

## LEVERAGING THE HIV PLATFORM FOR HYPERTENSION CONTROL IN UGANDA.



ISSUE 2, VOLUME 2  
MARCH 2024



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## WELCOME REMARKS FROM PRINCIPAL INVESTIGATOR, PI

Happy New Year! It is with great pleasure that I welcome you to the latest edition of our Integrated HIV/HTN Project newsletter. As we enter a new year, we reflect on our accomplishments and look forward to the exciting developments ahead. In this issue, we will be sharing updates on the National and Regional Dissemination Meetings, where we engaged with key stakeholders to discuss our project findings and recommendations. Additionally, we will highlight these meetings in our photo memories. We will also dive in to the details of our participation in the prestigious EDCTP Forum, where we had the opportunity to showcase our innovative research. Lastly, we will provide a success story from one of our participants and a snapshot of the progress we made thus far, as we continue to work tirelessly towards improving health outcomes for this vulnerable population, I would like to thank you all for your continued support. We hope you find this newsletter both informative and inspiring. Wishing you all a happy and prosperous new year!

**Principal Investigator, Jane Kabami**

# PROJECT UPDATES

## The Integrated HIV/HTN Team Shines at the EDCTP Forum, Paving the Way for improved Healthcare

The Integrated HIV/HTN project team had the privilege to participate in the Eleventh EDCTP Forum, where Ms Jane Kabami, the principal investigator of the EDCTP-funded study, presented ground breaking evidence that integrating HIV and hypertension care can significantly enhance health outcomes. Hypertension poses a growing challenge among individuals living with HIV in sub-Saharan Africa, attributed to both the HIV infection itself and long term treatment impacts. Ms. Kabami and her team conducted a cluster randomized controlled trial involving over 3600 people with HIV. The study evaluated a multicomponent integrated care model, incorporating hypertension screening and management into existing HIV care.

### Key Highlights

- Study shows significant increase in hypertension screening rates (76% versus 22%)
- Hypertension control rises from 33% at 12 months to 57% at 24 months
- Importance of equipping healthcare workers with knowledge on managing non-communicable diseases (NCDs)
- -Encouragement for active participation in international conferences and forums to drive improvements in health outcomes
- Successful experience at the EDCTP Forum signifies significant strides in advancing global health research and innovation in Africa.



P.I. Jane Kabami sheds light on ground-breaking findings from the Integrated HIV/HTN project, taking center stage at the prestigious EDCTP forum

The findings were remarkable: the intervention arm witnessed a significant increase in hypertension screening rates (76% versus 22%), with hypertension control rising from 33% at 12 months to 57% at 24 months. These results suggest that the integrated care model could have a profound impact on blood pressure control in individuals living with HIV.

Ms, Elizabeth Arinitwe, a team member from the Uganda Heart Institute, emphasized the abundance of evidence-based studies and health care innovations being explored, particularly for low-resource settings in Africa, “The forum provided a valuable platform for us to network with experts working on co-infections like TB and diabetes, fostering potential collaborations to enhance healthcare outcomes in our region.”

Participating at the EDCTP Forum not only allowed the team to showcase the achievements of the study but also provided a platform for strengthening partnerships and collaborations. Ms Arinitwe expressed her excitement at networking with researchers working in HIV and co-infections, foreseeing potential collaborations to further enhance healthcare outcomes in the region.



Breaking Barriers: The Integrated HIV/HTN Team Shines at the EDCTP Forum

The experience of the Integrated HIV/HTN project team at the EDCTP Forum was a resounding success. Through their research, collaboration, and active engagement, they have made significant strides in advancing global health research and innovation in Africa.

# PROJECT UPDATES

## Integrated HIV/HTN National Dissemination Meeting Highlights Successful Integration of Care for Better Health Outcomes

In a ground breaking event held on the 23rd of November, Golden Tulip hosted the Integrated HIV/HTN Dissemination Meeting, where researchers, healthcare professionals, and policymakers came together to share and discuss important findings on the integration of hypertension care for people living with HIV. The meeting aimed to address the challenges for a more holistic approach to patient health.

Dr. Gerald Mutungi, chairperson of the meeting, extended his gratitude to the esteemed Permanent Secretary of the Ministry of Health Uganda for attending and emphasized the need for integration, stating, “We cannot continue to request separate funding for different diseases when we are essentially providing care for the same individuals.”

### Key Highlights

- Integrated HIV/HTN Dissemination Meeting held on 23rd November 2023 aiming to address challenges of fragmented care and advocating for a holistic approach to patient health.
- The Integrated HIV/HTN project presented by Dr. Mucunguzi Atukunda, aimed to enhance screening, treatment, and control of hypertension among people living with HIV.
- P.I. Jane Kabami presented project findings, highlighting improved screening rates and early detection of high blood pressure complications.
- Dr. Diana Atwine, Permanent Secretary of the Ministry of Health, stressed the importance of comprehensive care and the need for integration.

Ms. Jane Kabami, the principal investigator, presented the project’s findings, shedding light on improved screening rates and early detection of high blood pressure complications. She emphasized the significance of early intervention, stating, “We observed improved screening rates, highlighting the impact of our intervention. Both healthcare providers and patients recognized these improvements at the health facilities.”



Dr. Diana Atwine, the Permanent Secretary of MOH, joining the group of distinguished speakers and participants at the Integrated HIV/HTN National Dissemination Meeting.

Executive Director Professor Moses Kamy, in his welcome remarks, highlighted the significance of disseminating research work related to multi-disease models. He stressed the importance of integration, stating, “The key lies not in vertically treating one disease at a time but in adopting a comprehensive approach.”

The Integrated HIV/HTN project was presented by Dr. Mucunguzi Atukunda, who explained the rationale behind the study, noting, “There is a high burden of hypertension among people living with HIV, but limited capacity to diagnose and control it. Our goal is to integrate hypertension care within HIV care to enhance screening, treatment, and control rates.” The study was conducted across 26 districts in South Western Uganda, involving 52 health facilities.



Dr. Gerald Mutungi chairs national dissemination meeting alongside PS, Dr Diana Atwine, and ED, Professor Moses Kanya, IDRC

Dr. Diana Atwine, the Permanent Secretary of the Ministry of Health, emphasized the importance of comprehensive care and the need to address diseases beyond HIV. She stated, “Integration is a cornerstone in providing quality services, as it considers the patient as a whole.”



**Dr. Charles Olaro, Director of Curative Services at the Ministry of Health, stands alongside participants at the Integrated HIV/HTN National Dissemination Meeting**



**Ministry of Health Permanent Secretary, Dr Diana Atwine, highlights the importance of integrated care in delivering exceptional quality services.**

To further strengthen patient care, other studies like the PULESA Study and SEARCH 1.0 have focused on integrating hypertension treatment in to HIV care, showcasing improved health outcomes and better management of chronic diseases.

The meeting concluded with recommendations for investing in a public health program that focuses on hypertension, integrating interventions at the prevention level, and providing community health workers with the necessary tools to deliver comprehensive care.

The integration of HIV and hypertension care represents a crucial step towards improving overall health outcomes for patients in Uganda.



**Dr. John B Kiggundu presents ground breaking findings from the PULESA study, shedding light on the experiences and management of hypertension among PLHIV.**

The Integrated HIV/HTN project, a collaboration between partners such as the Infectious Diseases Research Collaboration (IDRC), Ministry of Health Uganda (MOH), London School of Hygiene & Tropical Medicine (LSHTM), Makerere University, the Uganda Heart Institute (UHI), and funded by the European & Developing Countries Clinical Trials Partnership (EDCTP), aims to improve hypertension care for HIV patients in Western Uganda. The study revealed a significant increase in the number of patients with both HIV and hypertension, indicating the success of the integrated care model.



**P.I. Jane Kabami shares ground breaking outcomes from the cluster randomized trial, revolutionizing our understanding and paving the way for innovative solutions.**

The commitment of researchers, healthcare professionals, and policy makers to address the challenges of fragmented care highlights a shared vision of a more integrated and patient-centred healthcare system.

As the nation moves forward, the significant strides made during this dissemination meeting pave the way for a future where comprehensive care becomes a reality for all those in need. The findings from the Integrated HIV/HTN project and other related studies serve as a foundation for further advancements in integrated healthcare, ultimately leading to better health outcomes and improved quality of life.

# PROJECT UPDATES

## Integrated HIV/HTN Project Results Shared at Regional Dissemination Meeting

In a bid to address the pressing issue of hypertension, the Integrated HIV/HTN Regional Dissemination Meeting was held in Mbarara on the 18th of December 2023, with key stakeholders convening to discuss crucial findings and recommendations from the study. The meeting, chaired by Dr. Gerald Mutungi, Assistant Commissioner in charge of NCDs at the Ministry of Health, brought together decision-makers, District Health Officers, and health facility in-charges to emphasize the importance of action following research outcomes.

Dr. Gerald Mutungi expressed his enthusiasm towards the culmination of the study, stating, "We are generating information to inform our programming and to inform our actions. We study not for the sake of it but to bring about tangible change." He commended the efforts of the study team and stressed the significance of disseminating results to stakeholders for effective implementation.



**Delegates Gathered at the Integrated HIV/HTN Regional Meeting in Mbarara for a Group Photo to Advocate for Healthier Communities.**

### Key Highlights

- Integrated HIV/HTN Dissemination Meeting held on 18th December 2023 aiming to address challenges of fragmented care and advocating for a holistic approach to patient health.
- Marked increase in identification of patients with co-existing HIV and hypertension throughout the intervention, rising from 2% to 28% within 24 months.
- Significant increase in hypertension screening to 77% in the intervention group versus 22% in the control group after the introduction of the Integrated HIV-HTN care model.
- Capacity building with training for over 200 healthcare workers.

Professor Moses Kama, Executive Director of the Infectious Diseases Research Collaboration (IDRC), highlighted the critical need for focused attention on hypertension, stating, "If we are to address any big public health problem in Uganda now, it is hypertension." Reflecting on the success in managing HIV, he called for enhanced efforts in hypertension control, citing alarming statistics of low screening and control rates in comparison to the prevalence of the disease.

Dr. Mucunguzi Atukunda further underscored the urgency of addressing hypertension, shedding light on the alarming prevalence rates and the need for comprehensive care and management strategies. Emphasizing the importance of integrating hypertension control measures into existing health programs, he called for widespread screening, education, and treatment initiatives to curb the growing burden of the disease.

Principal Investigator Jane Kabami shared insightful results from the Integrated HIV/HTN Project, shedding light on the progress and impact of the initiative. In her address at the meeting, Kabami expressed gratitude to the consortium members and various partners involved in the project, emphasizing the collaborative nature of the endeavour. She acknowledged the pivotal role played by organizations such as IDRC, the Ministry of Health, Makerere University, Uganda Heart Institute, and the London School of Hygiene and Tropical Medicine in the successful implementation of the project.



**Dr. Gerald Mutungi chairs regional dissemination meeting alongside ED, Professor Moses Kama, IDRC**

Reflecting on the journey of the project since its inception in 2020, Kabami highlighted the challenges faced during the initial stages, including the shift to virtual work due to unforeseen circumstances. However, she commended the dedication and support received from district health officials, healthcare teams, and facility staff, which contributed to the project's progress.



**ED, Professor Moses Kama emphasizes the urgent focus required on hypertension as a critical public health challenge in Uganda, stressing the need for improved screening and control measures.**



**Principal Investigator Jane Kabami shines light on Integrated HIV/HTN project findings at regional dissemination meeting.**

During her presentation, Kabami underscored the increasing prevalence of hypertension among people living with HIV, emphasizing the need for integrated care models to address the complex landscape of comorbidities. She praised the gains made in HIV care and treatment while advocating for leveraging existing platforms to enhance hypertension care within healthcare facilities.

Discussing the project's methodology, Kabami detailed the use of the PRECEDE framework to design an integrated care model intervention aimed at improving hypertension screening, treatment, and control among people living with HIV in rural Uganda. The intervention was tested through a cluster randomized trial involving participants from 52 health centers across the South Western Region of Uganda.

She emphasized the importance of collaborative efforts and innovative strategies in addressing the dual challenge of HIV and hypertension.

Jane remarked, "The integrated approach adopted in this project has not only yielded promising results but has also demonstrated the effectiveness of addressing multiple health conditions simultaneously." Her words underscored the significance of holistic healthcare interventions and the impact they can have on improving patient outcomes and overall health system efficiency.

Furthermore, Jane highlighted the positive feedback received from both healthcare providers and beneficiaries of the project. She stated, "The feedback we have received shows that integrated services not only streamline the delivery of care but also enhance patient experiences and adherence to treatment regimens."



**Dr. Mucunguzi Atukunda highlights the pressing need for comprehensive hypertension care and management strategies to combat the rising prevalence rates.**

During her presentation, Kabami emphasized the significance of providing essential resources to all 52 facilities involved in the project to ensure smooth implementation. She stated, "We provided BP machines to all facilities to facilitate hypertension screening, as well as NCD registers and patient care cards to eliminate gaps in documentation between control and intervention sites."

Reflecting on the challenges faced during the project, Jane explained, "We realized that access to medications was a significant barrier. To address this, we provided a buffer stock of HTN medications to both intervention and control facilities to ensure continuous patient care."



**Dr. Gerald Mutungi leading the way at the regional dissemination meeting, fostering collaboration and knowledge sharing for impactful outcomes.**



Principal Investigator Jane Kabami sheds light on the critical need for comprehensive treatment in managing HIV and hypertension, showcasing the successes of the Integrated HIV/HTN project in improving treatment initiation and hypertension control.



The project's goal was to evaluate the efficacy of an integrated HIV-HTN care framework, identify barriers and facilitators, and analyze cost implications. The study assessed hypertension screening rates, control among HIV-positive individuals, and the relationship between viral suppression and hypertension management. Jane emphasised the project's effect, emphasising the significance of comprehensive treatment for HIV and hypertensive patients. Kabami provided a thorough assessment of the project's impact, concentrating on treatment start and hypertension control. The approach included cross-sectional questionnaires at baseline, 12 months, and 24 months, with data analyzed by arm and clustering.

P.I. Jane Kabami discusses the project's ambitious goals of evaluating an integrated HIV/HTN care framework, uncovering barriers and facilitators, and assessing cost implications to enhance patient care outcomes.

The fragmentation of HIV and hypertension care in facilities led to missed opportunities for early diagnosis, inefficient utilization of BP machines, increased burden on patients and providers, and poor documentation. Human resource constraints, staff shortages, lack of technical support, and inadequate availability and maintenance of BP machines in ART clinics were also identified. The intermittent distribution of HTN drugs impacted the prioritization of hypertension screening, emphasizing the need for integrated approaches for better health outcomes.

Reflecting on the project's baseline survey, Ms. Kabami highlighted, "At the beginning of the study, only 2% of participants were known to have both HIV and hypertension. This discrepancy underscored the gap in recognizing and addressing the burden of hypertension within healthcare facilities."



Jane Kabami shares insightful findings from the Integrated HIV/HTN baseline survey

She continued, "Throughout the course of the intervention, we observed a significant increase in the identification of patients with co-existing HIV and hypertension. Within 12 months, this proportion rose to 17% across the sample, and by 24 months, it further escalated to 28%. These results showcase our success in not only identifying patients but also in screening and diagnosing individuals with hypertension."



Jane Kabami highlights the intervention's success in identifying more patients with both HIV and hypertension, underlining the importance of integrated care and early detection for improved health outcomes.

# HIV PLATFORM FOR CONTROL IN UGANDA HTN Project



Principal Investigator Jane Kabami passionately discusses the study's primary endpoint on hypertension screening, comparing results between the interventional and control arms post-introduction of the Integrated HIV/HTN care model, emphasizing the impact of comprehensive care strategies.



Jane Kabami unveils project results highlighting positive trends in blood pressure reduction, demonstrating the effectiveness of interventions in managing hypertension.

The project aimed to improve hypertension care by reducing the risk of chronic kidney disease (CKD). The intervention involved a comprehensive approach to healthcare delivery, with screenings conducted by healthcare providers in clinics, resulting in a 55% increase in screening rates. The project also emphasized the importance of early detection and treatment of hypertension, with a significant improvement in diagnosis rates. The intervention also led to a reduction in severe hypertension, with patients presenting with the condition reducing from 33% at 12 months to 57% at 24 months. The project also showed positive trends in blood pressure reduction, with a steady increase in patients reducing their blood pressure by 10 mmHg at 3 months and up to 70% by month 12.



Dr. Peter Ssebutinde, DHO Mbarara and guest of honor, shares his feedback on Jane Kabami's presentation during the regional dissemination meeting.

Ms. Kabami spoke passionately about the primary endpoint of the study, focusing on hypertension screening between different arms after the introduction of the integrated HIV-HTN care model. She illustrated the notable increase in hypertension screening, stating, "Overall, we had hypertension screening increased to 77% in the intervention versus 22% in the control." This statistic underscored the effectiveness of the intervention in enhancing healthcare practices and patient outcomes.



Engaged participants at the Integrated HIV/HTN regional meeting pose questions to PI Jane Kabami following her enlightening presentation, fostering discussion and knowledge sharing towards improved patient care.

The presentation by Ms. Kabami sparked a discussion among audience members about the screening process, interventions, and medication types used to control hypertension. She explained that the project used available drugs and followed Ministry of Health protocols, but drug availability remains a challenge. She stressed the importance of coordination within districts and improved data management for planning and decision-making. The project's positive impact on health facilities and data consistency was appreciated.

# THE HIV PLATFORM FOR CONTROL IN UGANDA.

## /HTN Project



Elizabeth Arinitwe of the Uganda Heart Institute (UHI) sheds light on the invaluable experiences of health workers within the Integrated HIV/HTN initiative.



Elizabeth Arinitwe of Uganda Hearts Institution highlighted the experiences with the integrated HIV-HTN initiative, emphasizing the value of collaboration and ongoing support in enhancing patient care. She emphasized the delivery of needed equipment, resources, and Continuing Medical Education (CME) sessions at facilities, as well as the incorporation of hypertension care within HIV clinics. Arinitwe further underlined the importance of patient groups and particular facility problems in addressing the project's challenges. One of the key lessons highlighted by Mrs. Arinitwe was the importance of personalized care plans for patients. She stated, "We used to sit with our teams and look at the patient file individual by individual, and then develop a care plan for our patients." This individualized approach enabled healthcare providers to tailor treatment plans to meet the specific needs of each patient, focusing on factors such as adherence, medication efficacy, and dosage adjustments.

UHI's Elizabeth Arinitwe highlights the successful integration of hypertension care into daily healthcare facility activities, showcasing a proactive approach to improving patient outcomes in the community.

Mrs. Arinitwe also shared insights on the successful integration of hypertension screening into routine patient care within the facilities. She noted, "Screening for hypertension among the patients has become part of the facility." This shift towards proactive hypertension screening highlighted the project's impact in promoting holistic healthcare practices and empowering patients to take charge of their health. Arinitwe emphasized the successful integration of hypertension care into the daily activities of healthcare facilities, stating, "Currently, every facility has a BP machine at every clinician's table, especially in the intervention facilities. Hypertension care services are now part of routine clinic schedules, with dedicated HTN clinics established within HIV clinic centers."



Participants gain valuable insights in to improving healthcare practices for managing chronic conditions like hypertension.

# THE HIV PLATFORM FOR CONTROL IN UGANDA.

## HIV/HTN Project



Elizabeth Arinitwe emphasizes the significance of health education initiatives focusing on lifestyle changes and blood pressure management.

Furthermore, Arinitwe highlighted the importance of health education initiatives, noting, "Health education talks on hypertension have been incorporated into HIV clinics, focusing on lifestyle changes and blood pressure management. Peer educators have been instrumental in developing educational materials in multiple local languages, facilitating better patient understanding."

# INTEGRATING THE HIV PLATFORM FOR HYPERTENSION CONTROL IN UGANDA.

## Integrated HIV/HTN Project

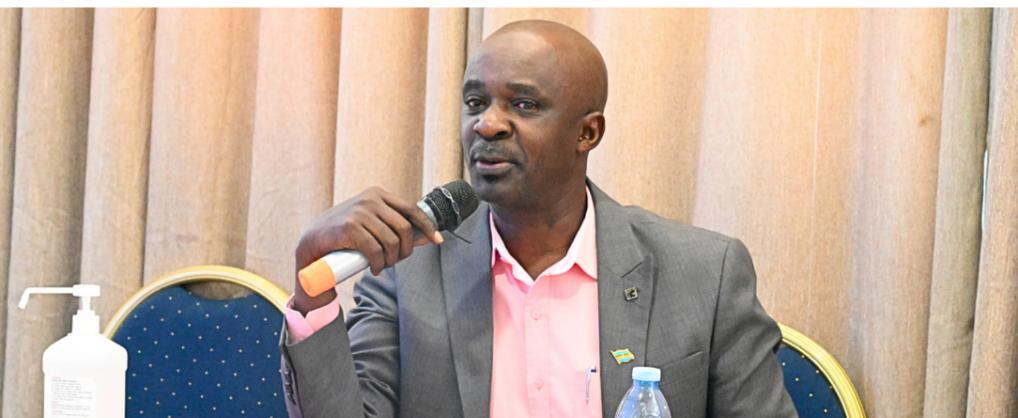


UHI's Elizabeth Arinitwe's presentation highlights successful capacity building efforts, with over 200 healthcare workers trained in the integrated HIV and hypertension care, enriching patient outcomes and healthcare services.



Professor Moses Kama underlines the significance of hypertension screening, advocating for early detection and management to improve health outcomes and reduce the burden of hypertension.

Professor Moses Kama emphasized the importance of hypertension screening, while Dr. Gerald Mutungi emphasized feedback mechanisms and support clubs for patients. Dr. Peter Ssebutinde, District Health Officer of Mbarara and guest of honour, emphasized the reliability of blood pressure measurement tools and the role of healthcare staff in patient-centred care. The meeting culminated with recommendations from the expert panel, urging healthcare professionals to adopt a holistic approach in patient care, enhance supervision strategies, promote the establishment of support clubs, and foster a culture of regular NCD screenings. Dr. Ssebutinde urged attendees to prioritize behavior change and develop a screening culture to address prevalent health issues effectively.



Ministry of Health Assistant Commissioner of NCDs and chair of the regional meeting, Dr. Gerald Mutungi, concludes the session by highlighting the importance of feedback mechanisms and support clubs for patients, fostering ongoing engagement and support in managing hypertension.

The presentation also outlined capacity-building efforts, with over 200 healthcare workers trained in the management and integration of HIV and hypertension care. Arinitwe discussed the formation of patient clubs, supported by the Ministry of Health, to ensure continued access to medications and buffer stock during drug stock-outs. Arinitwe discussed challenges faced during a project, such as maintenance issues and over-representation of patients receiving medications from external sources. Strategies included monthly reviews for uncontrolled patients and transitioning unstable patients to facility-based care models.



Guest of honor, Dr. Peter Ssebutinde, DHO of Mbarara, highlights the importance of accurate blood pressure measurements and the crucial role of healthcare delivery in the community.

In his closing remarks, Dr. Gerald Mutungi thanked the participants for their contributions and officially closed the meeting. The integrated HIV-HTN project regional dissemination meeting in Mbarara underscored the importance of collaborative efforts in combating non-communicable diseases and promoting community wellness. The insights shared by the expert panel set a roadmap for future healthcare initiatives aimed at improving patient outcomes and enhancing public health interventions.



# EMPOWERED BY HEALTH: A SUCCESS STORY ON THE TRANSFORMATIVE JOURNEY WITH THE INTEGRATED HIV/HTN

“I can sleep better, and my overall lifestyle has improved” - Sarah, Participant, Rwamwaja HC III

In the heart of a Ugandan village, a participant for the purposes of protecting her identity we shall call Sarah (not real name), embarked on a an inspiring journey towards health and hope, supported by the Integrated HIV/HTN project. Her story, aptly titled “Empowerd by Health,” highlights the impactful journey that began at Rwamwaja HC III.

Facing an HIV diagnosis in August 2014, Sarah, with unwavering support and counselling, found strength to accept her condition during pregnancy. Expressing the effectiveness of antiretroviral drugs (ARVs), she shared, “The ARVs have been effective for me; I wasn’t aware of my illness until I underwent an HIV test during my pregnancy.”

In April 2021, Sarah encountered another challenge with a positive test for high blood pressure or (HTN), presenting daily struggles of dizziness, headaches, and chest pain.

The introduction of HTN medication proved transformative. “The HTN medication has been a game-changer,” Sarah emphasized. “Since starting the medication, I can sleep better, and my overall lifestyle has improved.”

Sarah’s gratitude for the support and counselling she received during her HIV diagnosis in 2014 is expressed through the effectiveness of antiretroviral drugs (ARVs) in her treatment. The Integrated HIV/HTN Project not only provided her with medical assistance but also empowered her to find strength in acceptance. The introduction of high blood pressure (HTN) presented another hurdle for Sarah, and the project became a beacon of hope in her struggle. The HTN medication, described by Sarah as a “game changer,” significantly improved her overall lifestyle. The project’s dedication to addressing diverse health concerns shines through in the positive transformation witnessed in Sarah’s life.

Despite hurdles in accessing medication due to shortages, Sarah persevered. She adjusted her lifestyle, embraced dietary changes, and shared, “The doctors advised me to avoid alcohol, manage stress, reduce salt and fat in my diet, and also had to cut back on dairy products.”

Sarah’s triumph is a testament to her determination, the support of healthcare providers, and the positive impact of the Integrated HIV/HTN project. Her journey showcases the power of resilience and the right treatment in overcoming formidable health challenges.

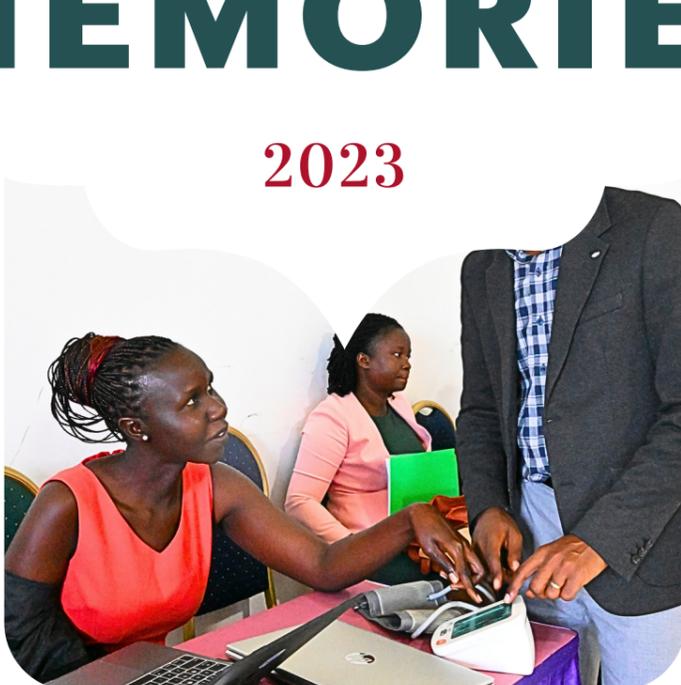
“The ARVs have been effective for me.”- Sarah, Participant, Rwamwaja HC III





Photo MEMORIES

2023



# Highlights on progress for this Project Year

## Towards Hypertension Control in Uganda

10

Implementation Science Journal clubs conducted.

41

Health facilities supported with HTN drugs.

26

Health facilities supported with at least 2 mentorship sessions.

5

Health facilities supported with blood pressure machines

52

Health facilities supported with Health Management Information System (HMIS) tools from MOH