



QUALITY HEALTH CARE  
FOR EVERYONE



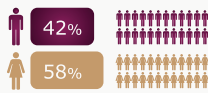
Annual  
Report

2019

Reducing preventable deaths by  
enabling faster, better care

# 1

## WALIMU in numbers



**31389**

Patients touched



**401**

Health workers trained



**1580**

Care-givers for children  
trained and followed up



**4433**

Village Health Team  
members trained



**25**

Staff



**31**

Collaborating Hospital  
and Health Centre IVs



**15**

Collaborating Districts



**7**

Projects



**7**

Funders



**2**

Publications and conference  
presentations



**4**

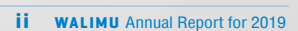
Research protocols  
submitted



**4**

Clinical guidelines  
developed

## Southern Sudan



Programme	Location
<b>Smart Discharges:</b>	Mbarara RRH, Jinja RRH, Masaka RRH and Holy Innocent Hospital Mbarara
	Health workers trained
<b>CBDS:</b>	Kagadi, Nebbi, Zombo, Pakwach and Buliisa Districts
	Health workers trained
<b>DOT to DAT:</b>	Kasangati HCIV, Kigandalo HCIV, Gombe Hospital, Entebbe General Hospital, Bugiri Hospital, Kayunga Hospital Masaka RRH, Iganga Hospital, Kawolo Hospital Mildmay Hospital, Mukono HCIV, Buluba Hospital, Jinja RRH, Mbale RRH, Mityana Hospital, Mubende RRH, Hoima RRH, Kamuli Hospital
	Village Health Team members trained
<b>CHARISMA:</b>	Butabika National Mental Referral Hospital
<b>NCD:</b>	Masaka, Bukomansimbi and Kalungu Districts
<b>ARCS:</b>	Hoima RRH and Kiruddu National Referral Hospital.

**Savio Mwaka** - Program Manager presenting at a dissemination workshop for stakeholders





# Contents

	<b>WALIMU</b> in numbers <b>WALIMU</b> in brief	i 1
	Message from Executive Director	2
	<b>Chapter One:</b> Generating and promoting the adoption, and integration of evidence based practices, interventions into routine health care and policy	4
	<b>Chapter Two:</b> Building quality into the foundations of the health system using innovative quality improvement strategies	9
	<b>Chapter Three:</b> Improving Internal organizational capacity of WALIMU for sustainable growth and organizational effectiveness	13
	Publications, Abstracts and conference presentations	15
	<b>Financial Report</b>	16
	Board of Directors	18
	Staff	19
	Funders and partners	21



# 2

## WALIMU in brief

WALIMU also known as the World Alliance for Lung and Intensive Care Medicine in Uganda is a Non-Government Organization (NGO) founded by a group of researchers working at Mulago National Referral Hospital on observing that,

*“many patients die of curable conditions because they are not identified and treated early enough”*

WALIMU has evolved into an organization at the fore front of empowering health workers to address local health problems in innovative ways in order to transform patient care and improve outcomes through training, research and innovation. Recognizing that,

*“there is a broader, unmet need in Uganda’s health system: getting rapid and appropriate care to the sickest patients”*

through

- Improving triage and post-discharge care for children presenting with Severe Infection
- Innovative approaches for care of adults presenting with Sepsis
- Innovative approaches for care for children and adults with Tuberculosis
- Integrated management of Non-Communicable Diseases at Primary Health Care level
- Quickly detecting and effectively responding to diseases of epidemic potential

### Vision



To reduce mortality amongst severely ill patients in Ugandan health facilities.

### Mission



Walimu works to empower health workers to address local health problems in innovative ways in order to transform patient care and improve outcomes.

### Core Values



1. **Evidence** drives our work
2. **Excellency** in all we do
3. **Innovation** in addressing local health problems
4. **Integrity** in our dealings
5. **Partnership** for greater reach and impact

### WALIMU

Unit 4, Plot 5-7, Coral Crescent - Kololo  
P.O Box 9924, Kampala Uganda  
Tel: +256 393 100 301  
Email: [info@walimu.org](mailto:info@walimu.org)  
Web: [www.walimu.org](http://www.walimu.org)



WalimuNGO



WalimuNGO

# 3

## **Message from Executive Director**

**T**his report marks yet another year of Walimu's contribution to improving quality of healthcare. We have continued in our call to empower health workers to solve local health problems in innovative ways. Walimu has done a lot of reflection aimed at re-aligning its programmes into a scalable model that can achieve impact at minimum cost.



Dr. Nathan Kenya-Mugisha  
**Executive Director**



Outside research, we have defined quality improvement packages targeting three way behavior change; the health worker, the patient and the caregiver.

We have expanded our scope to include identifying patients with NCDs early enough so that they are enrolled into care. We have also gone ahead to empower VHTs in our quest in quickly detecting and effectively responding to diseases of epidemic potential through adding on a Community Based Disease Surveillance Model to our program. Furthermore, we are also now using the VHT network to support caretakers of children discharged with Severe Infection. We have also widened the scope of our research program to look at Sepsis as a policy issue in both adults and children through national international collaborations.

This year has seen Walimu increase its grant income more than four-fold in three years since 2017. This has come about from increasing its partnerships beyond research grants to include health system strengthening programming specifically quality improvement. Focus has also been put on building synergies as a sustainable mechanism for expanding the audience of its quality improvement approach to a wider spectrum of beneficiaries who are the care seekers and health workers.

2019 has been a year of reflection as the sixth year of Walimu in Uganda. The first strategic plan has been developed and is to run from 2020-2024. This will position Walimu as an organization that not only generates evidence but ensures that it translates into policy and practice. Outside research, Walimu will also continue expand its quality improvement approach that provides systemic solutions to barriers to care in ensuring that appropriate care reaches those who need the most.

I would like to thank the staff for making this happen, the Ministry of Health and our partners for the support and the Walimu board of Directors for the continued guidance.

Dr. Nathan Kenya-Mugisha  
**Executive Director**



## Chapter One:

Generating and promoting the adoption, and integration of evidence based practices into routine health care and policy



“Walimu has facilitated improved post discharge care cover for 1580 children. Someone only interested in figures will see it easily.”

**Promoting policy and advocacy work in recognizing improved discharge practices as a priority area.**

In improving post-discharge care for children with Sepsis and Severe Infection, Walimu has in 2019 facilitated improved post discharge care covering **1580** children aged six months to five years in three Regional Referral Hospitals and one General hospital. The work on model validation for children has continued to improve the level of risk prediction.

Dr. Jesca Nsungwa-Sabiiti,  
Commissioner Reproductive,  
Maternal and Child Health  
discussing modifications to the  
Mother-Child Paspport.

To improve the ability of frontline health workers in resource-poor environments in the identification of vulnerable children, these models have been integrated into a mobile phone-based application, to allow rapid and effective risk stratification. Health workers have been trained to effect the discharges as recommended. They have also been taught on how to communicate to mothers emphasizing the vulnerability in the post-discharge period. In addition, work on a prediction model is also underway for children below six months. To field test the applicability of the prediction, it has been deployed in four Regional Referral Hospitals.

In 2019, we have made substantial strides in the integration of improved pediatric discharge practices into policies and guidelines. Always informed by our strong and ongoing research work, this has led to the adoption of improved discharge practices into several government guidelines and documents, including the Mother-Child Passport, Mothers Counselling Card, the Post Discharge Care Fact Sheet, Key Family Care Practices and the Discharge Counselling Flip Chart. With this development, we intend to utilize a synergistic approach to target more mothers and children so as to ensure impact at national level. Currently a Ministry of Health initiative supported by USAID is rolling out the training and dissemination of the Mothers Counselling Card in IMNCI districts-7 districts of Lango area have been covered to date covering at least **5000** mothers.

### **Determining the economic and satisfaction implication of a “smart discharge”**

An exploratory qualitative approach to describe participants’ experiences and perceptions of receiving a smart discharge was conducted. The purpose was to draw lessons for improvement of post-discharge care. Participants reported increased male involvement in the care of their children. Also reported was education changing behavior resulting from counselling education they received. They explained that the messages on nutrition, breastfeeding and the risk after discharge enabled them to follow the health workers’ instructions which they felt contributed to the recovery of their children. Participants reported better methods of discharge compared to previous admissions.

They explained that the program nurses were polite, friendly, elaborate and always available to answer their questions which was previously not the case. Both nurses and caregivers reported improved post discharge follow-up.

“

*After the doctor has given an injection to the child, he would not come back to check on the child. But in smart discharges, they keep checking, asking if there is improvement and if the child is trying to eat something. Something which was not done before.*

Female caregiver.

“

*It is not common for a health worker to call you and ask how the child is, and how the hygiene is at home. My neighbors said that is a good project if a health worker can put airtime and call a client.*

Male caregiver.

The Cost and Economic evaluation was done in 150 households to establish the cost implications of a smart discharge. Using this information along with preliminary efficacy data for a smart discharge as an intervention, we determined that the incremental cost of the program was **UGX18,386**, per discharge. This cost includes out of pocket costs (for admission and follow-up), health system costs, and Smart Discharges material costs. Using the preliminary data for the effect of the Smart Discharges on mortality in enrolled children, the years of life lost (YLL) were 1.52 Versus 2.23 in the smart discharges and non-smart discharges groups respectively ( the incremental YLL averted -0.71). The incremental cost-effectiveness ratio (ICER) was estimated at **UGX 25,972 (approx. 7USD)** per life-year saved. The ICER is much lower than a standard willingness-to-pay threshold of **UGX 2,772,000 (770USD)** (i.e. Uganda's GDP per capita as of 2019), which indicates that a smart discharge is a highly cost-effective intervention. More work in ongoing to further refine the model.

## Innovative approaches for care for adults presenting with Sepsis

Beginning June 2019, Walimu commenced research work in Sepsis in adults through The African Research Collaboration on Sepsis (ARCS); a group of researchers that is carrying out sepsis research in Malawi, Uganda and Gabon. In Uganda, the ARCS cohort study is providing a platform to answer various questions about sepsis in Uganda including; epidemiology, outcomes, definitions, antimicrobial resistance and hospital costs of sepsis care. The collaboration also serves as a platform to enhance sepsis research training in Sub Saharan Africa. Among the research activities, the use of point of care ultrasound scanning during diagnosis and care of sepsis patients is also being assessed.

“  
*The African  
Research  
Collaboration on  
Sepsis (ARCS)*  
”



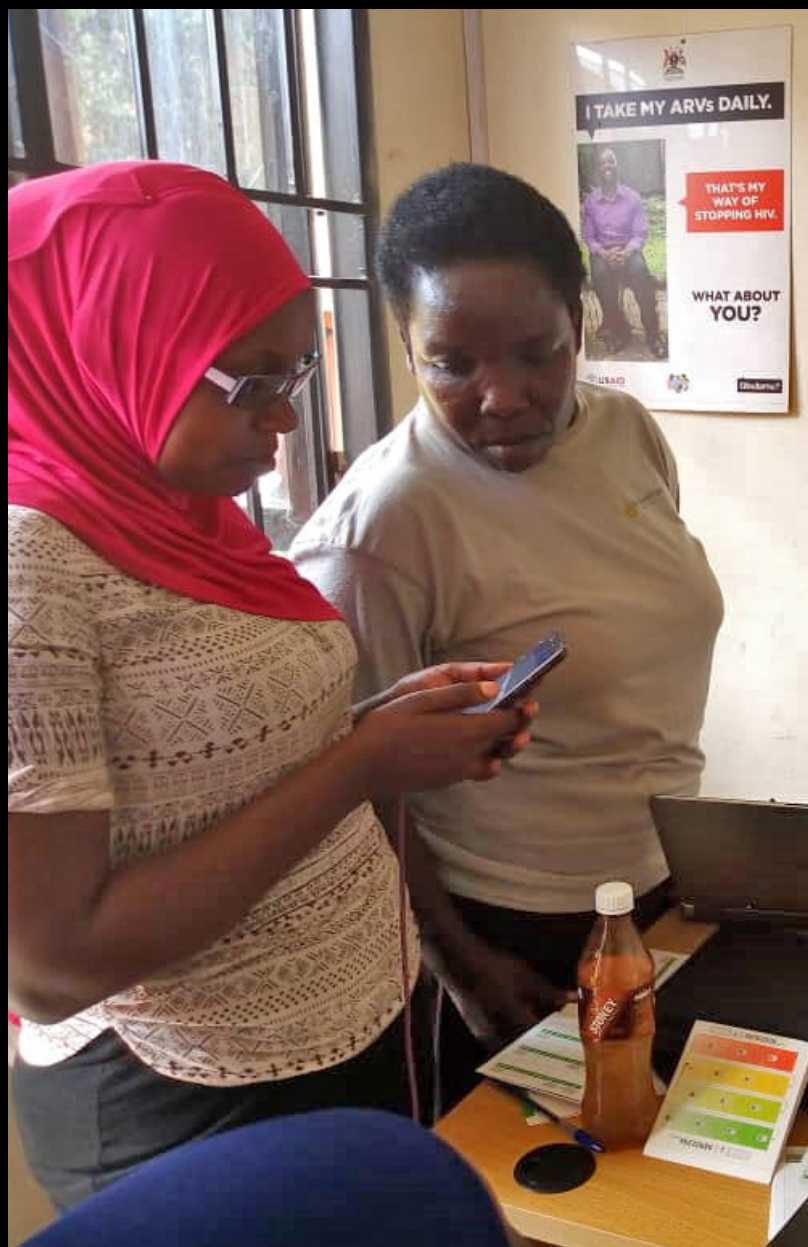
Dr. Sharon Nyesiga, Research Fellow  
using point of care Ultra Sound in  
diagnosing Sepsis



## From DOT to DAT: Use of Mobile Phones to Monitor and Improve Adherence to Tuberculosis Medication

In order to close in on the challenges with the Directly Observed Treatment, the 99 DOTS approach seeks to use Digital Adherence Technology in terms of a mobile phone where a patient is taught how to take medicines and then use a phone to call a particular number which will be able to show that he has taken his medicines. The 99DOTS is a low-cost way for monitoring and improving TB medication adherence. The goal of the 99 DOTS is to provide 99% of the benefits of DOTS at a fraction of the cost and inconvenience to patients. If the patient adheres well, his visits are substantially reduced there by reducing the costs and achieving 99% of the benefits of the DOTS at a lower cost and at more convenience both to the patient and to the health worker.

Beginning January 2019, Walimu in collaboration with The Uganda TB Implementation Research Consortium and the University of California San Francisco conducted a one year pilot study at 18 sites targeting 3060 patients newly enrolled on TB medication. With the overall success registered in the pilot phase, a roll out is underway for 2020 targeting 12 additional facilities. This is being conducted in Collaboration with the National TB and Leprosy Program and if successful will reduce on the inconvenience on the patient in terms of costs and time in accessing TB medication.



*The goal of the 99 DOTS is to provide 99% of the benefits of DOTS at a fraction of the cost and inconvenience to patients.*



## **Chapter Two:**

### Building quality into the foundations of the health system using innovative quality improvement strategies

#### **5.1 Improving health facility readiness to provide quality care**

##### **Improving Health Facility capacity to detect and effectively manage Non-Communicable Diseases**

While NCDs are increasingly becoming an area of concern, Uganda has not had set standards on screening and case management. As part of efforts to increase facility capability to quickly detect and effectively manage NCDs, Walimu has collaborated with the Ministry of Health NCD Department to roll out the integrated NCD service delivery based on IMAI-PEN NCD tools at the primary care level with back-up by a trained hospital clinical team.

Clinical case management capacity begins with availability of guidelines. Walimu supported the NCD Department of the Ministry of Health to adapt, pretest and finalize the Uganda version of the NCD chronic care guidelines including the monitoring tools and the NCD drug formulary. To roll out the guidelines, forty-four health workers and 26 additional clinical mentors from the Masaka region, as well as Nakaseke District, UPMB, and MRC were trained.

To ensure sustainability in adherence to the newly developed guidelines, a quality improvement platform was designed and deployed in nine health facilities in greater Masaka region. A data audit and feedback platform was deployed to evaluate the trends in screening patients with NCDs, availability of commodities for management of NCDs and effective diagnosis and monitoring of patients.

Using the data from the longitudinal register and patient cards developed for Asthma and COPD, a total of **3235 patients** were enrolled into care using the NCD cards and longitudinal registers across all the nine facilities from June through to December 2019. Of these, **3213** have either HTN or DM or both HTN and DM, whereas **22** have asthma. From June through December 2019, a total of **23,536** out of **58,370 adults** (18 years and above) OPD patients were screened for hypertension using BP parameters as recorded in the OPD register of the health facilities.

The project generally sustained an upward trend in HTN screening, increasing from 9% in June to 65% as at end of December for adult patients across all nine sites.

## 5.2 Workforce development for health care practitioners to effectively deliver quality health care services

### Establishment of Community Based Disease Surveillance Systems for outbreak prone diseases



Village Health Teams a crucial in building Disease Surveillance Mechanisms in the community



Uganda has a high profile for epidemic prone often classified as “disease of security concern” such as Ebola, Marburg, Crimean-Congo Haemorrhagic Fever, Rift Valley Fever, and Yellow Fever viruses among others. At the community level, the past outbreaks such as the Ebola Virus Disease outbreaks have exposed the urgent need to strengthen health surveillance and health systems. Village Health Teams provide a good opportunity to strengthen community base disease surveillance (CBDS) as they are able to not only provide health education but also to gather and relay critical health information.

As part of the implementation of the Ebola Virus Disease Preparedness and Response Plan, Walimu with support from the World Health Organization embarked on establishment of Community Based Disease Surveillance (CBDS) with focus on Ebola virus disease in five districts of Buliisa, Kagadi, Zombo, Nebbi and Pakwach. This was to strengthen community-based early warning systems among VHTs by equipping them with sufficient skills and knowledge to timely detect, report, investigate and respond to epidemics in a timely manner.

Across the five districts **4,433 VHTs** were trained on how to identify a possible case of EVD at the community level and escalate it for effective response.

### 5.3 Empowering the patient, family and community to contribute to own quality of care

Our post discharge care approach “**The Smart Discharges**” facilitates safe transition of children from hospital to home through empowering caregivers, communities and health workers. It focuses on the identification of children at high risk of poor post-discharge outcomes and provides an individualized educational and follow-up intervention to ensure that the most vulnerable hospitalized children can make full recoveries following severe illness.



Healthworkers undergoing training to provide Clinical care to Ebola Virus Disease patients



Prior to discharge, trained nurses work with caregivers to ensure they properly understand how to care for their children during the vulnerable post-discharge period. This includes providing education on hygiene, nutrition, recognition of danger signs, optimal health seeking practices, and other aspects of healthcare. With this education, caregivers are empowered to monitor the recovery of their child, and to understand the importance of informed health seeking and follow-up. This approach has been shown to improve the quality of life and health outcomes for the families of recently discharged children.

“

*After discharge, the father became responsible and started buying food they had advised, something he had never done. He used to say that the child will grow without eating these foods. In the charts, there was a picture of foods that we should give the child. He now wants to make sure the child eats well to avoid spending more money.*

”

Female Caregiver.

“

*I used to say that when my child reaches one year, I will stop breastfeeding him, but now, I changed my attitude, he is still breastfeeding.*

”

Female caregiver.

“

*I finished all the visits, the organization kept on reminding me to take the child back to hospital, something that encouraged to finish all the routines of taking the child to the hospital for checkup.*

”

Female caregiver.

## Chapter Three:

### Improving Internal organizational capacity of Walimu for sustainable growth and organizational effectiveness

#### 6.1 Strengthening organizational purpose and Planning

##### Conducting an in-depth organizational capacity assessment

An on-desk synopsis of Walimu was conducted and recommended strengthening Walimu's finance, administrative, and governance structures and procedures. Upon completion of the Organization capacity Assessment, a step by step performance improvement plan was developed. As a result, internal systems have been realigned and an accreditation process is underway for a Good Financial Grants Practice (GFGP) "silver status" rating.

##### Development of an organization strategic plan for 2020-2024

Analysis of the organization performance and context in the last five years strongly pointed to three priority focus areas in development of the strategic plan for 2020-2024. These include; Translation of Research into Policies and Practice in collaboration with research and training Institutions, equipping health professionals with Skills, Knowledge & tools, internal systems strengthening.

This comes with a shift away from designing disease specific quality improvement initiatives to building quality into the foundation of health systems thus addressing systemic issues in the health sector. This has come with a challenge for Walimu to swiftly reposition itself as an organization of choice , capable of championing a holistic approach to health care quality improvement.

This being the first strategic plan has required an overhaul in the existing organization structure to facilitate its implementation starting in 2020.

#### 6.4 External Relations & engagements

- i. National Stakeholders' Meeting to Update Essential Medicines and Health Supplies List for Uganda (EMHSLU) and Uganda Clinical Guidelines (UCG) to include all Essential Medicines for NCDs and Agree on Indicators for NCD Monitoring, May 15, 2019, Fairway Hotel, Kampala, Uganda
- ii. First stakeholders' meeting on the Africa Research Collaboration on Sepsis, June 15-16, 2019, Sand beach Hotel-Dar-Es Salam
- iii. Second Technical Advisory Board Meeting for the Smart Discharges Project, July 2, 2019, Metropole Hotel Kampala.
- iv. Presentation of draft Uganda Guidelines for Integrated Non-Communicable Disease Management Volumes 1 (Acute Care) and 2 (Chronic Care) to Ministry of Health Senior Management Team, July 18, 2019, Ministry of Health Headquarters.
- v. Reproductive Maternal Neonatal Child and Adolescent Health (RMNCAH) symposium, August 6-7, 2019, Imperial Royale Hotel
- vi. Reproductive Maternal Neonatal Child and Adolescent Health (RMNCAH) Program Manager's meeting, September 28-October 1, 2019.
- vii. Second Stakeholder Engagement meeting for the Smart Discharges Project, November 4, 2019, Metropole Hotel Kampala.
- viii. Reshaping Outcomes After Discharge in Sepsis, November 4, 2019, Metropole Hotel Kampala.
- ix. Launch of Novartis Access In Uganda With the Ministry of Health of The Republic of Uganda, November 28, 2019, Protea Hotel, Kampala

## **Publications, Abstracts and conference presentations**

1. Nemetchek B, Khowaja A, Kavuma A, Kabajaasi O, Olirus Owilli A, Ansermino JM, Fowler-Kerry S, Jacob ST, Kenya-Mugisha N, Kabakyenga J, Wiens MO. Exploring healthcare providers' perspectives of the paediatric discharge process in Uganda: a qualitative exploratory study. *BMJ Open*. 2019;9(9): e029526.
2. Kabajaasi O, Rwabukwaali E, Katahoire A, Lucian J D. We are looking at yield and leaving out patients”: Healthcare providers' perception of the barriers and enablers to implementation of Provider-Initiated HIV Testing and Counselling for hospitalized patients in Uganda. Conference abstract 19th Annual Scientific Conference, Uganda Society for Health Scientists 23-24 May 2019.

### **Research protocols and guidelines in development**

- Post-Discharge Care of a Child Recovering from Severe Illness/Infection: Counselling Cards for Community Health Workers
- Community Health Worker's Trainer's Manual: Understanding Community Health Worker's Role in Providing Post-Discharge Care to Children Recovering from Severe Infection at Community Level
- Smart Discharges Learning Program: Facilitator's Guide
- A Health Worker's Guide : Understanding a Health Worker's Role in Discharging and Providing Post-Discharge Care to Children Recovering from Severe Infection
- Influencing Sepsis as a Policy issue in Uganda



# 8

## Financial Report

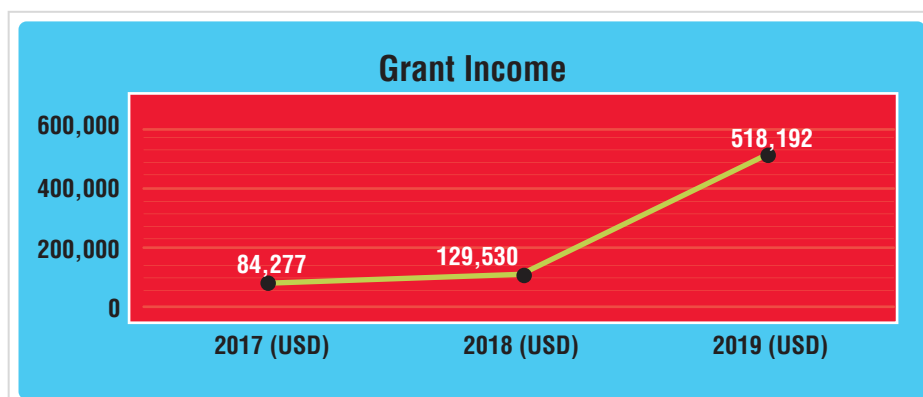
The financial report shows a comparative of Walimu's finances from the year 2017 to date. Tables one and two show the statement of financial position and the statement of income and expenditure. In all the three years, the accounts were audited externally and auditors gave an unqualified position.

Table 1: Statement of financial position

Details	2019 (USD)	2018 (USD)	2017 (USD)
<b>Assets</b>			
<b>Current Assets</b>			
Receivables	2,405	1,689	1,264
Cash and bank balances	125,340	92,176	35,327
	127,745	93,865	36,591
<b>Current Liabilities</b>			
Differed income	108,840	82,470	-
Creditors and accruals	18,589	7,599	10,731
Total current liabilities	127,429	90,069	10,731
<b>Net Assets</b>	<b>316</b>	<b>3,796</b>	<b>25,860</b>
<b>Financed By:</b>			
<b>Accumulated Fund</b>	<b>316</b>	<b>3,796</b>	<b>25,860</b>

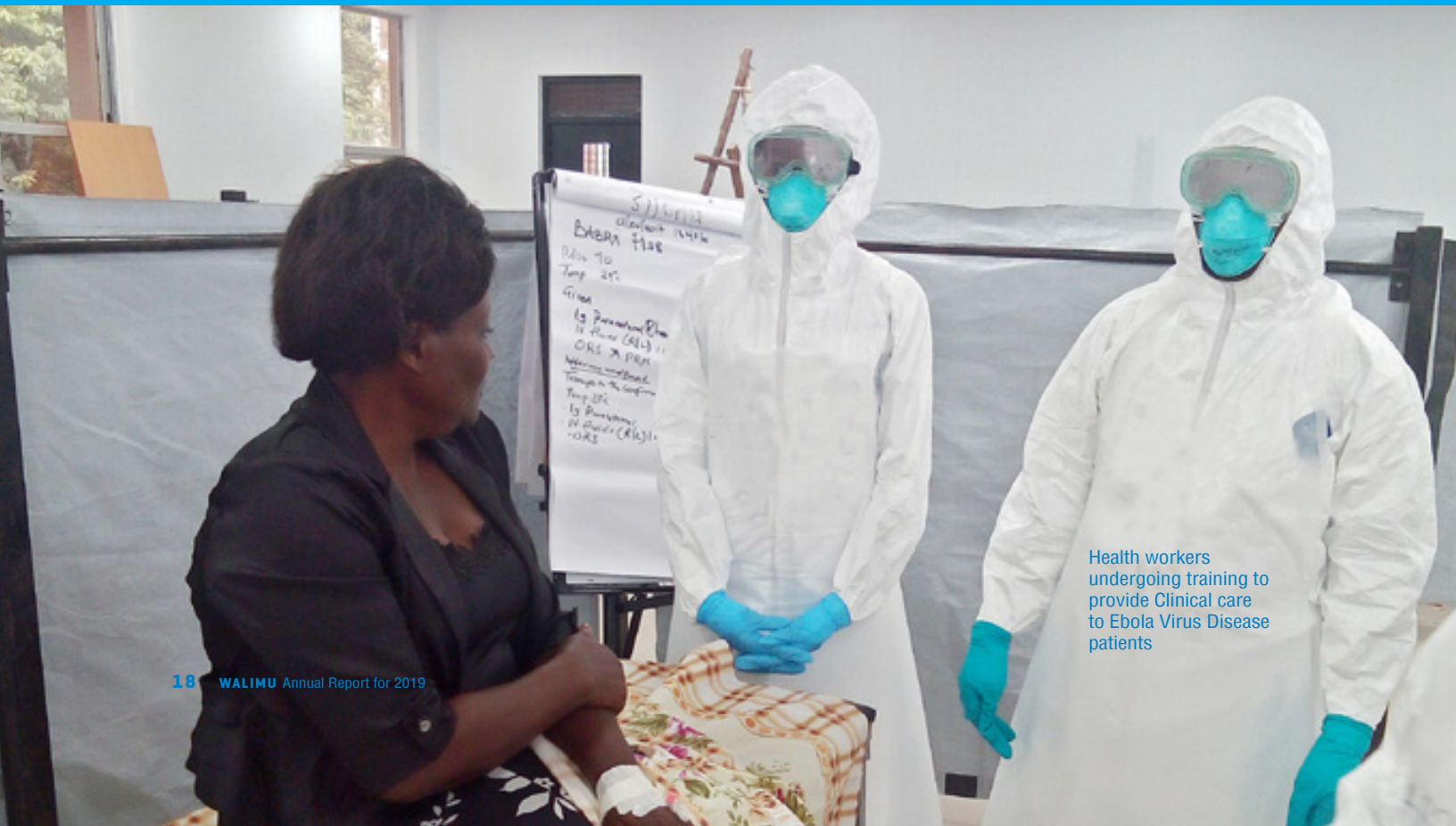
**Table 2: Statement of income and Expenditure**

Details	2019 (USD)	2018(USD)	2017(USD)
<b>Income</b>			
Grant income	513,190	129,530	84,277
<b>Project expenses</b>	<b>(441,949)</b>	<b>(97,633)</b>	<b>(92.955)</b>
Administrative expenses	(76,187)	(59,355)	(34,371)
<b>Surplus/(Deficit) for the year</b>	<b>(4,946)</b>	<b>(27,458)</b>	<b>(43,049)</b>



## Board of Directors

Name	Field of Specialization	Institution of affiliation
Achilles Katamba, PhD Board Chair	Clinical Epidemiologist	Makerere University, Kampala
John Davis Lucian , MD, MAS	Pulmonologist	Yale University, USA
Shevin T. Jacob, MD, MPH	Infectious Diseases Physician	Liverpool School of Tropical Medicine, UK
Elijah Goldberg, BA	Economist	Impact Matters, USA
Adithya Catammanchi, MD, MAS	Pulmonologist	University of California San Francisco
Matthew O. Wiens, PhD, PharmD	Epidemiologist	University of British Columbia, Canada
Nathan Kenya-Mugisha, MMed, MPH	Pediatrician	WALIMU, Kampala



# 10 Staff

Staff Name	Position	Academic Background	Experience
Nathan Kenya-Mugisha	Executive Director	MMed (Pediatrics), MPH	Health Sector Systems Strengthening and Policy
Savio Mwaka	Program Manager	MSc.(Quantitative Economics)	Project Cycle Management, Program Quality Assurance
Betty Kuteesa Nalule	Finance Manager	PGD Management Science	Accounting, Finance and Audit
Olive Kabajaasi	Program Manager	MA. (Sociology)	Project management and Social Science Research
Stephen Bukenya	Technical Coordinator <b>NCDs</b>	MBChB, MPH	
Sharon Nyesiga	Research Fellow - <b>ARCS</b>	MMed. (Internal Medicine)	
Mupeyi Goefery	Project Coordinator - <b>CHARISMA</b>	MBChB	
Charlene Kanyali	Operations Officer	BSc. Economics	
Carol Namiiro	Accountant	B. Commerce	
Perusi Martha Nyakato	Administrative Assistant	B.A (Social Sciences)	
Nsangi Damalie Kajumba	Project Coordinator – <b>Smart Discharges</b>	MPH	
Clare Komugisha	Senior Research Officer	BPH, RN	



Staff Name	Position
Ainembabazi Harriet	Research Nurse
Nuwasasira Agaston	Research Nurse
Naturinda Rabecca	Research Nurse
Nakjafeero Joan	Research Nurse
Kairangwa Racheal	Research Nurse
Annet Malza	Research Nurse
Kisaame Zorah Ruth	Research Nurse
Nakimuli Gloria	Research Nurse
Nakiwala Esther	Research Nurse
Wasukira David Emmanuel	Research Nurse
Wabigiya Daniel	Research Nurse
Nakanwagi Hanifah	Research Nurse
Kadoli Joshua	Research Nurse

Staff at a team building event in Mbararara



# 11

## Funders and partners

- Liverpool School of Tropical Medicine
- Uganda Tuberculosis Implementation Research Consortium
- Uganda Catholic Medical Bureau
- Infectious Diseases Institute, Makerere University
- Ministry of Health, Uganda
- World Health Organization
- University of British Columbia
- Swansea University
- University of California San Francisco
- Clinic Masters
- Novartis Social Business
- Uganda Protestant Medical Bureau
- Medical Research Council
- IMAI Alliance
- iStreams



World Health  
Organization



UCSF  
University of California  
San Francisco



Swansea University  
Prifysgol Abertawe

