.
- We have just completed a round of data collection for our robust evaluation of our program expansion. This quasi-experimental study employs repetitive cross-sectional surveys to understand health impacts in Lwala sites compared to control sites. The study focuses on maternal and child health, but also collects a wide range of socioeconomic data to help us understand more about the drivers of health outcomes. The sampling frame factored in approximately 6,000 households, and sample size was calculated using a binomial test to compare one proportion to a reference value. For survival analysis, Cox regression models with clustering at the household level were used to estimate hazards ratios. We will continue to gather this data over time.
- Lwala manages a data system designed for supervision of tailored client care which serves as a sophisticated beneficiary-centered database. The system is built in a Salesforce platform, which houses health and demographic information for more than 20,000 individuals. Through a customized CommCare application, Community Health Workers access and input information about their maternal, child, and HIV-positive clients in real time, and the data is automatically updated in the database.

Administration and Management

- Our Executive Director, Ash Rogers, was named an [Aspen Ideas Health Scholar](#) and participated in the Aspen Ideas Health Festival in June to attend sessions on community-led health and innovations in mHealth.
- In June, Julius and Victoria, our Managing Director and Development Manager, attended Izumi’s Annual Meeting in Boston.
- Our Monitoring and Evaluation Fellow Julia attended the [2019 Future’s Summit](#) in Malawi with Segal Family Foundation’s Social Impact Incubator to promote cross-learning from dozens of grassroots innovators in the sectors of health, education, technology, and agriculture.
- Our Managing Director, Julius Mbeya, was named a [Rainer Arnhold Fellow 2019](#) at Mulago Foundation. He will join other fellows in priming our model for wider scale.
- Looking ahead to quarter three, we plan to attend the Segal Family Foundation Annual Meeting, the UN High-Level Meeting on Universal Health, and Goalkeepers by the Bill & Melinda Gates Foundation.

11. Impact this project has on the community (who is benefiting and how):

¹ Starnes JR, Chamberlain L, Sutermeister S, et al. Under-five mortality in the Rongo Sub-County of Migori County, Kenya: Experience of the Lwala Community Alliance 2007-7 with evidence from a cross-sectional survey. *Public Library of Science*. 2018;13(9). doi:10.1371/journal.pone.0203690.

The primary beneficiaries of RMF-supported Lwala Community Alliance are children, women, HIV-infected persons, and the elderly. Prior to the establishment of Lwala Community Hospital, there was no immediate access to primary health care or HIV/AIDS testing and care in the area. For this reason, Lwala's health intervention has focused on primary care for children, access to medicines (particularly vaccines and antimalarials), HIV testing and care, public health outreach, and safe maternity. The impact has been substantial since opening, though more work is to be done, and systems of measurement need to be strengthened.

12. Number served/number of direct project beneficiaries (for example, average number treated per day or per month and if possible, per health condition).

Outpatient Monthly Totals					
This chart reflects the number of patients reporting for outpatient care due to illness and does not capture the mothers and children who report to the MCH clinic for growth monitoring, immunizations, family planning, antenatal care and postpartum care.					
Month	Under 5		Over 5		Total
	Male	Female	Male	Female	
April	339	313	333	543	1,528
May	424	389	422	590	1,825
June	397	542	354	599	1,892
Total outpatients for reporting period:					5,245
Average per month					1,748

Child Welfare Clinic Monthly Totals					
This chart reflects the number of well children under 5 reporting for regular growth monitoring and immunizations.					
Month	New Clients		Re-visits		Total
	Male	Female	Male	Female	
April	23	27	406	505	961
May	20	43	482	504	1,049
June	12	15	500	587	1,114
Total:					3,124
Average per month:					1,041

Family Planning Clinic			
Month	New Clients	Re-visits	Total
April	61	173	234
May	96	97	193
June	40	143	183
Total:			610
Average per month:			203

Inpatient Ward					
Month	Under 5		Over 5		Total
	Male	Female	Male	Female	
April	9	6	10	19	44
May	11	6	9	21	47
June	19	7	16	28	70
Total:					161
Average patients per month:					54

Antenatal Clinic			
Month	New Clients	Re-visits	Total

April	55	237	292
May	59	238	297
June	65	196	261
Total:			850
Average per month:			283

Deliveries and Postnatal Care					
Month	Number of deliveries at LCH		Deliveries at partner facilities through MCH outreach	Total	Women receiving postnatal care
	Boys	Girls			
April	25	29	58	112	50
May	26	43	55	124	44
June	34	20	54	108	30
Total:				344	124
Average patients per month:				115	41

HIV/AIDS patients reporting for HIV appointments					
Month	Under 5		Over 5		Total
	Male	Female	Male	Female	
April	15	20	289	643	967
May	59	70	235	584	948
June	63	57	227	541	888
Total:					2,803
Average patients per month:					934

13. Number of indirect project beneficiaries (geographic coverage):

Approximately 60,000. The total population of North Kamagambo is about 16,500, and programs are a magnet to people beyond North Kamagambo, including our expansion site, East Kamagambo.

14. If applicable, please list the medical services provided:

- Basic primary care services
- Maternal and child health services
 - Antenatal and Postnatal Care
 - Vaccination
 - Growth Monitoring
 - PMTCT of HIV
 - Family Planning
- Treatment of TB
- Comprehensive care for HIV
 - Preventative services (including PMTCT and male circumcision)
 - Counseling and testing (voluntary, diagnostic, and provider-initiated)
 - Care and treatment for people living with HIV (including ARVs and nutritional support)

15. Please list the most common health problems observed within your region.

The morbidity charts below detail the number of patients reporting to the outpatient department for various conditions. Only conditions with 10 or more reported cases are listed

April 2019			
Under 5		Over 5	
Clinical Malaria:	673	Clinical Malaria:	578
Respiratory Illnesses:	261	Confirmed Malaria:	48
Skin Infections:	41	Skin Infection:	33
Diarrhea:	114	Urinary Tract Infection:	74
Anemia:	25	Diarrhea:	29
Confirmed Malaria:	51	Pneumonia:	22
		Rheumatism/Joint pain:	45
		Accidents:	36
May 2019			
Under 5		Over 5	
Clinical Malaria:	811	Clinical Malaria:	874
Confirmed Malaria:	68	Confirmed Malaria:	50
Respiratory Illnesses:	293	Skin Infections:	71
Diarrhea:	101	Urinary Tract Infection:	74
Skin Infection:	64	Diarrhea:	31
Anemia:	21	Pneumonia:	34
		Rheumatism/Joint Pain:	47
		Accidents:	48
June 2019			
Under 5		Over 5	
Clinical Malaria:	939	Clinical Malaria:	895
Respiratory Illnesses:	380	Confirmed Malaria:	48
Confirmed Malaria:	64	Skin Infection:	64
Diarrhea:	49	Urinary Tract Infection:	47
Skin Infection:	68	Pneumonia:	42
Anemia:	13	Diarrhea:	25
		Rheumatism/Joint Pain:	38
		Accidents:	45

16. Notable project challenges and obstacles:

This quarter, we applied for Institutional Review Board approval to AMREF so that we could complete the final 2019 data collection for our program evaluation in Uriri, our comparison site. Despite assurances from the approval coordinator, we did not receive approval for months, which halted data collection for a few months. Collecting data in Uriri is an essential component of our evaluation methodology, which will allow us to compare our impact against a control group. In late June, we received approval and resumed data collection.

17. If applicable, plans for next reporting period:

- Conduct the first Health Facility Assessment for Ongo and Kitere health facilities in our new expansion site of South Kamagambo.

- Lead North Kamagambo in its effort to certify every village as Open Defecation Free.
- Provide couple years of protection to the communities we serve.
- Recruit, train, and deploy a new cadre of 26 Youth Peer Providers to address adolescent and youth needs surrounding sexual and reproductive health.
- Bring the life-saving non-pneumatic anti-shock garment intervention to all of Migori County.

18. If applicable, summary of RMF-sponsored medical supply distribution and use:
NA

19. Success story(s) highlighting project impact

SUCCESS STORY: Mary Ochieng

David and Mary Ochieng moved into Lwala’s catchment area from a village in Homa Bay County which is known for very poor health outcomes. Mary is currently pregnant with their fourth child. Upon moving to Lwala village, they were identified by Community Health Worker Lencer as an at risk-couple because of their reluctance to seek antenatal care services.

During Mary’s first pregnancy, the facility she visited had misdiagnosed her child as HIV-positive. Weeks later, a different facility corrected the diagnosis, and the baby was cleared as HIV free. This experience broke Mary’s trust in her health facility, and she delivered her following two children at home.

Lencer began visiting Mary weekly, giving her information on the benefits of antenatal care and trying to rebuild her trust in the formal healthcare system. Lencer made seven referrals to Lwala Community Hospital, all with no success. Finally, Lencer asked Lwala Community Health Nurse Paul to accompany her to Mary’s house. Paul joined Lencer at her next home visit and disseminated health education on antenatal care, birth preparedness, and skilled delivery. Paul transported and accompanied Mary to her first antenatal care visit at Lwala Community Hospital. Paul met with David as well, to educate him on the importance of spouse support during pregnancy and to encourage him to attend antenatal care visits with Mary. David went with Mary to her next antenatal care visit.

“I did not think they would keep coming back after I refused my visits. Their attention got me to the facility,” Mary says of her Community Health Worker.

Eventually, Mary delivered a healthy baby boy at Lwala Community Hospital. By restoring Mary’s relationship with the formal healthcare system, Mary is more likely to seek preventative care and monitoring, such as post-natal care and child wellness visits, ensuring both she and her children live healthy, productive lives.



Mary Ochieng’s children



III. Financial Information

Detailed accounting sent separately each quarter.