

From Fellowship to Frontline: Uganda's First MSc in Infectious Disease Epidemiology Showcases Impact and Future Vision

On 14 August 2025, Busitema University and the IDEA Fellowship Consortium celebrated a landmark moment in Uganda's public health journey with the grand exit conference of the inaugural *Master of Science in Infectious Disease Field Epidemiology* cohort. Under the theme "*From Fellowship to Frontline: Showcasing the IDEA Program's Role in Strengthening Uganda's Epidemiological Workforce*", the gathering brought together policymakers, academics, development partners, district leaders, and alumni to honour a programme that has proved both timely and transformative.



Figure 1. Photo of Guest of Honour Dr JB Waniaye, Representing the Director General of Uganda Ministry of Health with IDEA Consortium Partners, Busitema University Top Management Staff and IDEA Fellows. Photo, courtesy of IDEA Fellowship Programme.

The day began with a poster walk-through, where the Guest of Honour, distinguished delegates, and development partners experienced first-hand the depth and breadth of the fellows' achievements. Central to their success was a carefully crafted 20-70-10 training model: 20% intensive classroom instruction in advanced epidemiology, biostatistics, GIS mapping, and bioinformatics; 70% immersive fieldwork in some of Uganda's most challenging outbreak settings; and 10% focused research culminating in a high-quality mini-thesis. This blend of theory, practice, and inquiry produced graduates who are not only analytically skilled but also operationally seasoned in infectious disease detection, rapid response, surveillance, investigation, and control.

The opening ceremony was enriched by contributions from a distinguished roster of speakers. Funders, consortium leaders, and patrons underscored the collaborative vision that shaped the programme. Dr. Thomas Nyirenda, Head of the Africa Office at EDCTP, spoke on the continental significance of building sustainable epidemiology capacity. Dr. Ario Alex Riolexus, noted for his leadership in national outbreak responses, offered reflections that resonated deeply with the fellows' field experiences.

Vice Chancellor Professor Paul Waako lauded the fellows' resilience and innovation, reaffirming Busitema University's commitment to practical, service-linked postgraduate training. The Guest of Honour, the Director General of Health Services, delivered a keynote urging the mainstreaming of hands-on epidemiology training across universities, sustainable investment from partners, and commending Uganda's creation of structured career pathways for epidemiologists within the national health system.

The highlight of the day was the fellows' scientific session, where they presented policy-shaping research on antimicrobial resistance, maternal and child health, border health security, climate-related WASH outbreaks, and One Health investigations. They showcased how they had modelled epidemic spread, integrated laboratory and field data for rapid diagnostics, led multi-sectoral surveillance, and communicated complex public health risks to decision-makers. Their work reflected not only technical mastery but also the leadership, adaptability, and integrity essential for frontline public health practice.

The conference achieved more than a celebration of milestones. It profiled the newly developed PhD in Epidemiology curriculum, launched a national alumni and career tracking system, and unveiled the Strategic Roadmap for IDEA Phase II (2026–2029), outlining regional expansion and deeper One Health integration. Absent yet warmly acknowledged were other IDEA consortium partners: Professor Maxwell Onapa Otim, a strong advocate for Africa-based epidemiology capacity; Dr. Suzzan Nabadda, a champion of using Ministry of Health's high-quality laboratories for capacity building; Professor Pauline Byakika, recently appointed Vice Chancellor of Mbarara University of Science and Technology, recognised for her commitment to scientific integrity; and Professor Pontiano Kaleebu, praised for fostering the research–policy interface. Professor Duncan Banks of The Open University and visiting professor at Busitema University was commended for his longstanding contributions to capacity building at Busitema and MCRI. As Chair of the STAC, Professor Banks also addressed the conference, recounting the history of collaborations with The Open University, the capacity built through these partnerships, and the successes of the IDEA Fellowship Programme.



Figure 2. Photo of Guest of Honour Dr JB Waniaye, Representing the Director General of Uganda Ministry of Health with The Vice Chancellor Busitema University and the IDEA Fellows after the latter received their letters marking from fellowship to frontline. Photo, courtesy of IDEA Fellowship Programme

Speaker after speaker credited Professor Peter Olupot-Olupot as the programme’s founding coordinator. A distinguished clinician-scientist, epidemiologist, and educator, Professor Olupot-Olupot serves as Professor of Clinical and Infectious Disease Epidemiology at Busitema University and Executive Director of the Mbale Clinical Research Institute. His vision and leadership transformed the IDEA Fellowship from concept to a nationally recognised, EDCTP-funded training platform that blends academic rigour with deep field immersion, ensuring a sustainable pipeline of outbreak-ready epidemiologists for Uganda and the wider region.

The event concluded with the recognition of fellows, awards to facilitators and consortium members, and a symbolic cake-cutting. The message was clear: the IDEA Epidemiology Fellows are moving decisively “from fellowship to frontline,” equipped with the skills and resolve to confront today’s public health threats and anticipate those of tomorrow. The IDEA Fellowship now stands as both a national triumph and a continental model—proof that when rigorous academic training is fused with extensive, real-world experience, the result is a cadre of epidemiologists capable of strengthening health security from the community level to the global stage.