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Interdisciplinary Consortium for Epidemics Research & Response



NEWS LETTER

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Cover picture caption

Prof. Bruce J. Kirenga presenting on planning and implementing research during epidemics and outbreaks at CEPHR, University College Dublin.

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Leadership

Word from the Executive Chairman



Building Stronger Science for Africa's Epidemic Preparedness

As we publish this edition of ICER Newsletter, our region continues to face evolving public health challenges that remind us that infectious diseases are not limited by borders. The ongoing Ebola outbreak in the Democratic Republic of Congo and continued preparedness efforts across neighboring countries underscores the importance of strong scientific collaboration, timely research, and coordinated regional action.

At ICER, we remain committed to generating high-quality evidence that informs policies, strengthens health systems, and improves outbreak preparedness and response. Over the past several months, our multidisciplinary teams have continued to advance research in diagnostics, vaccines, therapeutics, clinical trials, surveillance, and social sciences while deepening partnerships with governments, academia, regional institutions, and international collaborators.

This edition highlights the remarkable contributions of our researchers and partners, including progress in Ebola and Mpox research, the implementation of innovative diagnostic technologies, capacity building initiatives, and regional scientific collaborations. These achievements reflect the dedication of our scientists, clinicians, public health professionals, and support staff, who continue to work tirelessly under challenging circumstances to protect lives and strengthen Africa's health security.

Looking ahead, ICER will continue to champion collaborative research, innovation, and evidence-based decision-making that addresses Africa's priority health challenges. I encourage all our partners to sustain this momentum by translating research into policy and practice, mentoring the next generation of scientists, and fostering partnerships that build resilient health systems better equipped capable of responding to future epidemics.

On behalf of the Executive Board, I extend my sincere appreciation to our researchers, partners, funders, governments, and communities for their unwavering commitment to advancing public health. Your collective efforts are critical to ensuring that scientific knowledge translates into meaningful action and better health outcomes for our communities.

Together, we are building a stronger, healthier, and more resilient Africa.

Prof. Bruce Kirenga
Executive Chairman
Interdisciplinary Consortium for Epidemics Research (ICER)

Word from the Chief Executive Officer (CEO)



As we release this edition of the ICER Newsletter, I am reminded that epidemic preparedness is not measured solely by our ability to respond to outbreaks but by our commitment to generating the evidence, building partnerships and innovations that strengthen health systems well before the next public health emergency occurs.

The past several months have underscored the importance of regional collaboration as countries continue to respond to the Ebola outbreak in the Democratic Republic of Congo while remaining vigilant to other emerging and re-emerging infectious diseases. Through our multidisciplinary network, ICER has continued to coordinate high-quality research, support protocol development, strengthen laboratory and clinical research capacity and foster cross-border scientific partnerships that contribute to evidence-based decision-making across Africa.

This newsletter highlights the remarkable work of our researchers and partners, from advancing clinical trials, diagnostics and surveillance systems to promoting innovation through projects such as UK-PHRST, DECIPHER MPOX, AFRICA VAX MPOX, MOSA, ProtonDx Evaluation and other collaborative initiatives. These achievements demonstrate what can be accomplished when scientists, clinicians, policymakers and communities work together toward a shared goal of protecting public health.

Our progress would not have been possible without the dedication of our researchers, partner institutions, funding agencies, governments and communities who continue to support ICER's mission. I extend my sincere appreciation to each contributor, whose expertise and commitment strengthen Africa's capacity to anticipate, detect, prevent and respond to epidemic threats.

As we look ahead, ICER remains committed to advancing multidisciplinary research, nurturing the next generation of scientists, translating research into policy and practice, and building resilient health systems capable of responding rapidly to emerging infectious diseases. **We will continue to strengthen the partnerships, capabilities, and innovations that enable Africa to lead in epidemic preparedness and response.** Together, we will continue to generate the knowledge, innovation and partnerships needed to safeguard our communities' health and contribute meaningfully to global health security.

Dr. Winters Muttamba
Chief Executive Officer
Interdisciplinary Consortium for Epidemics Research (ICER)

Executive Summary

Welcome to the latest edition of the Interdisciplinary Consortium for Epidemics Research (ICER) Newsletter, which highlights our continued commitment to strengthening epidemic preparedness through research, innovation, and strategic partnerships.

This edition brings together perspectives from ICER leadership, showcases advances in research on Ebola, MPOX, and other emerging infectious diseases and celebrates the appointment of Prof. Pauline Byakika-Kibwika as Chair of the Global Health EDCTP3 Stakeholders' Group. It also captures key milestones from our scientific engagements, capacity-building efforts, and public outreach.

Together, these stories reflect ICER's growing impact in generating evidence to inform policy, strengthening health systems, building research capacity, and advancing Africa's leadership in epidemic preparedness and response.

Research In Action

DECIPHER-MPOX STUDY: Uncovering Why Mpox Affects People Differently

The DECIPHER-MPOX project is a two-year international collaborative research initiative **launched in August 2024** and funded by the European Union's Horizon Europe Research and Innovation Programme through the Global Health EDCTP3 Joint Undertaking. **The project has a total budget of €1.26 million and brings together institutions from Africa and Europe, with Makerere University serving as the scientific project leader.**

Led by Dr. Misaki Wayengera, the project aims to understand why some people exposed to Mpox become infected and develop severe disease, while others remain uninfected or experience only mild illness. By investigating the role of **host genetics, immune responses, and viral factors**, the project seeks to generate evidence that will support the development of improved diagnostics, vaccines, and strategies for controlling future Mpox outbreaks.

The project brings together researchers from the Democratic Republic of the Congo (DRC), Uganda, South Africa, the United Kingdom and Canada to study the biological factors that influence susceptibility, disease severity, and protection following Mpox exposure. Over the past year, the project has made significant progress. In the DRC, we successfully established household family cohorts and completed the recruitment of 50 family trios (an infected individual and two close family relatives), resulting in the collection of 150 high-quality biological samples. These samples have been shipped to the University of Liverpool, where advanced genetic and RNA sequencing analyses are underway. Preliminary findings have already been generated, marking an important milestone in understanding how the body's genes respond to Mpox infection.

Uganda cohort and immune response

Building on this success, the project has expanded to Uganda, where we have recruited 120 Mpox survivors and collected blood samples to investigate how B-cell immunity changes from one month to eighteen months after recovery. These studies will help us understand the durability of natural immune protection and generate evidence that may inform future vaccine development.

Research partnerships and capacity building

Beyond research, DECIPHER-MPOX has strengthened partnerships between institutions across Africa and Europe, promoted knowledge sharing through scientific workshops and community engagement activities, and contributed to capacity building in genomic research, immunology, and outbreak preparedness. The project has also established ethical approvals and valuable biobanks that will support future studies on emerging infectious diseases. Its multidisciplinary approach bringing together expertise in genetics, genomics, immunology, virology, clinical research, and public health creates a platform for answering questions that cannot be addressed by a single discipline alone.

As laboratory analyses continue, DECIPHER-MPOX is well positioned to generate new evidence on the biological factors that determine susceptibility and protection against Mpox. The project demonstrates how collaborative research can strengthen health systems and contribute to better preparedness for future epidemics in Africa and beyond.

Project Update: MpoxVax AFRIVAC

ICER remains committed to advancing epidemic research in the region, and through the MpoxVax AFRIVac study has successfully implemented a multi-country prospective cohort study evaluating the immunogenicity of the MVA-BN vaccine among at-risk populations in Uganda (Makerere University Lung Institute, MLI) and the Democratic Republic of Congo (Université Catholique de Bukavu, UCB). The study reached 100% of its recruitment target, enrolling 330 participants across active sites (150 at MLI, 180 at UCB) ahead of schedule, despite initial regulatory delays at the Tanzanian site (NIMR). The cohort also met its demographic targets for high-risk representation, with approximately 25% of participants

classified as immunocompromised. Retention has been exceptionally strong throughout the follow-up period: the MLI site completed its 48-week follow-up on March 30, 2026, retaining 89.3% of its cohort (134/150), while the UCB site achieved about 98.8% retention after its final 48-week in late May 2026. To date, no breakthrough Mpox infections have been recorded at either site.

Study coordination and next steps

Beyond study implementation, the team has invested in capacity building and strategic partnerships. A training course on Vaccine Trial Design and Implementation was held in Zanzibar, hosted by the NIMR team during March 2026. The study also strengthened its public health integration by aligning protocol design with national Ministries of Health in Uganda and the DRC, positioning mapping teams alongside national outbreak vaccination sites to optimize enrollment without disrupting public rollout efforts. Active, functional Community Advisory Boards (CABs) were established in both countries and implemented targeted tracking strategies that minimized loss-to-follow-up. A key lesson is the importance of regulatory agility during an epidemic response as this greatly affects the epidemic research. Upcoming activities for the team include finalizing data cleaning and database locks, executing shipment and analysis of cryopreserved biosamples for immunogenicity endpoints (led by UCD CEPHR), and preparing primary manuscripts for peer-reviewed publication by the close of the secondary endpoint window

Project Update: MOSA Trial

The **MOSA (Mpox Oral Studies in Africa), is a** Phase III multi-country trial, to evaluate the efficacy, safety, and pharmacokinetics and pharmacodynamics of Brincidofovir for Mpox virus disease. It is implemented in the Democratic Republic of the Congo, Madagascar, Sierra Leone, and Uganda. The trial sites in Uganda are **Mbarara Regional Referral Hospital** and **Entebbe Regional Referral Hospital.** We have made significant progress for trial start; having successfully obtained all relevant research regulatory approvals, we embarked on operational readiness for site activation. Both sites successfully completed site initiation activities, including; staff training, site preparation, and readiness of the clinic, pharmacy, laboratory, and activation of the Viedoc electronic data capture platform, alongside completion of all essential study documentation in accordance with the approved protocol and Good Clinical Practice (GCP) requirements.

Given the competitive nature of participant recruitment across participating countries, timely study activation has been critical. A major milestone was achieved with the successful enrolment and randomization of the **first participant on 10 July 2026**, marking the official commencement of participant recruitment in Uganda, one month after the commencement of screening on **4 June 2026.**

Trial implementation and partnerships

The MOSA trial directly contributes to the global effort to generate high-quality evidence on safe and effective treatment options for Mpox while strengthening Africa's capacity to lead high-quality clinical research on emerging infectious diseases. This has been achieved through successful collaboration and partnerships among the study sponsor; Pandemic Preparedness platform for Health and Emerging Infectious Response (PANTHER), and study implementing sites; Makerere University Lung Institute (MLI) and Mbarara University of Science and Technology (MUST), the participating health facilities, the national research regulatory authorities and the Interdisciplinary Consortium for Epidemics Research (ICER). Continuous collaboration among investigators, clinicians, pharmacists, laboratory personnel, data managers, and community engagement teams has enhanced coordination and facilitated efficient study implementation.

Beyond study implementation, the project has strengthened local research capacity through training clinical trial teams in Good Clinical Practice, Clinical Trial implementation and management. The trial has contributed to strengthening Uganda's health research ecosystem, standardizing clinical and laboratory procedures, enhancing electronic data management, and reinforcing study participant monitoring processes, which will continue to benefit future clinical research and outbreak preparedness in Uganda. Key lessons learned include the importance of early and continuous engagement with regulatory authorities, the need to strengthen the Joint research review mechanism, the value of refresher training and simulation exercises in ensuring protocol compliance, the need for close collaboration across multidisciplinary teams, and the timely resolution of electronic data capture challenges. Following the successful enrolment of the first participant, the study team remains focused on accelerating participant recruitment while maintaining the highest standards of participant safety, protocol compliance, and data quality, to achieve the study's recruitment targets and contribute meaningful evidence toward improved Mpox treatment.

PREGMPOX Study Investigates Impact of Mpox in Pregnant Women in the Democratic Republic of Congo

Beneficiary	Short name	Country
UNIVERSITEIT ANTWERPEN (Coordinator)	UANTWERPEN	Belgium
UNIVERSITÉ CATHOLIQUE DE BUKAVU	UCB	Democratic Republic of the Congo
MAKERERE UNIVERSITY LUNG INSTITUTE	MLI	Uganda
UNIVERSITAETSKLINIKUM HAMBURGEPPENDORF	UKE	Germany

A groundbreaking study, dubbed PREGMPOX, is shedding light on the devastating effects of Mpox infections in pregnant women in the South Kivu province of the Democratic Republic of Congo (DRC). This research study is led by the Catholic University of Bukavu in the DRC, in collaboration with Makerere University Lung Institute in Uganda, the University of Antwerp in Belgium, and the University Medical Center Hamburg in Germany. The study is funded by the European & Developing Countries Clinical Trials Partnership (EDCTP) under an emergency funding agreement. PREGMPOX seeks to address why pregnant women, a highly vulnerable population, are disproportionately affected by the Mpox disease and to inform regional and global health policies.

In 2024, cases of Mpox, previously known as Monkeypox, surged across several African nations, including DRC, Uganda, Burundi, Rwanda, and Kenya. The World Health Organization (WHO) declared it a Public Health Emergency of International Concern and the Africa CDC declared it a public health emergency of continental security. The current Mpox outbreak, driven by a highly transmissible strain, has been associated with severe outcomes particularly in immunocompromised populations including pregnant women.

"Data from Eastern DRC highlights the increased vulnerability of pregnant women, children under 15 years, and individuals with uncontrolled HIV/AIDS," remarked Dr. **Misaki Wayengera**, Chair of Uganda's Ministry of Health Scientific Advisory Committee. He added, *"This study is crucial for understanding the mechanisms behind severe Mpox manifestations and for exploring potential mitigation strategies."*

The Center for Tropical Diseases and Global Health (CTDGH) of the Catholic University of Bukavu hosted a stakeholders' workshop in South Kivu, DRC, to outline the PREGMPOX study objectives. Dr. Théophile Walulika Muzaliwa, Provincial Minister of Health for South Kivu, emphasized the significance of the study:

> *"Research through the PREGMPOX project represents a vital lifeline in combating Mpox. This initiative will enhance our understanding of the disease and strengthen our response, improving health outcomes for the people of South Kivu and the DRC."*

Prof. **Patrick Katoto**, Principal Investigator and Scientific Lead, highlighted the broader implications of the study:

> *"Through innovative research and community engagement, PREGMPOX not only aims to protect vulnerable populations but also lays the foundation for global health policies*



Figure 1: Infant showing Mpox signs and symptoms

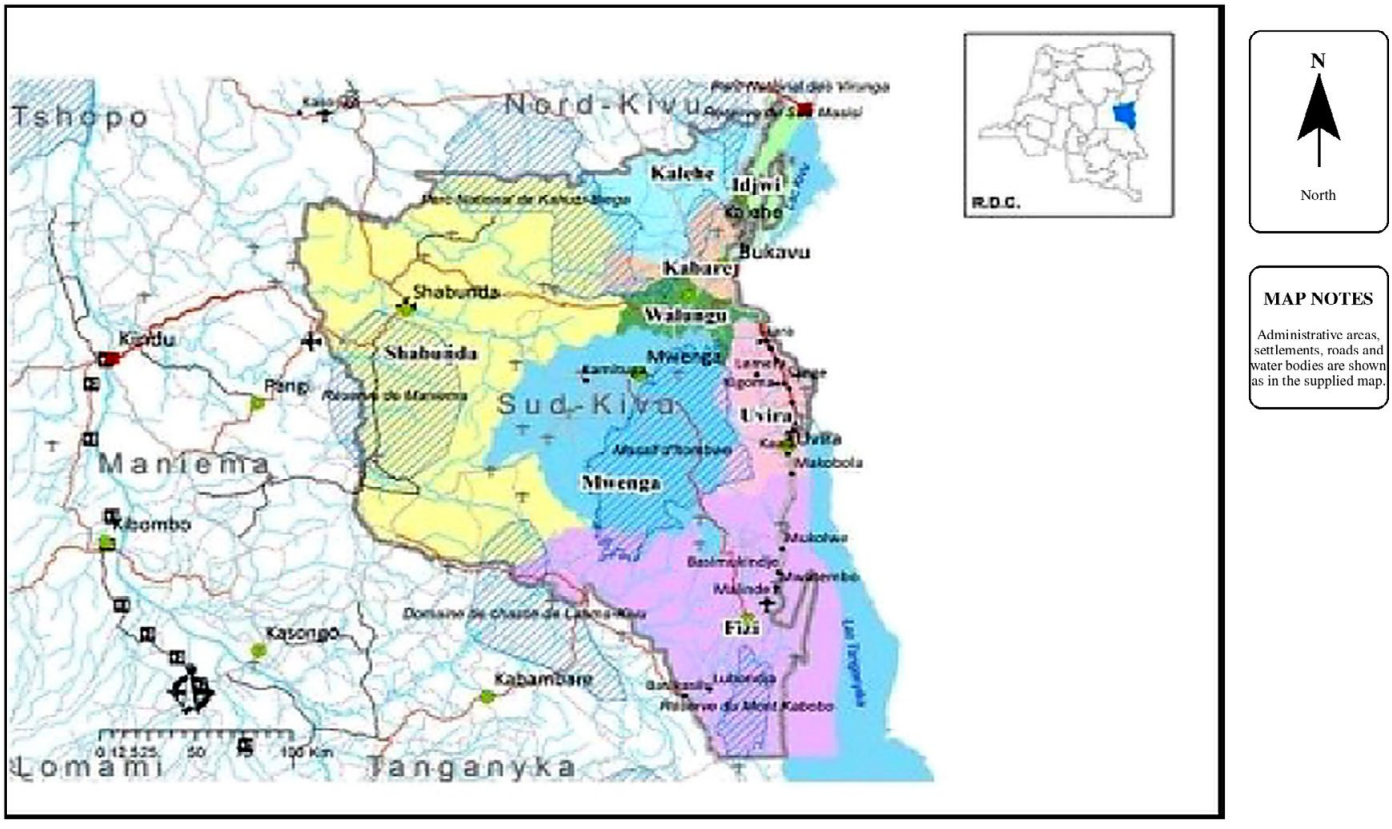


Figure 2: Description of PREGMPOX Health sites

> *prioritizing pregnant women and their babies.*

The study leverages expertise from the Global North, including Dr. Krasemann Susanne of the University Medical Center Hamburg-Eppendorf and Dr. Joseph Nelson Siewe Fodjo of the Global Health Institute at the University of Antwerp. **Dr Siewe Fodjo** stressed the need for prioritizing pregnant women in outbreak responses, stating, *"The PREGMPOX project sheds light on a population often overlooked but extremely vulnerable to disease and death."* **Dr Krasemann Susanne** added

> *"Since there is currently no therapeutic approach that would work in pregnant women and newborns, or small children, we urgently need to know more about the specific vulnerabilities of these at-risk groups. Thus, we need a better understanding of the underlying transmission mechanisms, especially in pregnant women. PREGMPOX aims at not only deciphering virus-induced impacts on pregnancy outcome, maternal, and fetal health but also to gain a deeper understanding of potential disease transmission routes"*

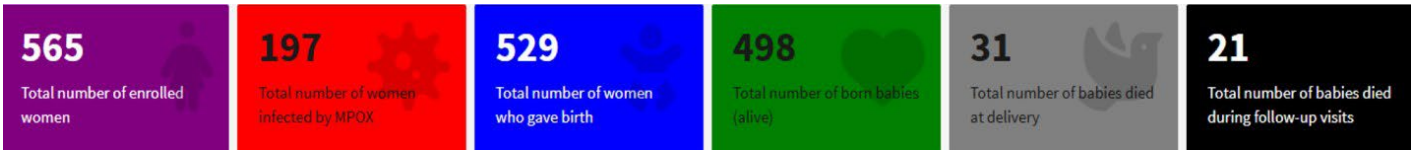
Prof. Bruce Kirenga, Co-Investigator from Makerere University Lung Institute, underscored the necessity of African-led studies, noting the importance of generating localized data to inform public health interventions in East and Central Africa.

Expected contribution to maternal and newborn health

With initial participants already enrolled in the DRC, the PREGMPOX study is set to provide critical insights into screening, management, and prevention strategies for mpox in pregnancy. These findings will shape global health policies and improve care for pregnant women and newborns in Africa and beyond.

What has so far been done

The study conducts activities under a work package model. For example, WP3, as of June 2026, 506 women had been recruited across six sites in Bukavu covering four health zones, 364 completed follow-ups; 195 women infected with Mpox and 161 of infected women followed up alongside 203 women who were controlled, that were not infected. The sites included rural health zones of Miti-Murhesa, Nyantende and Nyangezi, plus the urban health zone of Kadutu as described in figure 2. Below is the snapshot of current study recruitment



Dissemination and community engagement

WP7, Dissemination and Communication (Lead and coordinated by the Makerere University Lung Institute), aimed to develop the Plan for Exploitation and Dissemination, including a communication to guide the sharing of information, including results, within and outside the project. The plan aimed to create a framework for the effective translation of the project's outcomes and impact across partner institutions and entities at the national, regional, and global levels, with the focus of ensuring that the results are widely recognised and implemented. To date, the project has engaged local communities who voluntarily participated in the study, conducted stakeholder engagement, including Ministry of Health officials in DRC, disseminated preliminary results at international conferences such as the State-of-the-Art Mpox Symposium held in Kinshasa in December 2025, disseminated through peer-reviewed publications with four papers published, two commentary and two with preliminary results and case studies. The project has also communicated through newsletters (one delivered), developing a website that is active and updated with information about the project, field activities and project team members. The study plans to disseminate the results to the local community where the participants reside in the next few months.



PREGMPOX Team attending the 2025 State of the Art Mpox Symposium in Kinshasa, in December 2025

Project Update: Protondx

From Rapid Screening to a Decentralized Testing Algorithm: Progress in Point-of-Care Mpox Diagnostics in Uganda

Uganda's efforts to bring Mpox diagnosis closer to the patient have advanced through a deliberate, staged programme of clinical evaluation, moving from testing a single rapid device toward validating a complete decentralized testing algorithm. With laboratory confirmation still reaching only about 40% of suspected cases nationally, and centralized PCR carrying turnaround times of up to 72 hours, this body of work has steadily built the evidence needed to shorten the path from suspected case to confirmed diagnosis.

The programme began with a field clinical evaluation of the NG-Test point-of-care antigen lateral flow device against a composite PCR-and-sequencing reference standard, conducted across treatment units and drop-in centres in Kampala, Wakiso, Mukono and Nakasongola. Supported by the Global Virus Network and the University of St Andrews, that first study established the operational feasibility of antigen-based rapid triage for Mpox in Ugandan field conditions, and its findings have since been published contributing early real-world evidence on the role rapid antigen testing can play in surveillance, early detection, and outbreak control.

The work then evolved to ask a more ambitious question: could a rapid antigen screen be paired with a rapid molecular test to combine speed with confirmatory accuracy? The amended protocol (POC-MPXV 3.0, July 2025), with additional support from the UK Medical Research Council, evaluated the NG-Test antigen assay alongside the Dragonfly point-of-care molecular platform, a portable, LAMP-based device offering power-free nucleic-acid extraction in under five minutes and colour-based molecular detection in under 35 minutes, with no cold-chain requirement. Alongside diagnostic performance, this stage introduced a formal usability and acceptability assessment of the molecular platform among users. Field data from Uganda have been encouraging: in prospective evaluation involving 300 participants with suspected Mpox in Kampala and Entebbe, the Dragonfly platform showed high concordance with qPCR and maintained strong sensitivity across a broad range of viral loads, supporting robust point-of-care performance in real-world settings.

Current diagnostic evaluation

These two generations of work set the stage for the study now underway. Building directly on their lessons, the current protocol (ALG-MPXV 2.0, June 2026) shifts from evaluating devices in parallel to validating a decentralized, two-step diagnostic algorithm: an initial BBIOxford rapid antigen screen followed by Dragonfly molecular confirmation, benchmarked against laboratory PCR. Funded by ProtonDx Ltd and implemented across Hoima and Entebbe Regional Referral Hospitals together with mobile outreach units serving Kampala clinics, the study will compare three diagnostic scenarios, antigen alone, molecular alone, and the combined algorithm, to identify the optimal strategy for decentralized testing. It goes further than any prior stage, adding implementation cost analysis per test and at national scale, whole-genome sequencing of positive specimens to map circulating clades and detect inter-clade recombinants, ELISA-based antigen quantification, and a structured feasibility and acceptability assessment among healthcare workers and patients. A formative stakeholder-engagement stage at each site precedes enrollment to validate the community testing model before the main study begins.

The programme's leadership and partnerships have also matured across these stages. The current study is led in Uganda by the Interdisciplinary Consortium for Epidemics Research (ICER) alongside Imperial College London, working with the Makerere University Lung Institute, the Uganda National Health Research Organisation, Makerere University's College of Health Sciences, and the Uganda Ministry of Health, under Principal Investigator Prof. Wilber Sabiiti and Co-Principal Investigator Prof. Bruce Kirenga. Throughout, the work has been designed to operate alongside, and strengthen, existing Ministry of Health surveillance, isolation, and case-management systems rather than duplicate them, while building durable local capacity in Good Clinical

Practice, standardized specimen collection, molecular point-of-care testing, quality assurance, and biosafety.

Taken together, this progression, from validating a single rapid antigen test, to pairing antigen and molecular platforms, to now evaluating a full screen-and-confirm algorithm, reflects a coherent national effort to generate the evidence required for reliable, decentralized Mpox diagnosis. As the current study advances, the team remains focused on maintaining the highest standards of participant safety, data quality, and protocol compliance, with the ultimate aim of enabling earlier diagnosis, faster isolation, and stronger outbreak control across Uganda and the wider region.

Protecting Africa's Health Sovereignty: Advancing Research and Development in Africa

The 2013-to- 2016 outbreak of ebolavirus disease (EVD) in West Africa unmasked the unpreparedness of many African countries to respond to major public health emergencies. The scale and magnitude of the outbreak, which involved three countries (Sierra Leone, Guinea, and Liberia) and affected 22,000 people, exposed major gaps in outbreak preparedness and response. The outbreak resulted in 11,000 deaths and a loss of 53 billion US dollars in GDP.

As though this was not enough, another EVD outbreak emerged in the DRC from 2018 to 2020, leading right into the global COVID-19 pandemic. Throughout these epidemics, many affected African countries found themselves with limited or no access to the much-needed countermeasures (vaccines, diagnostics, therapeutics-VDTs), and supplies to contain and control these outbreaks.

These experiences drove the African Union to establish the Africa CDC (2015). Through its New Public Health Order (2022), Africa CDC has called for health sovereignty across the continent. This means that African countries must build the capacity to manufacture their own VDTs and other medical supplies. These developments further emphasize why African countries must honour the Ouagadougou Declaration (2018), which calls on African countries to commit 15% of their GDP to research and development. The same underscore the call made by the African Minister of STI in Khartoum, to spend 1.5% of GDP on research and development (R & D). The sooner this call is acted upon, the better prepared African countries will be to prevent and respond to outbreaks such as the ongoing Ebola Bundibugyo outbreak in eastern DRC.

Dr. Misaki Wayengera



Women in Science

ICER NEWS & EVENTS

ICER Executive Board Member Appointed Chair of the Global Health EDCTP3 Stakeholders' Group

The Interdisciplinary Consortium for Epidemic Research (ICER) congratulates Prof. Pauline Byakika-Kibwika on her appointment as Chair of the Global Health EDCTP3 Stakeholders' Group, a prestigious leadership role that underscores her outstanding contributions to global health research and Africa's growing influence in shaping international research priorities.

Prof. Byakika-Kibwika, who serves as Vice Chancellor of Mbarara University of Science and Technology (MUST) and is an active member of the Interdisciplinary Consortium for Epidemic Research (ICER), will lead the Stakeholders' Group in providing strategic advice to the Global Health EDCTP3 Joint Undertaking on research priorities, stakeholder engagement, and partnerships between Africa and Europe.

The Global Health EDCTP3 programme is one of the world's leading partnerships supporting clinical research and innovation to tackle infectious diseases, strengthen epidemic preparedness, and improve health outcomes across sub-Saharan Africa. The Stakeholders' Group brings together experts from academia, governments, industry, civil society, and international organizations to ensure that the programme addresses pressing global health needs while advancing equitable research collaborations.

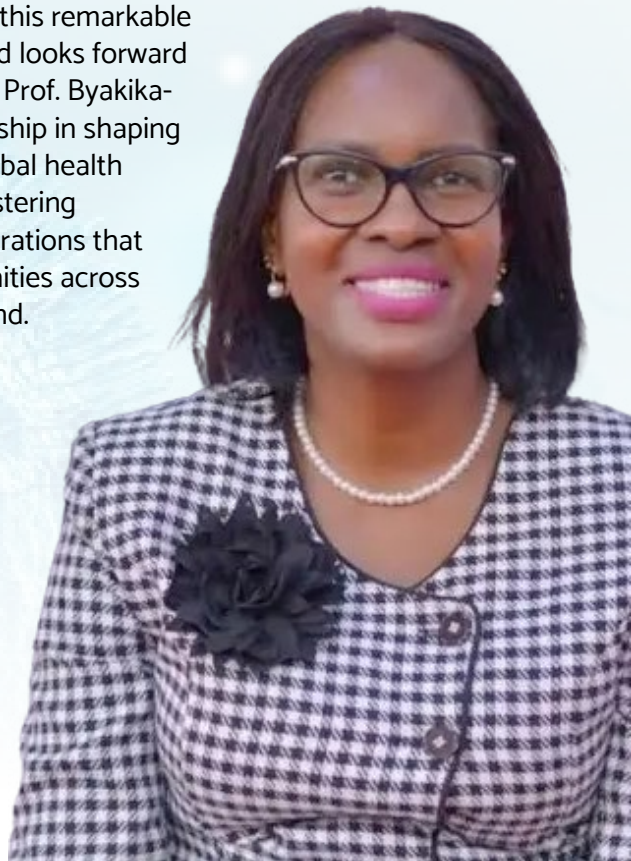
Her appointment is not only a personal milestone but also a recognition of Uganda's expanding leadership in global health research. Over the years, Prof. Byakika-Kibwika has played a pivotal role in advancing research capacity, mentoring the next generation of scientists, and promoting collaborative approaches to addressing infectious diseases and emerging health threats.

As an **ICER Scientist,** Prof. Byakika-Kibwika has contributed to the consortium's mission of strengthening interdisciplinary research to improve epidemic preparedness and response. Her new leadership position aligns closely with ICER's vision of fostering partnerships that generate evidence to inform policy and strengthen health systems across Africa.

Speaking after her appointment, Prof. Byakika-Kibwika described the role as both an honour and an opportunity to work with diverse stakeholders in advancing equitable global health research that responds to the priorities of African communities.

Her appointment comes at a time when Africa's voice in global health decision-making is increasingly recognised as essential for addressing emerging epidemics, strengthening clinical research, and ensuring that innovations are driven by the needs of the populations they serve.

ICER celebrates this remarkable achievement and looks forward to the impact of Prof. Byakika-Kibwika's leadership in shaping the future of global health research and fostering stronger collaborations that benefit communities across Africa and beyond.



WOMEN IN SCIENCE
ICER NEWSLETTER

FAST FACTS

NOW
Vice Chancellor, Mbarara University of Science and Technology (2024-date)

FIELD
Internal medicine, infectious diseases, clinical pharmacology, epidemiology

TRAINING
Makerere (MBChB, MSc, MMed); PhD, Trinity College Dublin; Harvard leadership

FELLOWSHIPS
Uganda National Academy of Sciences; RCP Edinburgh; ECSA College of Physicians

REGIONAL
Commissioner, East African Health Research Commission



Prof. Pauline Byakika-Kibwika

Leading with science, shaping the future, the first woman to lead Mbarara University of Science and Technology

Some scientists make discoveries. Others build institutions, mentor generations of researchers, and shape health policy far beyond the laboratory. Prof. Pauline Byakika-Kibwika has done all three, and has widened the path for the women coming up behind her.

In August 2024 she was appointed Vice Chancellor of Mbarara University of Science and Technology (MUST), becoming the first woman to lead the institution in its history, and was formally installed that October. Before MUST, she held a succession of leadership roles at Makerere University College of Health Sciences (MakCHS), including Chair of the Department of Internal Medicine, where she combined academic leadership with research, clinical care, and mentorships, and she is an ICER-affiliated researcher.

After qualifying as a doctor at Makerere University, she completed postgraduate training in internal medicine and clinical epidemiology, then earned a PhD in Clinical Pharmacology from Trinity College Dublin, with a leadership certificate from Harvard along the way. Her doctoral research examined how antimalarial and antiretroviral medicines interact, work that helped improve treatment for patients living with both HIV and malaria.

Today she is one of Uganda's leading physician-scientists, with more than 100 peer-reviewed publications and over 50 conference papers spanning malaria, HIV, tuberculosis, COVID-19 and research ethics. She has led and collaborated on numerous international studies, reviews for journals including The Lancet and PLOS One, sits on nine doctoral committees, and serves as a Commissioner of the East African Health Research Commission.

She is a Fellow of the Uganda National Academy of Sciences, the Royal College of Physicians of Edinburgh, and the East Central and Southern Africa College of Physicians, and is a past Vice President of the Uganda Medical Association. She has advised Uganda's Ministry of Health and partners on the control of malaria and HIV/AIDS, bridging science, policy and practice.

What distinguishes her is not only her own ascent but her deliberate work to lift others. At Makerere she helped launch the Women Scientists' Career Development Programme (WoSCaDeP), a college-wide initiative to advance women's careers in science and grow the number of women in research leadership. It began with a simple observation: talented women were being held back less by their science than by gaps in "soft" skills, management, leadership, budgeting, so WoSCaDeP pairs them with mentors who share what moved their own careers forward.

She speaks candidly about the balancing act, too, crediting careful planning for allowing her to combine motherhood with a demanding research career.

IN HER WORDS

"I told myself, if I want to do good clinical research, I need to be a good physician."

On mentorship, she is unequivocal: without the colleagues who guided her at every stage, she says, she would never have reached where she is today, a conviction that now shapes how she invests in the scientists coming up behind her.

At ICER, we celebrate Prof. Byakika-Kibwika not only for her scientific achievements but for her enduring commitment to mentorship, evidence-driven leadership, and strengthening Africa's capacity to respond to emerging health threats. Her career is a reminder that the most lasting scientific legacy is not only the knowledge we generate, but the people and institutions we empower.

ICER Webinar Highlights the Need to Strengthen Uganda's Preparedness for Hantavirus and Emerging Zoonotic Diseases

9th May, 2026

ICER recently hosted a scientific webinar on hantavirus, bringing together leading Ugandan and regional researchers, clinicians, public health experts and scientists to discuss the growing threat of rodent-borne diseases and the importance of strengthening Uganda's epidemic preparedness.

The webinar featured presentations from Prof. Bruce Kirenga, Prof. Pauline Byakika, and Dr. Misaki Wayengera, moderated by Dr. Winters Muttamba, Chief Executive Officer of ICER. The discussions focused on the epidemiology, transmission, clinical management, and prevention of hantavirus infections, while examining Uganda's readiness to respond to emerging zoonotic disease threats.

Understanding the Threat

Experts explained that hantaviruses are rodent-borne viruses transmitted mainly through the inhalation of contaminated aerosols from rodent urine, saliva and feces. While Old World hantaviruses primarily cause Hemorrhagic Fever with Renal Syndrome (HFRS) in Europe and Asia, New World hantaviruses are responsible for Hantavirus Cardiopulmonary Syndrome (HCPS/HPS) in the Americas, a severe illness characterized by acute respiratory failure and cardiogenic shock.

The speakers noted that there is currently no globally approved vaccine or specific antiviral treatment for hantavirus infection, making early diagnosis, supportive care and intensive care management essential for improving patient outcomes.

Uganda's Preparedness Requires Continued Investment

Although Uganda has not reported major hantavirus outbreaks, participants emphasized that the country remains vulnerable due to increasing human-rodent interactions, environmental change, urbanization, cross-border movement and limited zoonotic disease surveillance.

The webinar underscored the importance of strengthening national preparedness through the following:

- Integrated One Health surveillance system.
- Expanded laboratory and molecular diagnostic capacities.
- Enhanced intensive care and emergency response services.
- Improved community awareness and risk communication.
- Stronger surveillance at border points and airports.
- Increased investment in research, vaccine development and emerging infectious disease preparedness.

Advancing Evidence-Based Epidemic Preparedness

The webinar reaffirmed ICER's commitment to promoting interdisciplinary research and scientific dialogue that supports evidence-based public health policy and strengthens Uganda's capacity to prevent, detect and respond to emerging infectious diseases.

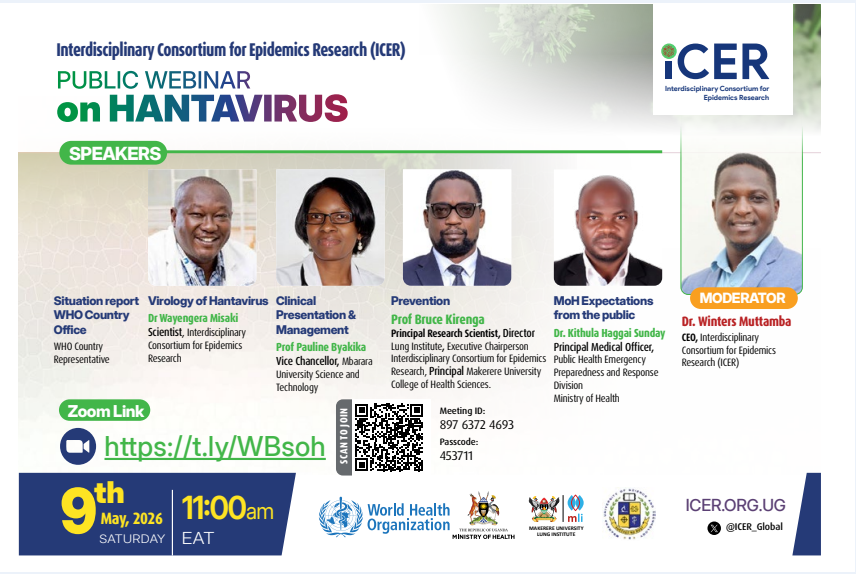
By bringing together experts from clinical medicine, public health, research and laboratory sciences, the webinar provided an important platform for knowledge sharing and reinforced the critical role of collaboration in building resilient health systems.

As emerging zoonotic diseases continue to pose global health security challenges, ICER remains committed to advancing research, innovation and partnerships that enhance epidemic preparedness across Uganda and Africa.

ICER Hosts Hantavirus Webinar

ICER Hosts Public Webinar on Hantavirus to Strengthen Preparedness for Emerging Zoonotic Diseases

The Interdisciplinary Consortium for Epidemics Research (ICER) convened a public webinar on 9 May 2026 to raise awareness about Hantavirus, an emerging zoonotic disease, and its implications for public health, epidemic preparedness, and response. The webinar brought together experts from academia, government, international organizations, and the public to discuss the virus, its transmission, clinical management, prevention, and Uganda's readiness to respond to potential outbreaks.



Moderated by Dr. Winters Muttamba, Chief Executive Officer of the Interdisciplinary Consortium for Epidemics Research, the webinar provided a platform for evidence-based discussions on one of the world's emerging infectious disease threats while highlighting the importance of interdisciplinary collaboration in epidemic preparedness.

The session opened with a global situation report delivered by the World Health Organization (WHO) Country Office, providing participants with an overview of the current global status of hantavirus infections and the public health implications of the disease.

Dr. Wayengera Misaki, Scientist at the Interdisciplinary Consortium for Epidemics Research, delivered a presentation on the virology of hantavirus, explaining the biology of the virus, how it is transmitted–primarily through contact with infected rodents or their excreta and why continued surveillance is essential to detect and contain emerging zoonotic diseases.

The clinical aspects of the disease were presented by Prof. Pauline Byakika-Kibwika, Vice Chancellor of Mbarara University of Science and Technology (MUST). She discussed the clinical presentation and management of hantavirus infections, highlighting the importance of early recognition, accurate diagnosis, and appropriate supportive care in improving patient outcomes.

Addressing disease prevention, Prof. Bruce J. Kirenga Executive Chairperson of ICER, Principal Research Scientist, Director of the Makerere University Lung Institute, and Principal at Makerere University College of Health Sciences, emphasized strategies for preventing hantavirus transmission. He underscored the importance of community awareness, rodent control, environmental hygiene, and adopting a One Health approach that integrates human, animal, and environmental health to prevent future outbreaks.

Participants also heard from Dr. Kithula Haggai Sunday, Principal Medical Officer in the Public Health Emergency Preparedness and Response Division at Uganda's Ministry of Health, who outlined the Ministry's expectations and preparedness measures for responding to emerging infectious diseases. His presentation highlighted the importance of surveillance, laboratory capacity, multisectoral coordination, and rapid response systems in protecting public health.

Throughout the webinar, speakers stressed that while hantavirus is not commonly reported in Uganda, increasing interactions between humans, wildlife, and changing environments make continuous surveillance and preparedness essential. They encouraged healthcare workers, researchers, policymakers, and communities to remain vigilant and strengthen systems for early detection and response to emerging health threats.

The webinar reflects ICER's ongoing commitment to promoting interdisciplinary research, knowledge sharing, and public engagement on epidemic-prone diseases. By bringing together experts from different sectors, the consortium continues to foster dialogue that translates scientific evidence into practical action, ultimately strengthening Uganda's capacity to prevent, detect, and respond to future epidemics.

ICER Stakeholder Breakfast Meeting

ICER Stakeholder Breakfast Meeting Strengthens Uganda's Epidemic Research and Preparedness Agenda

Kampala, Uganda I 23 March 2026

ICER hosted a high-level stakeholder breakfast meeting at Protea Hotel Kampala, convening leading researchers, policymakers, clinicians, public health practitioners, military health representatives, development partners and institutional collaborators to strengthen interdisciplinary collaboration for epidemic preparedness and response in Uganda and across the region.

The meeting, officiated by Uganda's Minister of Health, provided a strategic platform for dialogue on strengthening research systems that support early outbreak detection, coordinated response, clinical management and evidence-informed public health policy.

Research at the Centre of Epidemic Preparedness

Welcoming participants, ICER leadership team, led by Prof. Bruce Kirenga and Dr. Winters Muttamba, Chief Executive Officer, presented the consortium's strategic vision, institutional partnerships and expanding portfolio of epidemic research programmes.

The presentations underscored ICER's commitment to positioning scientific research as a core pillar of epidemic preparedness by generating timely evidence before, during and after disease outbreaks. Participants emphasized that effective preparedness requires strong collaboration across clinical medicine, epidemiology, diagnostics, laboratory sciences, social sciences, public health systems and community engagement.

Strategic Priorities for Stronger Epidemic Response

The discussions identified several priority areas for strengthening Uganda's epidemic preparedness systems, including the following:

- Enhancing national and regional disease surveillance for early outbreak detection is crucial.
- Integrating real-time clinical and epidemiological data into research and decision-making systems.
- Improving outbreak preparedness through efficient logistics, accelerated ethical review processes, and streamlined biospecimen management.
- Strengthening institutional readiness through coordinated multidisciplinary partnerships involving the government, academia, healthcare institutions, civil society and international collaborators.
- Promoting meaningful community engagement to improve public trust, research participation, risk communication and implementation of public health interventions.

Participants agreed that sustainable partnerships and coordinated research systems are essential for improving resilience against future epidemic threats.

Strengthening Uganda's Contribution to Global Health Security

Stakeholders acknowledged Uganda's increasing leadership in epidemic research and emphasized the importance of sustained investment in collaborative research infrastructure in Africa. The discussions highlighted ongoing challenges related to emergency financing, coordinated clinical research systems, and rapid evidence generation during public health emergencies.

Participants encouraged policymakers, researchers, and implementing partners to continue utilizing ICER's scientific publications, policy briefs, and evidence-generation platforms to inform national policy, strengthen preparedness strategies, and improve health outcomes.

Looking Ahead

The stakeholder breakfast reaffirmed ICER's commitment to advancing interdisciplinary research, strengthening epidemic preparedness systems and promoting evidence-based responses to emerging infectious diseases across Uganda and Africa.

By bringing together diverse institutions and expertise, the meeting reinforced the importance of collaboration in building resilient health systems that are capable of responding rapidly and effectively to future epidemic threats.

As ICER continues to expand its research partnerships and scientific programs, the consortium remains dedicated to supporting innovation, knowledge generation and coordinated action that contributes to regional and global health security.

About ICER

ICER is a multidisciplinary research consortium committed to advancing epidemic preparedness, prevention and response through collaborative research, innovation, capacity strengthening and evidence generation. By bringing together experts from multiple disciplines and institutions, ICER supports the development of sustainable solutions that strengthen health systems and improve preparedness for current and future public health emergencies.

High- level stakeholder breakfast meeting at Protea Hotel convening leading researchers,policy makers,clinicians,public health representatives, development partners and institutional collaborators to strengthen interdisciplinary collaboration, epidemic preparedness and response in Uganda and the region.



ICER Welcomes Chinese Scientific Delegation to Strengthen Collaboration in Epidemic Research

10th July, 2026 I Makerere University Lung Institute, Kampala, Uganda



The Chinese delegation visits the Clinical Trials of Natural Therapeutics (CONAT) Uganda - a hab for testing locally formulated herbal remedies like TazCov and Vaccine for acute respiratory viral illnesses and COVID-19

ICER recently welcomed a high-level scientific delegation from China, comprising experts from the China Center for Disease Control and Prevention (China CDC), researchers from leading Chinese universities and Chinese clinicians working in Naguru Hospital, Uganda. The delegation paid a courtesy visit to Makerere University College of Health Sciences to recognize Uganda's outstanding contribution to Ebola preparedness, research and outbreak response while exploring opportunities for expanded scientific collaboration.

The meeting was hosted by Prof. Bruce Kirenga, Executive Chairperson of ICER, who provided an overview of the consortium's mission and highlighted ICER's achievements in advancing epidemic research in Uganda and the region.

Showcasing Uganda's Progress in Ebola Research

Prof. Kirenga outlined ICER's contributions to Ebola research, including the development and evaluation of vaccines, therapeutics, rapid diagnostic tools and mobile laboratory systems designed to support timely diagnosis and treatment during outbreaks.

He explained that during the Bundibugyo Ebola outbreak, where no licensed vaccine was available, Ugandan researchers investigated several therapeutic compounds, including remdesivir, interferon, lithium, monoclonal antibodies and other candidate treatments, to improve patient management while advancing research on future interventions.

The delegation also learned about Uganda's progress in locally developing Ebola vaccine candidates, an important milestone aimed at strengthening Africa's capacity to develop home-grown solutions for emerging infectious diseases (EIDs).

Advancing Natural Medicine and One Health Research

A key highlight of the visit was ICER's work in natural medicine research through the Clinical Trial of Natural Therapeutics (CONAT). Prof. Kirenga noted that, with support from the Government of Uganda, researchers have standardized two herbal medicines and are expanding research into treatments for malaria, cancer, and diabetes.

He further presented ICER's broader One Health research agenda, including investigations into pathogens circulating in wildlife, livestock and environmental ecosystems, to improve the early detection of emerging infectious diseases.

Strengthening Uganda–China Scientific Partnerships

The Chinese delegation commended Uganda's scientific leadership and longstanding collaboration with the China CDC. The discussions explored opportunities for continued joint research on vaccines, diagnostics, traditional medicine and emerging pathogens.

Dr. Ming Lu praised Uganda's Ebola response and expressed particular interest in the country's natural medicine research. Dr. Ke Zhu appreciated Uganda's collaboration in evaluating Chinese medicinal products and discussed future opportunities for scientific exchanges. Dr. Wenzhou Yu thanked the Ugandan researchers for their partnership in vaccine evaluation and welcomed continued collaboration between the two countries.

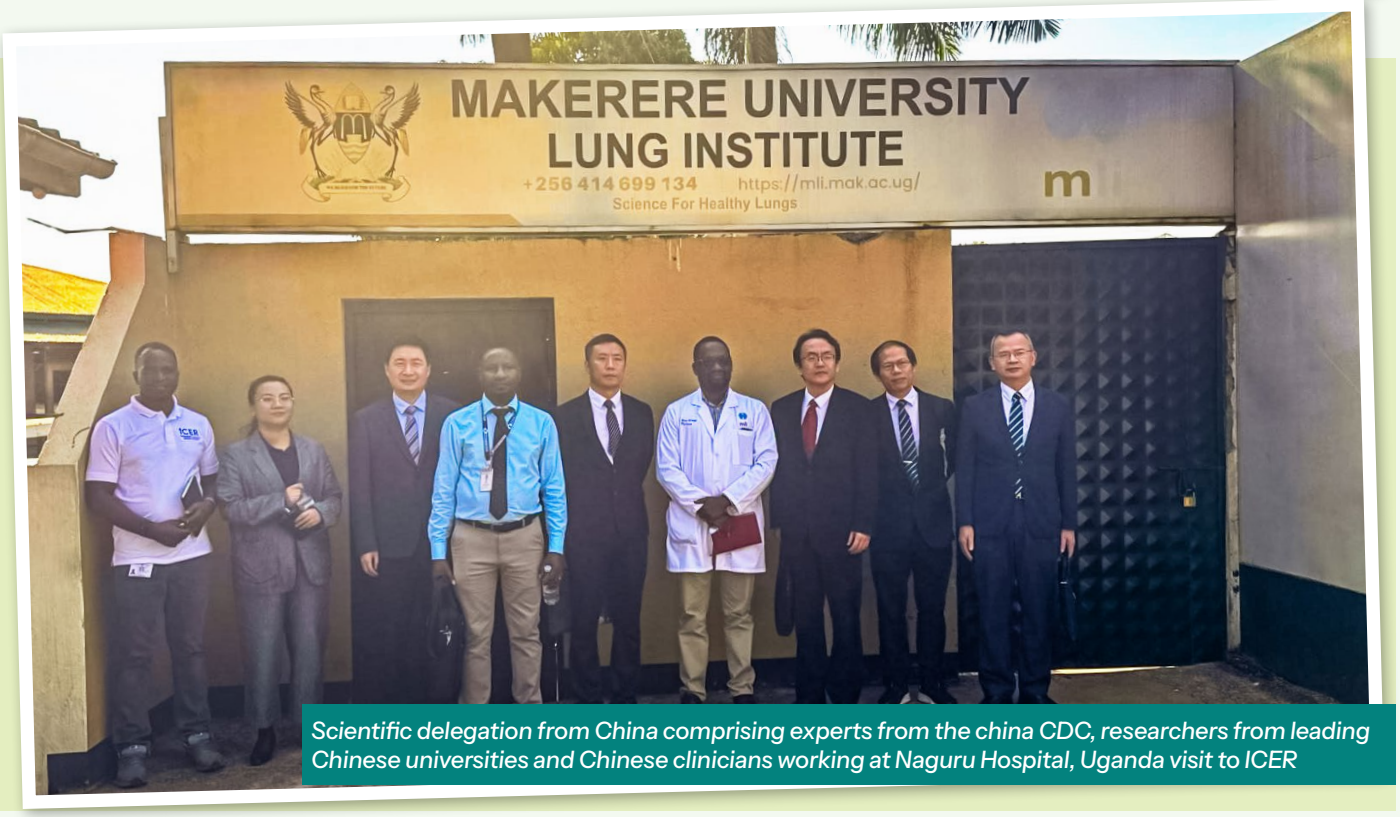
Representing ICER, Dr. Winters Muttamba, Chief Executive Officer, highlighted the consortium's efforts to establish collaborative research platforms that bring together multidisciplinary scientists to accelerate innovation in epidemic preparedness and product development across Africa.

Looking Ahead

The visit reinforced the strong partnership between Uganda and China in infectious disease research and highlighted the value of international collaboration in addressing emerging and epidemic threats. Through continued investment in research, innovation and scientific partnerships, ICER remains committed to strengthening Africa's capacity to develop locally driven solutions that improve epidemic preparedness and global health security.



The ICER CEO Dr.Muttamba Winters, officials from the ministry of health and the Chinese delegation at our state of the art cold chain storage facility. It is a 2 to 8, -20 to -60, -60 to -80 storage.



Scientific delegation from China comprising experts from the china CDC, researchers from leading Chinese universities and Chinese clinicians working at Naguru Hospital, Uganda visit to ICER

ICER dialogue calls for faster, trusted and coordinated action on BDBV

Regional Open Emergency Scientific Dialogue | 27 August 2026 | Virtual event

Event	ICER Regional Open Emergency Scientific Dialogue
Focus	Priority actions to halt growth of the current BDBV outbreak in the DRC
Reach	492 registrations; 225 live participants; at least 23 countries represented

Interdisciplinary Consortium for Epidemics Research and Response (ICER) called for a faster, more coordinated and community-centred response to the Bundibugyo ebolavirus disease (BDBV) outbreak in the Democratic Republic of the Congo (DRC). The call followed ICER's Regional Open Emergency Scientific Dialogue, held virtually on 27th August 2026.

The dialogue brought together public-health leaders, researchers, clinicians, laboratory specialists, social scientists, frontline responders and regional partners. Its regional reach reflected both the significance of the outbreak and the need for practical collaboration across disciplines and borders.

A response measured in hours, not intentions

The strongest message from the meeting was that outbreak control depends on shortening the full pathway from alert to care. Participants emphasized rapid investigation of community alerts, active case finding, complete contact tracing, timely sampling and diagnosis, safe isolation, reliable referral and accessible clinical care. These functions must operate as one connected system, particularly in remote areas and in communities affected by insecurity or frequent movement.

Community trust at the centre

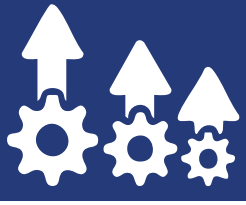
Speakers stressed that community engagement is not an optional add-on. Trust shapes whether people report illness, seek care early, share contact information and accept safe practices. The dialogue recommended working through trusted local structures, including community health workers, religious and cultural leaders, youth networks, transport operators and survivors, and using local languages and two-way feedback mechanisms. Concerns raised by communities should inform incident-management decisions quickly.

Cross-border capability pooling

Participants urged neighbouring countries and regional institutions to move beyond ad hoc coordination. Proposed measures included rapid information-sharing channels, joint preparedness at movement corridors, cross-border training and simulation exercises, shared laboratory and referral arrangements, and a capability-on-call roster of experts in epidemiology, diagnostics, IPC, clinical care, data and logistics. The aim is to retain national ownership while ensuring that critical skills and systems can be activated rapidly where they are needed.

Six immediate priorities

- Accelerate the alert-to-care pathway.
- Expand community-based surveillance and contact tracing.
- Integrate social and behavioural expertise into response teams.
- Strengthen diagnostics, referral and linkage to high-quality care.
- Institutionalize cross-border collaboration.
- Direct resources transparently to frontline bottlenecks.



From recommendations to a roadmap

Participants called for a costed action plan with responsible institutions, timelines and measurable indicators. ICER will use the dialogue outcomes to support continued scientific exchange, policy engagement and regional collaboration. The organisation remains committed to connecting evidence with the operational realities of outbreak response, so that communities at risk receive timely, trusted and effective protection.

Prof. Bruce J. Kirenga Shares Lessons on Planning and Implementing Research During Epidemics at UCD

16 September 2026 | Dublin, Ireland



Prof. Bruce J. Kirenga presenting on planning and implementing research during epidemics and outbreaks at CEPHR, University College Dublin.



CEPHR Scientific Seminar announcement, 16 September 2026.



Prof. Kirenga with colleagues following the scientific seminar at UCD.

Prof. Bruce J. Kirenga, Principal of Makerere University College of Health Sciences and Executive Chairman of Interdisciplinary Consortium for Epidemics Research and Response (ICER), delivered a scientific seminar titled *"Planning and Implementing Research During Outbreaks and Epidemics"* at the Centre for Experimental Pathogen Host Research (CEPHR), University College Dublin (UCD), Ireland, on 16th September 2026.

Drawing on practical experience from epidemic research and response, Prof. Kirenga highlighted the importance of embedding research within epidemic preparedness and response systems rather than introducing it only after an outbreak has begun. His presentation emphasised advance research planning, appropriate study designs, ethical and regulatory preparedness, multidisciplinary collaboration, research infrastructure and the ability to rapidly activate scientifically rigorous studies during public-health emergencies.

The seminar also provided an opportunity for scientific exchange with researchers at UCD and reinforced the importance of international partnerships in strengthening epidemic research capacity.

For ICER, the engagement reflects its commitment to advancing African-led epidemic research, preparedness and response, while building partnerships that enable evidence generated during outbreaks to inform clinical practice, public-health interventions and future preparedness.

PhD Corner

Meet Claudine Mukashyaka



Q1 Can you introduce yourself and tell us about your PhD research?

A: My name is Claudine Mukashyaka, and I am a Research Fellow at the Makerere University Lung Institute and a joint PhD student at the University of Antwerp (Belgium) and Albert Einstein (Brazil). My research focuses on understanding B-cell immune responses following natural Mpox virus infection among survivors in Uganda and the Democratic Republic of Congo. By investigating how antibody responses differ according to disease severity, I hope to generate evidence that will contribute to the development of improved vaccines and immunotherapies against Mpox.

Q2 You are among the first PhD students supported through ICER. What does this opportunity mean to you?

A: Being part of ICER's inaugural PhD cohort is both a privilege and a responsibility. The programme has provided me with exceptional mentorship, interdisciplinary collaborations, and opportunities for international training. Through ICER, I have been able to work with leading scientists and institutions, strengthening my research skills while contributing to scientific evidence that addresses epidemic preparedness and public health challenges in Africa.

Q3 How does this PhD fit within your overall career trajectory?

This PhD is laying the foundation for my long-term career as an immunologist and translational researcher. My aspiration is to lead research that advances our understanding of emerging and re-emerging infectious diseases while translating scientific discoveries into interventions that improve public health in Africa. Through this journey, I also hope to mentor the next generation of African scientists and contribute to building strong research capacity on the continent.

Q4 What has been the most rewarding part of your PhD journey so far?

A: The most rewarding aspect has been seeing my research progress from fieldwork to advanced laboratory science. Completing sample collection in Uganda and the DRC, and now undertaking specialized immunology training through international collaborations, has reinforced my commitment to translational research. It is exciting to know that the work we are doing today has the potential to improve our understanding of Mpox immunity and contribute to better outbreak preparedness and response in Africa.

Q5 What advice would you give to those looking forward to starting their PhD journey?

Growth often requires creating space for new opportunities, even when the path ahead is uncertain. A PhD is a marathon, not a sprint, it is a journey that will challenge you in many ways, but it will also help you discover strengths you never knew you had. There will be moments of uncertainty and disappointment, but don't let them discourage you. Keep learning, stay open to guidance, and believe in yourself, even when progress feels slow. Most importantly, remember why you chose this path. Every challenge you overcome brings you one step closer to becoming the scientist you dream of being.

ICER News & Events



Watch the Dialogue via

https://www.youtube.com/watch?v=Yn8_9OXOaHE

Cross-border transmission of Ebola virus disease caused by Bundibugyo virus into Uganda, 2026

During May 17–18, 2026, WHO and the Africa Centres for Disease Control and Prevention (Africa CDC) separately determined that the outbreak of Ebola disease caused by Bundibugyo virus (BDBV) in the Democratic Republic of the Congo and Uganda constituted a Public Health Emergency of International Concern under the International Health Regulations (2005) and a Public Health Emergency of Continental Security.[1,2] This occurred after more than a month of undetected but suspected transmission of an unclassified viral haemorrhagic fever in Ituri province, the Democratic Republic of the Congo. On May 15, 2026, Uganda had reported a case of imported BDBV in one of its private health facilities within the city, Kampala. A second case was identified in Kampala in a separate private health facility on the next day. This outbreak arising out of two imported cases from the Democratic Republic of the Congo represents the second recognised outbreak caused by BDBV in Uganda since its initial identification in the western part of the country in 2007.[3-5]

The two individuals were self-referrals from the epicentre in Ituri province seeking advanced care in Uganda (appendix). Case one, a male individual aged 59 years, arrived in Uganda by road via the northwestern border of Nebbi and Arua. From this point, the individual embarked on a chartered flight to Entebbe airport, seeking care in Kibuli Hospital, a private facility in the central business district of Kampala. Case two, a female individual aged 54 years, crossed from the Democratic Republic of the Congo via boat on Lake Albert, arriving on the Ugandan side at Ntoroko. Afterwards, the individual boarded a bus to Kampala central business district, where they got admitted to Nakasero Hospital, another private health facility in Kampala. Overall, this outbreak underscores the public health risks associated with increased movement of people within the region for different socioeconomic reasons (including trade, minerals and mining, timber logging, and humanitarian crises) and medical reasons. Specifically, the two individuals in Ituri province on falling ill opted to seek advanced care in Uganda.

These movements highlight the referral pathways (whether self or institutional) for health care within the region, where individuals from eastern Democratic of the Congo and South Sudan often seek advanced or specialised care in private and public health facilities in Uganda's capital, Kampala. Consequently, Kampala serves as a serves as the recipient of spillover from the Democratic of the Congo.[6,7] Furthermore, there might be other undiscovered movements of individuals seeking specialised medical facilities across East Africa and beyond. Reports of suspected or confirmed cases in Kinshasa, Katanga, and Goma probably represent similar movements. Moreover, other global private facilities that offer advanced care to the region of East Africa like India and Türkiye should be put on high alert. It is imperative that for other reasons of travel to and from the epicentre, including for trade, mineral business, mining, and timber logging, the existing travel advisories are followed.

Given these two cases from the Democratic of the Congo seeking care in Uganda, the declarations by WHO and Africa CDC, and the possibility for similar excursions, authorities should restrict movement of cases and or their contacts, from the epicentre in Ituri province to Uganda and beyond. For past outbreaks, Uganda successfully controlled the export of Ebola cases by restricting movement of contacts and confirmed cases and shared the list of contacts and confirmed cases globally within the framework of International Health Regulations. Additionally, all potential destinations for advanced or specialised care in the region and beyond should conduct a retrospective audit on all patients received within the past 21 days from the Democratic of the Congo, given that iatrogenic introduction beyond the scope of the known medical referral pathways to Europe can occur. This risk is highlighted by the proposed evacuation of an exposed American doctor from Ituri province to Germany for specialised care.[8]

In conclusion, early identification of BDBV cases provides for a window of transmission interruption through the isolation of all contacts, including health-care workers who have met any patients with confirmed BDBV, well before they themselves start exhibiting clinical disease and transmitting the virus. To interrupt further spread and transmission in the region and beyond, all regional and international destination facilities for medical referrals should be put on high alert to undertake retrospective audit of their recent admissions in order to identify any cases originating from the Democratic of the Congo.

We declare no competing interests.

Editorial note: The Lancet Group takes a neutral position with respect to territorial claims in published maps and institutional affiliations.

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See Online for appendix

Correspondence

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The NEW ENGLAND JOURNAL of MEDICINE

CORRESPONDENCE

Sudan Virus Disease in Uganda, 2025

TO THE EDITOR: On January 30, 2025, the Uganda Ministry of Health notified the World Health Organization of an outbreak of Sudan virus disease (SVD)[1,2] — the fifth outbreak in Uganda out of eight outbreaks reported on the continent.[1] Here we describe the evolution of the SVD outbreak, which propagated in three transmission chains in geographically distinct regions. Ethics review was not required, because this effort was part of the routine national public health response.

The outbreak was detected at the Mulago National Referral Hospital (NRH) in the capital city of Kampala and subsequently spread to isolated districts to the east and west of Kampala (Fig. S1 in the Supplementary Appendix, available with the full text of this letter at NEJM.org). Transmission involved three distinct chains with 12 cases confirmed by reverse-transcriptase–polymerase-chain-reaction (RT-PCR) testing, 2 probable cases (in persons who died from suspected SVD, each of whom had an epidemiologic link to a confirmed case but did not undergo testing and had no laboratory confirmation of disease), and 4 fatalities (case fatality rate, 29%) (Fig. 1). The first known transmission cycle, as determined by RT-PCR testing, began with the index patient (Patient C001), a 32-year-old man with SVD that was detected at autopsy and reported through an existing mortality surveillance framework[2] at

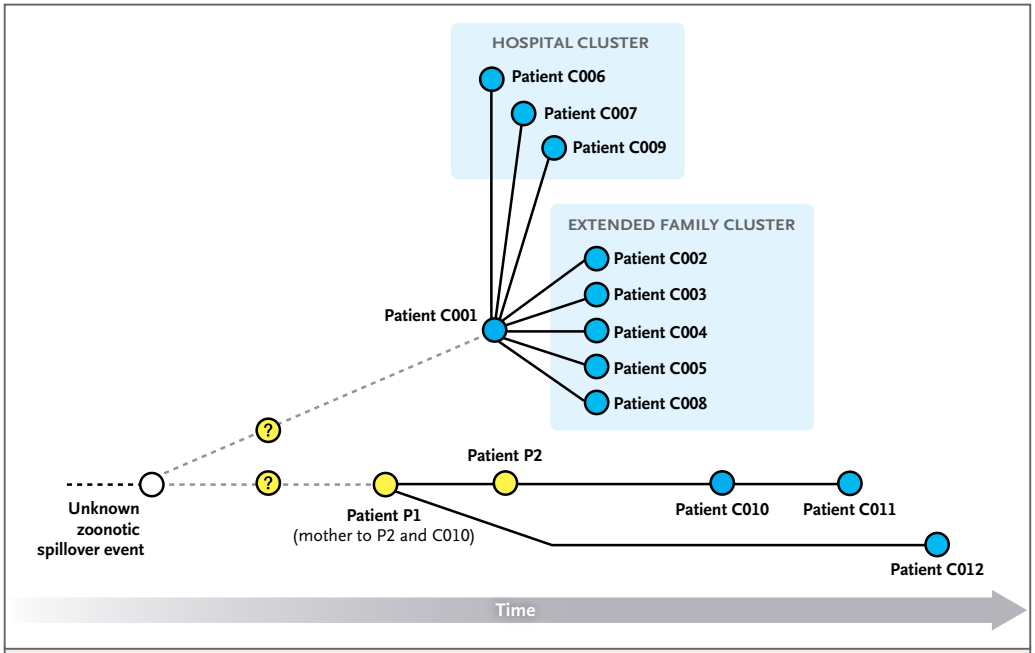


Figure 1. Transmission Chains and Temporal Links to the Presumed Common Zoonotic Spillover Event.
The outbreak occurred during January, February, and March 2025. Yellow indicates patients with probable cases, and blue indicates patients with confirmed cases. Circles with question marks indicate that the number of persons who may have been transmitting the virus at that point in the transmission chain was not known, and dashed gray lines indicate transmission that was postulated to have occurred. Timing among cases is not shown to scale; relative positions of patients within the hospital cluster and within the extended family cluster are not meant to indicate relative timing of cases.

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Mulago NRH. Before the infection, the man had worked in three private health clinics in the suburbs of Kampala. We suspect that the infection was transmitted from the index patient to four close relatives — his wife, mother, brother, and a toddler son — plus a household worker (Patients C002 through C005 and C008) through interactions during his illness. The infection was also transmitted from the index patient to three health care workers (Patients C006, C007, and C009) in a hospital cluster. Although the index patient received care in the intensive care unit within the Mulago NRH for 12 hours, none of the health care workers who attended to him reported any signs or symptoms of SVD or tested positive for SVD by RT-PCR.

The second transmission chain involved a child who was 4 and a half years of age (Patient C010), the son of a woman with a probable case of SVD (Patient P1); the infection was transmitted from Patient C010 to a family relative (Patient C011). Patient P1 was a 32-year-old postpartum mother who died from an acute febrile hemorrhagic illness 7 days after giving birth, 3 days before the death of the index patient (Patient C001). Patient P2 — Patient P1's 14-day-old infant, who was thought to have transmitted the virus to Patient C010 — also died from a probable case of SVD. A third transmission chain started with Patient P1 as she cared for sick persons in her household, which resulted in an additional case (in Patient C012).

The three transmission chains — resulting in two family clusters and a hospital cluster — were dispersed in seven districts across the country. All the patients with secondary cases received supportive care (Table S1). This SVD outbreak, which had an unusually low case fatality rate,[3] was managed through a response that extended beyond the traditional control measures[4] (active surveillance, case finding, and community engagement) to preemptive engagement through simultaneous deployment of new response tools. Additional details of the response, including institutional quarantine of contacts, intra-epidemic serologic assessment, use of cellular telephones for data geopositioning, genomic surveillance, experimental antiviral administration in confirmed cases, and administration of a candidate vaccine to contacts under clinical trial conditions, are provided in the Supplementary Appendix.

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*Members of the SVD Response Team are listed in the Supplementary Appendix, available with the full text of this letter at NEJM.org.

Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

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Interdisciplinary Consortium for Epidemics Research

INTERDISCPLINARY CONSORTIUM FOR EPIDEMICS RESEARCH AND RESPONSE (ICER) POSITION STATEMENT

CALL FOR ACTION FOR NEIGHBOURING COUNTRIES AND THE AFRICAN UNION TO SUPPORT EFFORTS TO CONTAIN THE DEMOCRATIC REPUBLIC OF CONGO'S RESPONSE TO THE OUTBREAK OF BUNDIBUGYO VIRUS DISEASE

Background

At the peak of the West African outbreak of ebolavirus disease; the African Union mobilized different African countries to support the three affected countries of Liberia, Sierra Leone and Guinea to control and contain the epidemic. Even then, 22,000 cumulative cases and 11,000 fatalities accrued within a protracted period of 3 years (2013 to 2016) with estimated losses of approximately US$54 billion in Gross Domestic Product (GDP).

Over the past 2 months since 15th May 2026 when the WHO and Africa CDC declared the outbreak of Bundibugyo virus disease (BVD) in DRC and Uganda a Public Health Emergency of International Concern (PHEIC) and Public Health Emergency of Continental Security (PHECS) respectively, there has been no organized efforts by African countries and the African Union (AU) to support the affected countries.

With the exception of Uganda – whose strategy for response to the threat of continued importation of cases from the epicentre in Ituri Province included the plan to deploy surge capacities within key border points in the DRC, all that we have seen other neighboring countries do is prepare and wait.

Mobilization of resources has largely been by multilateral health agencies with little or no support from African and indigenous bodies.

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The call to action

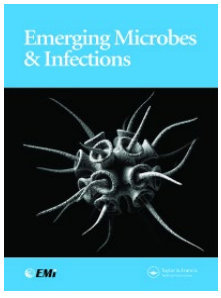
In lieu of the following:

1. The rapidly evolving epidemiology of this outbreak (whereby 3973 cases and 1801 fatalities have accrued in under three (3) months; numbers reminiscent of the total cases and fatalities seen during the 2018-2020 Kivu outbreak
2. The threat this outbreak poses to not only the DRC, but regional and continental stability
3. With the exception of Uganda, the inertia or inaction from the region and nations neighboring the DRC and other member States of the African Union.

Academicians, scientists, researchers and innovators working on epidemics under their regional umbrella of the Interdisciplinary Consortium for Epidemic Research and response (ICER) – East and Central Africa, hereby:

1. **Thank the government of DRC for its openness and willingness to embrace the regional, continental and international community as partners to support local efforts to contain this outbreak**
2. **Call on all Nations neighboring the DRC, to mobilize resources inclusive of personnel, to support the DRC in the manner Uganda has already done, to meet the surge needs of the DRC response to the outbreak, before it spills over to another country**
3. **Beckon the African Union to mobilize other member States and Global Partners, to arrest this outbreak in its trenches, before it turns into a similar or even worse disaster as was the case of the 2013-to-2016 EVD outbreak in West Africa.**

The scientists under the umbrella of ICER collectively author and support these recommendations. The scientists are drawn from countries in East and Central Africa i.e., Uganda, Kenya, Tanzania, Rwanda, Burundi, South Sudan, DRC, Zambia, Central African Republic.



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RESEARCH LETTER

OPEN ACCESS

Implementing an intra outbreak ring vaccination clinical trial for Sudan Ebola virus disease within four days of outbreak notification in Uganda

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ABSTRACT

East and Central Africa experiences heightened threats for Ebola Virus Disease (EVD), with the latest outbreak caused by the *Bundibugyo ebolavirus* (BDBV) reported in the Democratic Republic of the Congo (DRC) and Uganda on 15th May 2026. The BDBV outbreak comes just over a year following the declaration of Sudan Virus Disease (SVD) outbreak in Uganda on 30th January 2025. Following the 2025 outbreak, a race against the clock mobilization occurred over the subsequent four days to launch a ring vaccination trial for a candidate vaccine against SVD. During this four-day period, the investigation team leveraged ongoing engagements with trial sponsors to activate prefinancing mechanisms and unlock in-kind financing from the government of Uganda. Further, the team activated a prepositioned research protocol to secure rapid ethics and regulatory clearance, and quickly accessed investigation product within the country, supportive ethics/regulatory systems, presence of logistical and data management systems established during the 2022 outbreak, collaborative relationship between the trial and the Ministry of Health outbreak response teams. Finally, previously trained field and community engagement personnel were mobilized overnight, offered refresher training and rapidly deployed to the field. In conclusion, the unprecedented four-day turnaround was made possible by the research, logistical and staffing capacities established during the 2022 SVD outbreak, an achievement that offers a blueprint for rapid evaluation of medical countermeasures during outbreaks.

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KEYWORDS Clinical trials; epidemics; Ebola outbreak; vaccine trial; Ebola vaccine trial

Introduction

East and Central Africa experiences heightened threats for Ebola Virus Disease (EVD). The Democratic Republic of the Congo (DRC) and Uganda have had back-to-back outbreaks, with the latest outbreak caused by the *Bundibugyo ebolavirus* (BDBV) announced on 15th May 2026. The BDBV outbreak comes just over a year following declaration of Sudan Virus Disease (SVD) outbreak in Uganda on 30th January 2025.

The back-to-back EVD outbreaks in the region are a testament to the increased frequency of these outbreaks. Equally concerning is that since the first Ebola case was reported in 1976 [1], only one vaccine for Zaire ebolavirus is licenced, while none exists for the Sudan ebolavirus [2]. Following the 2025 outbreak, a race against the clock mobilization occurred over the subsequent four days to launch a ring vaccination trial for a candidate vaccine against SVD (Figure 1). This paper describes the operational breakthroughs achieved within the four-day window, detailing how the investigation team implemented this clinical trial within an unprecedented four days.

Amplified ongoing engagements with trial sponsors

The investigation team had been in constant contact with trial sponsors (World Health Organization (WHO) and Ugandan Ministry of Health (MOH)) following the 2022 outbreak, where unfortunately the same trial could not be implemented. This was because the outbreak was declared over before participant enrolment could take place. Following the

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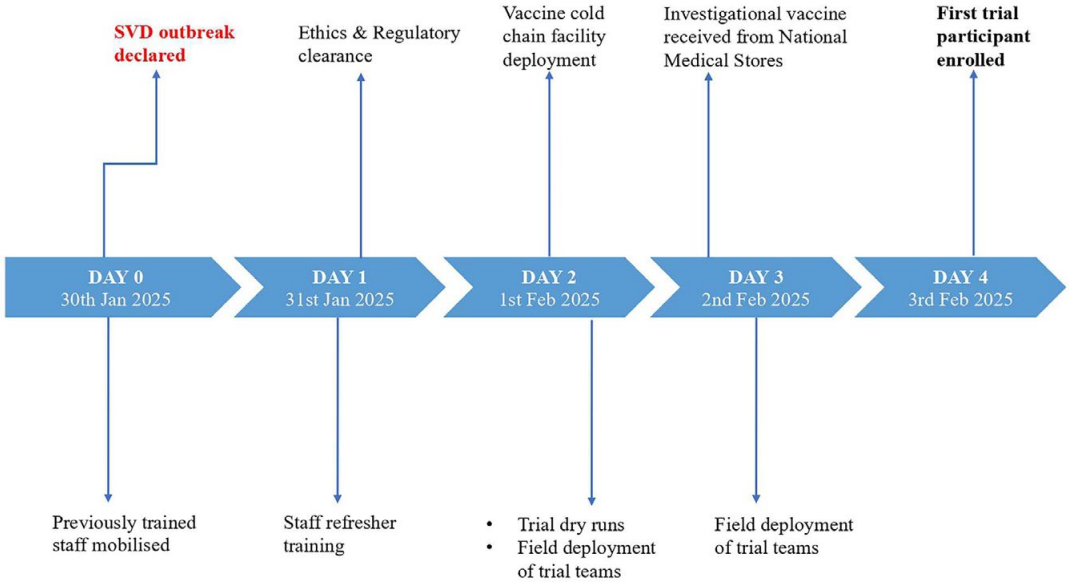


Figure 1. Timeline of ring vaccination clinical trial events.

outbreak announcement in 2025, these engagements were immediately amplified. The constant engagement eliminated the need to start communication from scratch.

Prefinancing mechanism

The implementing institution (Makerere University Lung Institute) proactively sought and obtained approval from the sponsors (WHO and MOH) to prefinance the trial while trial funds were being processed and disbursed by the sponsors. Lack of accessible and timely resources is a common bottleneck that could curtail timely execution of disease outbreak responses, including outbreak-responsive research [3], and this prefinancing mechanism helped overcome the financial delays.

In-kind financing by the government of Uganda

Within the four days, the team successfully secured the needed in-kind financing from the government through the incident command team at the Ministry of Health. As a result, the trial team was granted access to the isolation centres where some of the potential trial participants were quarantined, allowed use of public health facilities for follow-up visits and use of their waste disposal systems.

Activating a prepositioned research protocol

A protocol that had been developed and received ethical and regulatory approval in 2022 was used to secure rapid ethics and regulatory clearance. This protocol had been kept as a living protocol and this helped overcome the protracted ethical and regulatory processes that could have delayed trial initiation.

Timely access to the investigation product and integrity verification

The team successfully secured timely access to the investigational products and ascertained their integrity to ensure immediate field readiness. A vaccine candidate (rVSVΔG-SEBOV-GP) that had been shipped into the country during the 2022 SVD outbreak was kept at the National Medical Stores and the 2434 litre cold chain facility at Makerere University Lung Institute/Mulago Hospital. The integrity of these vaccines was confirmed by collaborating with the manufacturer to audit and verify continuous temperature logs.

Engagement of ethics/regulatory systems

The team leveraged the long-standing and continuous engagement with the ethics and regulatory boards. Following announcement of the outbreak, these existing channels were intensified to approve the trial for immediate implementation. This engagement also helped the team to amend the ring vaccination protocol and obtain approval to accommodate a sub study to assess the laboratory safety and immunogenicity profile of the candidate vaccine.

Swift reactivation of logistical and data management systems established during the 2022 outbreak

The team within the four days following the announcement reactivated the systems and structures

established during the 2022 SVD outbreak to quickly implement the trial. This capacity has been previously described [4] and included cold chain storage, clinical trial personnel, logistics and data management.

Rapid operationalization of the collaborative relationship between trial investigators and the Ministry of Health outbreak response teams

The trial framework was immediately embedded directly into the MOH response structures while ensuring the research activities did not interfere with the outbreak response. Ultimately, the trial contributed to outbreak response through identification of contacts, who were also of interest to the response. This close collaboration helped streamline the flow of information, mapping of cases or their contacts and provided the response structures with logistical support.

Mobilizing pre-trained field and community engagement staff

Field clinical and community engagement professionals trained in good clinical practice and trial protocol during the 2022 SVD outbreak were mobilized overnight, offered refresher training and rapidly deployed. Up to 100 staff were mobilized, divided into 6 field teams and deployed. The immediate activation of the workforce bypassed typical onboarding challenges that would have delayed field deployment.

The implementation of the trial had some challenges. Given the geographical spread of the outbreak, participant samples for laboratory safety and immunogenicity had to be transported over long distances and over difficult geographical terrain to a central processing laboratory at the Uganda Virus Research Institute. This calls for the establishment of mobile research laboratories to ensure timely processing of research samples. Vaccine hesitancy was encountered during field implementation and was addressed through continued community engagement.

Conclusion

The successful implementation of a ring vaccination trial within an EVD outbreak in an unprecedented four-day period is a testament to operational agility and proactive research capacity building initiatives. The achievement offers a blueprint for rapid evaluation of medical countermeasures in outbreak situations.

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Author contributions

CRediT: **Winters Muttamba:** Conceptualization, Investigation, Methodology, Project administration, Visualization, Writing – original draft; **Misaki Wayengera:** Writing – review & editing; **Andrew Obuku:** Writing – review & editing; **Maria Sekimpi:** Writing – review & editing; **Geofrey Kimbugwe:** Writing – review & editing; **Wilber Sabiiti:** Writing – review & editing; **Pauline Byakika-Kibwika:** Writing – review & editing; **Noah Kiwanuka:** Writing – review & editing; **Rebecca Nantanda:** Writing – review & editing; **Diana Atwine:** Writing – review & editing; **Charles Olaro:** Writing – review & editing; **Diallo Abdourahamane:** Writing – review & editing; **Alhassane Toure:** Writing – review & editing; **Pontiano Kaleebu:** Writing – review & editing; **Bruce Kirenga:** Funding acquisition, Investigation, Methodology, Supervision, Writing – review & editing.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Data availability statement

The dataset(s) supporting the conclusions of this article is (are) included within the article.

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Photo Gallery

































































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