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UGANDA SOCIETY FOR HEALTH SCIENTISTS

**CONFERENCE REPORT: 24th ANNUAL SCIENTIFIC CONFERENCE, UGANDA SOCIETY FOR HEALTH SCIENTISTS**

**DATE: 7th-8th AUGUST 2025**

**VENUE: SILVER SPRINGS HOTEL BUGOLOBI**

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Dr. Emmanuel Kiiza Mwesiga (Vice- Chair)

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Mr. Timothy Otaala

Mrs. Isabella Achokotho- Akol

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17. Mr. Grace Banturaki

**CONFERENCE MASTERS OF CEREMONY**

Dr. Juliet Allen Babirye

Dr. Raymond Mugume

**EXECUTIVE SUMMARY**

The Uganda Society for Health Scientists (USHS) held its 24th Annual Scientific Conference on 7th and 8th August 2025 at Silver Springs Hotel, Bugolobi. The theme for this year’s conference was **“Digital and Non-Digital Interventions for Health.”** The conference chair was Dr. Esther Nasuuna, who served as the Chairperson of the Organizing Committee.

The conference program was structured around ten sub-themes, each covered in dedicated sessions. The second session focused on the official opening ceremony and the delivery of the keynote address. The sub-themes included:

* Emerging and Re-emerging Epidemics
* Health Education and Others
* Mental Health
* Non-Communicable Diseases
* HIV
* Vulnerable Populations
* HIV II
* Digital Technologies
* Tuberculosis
* Public Health

The Guest of Honor for the conference was Hon. Dr. Monica Musenero, Minister for Science, Technology, and Innovation. The keynote address was delivered by Dr. Susan Nabadda, focusing on the past, present, and future prospects of laboratory medicine in Uganda.

During the conference, awards were presented to participants in the following categories:

* Best Abstract from each sub-theme
* Best Oral Presentation
* Best Poster Presentation

**OPENING REMARKS**

Dr. Juliet Allen Babirye, a physician and researcher, and Research Director at the International Centre for Child and Adolescent Health, opened the 24th Annual Scientific Conference of the Uganda Society for Health Scientists in her capacity as a Board Member. She also served as one of the Masters of Ceremony for the event, alongside her colleague Dr. Mugume Raymond.

Dr. Babirye welcomed Dr. Esther, the Vice Chairperson of the Uganda Society for Health Scientists and Chairperson of the Organizing Committee for the conference. She expressed her gratitude for being able to serve the participants during the event.

Dr. Esther then addressed the attendees, welcoming them warmly and thanking them for arriving early. She highlighted her dual roles as Vice Chairperson of the Uganda Society for Health Scientists and Chairperson of the organizing committee, expressing her pleasure in welcoming participants to the 24th Annual Scientific Conference. She expressed her deep honor at having served as chairperson of the organizing committee and thanked the board for the trust placed in her.

The theme of the conference, **“Digital and Non-Digital Interventions for Health,”** was emphasized as reflecting the growing recognition of the need to leverage both modern technology and community-based approaches to strengthen health systems and improve health outcomes. The theme encourages reflection on how innovation can be harmonized with practical, context-appropriate interventions to reach all areas of society.

Dr. Esther noted that the organizing committee had worked diligently to create a comprehensive and engaging conference program aimed at stimulating learning, inspiring innovation, and fostering collaboration. The presentations span clinical research, public health, programming, and health systems strengthening, with the goal of deepening understanding and encouraging the application of research-driven solutions.

This year, the conference received 81 abstracts, of which 50 were accepted as oral presentations. Participants were also invited to engage with poster presentations displayed at the back of the room. Dr. Esther commended all researchers for their contributions and acknowledged the importance of their work in promoting knowledge exchange and policy development.

Beyond presentations, the conference provides an opportunity for emerging and experienced researchers, practitioners, and policymakers to engage in dialogue, form networks, and explore collaborations that can shape the future of health in Uganda and beyond.

Dr. Esther extended her heartfelt appreciation to the entire organizing committee, the secretariat who worked tirelessly over long hours and weekends, and the partners who provided financial and logistical support. She concluded by wishing all participants productive discussions, meaningful connections, and a rewarding conference experience.

# **DAY 1: 7th August 2025**

# **SESSION I**

**Sub- Theme: Emerging And Re-Emerging Epidemics : Session Chairs Prof. Irene Andia Biraro And Prof. Fred Nuwaha**

1. **Cholera outbreak linked to contaminated stream water in Agoro Subcounty, Lamwo District Uganda December 2024 – March 2025 by Joanita Nalwanga**

**Background**  
On January 10, 2025, a cholera outbreak was confirmed in Agoro Subcounty, Lamwo District, Uganda, bordering South Sudan. An investigation was conducted to determine the magnitude and risk factors associated with the outbreak.

**Objectives**

* To determine the magnitude of the outbreak in Lamwo District, between Dec 2024 to March 2025
* To identify risk factors associated with the outbreak
* To Recommend evidence based control measures

**Methods**  
A suspected case was defined as acute watery diarrhea in an Agoro resident aged ≥2 years, with onset between December 27, 2024–March 26, 2025. A probable case was a suspected case with a positive rapid diagnostic test, and a confirmed case had positive culture or PCR for Vibrio cholerae. Health facility records were reviewed, active community case-finding conducted, and a final line list obtained. A case-control study was carried out with 71 cases and 142 age-matched controls. Logistic regression identified factors associated with case status.

**Results**  
By March 26, 2025, a total of 134 cases (52 confirmed, 73 probable, 9 suspected) were identified. The outbreak began with visitors from South Sudan, where cholera was ongoing. The overall attack rate was 9.4/1,000, highest among persons >15 years (15/1,000). All six parishes were affected. Case-control analysis showed that consuming water from Okura stream significantly increased the odds of illness (aOR=5.02, 95% CI: 2.2–11). Damaged boreholes forced communities to rely on the stream, which was contaminated by open defecation, especially near cross-border markets.

**Conclusion**  
The outbreak was likely driven by consumption of stream water contaminated through open defecation by individuals from cholera-affected South Sudan. Preventive measures should include sustainable borehole maintenance, strengthened border health surveillance, and community education on sanitation, water treatment, and safe waste disposal.

**Reccomendations**

* Sustainability of safe water sources (boreholes)
* Strengthening of border surveillance
* Continuous education on sanitation and hygiene

1. **Assessement of Mpox disease severity and associated factors in Uganda, November 2024- February 2025 by Dr. Emmanuel Mfitundida**

**Background**  
On July 24, 2024, Uganda’s Ministry of Health confirmed an mpox outbreak that spread nationwide, with 377 confirmed cases by November 1, 2024. We assessed severity and associated factors among confirmed case-patients admitted for treatment during November 2024–February 2025.

**Objectives**

* Determine prevalence of mpox severity during the mpox outbreak in Uganda, Nov 2024–Feb, 2025
* Determine factors associated with mpox severity

**Methods**  
We conducted a cross-sectional study of confirmed mpox patients admitted to isolation and treatment units in the five most-affected districts. Disease severity was assessed using a standardized scoring tool (range 0–23; ≥7 defined as severe). Modified Poisson regression identified factors linked to severe disease.

**Results**  
Among 244 patients, median age was 29 years (range <1–54); 52% were male. The mean delay from onset to admission was 15 days. Severe disease occurred in 185 (75%) patients. Underlying illness was present in 74 (30%), of whom 65 (88%) had HIV. Patients with underlying conditions had higher median severity scores (16 vs 11, p<0.005). Nearly all HIV-positive patients (95%) had severe disease compared to 66% without HIV (adjusted prevalence ratio=1.4, 95% CI=1.2–1.6). Fourteen patients (5.7%) died; nine had HIV and one had sickle-cell anemia.

**Conclusion**  
Most admitted mpox patients, especially those with HIV, developed severe disease. Patients with HIV and other underlying illnesses should be prioritized for inpatient care and mpox vaccination.

1. **Evaluation of preparedness and response to anthrax outbreaks in Uganda, January- December 2024,using the 7-1-7 metrics by Dr. Loryndah Olive Namakula**

**Background**  
Uganda has experienced increasing anthrax outbreaks over the past decade, with most occurring in 2024. We applied the 7-1-7 metric to assess knowledge of its targets and evaluate timeliness of detection, notification, and response to anthrax outbreaks in 2024.

**Objectives**

* **Assess timeliness for detection, notification, and response to the anthrax outbreaks in Uganda,January–December 2024, using the 7-1-7 Metrics**
* **Identify bottlenecks and enablers to achieving the 7-1-7 targets**
* **Generate evidence-based recommendations**

**Methods**  
We interviewed district surveillance focal persons (DSFPs) using the 7-1-7 assessment tool and triangulated findings with outbreak situation reports. Data on knowledge and timeliness were analyzed using Stata V17. Bottlenecks and enablers were coded and summarized into key themes.

**Results**  
In 2024, 14 of 146 districts (9.6%) reported anthrax outbreaks; 12 were assessed. Only 4 (33%) DSFPs were knowledgeable about 7-1-7. Of 12 outbreaks, 4 (33%) achieved timely detection, 8 (67%) timely notification, and 6 (50%) timely response. Four districts (33%) met all 7-1-7 targets, all with prior anthrax outbreak experience. Median times were: detection 13 days (range 1–86), notification 0 days (0–39), and response 8.5 days (3–28). Bottlenecks included poor health-seeking behavior due to cultural beliefs, limited anthrax knowledge among CBSTs and health workers (especially private sector), and lack of funds. Enablers included community awareness, functional notification systems, existing response structures, One-Health collaboration, partner support, and cooperative communities.

**Conclusion**  
Achieving 7-1-7 targets for anthrax outbreaks is possible but requires strengthening community, CBST, and health worker knowledge, including the private sector, and sustained local-level investment in outbreak detection and response.

**Recommendations**

* Increasing anthrax knowledge and awareness Communities, VHTs and HCWs, especially private sector
* Ramping up surveillance and response systems in private health facilities
* Simulation exercises to strengthen systems
* Empowering the teams at village level, to minimize delays in response
* Encouraging multisectoral collaborations One-health, implementing partners
* Continued financial investment in local-level outbreak detection and response.

1. **Temporal trends and spatial distribution of leprosy, Uganda 2020-2024:tracking progress towards elimination by Gertrude Abbo**

**Background:**  
Leprosy remains a global public health concern, with the WHO “Towards Zero Leprosy” strategy aiming for eradication. In Uganda, the disease persists, with over 40% of districts reporting more than one case per 1,000,000 population in 2021. We analyzed leprosy trends and distribution from 2020 to 2024 to assess progress toward elimination.

**Objectives**

* Describe the person, place, and time characteristics of leprosy in Uganda, 2020–2024
* Determine the incidence of leprosy
* Establish the prevalence of G2D cases
* Track Uganda’s progress towards zero leprosy

**Methods:**  
We conducted a descriptive analysis using leprosy surveillance data from the District Health Information System 2 (DHIS2). Incidence rates were stratified by age, sex, region, and district. Grade 2 Disability (G2D) prevalence was assessed by time and place. Population estimates from the 2024 census served as denominators. Incidence trends were evaluated using the Mann-Kendall test.

**Results:**  
From 2020–2024, 1,899 new leprosy cases were reported, corresponding to an incidence of 49 per 1,000,000 population. Adults aged ≥15 years had the highest incidence (13 per 1,000,000). Multibacillary cases comprised 86%, and 23% presented with G2D, indicating delayed detection. Incidence increased over time but was not statistically significant (p=0.2207), peaking in 2022 (13 per 1,000,000) and lowest in 2020 (6 per 1,000,000). About 68% (99/146) of districts reported no cases over five years, but West Nile consistently recorded the highest incidence (56–280 per 1,000,000). National G2D prevalence was 16%, with Oyam District recording the highest (88%), reflecting delayed diagnosis.

**Conclusions:**  
Uganda’s leprosy elimination efforts are constrained by ongoing transmission and late detection, as shown by high G2D prevalence. The persistent burden in West Nile highlights the need for targeted interventions and further research into drivers of transmission in high-incidence districts.

**Reccomendations:**

* Evaluate late detection of cases in most affected areas
* Further studies need to be done to understand the drivers of leprosy

# **Anthrax outbreak associated with handling and consuming meat from animals that died suddenly Kanungu District, June- November 2024 by Charity Mutesi.**

**Background:**  
Anthrax remains a frequent and large-scale zoonotic outbreak across Africa, despite being a notifiable disease under control programs. Early detection and effective surveillance are critical for timely response. This systematic review and meta-analysis assessed gaps in epidemiological investigations and timeframes for anthrax outbreak control in Africa from January 2014 to December 2023.

**Objectives**

* Determine the magnitude of the outbreak
* Identify risk factors for the outbreak

Inform control and prevention measures

**Methods:**  
We systematically searched MEDLINE, PubMed, Scopus, Embase, Google Scholar, and Web of Science using the PICO framework. Screening and extraction were done in Covidence. Descriptive data were analyzed in Microsoft Excel, while quantitative analyses, including heterogeneity, confidence intervals, and risk of bias, were conducted in RStudio (v4.3.1).

**Results:**  
Of 1,639 studies screened, 10 met inclusion criteria. The pooled median duration to control anthrax outbreaks was 40.5 days (IQR 80.8), and the estimated average duration until outbreak end was 59.2 days (95% CI: 7.4–111.0), exceeding the optimal 14 days (two incubation periods). Median alert time was 5 days (range: 0–490). Thirty percent of studies omitted the animal health component, and none applied complete case definitions or localized investigation tools. One-third excluded time trends in descriptive epidemiology, while 22% used cross-sectional designs. Epidemiologists led all investigations; 90% involved field epidemiologists, but only one study included a social worker. Public health actions were initiated in 80% of studies, though only 20% used government funds. Risk of bias was low (0–20%).

**Conclusion:**  
Outbreak control consistently exceeded two anthrax incubation periods, reflecting delayed response. Gaps included delayed verification, limited One Health integration, and inconsistent case definitions. Strengthening surveillance, integrating animal health, and adopting coordinated One Health approaches are essential for more timely and effective anthrax outbreak control in Africa.

# **Reccomendations**

# **•** Mandatory inspection and protocols to be enforced at all slaughter points

# **SESSION II**

**Session sub-theme: Official Opening, Session chair: Prof. Romano Byaruhanga**

1. **Invited talk: Natural therapeutical drug development: What strategies can we use to develop our own drug in Uganda and Africa by Dr. Purity Pamella.**

Dr. Pamella Purity highlighted the potential of natural therapeutics as a basis for drug development in Uganda and Africa, emphasizing the continent’s rich biodiversity and traditional medicinal knowledge. She discussed strategies including ethnobotanical research to identify promising plants, scientific validation of bioactive compounds for safety and efficacy, and collaboration between researchers, traditional healers, and pharmaceutical companies. Strengthening regulatory frameworks, protecting intellectual property, ensuring sustainable sourcing of natural resources, and mobilizing funding were emphasized as critical enablers. Dr. Purity concluded that integrating traditional knowledge with modern scientific approaches can position Uganda and Africa as leaders in the development of safe, effective, and locally-produced natural drugs.

1. **Keynote address: Past, Present and Future Prospects of Laboratory Medicine in Uganda by Dr. Susan Nabadda**

In her keynote address on the past, present, and future prospects of laboratory medicine in Uganda, Dr. Susan Nabadda expressed deep excitement about the transformative advances in laboratory testing across the country. She highlighted the remarkable progress Uganda has made in expanding diagnostic capacity, implementing modern technologies, and training skilled personnel, which have strengthened disease detection, patient care, and public health response. Dr. Nabadda emphasized the critical role of government support, thanking the Ugandan Ministry of Health and other partners for their sustained investment in laboratory infrastructure, policy development, and workforce development. She projected a bright future for laboratory medicine in Uganda, envisioning enhanced molecular diagnostics, integrated data systems, and locally-driven innovation that will position the country as a regional leader in laboratory excellence. Her address celebrated the achievements to date while inspiring continued collaboration, innovation, and investment to ensure that laboratory services continue to advance health outcomes for all Ugandans.

1. **Welcome remarks by Dr. Robert Kalyesubula, the Chairperson of the Uganda Society of Health Scientists and invite for the Guest of Honour.**

The Chairperson of USHS warmly welcomed all members to the annual conference and highlighted the society’s history, noting that USHS was founded in 1999 by a group of pioneering scientists who laid a strong foundation for its current success. He thanked Dr. Esther Nasuuna, Chairperson of the Organizing Committee, and USHS Vice-President Dr. Emmanuel Kiiza Mwesiga for their dedication in ensuring a successful event. Dr. Kalyesubula emphasized that USHS, now managed by a well-rounded board of experts, continues to drive a forward-looking vision through initiatives such as capacity building for researchers, grant management, data analysis workshops, scientific meetings, and more, funded through membership fees and grants. He encouraged broad membership, highlighting that USHS is open not only to doctors but also to students, scientists, and social scientists interested in promoting health. He also highlighted society activities, including the sports gala, annual conference, and management of 11 active grants, inviting members to bring their own grants for support. Finally, he expressed gratitude to the University of Georgia, Michigan University, and Makerere University College of Health Sciences for their support and participation and welcomed the Guest of Honour, Hon. Dr. Monica Musenero, to address the conference.

1. **Speech by Guest of Honor: Hon. Dr. Monica Musenero**

The Guest of Honour warmly welcomed all participants to this year’s conference on digital and non-digital technologies for health interventions, commending USHS for creating a platform to advance innovation. She challenged participants to not only generate knowledge but also build strong communities around it, create value, manage that value responsibly, and ensure its fair distribution. Emphasizing the importance of socio-economic sciences, she reminded the audience that economic considerations are at the foundation of sustainable health solutions. She further urged participants to embrace creativity in the digital technology space, highlighting that innovation must be purposeful, impactful, and backed by sustainable funding in order to drive real change. She concluded by envisioning a future where Uganda becomes a hub of health innovation, with local solutions making a global impact.

**TEA BREAK AND POSTER PRESENTATIONS**

**1.** **Risk factors for mpox transmission among case-patient households, Uganda, July 2024–February 2025 by Joyce Owens Kobusingye**

**Background:**  
On July 24, 2024, Uganda confirmed its first two mpox cases. Between August 2024 and February 2025, 302 cases were reported in Wakiso, Nakasongola, and Mukono districts. We investigated risk factors for household transmission to inform the ongoing national mpox response.

**Methods:**  
We conducted a retrospective cohort study in three districts from July 2024–February 2025. Primary case-patients were laboratory-confirmed adults (≥18 years) with ≥1 adult household member (HHM). Secondary case-patients were HHM who developed laboratory-confirmed mpox infection 2–21 days post-exposure. Controls were HHM who remained asymptomatic by February 15, 2025. Data on demographics, clinical presentation, and behavioral factors were collected using standardized questionnaires. Poisson regression was applied to identify risk factors for household transmission.

**Results:**  
We analyzed 45 primary case-patients and 177 HHM, identifying 72 secondary case-patients and 105 controls. Secondary case-patients were predominantly 18–35 years (69%), with a mean age of 31 years (SD ±0.46); 51% were male, and 79% had advanced secondary education. Most (85%) resided in Wakiso. Fever was the most common symptom (96%), while 6.9% had underlying conditions. Household transmission was significantly associated with changing clothing of the primary case-patient (adjusted prevalence ratio [aPR]=2.1, 95% CI=1.4–3.1) and engaging in sexual contact with a primary case-patient (aPR=2.1, 95% CI=1.2–3.9).

**Conclusion:**  
Household mpox transmission in Uganda was driven by fomite exposure and direct sexual contact. Preventive measures should emphasize minimizing direct handling of patient belongings and restricting care to trained personnel to reduce transmission within households.

**2.Investigating a measles outbreak in Kakumiro District, Uganda, February–May, 2024 by** **Emmanuel Okiror Okello**

**Background:**  
On April 7, 2024, the Uganda Ministry of Health was notified of a measles outbreak in Kakumiro District. We investigated to determine the outbreak scope, assess risk factors for transmission, evaluate vaccine coverage and effectiveness, and recommend control measures.

**Methods:**  
A suspected case was defined as fever and maculopapular generalized rash with ≥1 of cough, coryza, or conjunctivitis in a Kakumiro resident between February 1–May 30, 2024. Confirmed cases had measles IgM antibodies. We conducted descriptive epidemiology and a case–control study. Vaccine coverage was estimated as the percentage of eligible controls with ≥1 measles vaccine dose. Vaccine efficacy (VE) was calculated as VE = (1−OR\_adj) ×100%, where OR\_adj is the adjusted odds ratio of infection among the vaccinated.

**Results:**  
We identified 188 suspected cases, including 6 (3.2%) confirmed and 1 death (CFR 0.5%). The overall attack rate (AR) was 67/100,000. Children <9 months (AR=232/100,000) and those 9 months–5 years (AR=177/100,000) were most affected. The highest ARs occurred in Kisengwe (313/100,000), Kasambya (126/100,000), and Kakumiro Town Council (110/100,000). Independent risk factors included non-vaccination (aOR=2.9, 95%CI: 1.1–7.6), exposure in crowded health facilities (aOR=47, 95%CI: 6.1–369), and household exposure (aOR=9.3, 95%CI: 2.9–30). Vaccine coverage was 88% (95%CI: 79–94%), and vaccine efficacy was 65% (95%CI: 13–91%).

**Conclusions:**  
The outbreak was driven by non-vaccination and amplified by exposure in crowded facilities and households. We recommended a supplementary immunization activity targeting children <9 months and strengthening infection prevention in health facilities to curb future outbreaks.

**3.Epidemiological characteristics and transmission dynamics of the first confirmed Mpox cases in Nakasongola District, Uganda, September−November 2024**

**Background:**  
On August 2, 2024, the Uganda Ministry of Health declared a mpox outbreak after confirmation of two cases in Kasese District. On September 9, 2024, Nakasongola District reported its first confirmed case. We describe the epidemiological characteristics and transmission dynamics of the initial confirmed cases in Nakasongola to inform response activities.

**Methods:**  
We conducted a descriptive epidemiological investigation in Nakasongola District, September–November 2024. A confirmed case was defined as laboratory-confirmed mpox by real-time polymerase chain reaction. Cases were identified through active case search, record reviews at treatment units, and community-based surveillance. Structured in-person interviews were used to collect demographic, clinical, and exposure data. We calculated attack rates (ARs) by sex, age group, and sub-county and constructed a transmission tree using *Chainchecker™*.

**Results:**  
Between September 9–November 28, 2024, 66 confirmed cases were identified. Median age was 26 years (IQR: 20–30); 36 (55%) were male, and 49 (74%) were aged ≥18 years. Key occupational groups included fisherfolk (25%), commercial sex workers (12%), and children (11%). ARs were comparable among males (28/100,000) and females (27/100,000), but highest among adults ≥18 years (41/100,000). Lwampanga Town Council reported the highest AR (266/100,000). Transmission mapping revealed five distinct clusters, each linked to sexual contact and initiated by fisherfolk or commercial sex workers.

**Conclusion:**  
The mpox outbreak in Nakasongola primarily affected adults, with early spread driven by fisherfolk and sex workers through sexual transmission. Targeted interventions including enhanced case detection, risk communication, and intensified surveillance among high-risk groups are essential to interrupt transmission.

**4.Geospatial and temporal distribution of human Anthrax outbreaks in Uganda, 2017–2024 by Dr. Loryndah Olive Namakula**

**Background:**  
Although human anthrax remains relatively rare, it continues to occur in Uganda where a single confirmed case constitutes an outbreak. Describing outbreak trends and spatial patterns is essential for assessing control efforts and guiding interventions. We examined human anthrax outbreaks reported in Uganda from 2017–2024.

**Methods:**  
Data on anthrax outbreaks were obtained from the electronic Public Health Emergency Management (ePHEM) database. We summarized outbreak frequency, case counts, fatalities, and case fatality rates (CFR) using descriptive statistics and applied the Mann-Kendall test to assess temporal trends.

**Results:**  
From 2017–2024, Uganda recorded 39 human anthrax outbreaks, with annual numbers ranging from 2–14 and the highest burden in 2024 (14 outbreaks, 36%). Outbreaks significantly increased between 2020 and 2024 (p=0.043). Most outbreaks peaked between March–May. Across all outbreaks, 1,165 cases and 35 deaths were reported (overall CFR 3%). While 61.5% of outbreaks recorded no deaths, CFR varied widely (0–43%). Outbreaks were distributed across all regions, with eastern and western regions most affected (14 outbreaks each). Twenty districts reported outbreaks, predominantly in the cattle corridor. Eleven districts reported anthrax for the first time, with some experiencing high CFRs: Kanungu (6%), Sembabule (11.5%), Kyotera (16.5%), and Lwengo (25%). Recurrent outbreaks were noted in Kween, Ibanda, and Madi-Okollo districts.

**Conclusion:**  
Anthrax outbreaks in Uganda are increasing in frequency and spreading geographically, highlighting the disease as a growing public health concern. Strengthening preparedness, improving timely access to care, and prioritizing high-risk and recurrent districts for tailored interventions are critical to reducing outbreak burden and fatalities.

**5.Increasing Uptake Of Medication Assisted Therapy (Mat) Among People Who Inject Drugs Using Peer-To-Peer Referrals At Mbale Regional Referral Hospital Mat Clinic, Eastern Uganda by Dr. Rhona Barusya**

**Background:**  
Medication-assisted therapy (MAT), which combines medications with counselling and behavioural therapies, is an evidence-based approach for treating opioid use disorder and reducing HIV risk. In Eastern Uganda, the Biological and Behavioural Surveillance (BBS) Lite Survey identified 417 people who inject drugs (PWIDs), of whom only 52.6% knew their HIV status and 60.9% had never used pre-exposure prophylaxis (PrEP). Stigma and limited access to services remain barriers. We describe the operationalization of the MAT clinic at Mbale Regional Referral Hospital (RRH) from October 2023 to September 2024.

**Description:**  
In collaboration with Uganda’s Ministry of Health, LPHS-E equipped Mbale RRH, recruited and trained 17 staff in counselling, pharmacovigilance, and clinical monitoring, and partnered with Butabika MAT clinic for mentorship. We built the capacity of a key population civil society organization (KP CSO) to identify, counsel, and follow up PWIDs. Stakeholder engagement included steering committee formation and hotspot mapping. Services provided included HIV testing, PrEP, hepatitis B and tuberculosis screening, and harm reduction. PWIDs were screened for MAT eligibility (≥3 months opioid use, ≥18 years, willingness for daily visits).

**Results:**  
Peers referred 97 clients; 71 (73.2%) were eligible, and 68 (95.8%) initiated methadone. Among initiates, 54% were aged 20–29 years, 16% ≥40 years, 79.4% male, and 78% resided within 10 km of the clinic. Only 23.5% reported formal employment.

**Conclusion:**  
Peer-to-peer referral is critical for identifying and linking PWIDs to MAT services. Addressing structural barriers such as employment and proximity to services, alongside stigma reduction, is essential for scaling up MAT in Uganda.

**6. Trends Of HIV Drug Resistance And Associated Factors In Uganda, 2021–2024 By Dr. Bridget Ainembabazi**

**Background:**  
With the scale-up of antiretroviral therapy (ART), a rise in HIV drug resistance (HIVDR) is anticipated, posing risks for increased mortality, program costs, and HIV incidence. Resistance to reverse transcriptase inhibitors, protease inhibitors, and more recently, integrase strand transfer inhibitors (INSTIs), has been reported. We assessed HIVDR trends and associated factors in Uganda.

**Methods:**  
We conducted a retrospective cohort study of all individuals with samples sent for HIVDR testing from April 2021–March 2024. Data were abstracted from the national HIVDR database. The primary outcome was any level of HIVDR (low, intermediate, or high). Mann-Kendall trend tests assessed changes over time, and logistic regression identified associated factors.

**Results:**  
Among 6,311 participants, 53% were female, median age was 22 years (IQR: 14–39), 28% were from HC IIIs, and 43% had been on ART for 6–10 years. Overall HIVDR prevalence was 5.6%. HIVDR rose significantly from 3% in July–September 2021 to 9% in July–September 2023 (p=0.012). INSTI resistance increased from 0% in April–June 2021 to 23% in January–March 2024 (p=0.013). Factors independently associated with HIVDR included age 20–24 (aOR=1.6; 95% CI: 1.2–2.2), ≥50 years (aOR=1.9; 95% CI: 1.3–2.8), male sex (aOR=1.5; 95% CI: 1.2–2.0), and ART duration ≥11 years (aOR=1.8; 95% CI: 1.3–2.6). Participants from northern, western, and eastern Uganda had higher odds of resistance compared to the central region, while those from HC IVs and special clinics had lower odds compared to HC IIIs.

**Conclusions:**  
HIVDR is increasing in Uganda, with a notable rise in INSTI resistance. Older age, male sex, longer ART duration, and regional disparities were key risk factors. Focused research on INSTI resistance and targeted programmatic interventions are urgently needed.

1. **Antimicrobial Resistance Surveillance In Africa: Insights On Trends From Tracking Amr Country Self-Assessment Survey (Tracss) And A Review Of Literature On Challenges And Recommendations By Pascal Mathew Okorobe**

**Background:**  
Antimicrobial resistance (AMR) is an escalating public health threat globally and in Africa now poses a higher risk than HIV, tuberculosis, and malaria combined. Despite international frameworks such as the Global Antimicrobial Resistance Surveillance System (GLASS) and the Global Action Plan (GAP), Africa continues to face major challenges in AMR surveillance and implementation. This study explored AMR surveillance progress, persistent challenges, and opportunities for improvement.

**Methods:**  
We conducted a comprehensive review of published and grey literature from PubMed, Google Scholar, and WHO AMR resources, supplemented with data from the Tracking AMR Country Self-Assessment Survey (TrACSS). We assessed national progress in AMR surveillance, laboratory capacity, and One Health coordination across African countries.

**Results:**  
By 2024, 96% of African countries had developed National Action Plans, with 74% initiating implementation. Functional multisectoral and One Health coordination mechanisms were established in only 47%. While 95.7% of countries reported capacity for antimicrobial susceptibility testing (AST) in critically important bacteria, just 51.1% had fungal AST capacity. Furthermore, 10.6% lacked a national AMR surveillance system for humans, and AMR surveillance in animals was markedly underdeveloped. Persistent challenges included limited laboratory infrastructure, inadequate funding, fragmented data systems, shortage of skilled personnel, and weak intersectoral collaboration.

**Conclusion:**  
Africa has made progress in AMR policy development, but significant gaps remain in laboratory capacity, data integration, and One Health surveillance. Strengthening laboratory networks, investing in workforce development, enforcing supportive policies, and fostering regional collaboration with sustainable financing are urgent priorities to mitigate AMR threats.

**7.Prevalence And Associated Factors Of Alcohol And Other Drugs Use Among Secondary School Student Leaders In Uganda, July 2024 By Charity Mutesi**

**Background:**  
Alcohol and Other Drug (AOD) use contributes to 14% of the health burden among adolescents, with adverse effects on cognitive development, academic performance, and mental health. Understanding its prevalence and drivers among student leaders is critical for targeted prevention.

**Methods:**  
We conducted a cross-sectional survey in July 2024 among secondary school student leaders attending the annual prefects’ conference in Kampala. Using systematic sampling from conference registration lists, every third participant was selected. Data on AOD use, knowledge, attitudes, and associated factors were collected via self-administered electronic questionnaires. Ever use was defined as reporting lifetime AOD use, while current use referred to use within 30 days before the survey. Modified Poisson regression was used to identify factors associated with AOD use.

**Results:**  
We interviewed 569 students (33% of 1,707 attendees). Most participants were male (70%) and aged 18–22 years (71%). The prevalence of ever and current AOD use was 27% (95%CI: 24–31) and 18% (95%CI: 15–21), respectively. The mean age of initiation was 14 years (SD ± 2.4), with 95% starting before Uganda’s legal age of 18. Despite high awareness of AOD risks (91%), early initiation persisted. Attendance at government-aided schools (aPR=0.44, 95%CI: 0.24–0.83) and faith-based schools (aPR=0.36, 95%CI: 0.19–0.68) was associated with significantly lower prevalence of AOD use.

**Conclusion:**  
AOD use is prevalent among secondary school student leaders, with early initiation common despite widespread awareness of risks. School type significantly influenced use, underscoring the need for prevention and early intervention strategies, particularly in private and non-faith-based schools.

**8.Temporal And Spatial Trends Of Low Birth Weight And Kangaroo Mother Care Initiation In Uganda, 2015–2023 By Dr.** **Emmanuel Mfitundinda**

**Background:**  
Low birth weight (LBW) contributes to over 80% of neonatal deaths globally, with the highest burden in low- and middle-income countries. Kangaroo Mother Care (KMC) is a cost-effective intervention to improve survival of LBW infants. We assessed trends and spatial distribution of LBW births and KMC initiation in Uganda from 2015–2023.

**Methods:**  
We abstracted data on deliveries, LBW births, and KMC initiation from the District Health Information System (DHIS2), 2015–2023. LBW prevalence was defined as the proportion of LBW births among total deliveries, while KMC initiation coverage was the proportion of LBW babies started on KMC. Data were stratified by region and facility level. Trends were analyzed using the Mann-Kendall test.

**Results:**  
Of 10,952,463 deliveries, 605,876 (5.5%) were LBW, with no significant national trend (p=0.8). The highest prevalence was in Karamoja and West Nile (7.4%). Increasing LBW trends were noted in Bukedi (p=0.05) and Busoga (p=0.003), while Kigezi had a declining trend (p=0.003). From 2020–2023, 188,519 of 296,421 LBW births (64%) initiated KMC, increasing from 60% in 2020 to 68% in 2023 (p=0.01). Regional disparities were observed: Ankole (p=0.005), Bunyoro (p=0.017), and West Nile had increasing trends, whereas Bukedi (p=0.024) and Kampala (p<0.001) declined. Karamoja had persistently low KMC coverage (60%, p=0.96). KMC initiation increased at Health Centre IIIs (p=0.006) but declined at national referral hospitals (p<0.01).

**Conclusion:**  
Uganda’s LBW prevalence remained stable, though regional disparities persist. KMC coverage improved nationally but remains suboptimal in Karamoja and referral hospitals. Region-specific strategies are needed to address LBW and improve KMC uptake, particularly in high-burden and underserved areas.

**9. Continued Health Care For Mother-Baby Pairs From 6 Weeks To 6 Months As A Dyad In Kiryandongo District, Uganda. By****Elizabeth Namuyomba**

**Introduction:**  
Globally, there is increasing attention on small and nutritionally at-risk infants under 6 months and their mothers. The 2022 WHO recommendations on maternal and newborn care emphasize integrated care for the mother–infant pair, mainly from birth to 6 weeks. Evidence shows this approach improves identification, prevention, and management of nutrition and health risks.

**Objective:**  
To integrate and extend mother–baby pair health care delivery from 6 weeks to 6 months.

**Methods:**  
A training package for health workers on Dyad Management of At-risk Mothers and Infants (MAMI) was developed and piloted in eight health facilities. Protocols were rolled out between June 2022 and June 2023. Mother–infant pairs were assessed at multiple entry points using the MAMI guide, which included Integrated Management of Newborn and Childhood Illness (IMNCI) danger signs, infant growth, MAMI risk factors, maternal mental health, feeding practices, and maternal nutrition status.

**Results:**  
Integration of mother–baby pair assessments demonstrated higher reliability and prognostic ability to identify pairs at risk of malnutrition and related health conditions. Assessments revealed strong links between maternal conditions, infant feeding, and overall child health. Of 2,340 mother–infant pairs assessed, 44% were enrolled due to maternal-specific factors, while 66% were enrolled due to infant-related risk factors.

**Conclusion:**  
Extending dyad care beyond the traditional 6-week postpartum period to 6 months is essential for early detection and management of maternal and infant risk factors. This approach strengthens prevention and care for malnutrition, comorbidities, and mortality in vulnerable mother–infant pairs.

**10.Insulin-Like Growth Factors And Stunting In African Infants Exposed To Hiv And Uninfected(Cheu) By Brenda C. Kakayi**

**Background:**  
The biological mechanisms underlying the high risk of stunting in children who are HIV-exposed but uninfected (CHEU) remain unclear. We assessed whether insulin-like growth factors (IGFs) are associated with stunting among CHEU.

**Methods:**  
A random sample of 213 infants from the IMPAACT P1084s substudy with at least one serum sample at birth, week 26, or week 74 from Uganda (n=106), Malawi (n=55), and South Africa (n=52) was selected. Stored serum was analyzed for IGF-1, IGF Binding Protein (IGFBP)-1, and IGFBP-3. Log-binomial regression models evaluated the association of log10-transformed growth factors at birth with stunting (length-for-age z-score < −2 SD). Cross-sectional associations between LAZ-scores and log10-transformed growth factors at study visits were assessed using adjusted linear regression models.

**Results:**  
Median birth weight and length were 2.9 kg (IQR: 2.6–3.2) and 48 cm (IQR: 46–50), respectively. Stunting prevalence was 24% at birth, 26% at week 26, and 38% at week 74. Higher IGF-1 at birth was modestly associated with reduced stunting risk at week 26, whereas IGFBP-1 and IGFBP-3 were not predictive. At weeks 26 and 74, LAZ-scores increased per log10 increase in IGF-1 and IGFBP-3, and decreased with IGFBP-1.

**Conclusion:**  
IGF levels were significantly associated with LAZ-scores at 26 and 74 weeks, though only IGF-1 at birth modestly predicted future stunting. Additional mechanisms beyond the growth hormone/IGF axis likely contribute to stunting in CHEU.

1. **GROUP PHOTO**

The conference attendees took a group photo with the guest of honor, Hon. Dr.Monica Musenero.

**SESSION III**

**Sub Theme: Health Education And Others, Session Chair: Assoc.Prof. Richard Idro**

1. **Promoting A Culture of Research and Critical Appraisal Among Undergraduate Medical Students: A Case of Kabale University School of Medicine Research and Journal Club. By Stanley Okecho**.

**Background**

Kabale University School of Medicine (KABSOM) is one of the youngest public medical schools in Uganda.Initially established in 2002 as a private not-for-profit community institution, it became a public university in 2015, after which the School of Medicine was formally established.Undergraduate research at KABSOM is introduced only in the fourth year for a single semester, resulting in limited exposure to research.Nationally, only 32.5% of medical students engage in extracurricular research, with 22.5% publishing at least once. At KABSOM, fewer than 10% reported prior research involvement.Major barriers include lack of funding, limited mentorship, academic workload, and inadequate research training.

**Objective**

To enhance research culture and critical appraisal skills among undergraduate medical students through the establishment of a student-led Research and Journal Club.

**Methods**

In November 2024, the KABSOM Research and Journal Club (KRJC) was launched as a voluntary, student-led initiative open to all students regardless of prior research experience.All enrolled students began by completing an open-access online course titled "Introduction to Research" to establish foundational knowledge.Students were then grouped based on their experience and guided through the complete research process:

Topic selection

Proposal writing

Ethical approval

Data collection

Analysis

Manuscript preparation

Each group aimed to complete a research project and publish their findings.

Additional activities included:

Mentorship sessions by early-career Ugandan researchers

Regular peer-feedback meetings

Participation in monthly journal clubs hosted by the East African Diabetes Study Group

**Results**

A total of 31 students expressed interest and were enrolled in the club.

The current progress of the student research groups is summarized below:

Group Research Area Topic Approved by Mentor Applied for Ethical Approval

Group 1 Mental Health Yes Yes

Group 2 Paediatrics Yes Yes

Group 3 Digital Health No No

Group 4 Antimicrobial Resistance No No

Students reported increased awareness of and engagement with the research process.

Exposure to journal clubs enhanced their critical appraisal skills and connected them to the wider research community.

Many students developed genuine interest in research and actively began new project registrations.

Groups benefited from the guidance of assigned senior research mentors.

**Challenges**

Intense academic schedules left little time for research activities.

Limited funding to support club initiatives and logistics.

Restricted access to scientific literature, research databases, and tools.

Shortage of available mentors for continuous student support.

**Implications of the Initiative**

Cultivating a research culture at undergraduate level promotes early academic engagement and long-term interest in medical research.

Student-led research initiatives can succeed with minimal resources but require institutional support for sustainability.

Mentorship and exposure to research communities play a key role in skill development and academic growth.

Next Steps

Continue peer- and mentor-led journal club sessions.

Establish collaborations with other universities and research institutions.

Support students through data collection, analysis, and manuscript publication.

Recruit new members and form additional research groups.

Apply for research grants to ensure sustainability.

Increase visibility of the club within the academic and research communities.

**Conclusion**

The establishment of the KABSOM Research and Journal Club is a promising step towards building research capacity and promoting critical appraisal skills among undergraduate medical students. Although challenges remain, the initiative has sparked interest, promoted active learning, and demonstrated early signs of success.

1. **Feasibility And Acceptability of Training Community Drug Shop Staff to Deliver Oral Prep Refills to Female Sex Workers in Kampala, Uganda, By Dr Catherine Nakaye**

**Background**

Female sex workers (FSW) in Kampala face challenges in accessing pre-exposure prophylaxis (Prep), including long distances to health facilities and high transportation costs. Community drug shops (DS) are frequently used as initial points of healthcare due to their accessibility and flexible service hours. This study was undertaken to explore whether training DS staff could offer a feasible and acceptable method of Prep refill delivery to FSW, thereby reducing barriers to HIV prevention services.

**Objective**

To assess the feasibility and acceptability of training community drug shop staff to deliver oral Prep refills to FSW in a community-based setting in Kampala.

**Methods**

A prospective cohort study was implemented in partnership with three community drug shops located near FSW hotspots. Drug shop selection was based on the following criteria:

Possession of a valid National Drug Authority (NDA) license

Willingness of shop owners and staff to participate

Staff holding valid health-related training certificates

Location within the catchment area of Kitebi Health Centre III

Training for DS Staff Included:

HIV counselling and risk-reduction support

Assisted HIV self-testing

Oral Prep dispensing and adherence counselling

Referral systems for management of sexually transmitted infections (STIs)

**Participant Enrolment**:

45 FSW were enrolled between 22nd–30th October 2024 and assigned equally to the three drug shops (15 per DS). Follow-up occurred at 1, 3, and 6 months.

**Analysis & Key Findings**

Baseline Assessment: 36 drug shops were initially surveyed. Three met eligibility and were enrolled.

One-Month Follow-Up: 43 out of 45 FSW (95.6%) received their scheduled Prep refills at the drug shops.

Three-Month Follow-Up: 100% (45/45) of participants returned for refills.

Six-Month Follow-Up: 43 out of 45 (95.6%) continued with Prep refills.

Drug shop staff successfully delivered Prep refills at all scheduled visits during the study period.

**Challenges Noted**

While no major operational setbacks were formally reported, potential challenges inherent to the model include:

Ensuring sustained motivation and consistency in service delivery by DS staff

Maintaining confidentiality and trust among FSW clients

Coordinating timely referrals for STIs and HIV-related services

Need for ongoing support and supervision to ensure quality assurance

**Implications**

This community-based model demonstrates that drug shop staff, when adequately trained, can reliably provide oral Prep services to FSW. This approach may significantly improve Prep uptake and adherence by reducing logistical and economic barriers. Furthermore, the model shows promise for broader scale-up to similar high-risk populations and geographic contexts.

**Conclusions**

Training community drug shop staff to deliver oral Prep refills is both feasible and highly acceptable among FSW in Kampala. The results support integrating trained DS staff into decentralized HIV prevention strategies as a sustainable, community-embedded solution to expand access to Prep

1. **Bridging The Gap: The Need for Nursing Informatics Programs in Ugandan Public Universities. By Aidah Nanvuma**

**Background**

Nursing informatics is essential for enhancing patient care, supporting clinical decision-making, and streamlining healthcare administration. While the field is expanding globally, its adoption in Africa including Uganda is constrained by poor infrastructure, limited training, low investment, and weak policies.A major qualitative gap exists in how nursing informatics is taught and embedded in both pre-licensure (undergraduate) and post-licensure (postgraduate) nursing education, leading to a workforce that is inadequately equipped for digitized clinical environments.

**Objective**

To evaluate how nursing informatics is integrated into undergraduate and postgraduate nursing programs in Uganda's public universities, and assess the depth and extent of its inclusion.

**Methods**

Study Design: Cross-sectional curriculum review

Scope: 7 public universities in Kampala, Uganda

Tool: Standardized checklist to identify nursing informatics content

Focus: Both qualitative (content structure, placement in curriculum) and quantitative (credit hours, contact hours, number of institutions) data

**Key Results**

Quantitative Findings:

7 universities reviewed

1 (Gulu University): No nursing program

1 (Kabale University): Offers a dedicated 2-credit nursing informatics course

15 lecture hours

30 practical hours

30 contact hours

5 universities: Only include limited informatics content as sub-topics within broader courses, meeting minimum regulatory standards

3 universities offer postgraduate nursing programs

0 postgraduate programs included nursing informatics as a specialty

**Qualitative Observations:**

Informatics content is not standardized across institutions

Often treated as a minor topic, not a core competency

Lack of faculty training in informatics impedes effective teaching

No structured development of digital competencies for clinical practice

**Challenges**

Curriculum Gaps: Absence of dedicated or in-depth nursing informatics education in most programs

Faculty Preparedness: Limited faculty capacity to teach informatics

Lack of Specialization: No postgraduate training pathways in nursing informatics

Systemic Issues: Inadequate infrastructure and weak policy frameworks

**Implications**

The absence of robust informatics education poses a barrier to Uganda’s transition to digital health systems.

Strengthening nursing informatics education can improve:

Clinical documentation

Patient outcomes

Interdisciplinary collaboration

Digital competency in the nursing workforce

Curricular reform is needed at both undergraduate and postgraduate levels.

**Conclusion**

There is an urgent need to integrate structured, credit-bearing nursing informatics education in Uganda’s nursing training programs. Both qualitative gaps (lack of depth and standardization) and quantitative shortfalls (minimal hours, low institutional uptake) must be addressed to prepare nurses for the evolving demands of digital healthcare.

**SESSION IV**

**Sub Theme: Mental Health, Session Chair Dr. Emmanuel Kiiza Mwesiga**

1. **Resilience, Support Systems, And Psychological Wellbeing: Experiences of Caring for A Family Member with Diabetic Illness by Promise Twinomugisha**

**Background**

Globally, over 537 million adults live with diabetes — a figure projected to reach 700 million by 2045 (Tonnie’s et al., 2021).In Uganda, approximately 716,000 adults (4%) are affected by diabetes (Bergman et al., 2012).Family caregivers provide essential, unpaid support but often face emotional, physical, and psychological burdens.While caregiving can lead to burnout, it can also foster resilience, growth, and fulfillment.There is limited research exploring the lived experiences, psychological wellbeing, and support systems of diabetes caregivers in Uganda.Gap: Lack of evidence-based caregiver-cantered interventions in the Ugandan healthcare system.

**Objectives**

* To explore the general experiences of caregivers of diabetic patients at Mulago National Referral Hospital.
* To examine the psychological impact of caregiving on the wellbeing of caregivers.
* To assess how resilience develops or changes during the caregiving journey.
* To identify and evaluate support systems available to caregivers.

**Methodology**

Study Design: Qualitative, phenomenological approach

Setting: Mulago National Referral Hospital

Participants: Caregivers of individuals with diabetes

Data Collection: In-depth interviews

Data Analysis: Thematic analysis using NVivo software

**Results**

Participant Demographics

(Demographic details were not specified in the input but assumed to be diverse in age, gender, and relation to the patient.)

**Conclusions**

* Complex Nature of Caregiving
* Caring for a diabetic family member is both burdensome and transformative.
* Caregivers experience emotional, social, and financial stress, but many also develop resilience and advocacy skills.

1. **Prevalence And Associated Factors of Post-Traumatic Stress Disorder, Depression and Anxiety Disorders Among Mpox Survivors, Uganda, 2024 By Emmanuel Okiror Okello**

**1. Background**

Following the mpox epidemic declaration on July 24, 2024, Uganda reported 1,353 cases across 55 districts by December 30, with the Kampala Metropolitan Area accounting for two-thirds of the burden. Despite this, mental health support for survivors has been minimal. This study aimed to assess the prevalence and risk factors of anxiety, depression, and PTSD among mpox survivors.

**2. Methods**

Design: Cross-sectional, community-based study

Period: February 1–28, 2025

Location: Kampala, Wakiso, and Mukono

Sample: 385 survivors, randomly selected using district survivor lists

**Tools:**

Hospital Anxiety and Depression Scale (HADS)

PTSD Checklist (DSM-5)

Analysis: Modified Poisson regression to assess associated factors

1. **Key Results**

**Quantitative Findings:**

* Median age: 29 years (IQR: 25–35)
* Females: 230 (60%); 59% of these were sex workers
* Severe symptoms: 107 (28%)
* Average illness duration: 14 days (±10 SD)

**Mental Health Prevalence:**

* Anxiety: 11% (95% CI: 8–14%)
* Depression: 14% (95% CI: 11–18%)
* PTSD: 9% (95% CI: 6–12%)
* Overall mental health disorder prevalence: 22% (n = 84)

**Associated Factors (Adjusted Prevalence Ratios):**

* Stay >14 days in treatment unit: aPR = 2.1
* Being a sex worker: aPR = 1.7
* Poor care experience: aPR = 2.7
* Moderate symptoms: aPR = 2.5; Severe symptoms: aPR = 5.3
* Social stigma: aPR = 2.1

**4. Qualitative Insights**

Survivors reported stigma, poor treatment experiences, and emotional trauma.

Mental health impacts were notably under-addressed in the outbreak response.

**5. Conclusion**

Approximately 1 in 5 mpox survivors experienced a mental health disorder. This highlights the urgent need to integrate mental health and psychosocial support into Uganda’s outbreak preparedness and response strategies.

1. **Frequency, Factors Associated and Outcomes of Delirium Among Adult Patients Admitted to Uganda Cancer Institute Dr. Andrea Kaggwa Kaddu**

**Background**

Delirium is a common but underrecognized neurocognitive disorder in cancer patients. Globally, its prevalence in oncology units ranges from 18%–33%, with incidence at 3.5%–16.5%. In Uganda, the rising burden of cancer necessitates better understanding of delirium, yet local data is scarce.

**Objective**

To determine the frequency, associated factors, and outcomes of delirium among adult cancer patients admitted to UCI over a 1-week period following diagnosis.

**3. Methods**

Design: Longitudinal study

Participants: 237 adult cancer patients at UCI

**Tools:**

Delirium diagnosed using Confusion Assessment Method (CAM)

Severity assessed with Delirium Rating Scale-Revised-98 (DRS-R98)

Follow-up: Day 0 (admission), Day 3, Day 7

Analysis: Bivariate and multivariate analyses to identify associated factors

**4. Key Results**

**Quantitative Findings:**

Delirium prevalence:

Day 0: 11% (26/237)

Day 3: 5% (10/211)

Day 7: 1% (1/131)

**Common type**: Hypoactive delirium

**Associated Factors:**

ECOG score 3–4 (RR = 1.99, p = 0.002)

Hypertension (RR = 2.08, p = 0.033)

Corticosteroid use (RR = 2.70, p = 0.019)

Liquid cancers (RR = 2.09, p = 0.023)

**Outcomes:**

Mortality among delirium patients: 37.8%

Discharge rate: 24.3%

Still admitted: 37.8%

Delirium resolution by Day 7: 57.1% of followed-up patients

**5. Qualitative Observations**

Hypoactive delirium is frequently overlooked due to subtle presentation.

Delirium negatively affects treatment outcomes and recovery pathways.

The lack of routine screening contributes to underdiagnosis.

**6. Conclusion**

Delirium affects a significant portion of cancer inpatients at UCI, with serious implications for survival and discharge outcomes. Risk factors include poor functional status, hypertension, corticosteroid use, and haematological cancers.

**Recommendations:**

Routine screening and early management of delirium

Training healthcare workers in oncology units

Close monitoring of patients on corticosteroids

1. **Psychological Impact and Perceived Mpox Risk Among Healthcare Workers During Early Epidemic Phase, Uganda, August–September, 2024 by Joyce Owens Kobusingye**

**1. Background**

* Uganda confirmed its first mpox outbreak on July 24, 2024, with initial cases from Kasese and Mayuge. Healthcare workers (HCWs), with limited mpox experience, faced high uncertainty, stigma, and psychological stress. This study assessed HCWs’ perceived mpox risk and psychological well-being during the early phase to inform supportive response measures.

**2. Objective**

* To determine the prevalence of psychological distress and factors associated with perceived risk among HCWs during the mpox outbreak’s early stage.

**Methods**

* Design: Cross-sectional survey (Aug–Sep 2024)
* Participants: 339 consenting day-shift HCWs (80% response rate)

**Tools:**

* Self-administered questionnaires
* General Health Questionnaire (GHQ >12 = psychological distress)
* 25-item perceived risk scale

**Analysis**: Modified Poisson regression to determine associated factors

**Key Results**

**Quantitative Data**:

* Sex: 63% female
* Age: 75% aged 18–35 years

**Perceived risk:**

* 61% reported moderate risk
* Psychological distress prevalence:
* 26% of participants

**Risk associations with distress:**

* Moderate perceived risk: aPR = 10 (95% CI: 2.5–37)
* High perceived risk: aPR = 14 (95% CI: 3.6–56)
* Lack of IPC confidence: aPR = 1.2 (95% CI: 1.0–1.5)
* Absence of IPC plans: aPR = 1.3 (95% CI: 1.1–1.6)

**Qualitative Insights**:

* HCWs expressed insecurity, lack of preparedness, and fear of infection.
* Facilities without structured IPC plans or training increased distress levels.
* Mental health needs were largely unmet during early outbreak stages.

**Conclusion**

* Over 1 in 4 HCWs experienced psychological distress linked to risk perception and weak IPC preparedness. Interventions must include:
* Mental health support for frontline staff
* Hands-on IPC training
* Clear operational guidance during outbreaks to maintain HCW resilience and service delivery

**6.Mama link Uganda strengthening perinatal mental health through mobile peer navigation in central Uganda by dr Dorena Leo rutakyamirwa**

**Background**

* Perinatal depression affects up to 30% of women in Uganda and contributes to poor maternal and child health outcomes. Despite 65%+ mobile phone access, mobile health (mHealth) tools targeting maternal mental health are underutilized, and systematic follow-up post-antenatal care is limited due to CHW training and resource gaps.

**Problem Statement**

* There is a critical lack of low-cost, culturally relevant, scalable models to identify and manage perinatal depression, especially in semiurban and peri-urban areas of Central Uganda.

**Objective**

* To assess the feasibility, acceptability, and clinical impact of Mama Link—a structured, mobile phone-based peer navigation system for women at risk of perinatal depression.

**Methods**

* **Design:** Prospective feasibility study
* **Sample:** 150 third-trimester women (age ≥18, low-income or first-time mothers, EPDS ≥10) from two health centres in Wakiso and Mukono
* **Sampling**: Stratified purposive sampling

**Intervention Components:**

* Peer Mentors: Women with lived perinatal depression experience, trained in empathy, confidentiality, and support delivery
* Support Modality: Weekly structured phone calls and texts, monitored via spot checks and fidelity tools
* Monitoring: Weekly EPDS assessments; referrals for scores ≥13

**Feasibility Metrics:**

* Retention: ≥70% completing 12-week follow-up
* Acceptability: ≥75% reporting satisfaction
* Clinical Effectiveness: ≥30% reduction in EPDS scores
* Process Compliance: ≥85% of planned peer contacts completed

**Expected Results**

* Reduction in depressive symptoms
* Increased postnatal care attendance
* High user satisfaction

**Potential challenges:** phone sharing and network unreliability

**Conclusion**

* Mama Link Uganda offers a feasible, acceptable, and potentially impactful peer-based mHealth model for postpartum mental health care. It addresses key service delivery gaps and aligns with SDG goals 3 (Health), 5 (Gender Equality), and 10 (Reduced Inequalities).

# **SESSION V**

**Sub-theme: Non Communicable Diseases. Session Chair: Dr.Robert Kalyesubula**

1. **The relation between Mean glucose measured by continuous glucose monitor and HbA1c in Uganda Youth with Type 1 Diabetes: An observational Study by Dr. Piloya Thereza**

**Introduction:**  
Glycated hemoglobin (HbA1c) is the standard for monitoring glycemic control in Uganda. However, a pilot study suggested poor correlation between HbA1c and mean glucose among Ugandan youth with type 1 diabetes (T1D). Regional factors affecting red blood cell (RBC) lifespan may influence HbA1c reliability. We aimed to assess the relationship between laboratory-measured HbA1c and mean glucose measured by continuous glucose monitoring (CGM), and to evaluate the role of factors known to affect RBC survival.

**Methods:**  
We conducted a prospective observational study at two T1D clinics in Kampala (Nsambya and Mulago hospitals). Participants wore FreeStyle Libre Pro CGM sensors sequentially for three 10–14 day periods. Point-of-care and laboratory HbA1c were measured before and after each sensor period. Baseline assessments included sickle cell trait, malaria, G6PD deficiency, and iron status. Mean blood glucose (MBG) was averaged across the three sensor wears, and HbA1c across the same period. Linear regression tested associations between HbA1c and MBG.

**Results:**  
We enrolled 64 participants (mean age 17±6 years; 48% female; diabetes duration 6±5 years). Mean baseline HbA1c was 10.7±2.2% and mean time-in-range was 27±14%. HbA1c showed moderate correlation with MBG (R²=0.40, r=0.63), with wide variability in the relationship. Factors affecting RBC lifespan showed no association with HbA1c variability.

**Conclusion:**  
Among Ugandan youth with T1D, HbA1c demonstrated high variability in relation to MBG, suggesting it may under- or overestimate true glycemia. RBC survival-related factors did not explain this variability. Alternative or complementary markers may be needed for accurate glycemic assessment in this setting.

1. **Assessing the impact of integrated HIV, diabetes and hypertension management in Uganda, 2023-2025: a time to study using before and after approach by Dr. Bridget Ainembabazi**

**Background:**  
Anthrax is a recurrent zoonotic threat in Uganda, with eleven outbreaks reported in 2024. On September 17, the Ministry of Health confirmed two human anthrax deaths in Kanungu District the district’s first recorded outbreak. We investigated to determine the scope, identify risk factors, and recommend control measures.

**Objectives**

* Assess the impact of HIV-NCD integration on time use in HIV clinics in Ankole region
* Recommend evidence based interventions for scale up

**Methods:**  
We conducted an unmatched case-control study with 90 cases and 270 controls. Suspected cutaneous anthrax was defined as skin lesions (papule, vesicle, or eschar) with ≥2 symptoms (itching, reddening, lymphadenopathy, fever, or malaise). Suspected gastrointestinal anthrax was abdominal pain with ≥2 symptoms (vomiting, diarrhea, fever, or loss of appetite) in Kanungu residents between June 1–November 4, 2024. Confirmation required PCR detection of *Bacillus anthracis*. All cases and asymptomatic neighbors in the two most affected sub-counties were enrolled. Logistic regression was used to identify risk factors.

**Results:**  
We identified 90 cases (86 suspected, 4 confirmed): 80% cutaneous, 11% gastrointestinal, and 9% both. The overall case fatality rate was 6.7%. Males were more affected (AR=48/100,000) than females (AR=15/100,000). Bugongi (AR=257/100,000) and Katete (AR=224/100,000) sub-counties were most affected. Independent risk factors included consuming meat from suddenly dead animals (aOR=5.8, 95% CI: 2.7–12.0), handling their carcasses (aOR=9.3, 95% CI: 2.5–15.0), and lower education (aOR=6.2, 95% CI: 2.5–15.0). Most exposures traced back to a single butcher sourcing such meat.

**Conclusion:**  
This anthrax outbreak was driven by consumption and handling of meat from animals that died suddenly. Strengthening pre-slaughter meat inspections, enforcing safe carcass disposal, and delivering targeted community education are essential to prevent recurrence.

**Reccomendations**

* Strengthening human resource
* Ongoing evaluation
* National and regional meetings to review data and monitoring reports
* Further studies to document operational changes and refine accordingly

1. **Impact of Diabetes and Hypertension on COVID 19 Severity and outcomes in Soroti and Mbale Hospitals: A retrospective study by Timothy Otaala**

**Background:**  
In 2019, Uganda’s Ministry of Health initiated integration of noncommunicable disease (NCD) and HIV services. We assessed the impact of integrating HIV, diabetes, and hypertension management on time use in HIV clinics in the Ankole region.

**Objectives**

* To determine the prevalence of diabetes and hypertension among HIV and COVID-19 co-infected patients.
* To determine the clinical outcomes of COVID-19 among HIV positive patients with diabetes and hypertension in Soroti and Mbale Hospitals
* To determine the severity of COVID-19 among HIV positive patients with diabetes and hypertension in Soroti and Mbale Hospitals

**Methods:**  
We conducted a before-and-after time use study. Pre-integration data were collected from February–April 2023, and post-integration data from November 2024–January 2025. Independent observers recorded start and end times for client activities (waiting, education/counseling, clinical assessment, laboratory tests, dispensing) and provider activities (medical record retrieval, professional communication, clinical assessment). Median times before and after integration were compared using Wilcoxon rank sum tests.

**Results:**  
Among clients (n=), total clinic time increased from 120 minutes (IQR 85–200) to 139 minutes (IQR 109–205, p=0.75). Education/counseling time significantly increased from 12 (IQR 15–25) to 25.5 (IQR 21–37.5) minutes (p=0.006). Waiting time (41 vs 48 minutes, p=0.76) and clinical assessment time (8 vs 13 minutes, p=0.14) increased, but not significantly. Among providers, total time decreased from 242 (IQR 196–390) to 216 minutes (IQR 119–259, p<0.001). Time spent on direct tasks increased significantly (93 vs 137.5 minutes, p<0.001), as did documentation (22 vs 28 minutes, p=0.0026). Record retrieval time decreased significantly (24 vs 13.5 minutes, p=0.03).

**Conclusion:**  
Integration of HIV and NCD services was associated with increased client time at clinic, largely due to longer education/counseling sessions, while provider workflow shifted toward more direct clinical tasks. Documentation demands increased, but record retrieval improved. These changes highlight the need for staffing optimization, improved patient flow, and efficiency strategies to strengthen integrated service delivery and health outcomes.

**Reccomendations**

* These findings indicate a need for public health strategies that prioritize these vulnerable populations as underlying social determinants are addressed.
* There is a dire need for routine screening, early identification, and effective management of NCDs particularly among PLHIV.
* Health workers should prioritize comprehensive care approaches that address both infectious and non-communicable diseases among PLHIV.

1. **Intergrating Digital and community based Interventions for Hypertension Management in Uganda: A Mixed Methods Study by Joshua Wepukhulu**

**Background:**

Non-communicable diseases (NCDs), particularly hypertension, are a growing public health concern in Uganda, worsened by limited access to care and low awareness. This study evaluated the effectiveness of combining digital tools with community health worker (CHW) interventions to improve hypertension outcomes.

**Hypothesis:**

An integrated digital–CHW approach would yield better blood pressure (BP) control and medication adherence compared to single interventions.

**Methods:**

We conducted a 6-month mixed-methods randomized controlled trial among 500 hypertensive patients across 10 rural and urban health centers in Uganda. Participants were randomized into three arms: (1) digital-only (n=167; mobile app for BP monitoring and reminders), (2) CHW-only (n=166; bi-weekly home visits for BP checks and counseling), and (3) integrated (n=167; mobile app + CHW support). Outcomes included BP control (<140/90 mmHg) and medication adherence. Qualitative interviews with 30 patients and 10 providers explored barriers, facilitators, and acceptability. Data were analyzed using chi-square tests and logistic regression.

**Results:**

The integrated group achieved higher adherence (78%) and BP control (62%) than digital-only (52%, 45%) and CHW-only (60%, 50%) groups (p<0.05). Qualitative findings emphasized trust in CHWs and app usability as key enablers.

**Conclusion:**

A hybrid model integrating digital apps with CHW support significantly improved hypertension management, combining technology with socio-cultural engagement.

**Lessons Learned:**

Digital literacy training and CHW involvement are essential, but long-term funding is needed for sustainability.

**Next Steps:**

Advocate for inclusion of hybrid NCD care models in Uganda’s national NCD control strategy and assess long-term cost-effectiveness.

# **SESSION VI**

**Sub-theme: HIV Session chair: Dr. Andrew Kambugu**

1. **Adherence Strategies to improve uptake of Truvada and Dapivirine Vaginal Ring among adolescents and young women in Uganda: Experience from MTN034 Study, Kampala Mujhu Site By Miscah Babirye Otim**

**Background:**  
Adolescent girls and young women (AGYW) aged 15–24 in sub-Saharan Africa face high HIV risk but often experience challenges with adherence to daily oral pre-exposure prophylaxis (PrEP). Supporting adherence is critical to ensure effective HIV prevention. We describe adherence support strategies implemented at the Kampala site of the MTN-034/REACH trial.

**Methods:**  
MTN-034/REACH was a randomized, open-label, phase 2a crossover trial among HIV-seronegative AGYW aged 16–21 at four sites in South Africa, Uganda, and Zimbabwe. Participants were assigned to either the dapivirine ring or daily oral PrEP for 6 months, then switched products for 6 months, followed by a 6-month period of product choice. At the Kampala site, participants were offered adherence support through digital reminders (daily or weekly text messages), group support (bi-weekly in-person meetings), and individual support (extra counselling sessions or peer buddies). Counselling was tailored based on drug concentration results and documented in participant charts.

**Results:**  
All 60 participants attended bi-weekly group adherence meetings (8–15 participants per group) facilitated by study counselors. Individual counselling was provided at follow-up visits and as needed. Most participants (73%; n=44) preferred monthly reminder calls, while 27% (n=16) chose weekly calls with additional counselling. WhatsApp group meetings were not feasible due to limited smartphone access. Counselling and risk-reduction sessions, including sexual and reproductive health education, empowered participants to reduce exposures, resulting in improved adherence and continued product use.

**Conclusion:**  
Providing a variety of tailored adherence support options including group, individual, and digital strategies is essential to improve AGYW’s adherence to HIV prevention products in resource-limited settings.

1. **Trends and distribution of HIV incidence rates among children aged 0-14 years in Uganda, 2015-2023 by Dr. Daniel Wenani.**

**Background:**  
Uganda aims to achieve zero HIV transmission by 2030. Despite progress, children still accounted for 11% of new HIV infections in 2023. We examined trends and distribution of HIV incidence among children (0–14 years) in Uganda from 2015–2023 to inform targeted HIV prevention strategies.

**Objectives**

* Assess temporal trends of HIV incidence among children aged 0-14 years, Uganda, 2015–2023
* Describe the spatial distribution of HIV incidence among the children

**Methods:**  
We analyzed routinely reported HIV surveillance data from the electronic District Health Information Software version 2 (DHIS2), which aggregates monthly HMIS data. HIV incidence was calculated as new HIV cases divided by the population at risk per 100,000 population, disaggregated by district, city, sex, and age group. Trends were assessed using the Mann-Kendall test.

**Results:**  
Between 2015–2023, 63,599 new HIV infections occurred among children, averaging 7,128 annually. HIV incidence increased from 33/100,000 in 2015 to a peak of 57/100,000 in 2016, then declined to 22/100,000 in 2023 (p<0.01). Females consistently had higher incidence rates than males (28–69 vs. 24–55/100,000). Children <5 years had higher rates than those aged 5–14 years (30–49 vs. 24–28/100,000). Kalangala District consistently had high incidence (83–120/100,000). Cities with increasing incidence included Fort Portal (p=0.008), Mbarara (p=0.03), Lira (p=0.04), and Jinja (p=0.03).

**Conclusion:**  
HIV incidence among children decreased significantly from 2015–2023. Higher incidence was observed among children <5 years and females, with geographic hotspots in specific districts and cities. Strengthening prevention of mother-to-child transmission programs, targeted interventions for females, and focused efforts in high-incidence areas are recommended to accelerate HIV elimination.

**Recommendations**

* Increasing HIV incidence in fishing island district & urban areas
* Strengthen prevention efforts and further studies in the high-burden areas

1. **Application of precision targeting strategy to enhance identification of HIV and TB cases in high risk rural Uganda: Lessons from Bulambuli District by Boaz Mutakangarana**

**Background:**  
Bulambuli District faces high HIV vulnerability, with sub-counties such as Buginyanya and Bulambuli Town Council at greatest risk. Challenges include high new infections among adolescent girls and young women (AGYW) and low male engagement. This intervention aimed to identify new HIV and TB cases and prevent infections through precision targeting in these high-risk areas.

**Methods:**  
Precision targeting, or micro-targeting, uses the Uganda HIV Vulnerability Index Dashboard to classify areas as high, moderate, or low risk based on HIV positivity, viral suppression gaps, treatment interruptions, syphilis prevalence, teenage pregnancy, and VMMC rates. The intervention integrated Assisted Partner Notification (APN) and Social Network Strategy (SNS) to reach sexual and social contacts of HIV-positive clients for HIV and TB screening. Community hotspots were mapped and expanded via stakeholder dialogues. All clients received HIV and TB screening; positives were linked to care and negatives offered prevention services. Additional eligible services were integrated into the approach.

**Results:**  
In November 2024, 48 new HIV cases and 11 confirmed TB cases were identified. APN and SNS contact tracing yielded a 12.25% HIV positivity rate, four times higher than hotspot testing (3.92%). Muyembe HC IV achieved the highest HIV positivity through contact tracing (18.88%). TB screening of 106 presumptive cases confirmed infection in 10.37%, with Buginyanya contributing most samples.

**Lessons Learned:**

* Precision targeting is more effective than conventional methods for identifying HIV and TB cases.
* High-quality, complete, and timely data are essential for guiding micro-targeting decisions.
* Integration of care, treatment, and prevention enhances efficiency.
* Implementation barriers included geographic challenges, incomplete data, stigma, and limited privacy.

**Next Steps:**  
Scale up micro-targeting to other high-risk districts, strengthen data systems for timely decision-making, and integrate precision targeting into routine technical support and mentorship of health facilities.

1. **Using quality improvement initiative to accelerate HIV case Identification among children and adolescents: Lessons from the Munoonye(find the child) testing campaign conducted in Eastern Uganda by Dr. Rhona Barusya**

**Background:**  
Uganda has made substantial progress in HIV programming; however, children and adolescents lag behind adults across the UNAIDS 95-95-95 cascade, particularly the first 95—HIV diagnosis. In Eastern Uganda, 397 children and adolescents remained undiagnosed due to limited access to testing and weak health systems. This report describes the LPHS-E Munoonye Testing Campaign (April–September 2024) to enhance HIV case finding among at-risk children and adolescents.

**Methods:**  
Target districts and health facilities were selected based on HIV positivity and recency data. The campaign engaged lay testers to review immunization cards and mothers’ health passports to identify eligible infants and adolescents. Existing community strategies were leveraged to reach eligible children, with HIV testing conducted at all entry points. Adolescents testing HIV-positive were offered Assisted Partner Notification (APN). Weekly data collection captured index testing outcomes, including elicitation, HIV testing, and linkage to care, across 150 facilities in Eastern Uganda. Results were aggregated and presented at the national level.

**Results:**  
Provider-implemented strategies included provider-initiated testing and counselling, optimization of early infant diagnosis, index family testing, assisted HIV self-testing, and integrated community outreaches. Intensified efforts led to identification of 666 previously undiagnosed children and adolescents 168% of the initially estimated 397.

**Conclusion:**  
Simple, adaptable quality improvement interventions can substantially improve pediatric HIV case identification. Tailored, differentiated, and context-specific strategies are recommended to optimize testing, minimize HIV acquisition, and enhance linkage to care among children and adolescents in Uganda.

1. **Long term cognitive, mentality and life outcomes in Ugandan children with perinatal HIV infection/exposer by Arnold Katta**

**Background:**  
Children perinatally HIV-exposed uninfected (CHEU) are the fastest-growing group among HIV-affected populations, yet their long-term neurodevelopmental, mental health, and educational outcomes relative to children HIV-unexposed uninfected (CHUU) remain unclear.

**Methods:**  
We followed a cohort of 1,050 children and adolescents in Kampala, Uganda (357 CHEU, 387 children with perinatally acquired HIV [CPHIV], and 376 CHUU) for an average of 31.5 months. At intake and every 6–12 months, participants underwent performance-based cognitive testing across eight domains, self-reported anxiety and depression via the Behavioral Assessment System for Children, caregiver-reported school attendance, child-reported relative scholastic achievement, and quality of life measured using the Pediatric Quality of Life Inventory. Linear and logistic regression models were used to estimate risk differences (RD) and odds ratios (OR) for outcomes by perinatal HIV status, adjusting for time, orphanhood, and caregiver factors.

**Results:**  
CHEU had similar odds of educational loss (OR=1.39, p=0.256) and self-reported wellbeing (RD=-1.0, 95% CI: -4.0, 2.0) compared to CHUU. However, CHEU had higher mental health dysphoria (depression: RD=0.15, 95% CI: 0.01–0.29; anxiety: RD=0.24, 95% CI: 0.05–0.42) and lower performance in most cognitive domains, including immediate recall (RD=-0.16, 95% CI: -0.31, -0.02), processing speed (RD=0.39, 95% CI: 0.13, 0.65), and executive function (RD=0.21, 95% CI: 0.03, 0.31), as well as lower scholastic achievement (OR=1.66, 95% CI: 1.05–2.63). CHEU reported better wellbeing than CPHIV, but cognitive and mental health outcomes were similar to CPHIV.

**Conclusion:**  
CHEU demonstrate comparable overall wellbeing and educational retention to CHUU but face significant disadvantages in mental health, cognition, and scholastic achievement. Targeted interventions addressing modifiable neurodevelopmental and mental health determinants are needed to support long-term functional survival in this population.

# **DAY TWO: 8th August 2025**

**Updates of the Mental Health Dataprize: Digitizing Psychosis care in Ugand patients Charts by Wilber Ssembajjwe**

**Background:** Clinical charts are a rich but underutilized source of data for understanding predictors of mental health outcomes. In low-resource settings like Uganda, reliance on handwritten records limits research due to the labor-intensive nature of manual chart reviews.

**Objective:** This study introduces Hekima, an AI-powered platform designed to transform handwritten psychiatric patient charts into standardized longitudinal datasets. Using funding from the Mental Health Data Prize Africa, we demonstrate Hekima’s potential by examining predictors of sustained mental health care engagement among Ugandan patients with psychosis.

**Methods:** A total of 1,677 handwritten patient files from Butabika National Mental Hospital were digitized and archived. Hekima employs optical character recognition (OCR) and advanced machine learning techniques to extract and structure unstandardized clinical notes into anonymized datasets. Lived-experience experts and clinicians guided keyword selection and model refinement to enhance extraction accuracy. The resulting structured database was analyzed to identify individual, interpersonal, organizational, community, and policy-level factors associated with sustained engagement in mental health care.

**Results:** Hekima successfully converts unstructured handwritten charts into a searchable, analyzable dataset, enabling comprehensive assessment of multi-level predictors of sustained engagement. By integrating clinician expertise and lived-experience perspectives, the platform ensures contextual relevance, data accuracy, and ethical handling of sensitive health information.

**Conclusion:** Hekima provides a novel, scalable approach for unlocking the research value of handwritten psychiatric records in resource-limited settings. Its integration of AI, ethical oversight, and lived-experience input lays the groundwork for precision mental health strategies in sub-Saharan Africa, enabling data-driven interventions to improve patient outcomes.

**SESSION VII**

**Subtheme: Vulnerable Population, Session Chair: Prof. Ezekiel Mupere**

**1.Assessment Of The Munonye Campaign’s Outcome On Pediatric HIV Case Identification Uganda April To September 2024 By Dr. Janet** **Lubega Kobusinge**

**Background:**  
Between April and September 2024, the Munonye Campaign was implemented nationwide in Uganda to identify children and adolescents living with HIV (CALHIV) and initiate antiretroviral therapy (ART). The campaign leveraged targeted testing strategies across facility levels, regions, and implementing mechanisms. This study evaluated trends in HIV case identification, demographic patterns, regional and district performance, and modality effectiveness.

**Objectives**

* Assess campaign performance on pediatric and adolescent HIV case identification, Apr–Sep 2024:Testing, Yield, Linkage.

**Methods:**  
A retrospective cross-sectional analysis was conducted using national weekly reporting dashboard data. Indicators for HIV testing (TST), positivity (TST\_POS), and ART initiation (TX\_NEW) were disaggregated by age, sex, region, facility level, and testing modality. Descriptive statistics were summarized using medians and interquartile ranges (IQR). Negative binomial regression models estimated factors associated with TST, TST\_POS, and TX\_NEW, reporting adjusted incidence rate ratios (aIRRs) and 95% confidence intervals (CIs).

**Results:**  
Among 750,765 children and adolescents tested, 5,165 (0.7%) were newly diagnosed HIV-positive, and 4,860 (94.1%) initiated ART. Adolescents aged 15–19 years had higher odds of positivity (aIRR = 1.42; 95% CI: 1.31–1.53) and ART initiation (aIRR = 1.58; 95% CI: 1.48–1.67) than children under 15. Females were more likely to test positive (aIRR = 1.88; 95% CI: 1.69–2.09) and start ART (aIRR = 2.25; 95% CI: 2.10–2.38). Regional Referral Hospitals recorded the highest testing (aIRR = 14.8), positivity (aIRR = 13.3), and ART initiation (aIRR = 16.3). North Central and Tooro regions outperformed Acholi. Facility-based index testing had the highest yield; PMTCT (ANC1) showed lower positivity (aIRR = 0.08).

**Conclusion:**  
The Munonye Campaign achieved broad reach and high ART linkage, particularly among adolescents and females. However, observed disparities by age, sex, region, and testing modality highlight the need for tailored strategies to optimize pediatric HIV case-finding in Uganda.

**Reccomendations:**

* Expand index testing approaches
* Scale up high-yield modalities
* Improve linkage to ART at HC II facilities

# **2. The Interaction Between Structural, Social, And Biological Factors That Affect Vaccine Impact In Vulnerable Communities By Winnie Eoju.**

**Introduction:**  
Vaccination programs are critical for public health, yet their success is shaped by structural, social, and biological factors. While the WHO’s Immunization Agenda 2030 identifies challenges such as transportation barriers and misinformation, this study examines how these determinants interact to influence vaccine response and uptake in Uganda, focusing on the fishing communities of Koome Island, Mukono District.

**Methods:**  
Ethnographic qualitative case studies were conducted in 10 purposefully selected households, chosen based on household size, presence of at least three children under 10 years, vaccination status, length of community residence, and proximity to health facilities. Data collection included five participant observation visits per household, 20 individual interviews, and 10 household group interviews. Local stakeholders participated in four consultative meetings and three community dialogues. Observational diaries and interview transcripts were analyzed using NVivo 14 with thematic content analysis.

**Results:**  
Multi-layered barriers to childhood vaccination were identified. Individual-level challenges included knowledge gaps and fear rooted in prior negative experiences. Interpersonal constraints involved gendered caregiving roles, competing household priorities, and limited decision-making power among women. Community-level barriers encompassed mistrust in biomedical services and reliance on traditional medicine. Health system challenges included vaccine stockouts, poor communication, and inconsistent outreach. Structural obstacles—long travel distances, livelihood pressures, and misinformation around newer vaccines such as HPV and COVID-19—further reduced access and uptake.

**Conclusion:**  
Childhood vaccination in Koome Island is hindered by interconnected individual, interpersonal, community, health system, and structural barriers. Addressing these challenges requires integrated, community-responsive strategies that enhance vaccine confidence, improve service reliability, and tailor interventions to local contexts.

# **3. Knowledge, Perceptions And Uptake Of The HPV Vaccine And Preferred Vaccine Delivery Strategies Among Non School Going Girls In Two Communities In Masaka Uganda By Dr. Jonathan Kitonsa**

**Background:**  
Cervical cancer is the leading cause of mortality among women of childbearing age in sub-Saharan Africa, accounting for 80% of cancer cases among Ugandan women. The Human Papillomavirus (HPV) vaccine prevents cervical cancer and is primarily delivered to school-going girls aged 9–12 years, leaving non-school-going girls at risk. This study assessed knowledge, perceptions, and uptake of the HPV vaccine and explored preferred delivery strategies among non-school-going girls in inland and fishing communities in Masaka, Uganda.

**Quantitative Objectives**

* To assess knowledge, attitudes, and perceptions about the HPV vaccine among 9-20-year non-school going girls (NSGs) in two rural populations in Uganda.
* To determine self-reported uptake of HPV vaccination and associated factors and evaluate preferred vaccine delivery strategies

**Qualitative Objectives**

* To explore willingness to receive HPV vaccine
* To describe the facilitators and barriers to the uptake of HPV vaccine

**Methods:**  
Between August and October 2024, 428 non-school-going girls (214 per community) were surveyed using pre-piloted structured questionnaires administered by trained research assistants. Data were collected at participants’ homes or community gathering points and analyzed descriptively.

**Results:**  
Participants had a mean age of 16.7 years (SD 2.5). A total of 14.7% were married or cohabiting, predominantly from the fishing community. Sexual activity was reported by 62.4%, with earlier sexual debut (13–15 years) more common in the fishing community compared to inland areas (16–20 years). Most participants (73.4%) recognized the importance of the HPV vaccine, and 72.2% perceived it as safe. Despite this, only 29.9% had received the vaccine, and among these, 42% completed the two-dose schedule. School-based programs accounted for 74% of vaccinations. Among unvaccinated girls, 86.2% cited lack of access as the main barrier, though 91.2% expressed willingness to be vaccinated. Preferred delivery strategies included community outreaches (57%), health facilities (53%), and door-to-door approaches (29%).

**Conclusion:**  
HPV vaccine uptake remains low among non-school-going girls despite early sexual debut and high willingness. Targeted interventions, including community outreaches and health facility-based delivery, are needed to improve access and coverage in high-risk settings.

**Recommendations**

* Engaging local leaders in promotion of vaccination
* Extending services to village level through outreaches
* Health education and sensitization are key
* Health workers’ active involvement necessary

# **4.Spatiotemporal And Clinic Characterization Of Acute Flaccid Paralysis In Uganda 2016-2023 By Emmanuel Okiror Okello**

**Background:**  
Uganda aligns with global efforts to eradicate polio by 2026 by identifying, investigating, and reporting acute flaccid paralysis (AFP) cases among children under 15 years. This study analyzed national AFP surveillance data to characterize case demographics, spatiotemporal patterns, and clinical outcomes, aiming to evaluate surveillance performance, guide programmatic planning, and monitor progress toward polio eradication.

**Objectives**

* To describe the clinical characteristics of AFP cases among children <15 years, Uganda, 2016-2023
* To describe the spatio-temporal distribution and trends of AFP cases
* To describe the findings from laboratory and 60 days assessments of AFP cases-persons

**Methods:**  
We conducted a secondary analysis of all AFP case samples tested from 2016 to 2023. Variables included demographic and clinical characteristics, non-polio AFP (NPAFP) rates, and laboratory outcomes. Trends were evaluated using the Mann-Kendall test.

**Results:**  
A total of 6,409 AFP notifications were recorded, of which 5,837 (97%) met the AFP case definition, and 5,687 (89%) were reported within 48 hours of symptom onset. The median age was 3 years (IQR: 1–7), with 59% under 5 years. Clinically, 91% presented with fever, 86% had progression within three days, 80% exhibited asymmetrical paralysis, and 57% had single-limb involvement. Among 5,744 with vaccination data, 77% had ≥3 OPV doses, and 3% were unvaccinated. Most cases (90%) were identified via community-based surveillance. Only 2 of 15 regions consistently achieved the NPAFP rate target (≥3/100,000). Of 6,405 stool samples tested, 154 (2%) were poliovirus suspects, and 8 (0.1%) were NPENT-positive. At 60-day follow-up, 30% had residual paralysis, 1% died, and 0.6% were lost to follow-up.

**Conclusion:**  
Uganda’s AFP surveillance effectively confirmed and investigated most reported cases, typically within 48 hours. High OPV coverage and strong community reporting kept poliovirus prevalence low. Sustaining progress toward eradication requires strengthening surveillance in underperforming regions, maintaining vaccination coverage, and ensuring comprehensive follow-up care.

# **Reccomendations**

* Support underperforming regions:Training and supervision
* Sustain and strengthen CBS:Community engagement and awareness creation
* Improve rehabilitation services:Reduce lifelong disability burden

# **5.Factors Associated With Malaria Vaccine Acceptance Among Caretakers Of Under 5 Children At Masaka Regional Referral Hospital Uganda March 2025 By Annet Mary Namusisi**

**Background:**  
Uganda ranks third globally in malaria burden, highlighting limitations in current prevention strategies. Vaccination against malaria is a promising approach to reduce morbidity and severity among children under five (U5). In April 2025, Uganda introduced the R21 malaria vaccine, delivered in four doses for U5s. This study assessed malaria vaccine acceptance and associated factors among caregivers to inform the roll-out strategy.

**Methods:**  
A cross-sectional study was conducted at the Maternal and Child Health (MCH) unit of Masaka Regional Referral Hospital in March 2025. A total of 292 caregivers were enrolled using systematic random sampling based on daily attendance lists. Vaccine acceptance was assessed by asking caregivers whether they were willing to vaccinate their children (yes/no). Modified Poisson regression identified factors associated with acceptance.

**Results:**  
Of 292 caregivers surveyed, 250 (86%) were female, 231 (92%) had received intermittent preventive treatment in pregnancy (IPTp), and 169 (58%) had never heard of the malaria vaccine. Despite limited awareness, 249 (85%) expressed willingness to vaccinate their children. Acceptance was lower among caregivers with prior adverse events following immunization (aPR 0.83; 95% CI: 0.71–0.96) and those with tertiary education (aPR 0.82; 95% CI: 0.70–0.97). Higher acceptance was associated with receipt of IPTp (aPR 1.45; 95% CI: 1.00–2.10) and trust in vaccine safety (aPR 1.63; 95% CI: 1.22–2.19).

**Conclusion:**  
Although most caregivers were unaware of the malaria vaccine, willingness to vaccinate was high. Acceptance was positively influenced by IPTp experience and trust in vaccine safety, but negatively affected by prior adverse events and higher education. Targeted awareness campaigns, particularly during antenatal care, alongside clear messaging on vaccine safety, could enhance uptake among U5 children.

**6.Non Digital Interventions To Boost HIV Testing Among Adolescent Girls And Young Women In Uganda In High Burden Regions: Insights From Ankole And Kigezi By Ayo Kay**

**Background:**  
Despite national HIV testing efforts, adolescent girls and young women (AGYW) in Uganda’s Ankole and Kigezi regions remain under-tested. Certain districts report HIV prevalence up to 11.6%, exceeding the national average of 5.1%. Early HIV detection is critical, yet uptake remains suboptimal. This study explores demographic, socio-economic, and behavioral factors influencing HIV testing among AGYW, highlighting the need for scalable, non-digital interventions in rural and underserved communities.

**Methods:**  
A cross-sectional analysis was conducted using the 2016 Uganda Demographic and Health Survey (UDHS). A weighted sample of 835 AGYW aged 15–24 years from Ankole and Kigezi regions was analyzed. Bivariate chi-square tests identified associations, and multivariable logistic regression determined adjusted odds ratios (AORs) for significant predictors.

**Results:**  
Overall, 70.1% of AGYW reported ever testing for HIV, leaving a 29.9% testing gap. Older AGYW (20–24 years) and those with secondary or higher education were more likely to have tested. Knowledge of HIV testing sites was strongly associated with testing (95.8% vs. 4.2%). Socioeconomic status and rural residence were not significant predictors. Younger adolescents (15–19 years) and those with lower education levels were disproportionately under-tested.

**Conclusions and Scalable Interventions:**  
Persistent testing gaps underscore the need for non-digital, community-based strategies. Recommended interventions include school-based HIV education, peer-led outreach in community hubs, mobile testing units, engagement of traditional and religious leaders to reduce stigma, youth-focused radio campaigns and printed materials, and safe spaces for adolescents to access services. These multi-level approaches, guided by the Health Belief Model and Social Ecological Model, address individual and structural barriers, supporting equitable HIV testing and progress toward the UNAIDS 95-95-95 targets in these regions.

# **7.Yellow Fever Vaccine Hesitancy Among Parents And Caregivers Of Children Below 5 Years In Kyetume Parish Mukono Uganda By Edwin Bakiza.**

**Background:**  
Yellow fever remains a recurring public health threat in Africa despite the availability of a safe and effective vaccine. Vaccine hesitancy among parents and caregivers of children under five continues to hinder full vaccination coverage and disease prevention. This study assessed the knowledge, attitudes, and accessibility factors influencing yellow fever vaccine hesitancy in Kyetume Parish, Mukono District, Uganda.

**Objectives**

* To examine parental and caregiver attitudes towards yellow fever vaccines and related health services.
* To assess the accessibility of yellow fever vaccines for children under five.
* To establish the prevalence of yellow fever vaccine hesitancy in the target population.
* To assess parents' and caregivers' knowledge regarding yellow fever vaccination.

**Methods:**  
A cross-sectional quantitative study was conducted among 309 parents and caregivers of children under five years. Data were collected using structured questionnaires and analyzed with SPSS version 26. Descriptive statistics summarized caregiver characteristics and vaccine hesitancy levels. Bivariate associations were explored using Chi-square tests, and multivariable binary logistic regression identified independent predictors of hesitancy.

**Results:**  
Overall, 47.9% of caregivers exhibited vaccine hesitancy. While bivariate analysis suggested associations with demographic, knowledge, attitude, and access-related factors, multivariable analysis identified three independent predictors of reduced hesitancy: vaccine availability in the community (OR = 0.302, 95% CI: 0.120–0.760, p=0.011), fewer barriers to access (OR = 0.821, 95% CI: 0.747–0.902, p<0.001), and higher frequency of vaccine availability (OR = 0.855, 95% CI: 0.781–0.937, p=0.001).

**Conclusion:**  
Nearly half of parents in the study exhibited vaccine hesitancy. Addressing access barriers and ensuring consistent and frequent availability of yellow fever vaccines in communities are critical strategies for reducing hesitancy and improving vaccination coverage among children under five.

**SESSION VIII**

**Subtheme: HIV II,Session Chair: Dr. Robert Kalyesubula**

**1.Molecular Diagnostics Improve The Yield Of Diagnosis Of Multi Drug Resistant Pathogens In Hospitalized Patients With HIV And Community Acquired Pneumonia By Prof. William Worodria.**

**Background:**  
Community-acquired pneumonia (CAP) is a leading cause of morbidity and mortality among people with HIV (PWH), and antimicrobial resistance (AMR) complicates treatment outcomes. Traditional diagnostic methods, such as sputum Gram stain and culture, have limited sensitivity. Molecular diagnostics, including the Biofire® FilmArray® Pneumonia panel (FilmArrayPN-PCR), can rapidly detect respiratory pathogens and AMR markers, but their utility in PWH remains underexplored.

**Objectives**

**Aim 1:**

* To determine the additional yield of the Biofire®FilmArray®Pneumonia Panel over culture-based methods for detection of lower respiratory tract pathogens and AMR in PWH

**Aim 2:**

* To determine the clinical predictors of AMR in hospitalized PWH with CAP

**Methods:**  
We conducted a prospective cohort study of adult PWH hospitalized with cough lasting less than two months in Kampala, Uganda. Expectorated sputum samples were tested using FilmArrayPN-PCR and conventional culture. Drug susceptibility testing was performed on cultured isolates, and FilmArrayPN-PCR was used to detect genetic markers of AMR.

**Results:**  
Among 107 participants, the median age was 40 years (IQR 31–46), 50.5% were female, and 75% had recent antibiotic use. Median duration of cough was three weeks (IQR 1–4). FilmArrayPN-PCR increased pathogen detection by 64.5% (95% CI 54.8%–73.1%; p<0.001) compared to culture and identified AMR markers in 25.2% of participants. Multivariable analysis revealed that baseline room air oxygen saturation <92% (aOR 9.20, 95% CI 2.52–33.57; p=0.001) and prior antibiotic use (aOR 4.14, 95% CI 1.04–16.51; p=0.04) independently predicted the presence of AMR.

**Conclusions:**  
FilmArrayPN-PCR substantially improves the detection of respiratory pathogens in hospitalized PWH with CAP. Low baseline oxygen saturation and prior antibiotic exposure are significant predictors of AMR, highlighting the importance of early molecular diagnostics and careful antimicrobial stewardship in this population.

**Recommendations**

* Further evaluation of the significance of these findings and cost effectiveness of the molecular tests should be done in prospective studies

**2.Enhanced index and social network strategy to optimize HIV testing services in Tororo Eastern Uganda by Nathan Okiror**

**Background:**  
HIV case identification and linkage to care are essential for achieving the UNAIDS 95-95-95 targets by 2030. In Uganda, overall HIV case identification stands at 80.9%, below the national goal, with new infections rising, including in Tororo District. The Ministry of Health recommends Assisted Partner Notification (APN) and Social Network Strategy (SNS) to optimize identification of HIV-positive individuals.

**Objective:**  
This initiative aimed to enhance HIV Testing Services (HTS) using strengthened index/partner testing and socio-network strategies to: (1) identify new HIV infections and link them to care, (2) provide prevention services to negative contacts, and (3) raise community awareness for HIV prevention in four sub-counties of Tororo District.

**Methods:**  
Facility teams were trained on enhanced APN and SNS, and client charts were reviewed to identify non-suppressed clients. Teams conducted community visits offering HTS to sexual and social contacts, while government-provided commodities facilitated prevention services for HIV-negative individuals. Partnerships were developed with local bar owners to display prevention messages, and outreach activities were conducted in cement factories. Community dialogues were organized to create awareness and strengthen facility-based screening.

**Results:**  
Enhanced APN and SNS increased the identification of HIV-positive individuals and linkage to care compared to routine approaches. Preventive services were provided to HIV-negative contacts. Three community dialogues engaged 552 participants (262 males, 290 females), and prevention messages were displayed in six bars. Outreach at workplaces improved service access.

**Conclusion and Next Steps:**  
Enhanced APN and SNS effectively increased HIV case finding and prevention service coverage. Scaling this approach to additional sites and sub-counties, while addressing logistical and human resource challenges, can accelerate Uganda’s progress toward HIV epidemic control.

**3.** **Trends And Distribution Of Low-Level Viremia Among Children And Adolescents Living With HIV In Uganda, 2014–2023 By Dr. Janet Lubega Kobusinge**

**Background:**  
Low-level viremia (LLV) in children and adolescents living with HIV (CALHIV) presents growing clinical and programmatic challenges. Persistent LLV may signal virologic instability, accumulation of drug resistance mutations, and risk of future treatment failure. Understanding national LLV trends is critical for informing pediatric HIV care strategies.

**Objectives:**

* Analyze temporal trends of LLV among CALHIV in Uganda (2014–2023)
* Describe the spatial distribution of LLV

**Methods:**  
We conducted a retrospective cross-sectional analysis of routine viral load (VL) testing data from Uganda’s Laboratory Information Management System (LIMS) between 2014 and 2023. CALHIV aged 0–19 years were included. VL outcomes were categorized as suppressed (<200 copies/mL for plasma; <400 for DBS), LLV (201–999 for plasma; 401–999 for DBS), and high-level viremia (HLV, ≥1,000). Annual LLV proportions were analyzed by demographic, clinical, and programmatic factors. Mann-Kendall tests assessed trends over time.

**Results:**  
Among 974,872 VL tests, LLV prevalence rose nationally from 10.5% in 2014 to 16.2% in 2023 (p < 0.001), surpassing HLV in 2022. Males showed a sharper increase (10.7% to 16.9%) than females (10.3% to 15.6%). Infants aged 0–1 year experienced the highest rise (12.7% to 22.5%). LLV increased across ART regimens, particularly first-line therapies, and among children on ART ≥5 years. Notably, LLV rose even among those with good adherence, in DBS samples, and in public health facilities. By 2023, five regions reported LLV prevalence exceeding 20%.

**Conclusion:**  
LLV is now the predominant form of virologic failure in Ugandan CALHIV. Urgent interventions including routine viral load monitoring, enhanced adherence support, and targeted programmatic strategies are required to sustain long-term viral suppression in this vulnerable population.

Reccomendations

* Strengthen clinical monitoring for CALHIV for early detection and action
* Prioritize quality improvement at HCIIIs including sample collection practices
* Investigate high LLV clustering in North Central,

**4.Domestic Financing Of HIV Prevention Interventions: A Mixed Study Of The Ability To Pay(ATP) Ad Willingness To Pay (WTP) For Voluntary Medical Male Circumcision In Uganda By Dr. John Byabagambi.**

**Background:**  
External funding underpins HIV prevention programs in Sub-Saharan Africa, but domestic sustainability is critical. Voluntary medical male circumcision (VMMC) offers a potential avenue for locally funded HIV prevention. This study examined the ability and willingness to pay for VMMC in Uganda and identified factors influencing both.

**Objectives**

* To determine the ability and willingness to pay for voluntary medical male circumcision for HIV prevention in Uganda
* To identify the factors determining the ability to pay for voluntary medical male circumcision in Uganda
* To determine the factors associated with a willingness to pay for voluntary medical male circumcision services in Uganda
* To determine the reasons that inform willingness to pay or not to pay for VMMC services in Uganda

**Methods:**  
A mixed-methods approach grounded in economic theory and the theory of planned behaviour was employed. Quantitative data were collected via phone interviews from 454 participants and analysed using regression models. In-depth qualitative interviews with 29 participants were analysed through reflexive thematic analysis to explore perceptions and motivations behind payment behaviours.

**Results:**  
Among participants, 85% had the ability to pay (ATP) for VMMC. Older age, tertiary education, and non-religious affiliation positively influenced ATP, whereas secondary education or rural residence decreased ATP. Seventy-six percent expressed willingness to pay (WTP), with 88% willing to contribute under UGX 100,000 ($27). Positive determinants of WTP included perceiving VMMC as a health investment, valuing high-quality services, and holding favourable attitudes toward circumcision. Factors reducing WTP included low formal education, rural residence, low perceived behavioural control, and high opportunity costs.

**Conclusion:**  
A substantial proportion of Ugandan participants demonstrate both the ability and willingness to pay for VMMC. Fee-for-service VMMC programs could contribute to domestic HIV prevention funding, but program design must consider socio-demographic, behavioural, and contextual factors that influence payment capacity and motivation. Tailored approaches addressing education, access, and service quality may enhance uptake and sustainability of VMMC services.

**5.Comparative Prevalence Of Premature Cognitive Aging In Adult Ugandans Living With HIV And Demographically Matched HIV Negative Controls By Dr. Mary Lilian Nabwire**

**Background:**  
The comparative prevalence of mild cognitive impairment (MCI) and Alzheimer’s dementia (AD) among people living with HIV (PWH) on combination antiretroviral therapy (cART) versus age-matched HIV-negative peers is not well-established. In high HIV prevalence settings like Uganda, understanding cognitive outcomes in aging PWH is critical for health system planning and community interventions.

**Methods:**  
A total of 734 adults (424 PWH, 310 HIV-negative controls), aged 20–87 years, were assessed in Kampala using a comprehensive neuropsychological test battery covering seven cognitive domains: memory, language, processing speed, executive function, attention/working memory, and motor function. Cognitive status was classified according to Frascati criteria for HIV-associated neurocognitive disorders and Bondi et al. (2014) criteria for age-related cognitive dysfunction. MCI was defined as moderate or pronounced cognitive impairment without functional limitation, with amnestic MCI identified if memory impairment was present. AD was defined by pronounced memory impairment accompanied by functional limitation. Chi-square tests and odds ratios (ORs) with 95% confidence intervals (CIs) evaluated differences by HIV status, overall and stratified by age (<60 vs. ≥60 years).

**Results:**  
Overall, 52.5% were cognitively normal; 15.7% had amnestic MCI; 22.2% non-amnestic MCI; 3.3% AD; and 6.3% other dementia. Among cognitively unimpaired individuals, amnestic MCI prevalence was higher in PWH (22.4%) than HIV-negative controls (15.3%) (OR=1.6; 95% CI:1.08–2.36), with a stronger association in adults ≥60 years (OR=2.7; 95% CI:1.04–6.8). AD prevalence was 8.5% in PWH versus 2.7% in controls (OR=3.4; 95% CI:1.23–9.2).

**Conclusion:**  
PWH in Uganda are at increased risk of MCI and AD, potentially developing these conditions at younger ages than HIV-negative peers. These findings underscore the need for routine cognitive screening and interventions to mitigate MCI/AD risk in PWH.

**TEA BREAK AND POSTER PRESENTATIONS**

# **1. Transforming Infant Nutrition Care: Comparison Of Admission And Discharge**

**Nutritional Profiles For Infants Enrolled On Mami Care Between July 2023 And June 2024 By Elizabeth Namuyomba**

**Objective:**  
Malnutrition among infants under 6 months is a major global health problem, affecting an estimated 8.5 million infants, with management limited by insufficient evidence guiding policy and practice. This study compared the nutritional profiles at admission and discharge of infants enrolled in the MAMi care pilot program for small and vulnerable infants at Adjumani and Kiryandongo General Hospitals between July 2022 and June 2023.

**Methods:**  
A retrospective quantitative study was conducted using data extracted from MAMi registers. Infant weight, length, and date of birth were collected electronically, and nutritional status was assessed at admission and discharge.

**Results:**  
Data from 271 infants were analyzed. At admission, 51% were moderately low birth weight (LBW), 14% were very LBW, and 1% extremely LBW. Most mother-infant pairs had moderate risk (59.8%), followed by high-risk (25.1%) and low-risk (15.1%). High-risk cases required in-patient care, while 75.3% received community-based support. Prevalence of underweight and wasting at admission was 61.7% and 52.5%, respectively, declining to 20.7% and 12.5% at discharge.

**Recommendations:**  
Randomized controlled trials are needed to evaluate the impact of targeted interventions, inform management protocols, strengthen clinical and nutritional care, and ultimately reduce neonatal and infant morbidity and mortality.

**2.Group Antenatal Care: Benefits Beyond Attendance-Case Study From Nabilatuk Health Centre IV In Karamoja Region By Dr. Logiel Mark**

**Background:**  
Group antenatal care (G-ANC) brings together pregnant women with similar gestational ages for joint ANC sessions, promoting positive behavior change and improving pregnancy outcomes. At Nabilatuk HCIV, approximately 300 pregnant adolescents (15–19 years) attend monthly ANC, but typically complete only two visits before delivery, compared to four visits among older women. To improve ANC attendance and engagement among adolescents, Nabilatuk HCIV introduced G-ANC specifically for this age group.

**Description:**  
Prior to implementation, midwives, nurses, the adolescent focal person, and youth peer educators received a one-day training on group facilitation skills. Pregnant adolescents were invited to G-ANC sessions on the adolescent clinic day, grouped by gestational age, and scheduled every four weeks in line with routine ANC visits. Sessions included discussion of challenges, experience sharing, problem-solving, personalized counseling, and key takeaways to reinforce learning and encourage follow-up.

**Conclusion:**  
Since introducing G-ANC, the average ANC visits among adolescents increased from two to four. The approach fosters engagement, peer support, and active participation. Scaling efforts will focus on expanding outreach, training additional staff, and securing sustainable funding.

**2.Improving Waste Segregation Practices In Health Care Through A Quality Improvement Approach By Okot Haron**

**Background:**  
In 2024, Lira Regional Referral Hospital implemented a Quality Improvement (QI) project to enhance laboratory waste segregation, a critical component of Infection Prevention and Control. The project aimed to increase compliance from 42% in August 2024 to 100% by November 2024.

**Methods:**  
An April 2024 assessment revealed 38% compliance with general waste management standards. Key challenges included limited bin liners, undersized bins, and involvement of untrained trainees. A dedicated Work Improvement Team identified gaps and introduced interventions: staff-student orientation on segregation protocols, timely requisition of bin liners, daily tracking tools, and weekly reviews using a QI journal. Notable practices included autoclaving infectious waste, twice-daily waste collection by trained handlers, use of a secure incinerator, and a budget proposal for larger bins.

**Results:**  
These interventions led to 100% compliance with waste segregation by the eighth week. Sustainability was supported by the use of larger bins.

**Conclusion:**  
Data-driven QI methods, particularly the PDCA cycle, effectively addressed root causes and promoted sustainable practices. Waste management is a collective responsibility and critical for human, animal, and environmental safety, aligning with the One Health approach.

**3.The First Month’s Critical Window: Tb Mortality Peaks Early In Kampala (2020–2023) By Louis Ocen**

**Background:**  
Kampala’s tuberculosis (TB) mortality rate (6–8%) exceeds Uganda’s national average (<5%), largely driven by late diagnosis and delayed treatment initiation. We analyzed early mortality patterns in faith-based hospitals to inform targeted interventions for reducing TB deaths in urban settings.

**Methods:**  
We conducted a retrospective cohort study of 3,967 TB patients (2020–2023) from six faith-based hospitals in Kampala using ECBSS data. Mortality rates (per 100 person-months, pm) were calculated across treatment phases (1st, 2nd, 3rd–5th, 6+ months) in Stata v17.0. Cox proportional hazards models estimated risk factors (HIV status, TB classification), adjusted for age, sex, and year. Kaplan–Meier survival curves were compared using log-rank tests (p<0.0001).

**Results:**  
Among 286 TB deaths (7.2%), 167 (58.4%) occurred within the first month, with a mortality rate of 71 per 100 pm (95% CI: 61–83)—over four times higher than in the second month (17 per 100 pm, 95% CI: 13–22; p<0.001). Newly diagnosed HIV-positive patients had an adjusted HR of 3.13 (95% CI: 2.31–4.24), with a first-month mortality of 2.89 per 100 pm. Extrapulmonary TB (EPTB) cases had an HR of 2.60 (95% CI: 1.80–3.73) and first-month mortality of 3.04 per 100 pm.

**Conclusion:**  
TB mortality in Kampala peaks in the first 28 days, driven by HIV and EPTB. Strengthening early case detection, implementing a first-month care package, and ensuring prompt treatment initiation could substantially reduce early urban TB mortality.

**4. A Sustainable System For Cubing Down Tb Mortality And Morbidity Within The Health Care System By Dr. Logiel Mark, Elizabeth Namuyomba**

**Background:**  
The 2015 National TB Prevalence Survey in Uganda reported an overall TB prevalence of 253 cases per 100,000 population, indicating that approximately 2.53 in every 1,000 people were living with TB. Karamoja sub-region had the lowest TB case detection rates, contributing to increased transmission, morbidity, and mortality.

**Description:**  
During the 2018 annual health sector review meetings, Nabilatuk District reported 20 multidrug-resistant (MDR) TB cases and the poorest TB performance indicators in the region. In response, all district health facilities established an appointment register, modeled after HIV treatment registers. This register tracked TB patients’ clinic visits, monitored treatment adherence, and ensured timely follow-up. Over time, the register also helped identify patients missing appointments, signaling potential challenges in adherence or retention in care.

**Results:**  
The implementation of the appointment register led to progressive improvements in TB indicators, including earlier diagnosis and better patient retention. By the 2024 annual National TB conference, Nabilatuk District had improved its performance ranking to the second best in the region.

**Recommendations:**  
Appointment registers are an effective tool for monitoring TB treatment adherence and enabling timely interventions when appointments are missed. Their use supports identification of barriers to care, strengthens patient retention, and improves overall TB treatment outcomes. Scaling up this approach in similar low-detection settings could enhance TB control efforts nationally.

**5.Optimising Client Centred Care Through A Quality Improvement Coach Certification Program: Learnings From Eastern Uganda By Andrew Katawera**

**Background:**  
Essential health systems strengthening tools are critical for building human resource capacity, leadership, and sustainability of HIV, Tuberculosis (TB), and maternal and child health programs. In Uganda, the absence of a standardized national Quality Improvement (QI) coach training curriculum and certification has resulted in inconsistent selection of coaches and mentors by District Health Officers (DHOs) in Eastern Uganda. This has contributed to poor-quality mentorship, high attrition rates, limited QI knowledge, and non-functional Health Facility Quality Improvement Teams (HFQITs). This abstract demonstrates how a coach/mentor certification program was conducted across 16 districts in Eastern Uganda.

**Description:**  
Between November 2023 and September 2024, Baylor Foundation Uganda (BFU) engaged 16 DHOs to select 71 HIV/TB program trainers (55% female) to serve as district QI coaches attached to 2–3 facilities each. Coaches received a support package including:

* An online QI course from the Global Health e-Learning Centre
* A three-day QI mentorship/coaching training curriculum
* Three post-training guidance cycles with two national and three regional supervisors

Coach progress was evaluated using individual and site assessments with QI certification tools adapted from UCSF and Uganda MoH, measuring HFQIT functionality across 34 quality system metrics tracked via an online Kobo Collect App.

**Evaluation and Outcomes:**

* 41 (58%) coaches completed the program
* QI coach competence improved from 50% to 65% (P<0.001)
* HFQIT functionality at 140 sites increased from 39% to 53% (P<0.05)
* 150 QI projects were launched, 112 (75%) completed, and 22 had performance reports up from 54 projects the previous year with no performance reporting

**Lessons Learned:**  
Low coach completion highlights the importance of proper selection and formal assignment. Ongoing guided supervision enhanced coach confidence, competence, and knowledge transfer, improving HFQIT functionality. Integration of post-training guidance with routine mentorships demonstrated cost-effective coach support. Online assessment tools reduced printing costs and data errors.

**Next Steps:**  
BFU will collaborate with the MoH Department of Standards, Compliance, Accreditation, and Patient Protection for final assessment and certification, aiming to establish a formalized national QI coach certification program in Uganda.

**6.Cad4tb’s Precision Play: Threshold 45 Optimizes Tb Screening In West Nile’s High-Burden Setting Of Uganda By Louis Ocen**

**Background:**  
Uganda’s national CAD4TB screening threshold of 50 balances sensitivity and specificity for tuberculosis (TB) detection. However, West Nile’s high TB burden suggests that regional adjustments may improve performance. The CAST+ campaign in 2024 used a lower threshold of 30 to maximize case detection, resulting in high referral volumes. We evaluated CAD4TB v7 in West Nile to identify an optimal threshold relative to these standards.

**Methods:**  
Chest X-rays (CXRs) from 6,000 individuals in West Nile (188 TB-positive, 4,690 TB-negative, confirmed by GeneXpert) were analyzed using CAD4TB v7. Receiver Operating Characteristic (ROC) analysis (AUC=0.97) assessed sensitivity, specificity, referral burden, number needed to test (NNT), and positivity yield at thresholds 50 (national), 30 (CAST+), and 45.

**Results:**

* **Threshold 45:** Sensitivity 96.81% (95% CI: 93.1–98.9%), specificity 94.22% (95% CI: 93.5–94.9%), detected 182 of 188 TB cases, with 453 referrals (NNT=2, yield=40%).
* **National threshold 50:** Sensitivity 96.28% (95% CI: 92.5–98.6%), specificity 98.02% (95% CI: 97.6–98.4%), detected 181 cases with 274 referrals (NNT=2, yield=66%). Sensitivity gain at 45 (+0.53%, p=0.045) detected one additional case, with specificity trade-off (-3.8%, p<0.001).
* **CAST+ threshold 30:** Sensitivity 97.34%, specificity 70.3%, 1,576 referrals, 12% yield. Threshold 45 reduced referrals by 71% (1,123 fewer, p<0.001) while maintaining near-identical detection (p=0.32).

**Conclusion:**  
In West Nile’s high-TB setting, a CAD4TB threshold of 45 optimizes screening by improving sensitivity compared to 50 and significantly reducing referrals compared to 30. This balance between detection (182/188 cases) and efficiency (40% yield) outperforms national and campaign benchmarks, potentially narrowing West Nile’s diagnostic gap by 5%. Regional CAD4TB threshold trials are recommended to enhance TB control in high-burden contexts.

**7.Neurotypical Vs. Neuroatypical Development Among School-Aged And Adolescent Hiv-Exposed Children From Uganda: Findings From A Consensus Group Evaluation by J.E Awadu**

**Background:**  
HIV exposure and infection may increase the risk of neurodevelopmental disorders in children and adolescents. We hypothesized that children perinatally infected with HIV (CPHIV) are more likely to be clinically diagnosed with neurodevelopmental disorders (NDs) by school-age and adolescence compared to HIV-unexposed, uninfected children (CHUU).

**Methods:**  
A total of 164 children aged 6–18 years were selected from a larger cohort of 750 based on high, moderate, or low scores on the Social Responsiveness Scale, Second Edition (SRS-2). Participants included 61 CPHIV, 54 children HIV-exposed uninfected (CHEU), and 49 CHUU. Children and their primary caregivers underwent evaluation by a clinical consensus team of psychiatrists and psychologists blinded to HIV status and prior neurodevelopmental concerns. Children were classified as **neurotypical** (no disorder) or **neuroatypical** (≥1 disorder). Multivariable logistic regression (SAS v9.4) estimated odds ratios (OR) with 95% confidence intervals (CI) for HIV-status–associated likelihood of neuroatypical diagnosis, adjusting for age and sex.

**Results:**  
CPHIV had significantly higher odds of being neuroatypical compared to CHUU (OR=2.4; 95% CI: 1.10–5.45). CHEU and CHUU showed similar likelihoods (OR=0.79; 95% CI: 0.36–1.74). CPHIV were also more likely to have multiple NDs relative to CHUU (OR=1.98; 95% CI: 0.94–4.20). Common diagnoses among HIV-affected children included attention-deficit/hyperactivity disorder, intellectual disability, stuttering, and functional impairment.

**Conclusion:**  
CPHIV are at increased risk of neurodevelopmental disorders compared to CHUU, whereas CHEU are not. Continuous monitoring and targeted interventions are essential to support the long-term developmental outcomes and functioning of CPHIV.

# **SESSION IX**

**Sub-theme: Digital Technologies, session chair: Prof. Noah Kiwanuka**

The session was officially opened by **Prof. Noah Kiwanuka** from the **School of Public Health.** In his welcoming remarks, he greeted all participants warmly and set the tone for the discussions ahead. Prof. Kiwanuka invited members of his team to come forward, recognizing their contributions and signaling the collaborative spirit of the event. With his introduction, the session on **Digital Technologies** was formally begun, paving the way for presentations and engagements that highlighted the transformative role of technology in advancing public health initiatives.

1. **Use of AI and Machine learning in health service delivery by Dr. Lillian Muyama.**

Dr. **Lillian Muyama** opened the technical discussions with a presentation on the **use of Artificial Intelligence (AI) and Machine Learning (ML) in health service delivery.** She highlighted how these technologies are increasingly being applied to improve diagnosis, streamline patient care, and strengthen health systems. The discussion emphasized opportunities for predictive analytics in disease outbreaks, decision-support tools for health workers, and more efficient allocation of resources. Challenges such as data privacy, ethical considerations, and the need for capacity building were also underscored as critical to successful adoption.

1. **Use of AI and Machine Learning in health research and training by Ms. Irene Wanyana.**  
   Ms. **Irene Wanyana** shared insights on the application of **AI and Machine Learning in health research and training**. She highlighted how these tools can enhance data analysis, support large-scale health studies, and accelerate discovery of new insights. In training, AI-driven platforms are creating opportunities for simulation-based learning, personalized learning pathways, and better access to knowledge resources for health professionals. She also noted the importance of building local capacity, ensuring ethical use of AI, and addressing infrastructure gaps to maximize impact.
2. **Integrating Machine learning into Dhis2 to predict Multidrug Resistant Tuberculosis: A case of the Dhis2’s Electronic case based surveillance system by Mark Outeke.**

**Background**  
Multidrug-resistant tuberculosis (MDR-TB) remains a growing public health crisis in Uganda. The existing electronic Case-Based Surveillance System (eCBSS) within DHIS2, designed for Drug-Susceptible TB (DS-TB), lacks predictive and advanced analytical capabilities, limiting its ability to support proactive interventions.

**Objectives**

* **Determine user requirements for the development of a machine learning web-based application within DHIS2’s eCBSS to predict TB patients who are likely to develop MDR-TB.**
* **Develop and integrate a machine learning web-based analytical application with a Geographical Information System (GIS) module, into the DHIS2’s eCBSS.**
* **Test and validate the performance of the machine learning web-based application within DHIS2’s eCBSS.**

**Methods**  
Using a Design Science Research approach combined with a User-Centered Design framework, a machine learning (ML) web application was developed and integrated into the eCBSS. User requirements were gathered through interviews with healthcare workers (HCWs) from three high-volume TB treatment facilities in Uganda’s Central Region. A one-dimensional deep neural network (1DNN) was built in Python and validated using the Receiver Operator Curve (AUC). The integrated system’s usability was tested with HCWs through a Usability Test Questionnaire (UTQ).

**Results**  
Study participants were evenly distributed by gender, facility, and cadre, with an average age of 41 years. Application requirements were categorized into functional (real-time alerts, risk scoring, adherence tracking) and non-functional (scalability, reliability, security). Implementation requirements included human resources, hardware, and sustainability measures. The 1DNN model achieved 92% accuracy with an AUC of 0.96, demonstrating strong predictive performance. A GIS module successfully identified DS-TB hotspots. Usability testing showed high satisfaction (mean Likert scores 4.65–4.87), though improvements were suggested for search/filter functions, design clarity, and error handling.

**Conclusion**

* Successful ML integration and user acceptance.
* Integration should consider implementation and Web application requirements.
* Model performance and interpretability challenges.
* AI as complement to human expertise in identifying MDR-TB cases.
* Future scalability potential.

1. **When and why TB patients miss VDOT sessions in Kampala: A restrospective cohort study by Kelvin Bwambale**

**Background**  
Video Directly Observed Therapy (VDOT) provides a flexible alternative to in-person DOT for TB treatment adherence, but missed video submissions remain a challenge. In Uganda, a high TB burden setting, little is known about the timing and determinants of missed VDOT sessions. This study examined the time to first and subsequent missed sessions, and factors associated with these events.

**Main Objective**

* **To assess the time to missed VDOT sessions and associated factors among TB patients in Kampala, Uganda.**

**Specific Objectives**

* **To describe the patterns of missed VDOT sessions among TB patients, examining variations by day of the week, stage of treatment, and time on treatment.**
* **To estimate the median time to the first missed VDOT session and to multiple missed sessions among TB patients in Kampala, Uganda.**
* **To identify the factors associated with time to the first and multiple missed VDOT sessions among TB patients in Kampala, Uganda.**

**Methods**  
A retrospective cohort study was conducted using data from the DOT Selfie randomized controlled trial in Kampala, involving 71 TB patients assigned to the VDOT arm. Outcomes included time to first and recurrent missed VDOT sessions. Kaplan-Meier analysis estimated median times, Cox regression identified factors for the first missed session, and recurrent events were analyzed using the Prentice-Williams-Peterson Gap Time model. Analyses were performed in STATA 14.2 with significance set at p < 0.05.

**Results**  
Of 71 patients, 51% were female, median age was 29 years (IQR 24–42), and 33% were HIV-positive. The median time to first missed session was 9 days (IQR 2–39), and to subsequent missed sessions was 2 days (IQR 1–8). Earlier first missed sessions were associated with HIV-positive status (aHR 2.00; 95% CI: 1.11–3.59), being married (aHR 1.88; 95% CI: 1.04–3.41), and alcohol use (aHR 4.13; 95% CI: 1.92–8.89). Predictors of earlier recurrent missed sessions included age >30 years (aHR 1.30; 95% CI: 1.07–1.64), anticipated stigma (aHR 1.25; 95% CI: 1.04–1.55), and lower income levels (≤200,000 UGX: aHR 2.00; 200,001–500,000 UGX: aHR 1.94; 500,001–1,000,000 UGX: aHR 2.55).

**Conclusion**

* There is a clear need for early support and immediate follow-up after the first missed session to prevent ongoing VDOT non-adherence.
* Reducing the time to the first and recurrent missed VDOT sessions requires strengthening integrated TB-HIV services through tailored adherence counselling for patients co-infected with TB and HIV.
* Digital adherence technology interventions should also be age-specific and designed to address stigma.
* Differentiated care is needed for patients with TB who are alcohol users.wer income levels.

1. **Unlocking the potential of wearable digit technologies for global health research in low-income settings: A qualitative study by Damalie Nakkonde**

**Background**  
Wearable smart devices hold potential for real-time mobility tracking and data collection in public health research. However, their implementation and sustained use in low-income settings face challenges. This study explored facilitators and barriers to effective smartwatch use in Kampala, Uganda.

**Methods**  
A cross-sectional qualitative study was conducted among 36 adults in an ongoing prospective cohort. Participants were purposively selected based on smartwatch usage: consistent wearers (≥5 days/week) and inconsistent wearers (≤3 days/week). Stratified by sex, two Focus Group Discussions were held with males (n=8) and females (n=8) who completely failed to wear the watches. Data were inductively coded and analyzed to identify themes on experiences and motivations.

**Findings**  
Two major themes emerged:

1. **Prestige and functionality** – Some participants wore the smartwatch as a status symbol or for features such as calling, step-counting, and temperature monitoring.
2. **Reassurance and social support** – Encouragement from researchers and family/friends motivated use. However, privacy concerns emerged, with some fearing surveillance of daily life and others being stigmatized by community members who suspected the devices were spying tools.

**Conclusion**  
Perceptions of prestige and external social support can facilitate adoption of wearable devices in public health research. Addressing individual and community privacy concerns is essential to fully unlock their potential for long-term use in low-income settings.

1. **TB- Related Stigma is a hidden obstacle to Adherence monitoring and engagement with video directly observed treatment among patients with Tuberculosis in Uganda by Kelvin Bwambale.**

**Background**  
Adherence to Video Directly Observed Therapy (VDOT) is inconsistent, with stigma linked to tuberculosis (TB) potentially influencing patient engagement and leading to non-adherence. This study assessed the effect of baseline TB-related stigma on missed VDOT submissions as a marker of engagement during TB treatment.

**Main Objective**

* To assess the influence of TB-related stigma on treatment adherence monitoring, as measured by missed video submissions, among patients using VDOT.

**Specific Objectives**

* To determine the prevalence of TB-related stigma (overall, self, anticipated, and public) among patients using VDOT.
* To examine the association between different forms of TB-related stigma (overall, self, anticipated, public) and the number of missed VDOT sessions.

**Methods**  
This secondary analysis used data from 71 TB patients enrolled in the DOT Selfie RCT in Kampala, Uganda (July 2020–October 2021). Baseline TB-related stigma was measured with a 13-item tool covering self-, anticipated, and public stigma. Missed video submissions over six months were analyzed using negative binomial regression, adjusting for HIV status, alcohol use, household size, marital status, and TB severity. Adjusted incidence rate ratios (aIRRs) with 95% confidence intervals (CIs) were estimated in STATA 14.2.

**Results**  
The mean age of participants was 33 years (SD = 12), with an almost equal sex distribution (49% male, 51% female). High overall stigma was reported by 51% (95% CI: 39–62). Public stigma was nearly universal (97%), self-stigma was 80%, and anticipated stigma was 68%. High overall stigma was associated with a 90% increase in missed videos (aIRR = 1.9; 95% CI: 1.1–3.5). Patients with anticipated stigma missed twice as many videos compared to those without (aIRR = 2.1; 95% CI: 1.2–3.8).

**Conclusion**  
TB-related stigma, especially fear of judgment, significantly reduces adherence to VDOT. Early screening for stigma, targeted counselling, and community education are essential to improve engagement with digital adherence tools and treatment outcomes.

1. **Factors associated with acceptability of the video directly observed therapy selfie method for TB treatment adherence among TB patients in Kampala Uganda by Mathius Amperiize.**

**Background**  
Tuberculosis (TB) remains a major global health challenge, with Uganda carrying a high burden of cases. Adherence to TB treatment is essential for successful outcomes, yet poor adherence is common in low- and middle-income countries. Directly Observed Therapy (DOT), the standard approach, is labor-intensive and costly. Video Directly Observed Therapy (VDOT) has emerged as an acceptable alternative, but little is known about factors influencing its acceptability among TB patients in Uganda.

**Objective**  
To assess factors associated with the acceptability of VDOT for TB treatment adherence among patients in public health facilities in Kampala, Uganda.

**Methods**  
A cross-sectional quantitative study was conducted among 401 TB patients using systematic sampling. Data were analyzed in STATA 15.0. Descriptive statistics summarized continuous and categorical variables. Bivariate and multivariable analyses identified associated factors, with modified Poisson regression and robust standard errors used to estimate adjusted prevalence ratios (APRs).

**Results**  
Among the 401 respondents, 75% reported high acceptability of VDOT. The majority were male (58.6%), 20% were aged 30–34 years, and 77% expressed positive attitudes toward adopting VDOT. Factors significantly associated with acceptability included:

* **Age**: Respondents aged 50–54 years had 17% higher prevalence of acceptability compared to those aged 15–19 years (APR = 1.17; 95% CI: 1.01–1.38).
* **Attitudes**: Positive attitudes were strongly associated with acceptability.
* **Perceived usefulness**: Those with high perceived usefulness had 21% lower prevalence of acceptability compared to counterparts (APR = 0.79; 95% CI: 0.71–0.87).

**Conclusion and Recommendations**  
VDOT was highly acceptable among TB patients, particularly older adults and those with positive attitudes toward its use. However, barriers such as privacy concerns, device access, and technical challenges remain. Tailored training, improved connectivity, ongoing technical support, and stronger healthcare infrastructure are recommended to enhance VDOT implementation.

# **SESSION X:**

**SubTheme: Tuberculosis, Session Chair: Dr. Esther Nasuuna**

1. **Leveraging faith and community leaders to improve tuberculosis case detection in Zombo District Uganda by Louis Ocen.**

**Issues**  
Zombo District in Uganda’s remote West Nile region continues to face a high tuberculosis (TB) burden. Limited access to health services, persistent stigma, and low community awareness contribute to undiagnosed cases and delayed care-seeking. Traditional facility-based strategies have struggled to reach affected individuals, highlighting the need for alternative, community-led approaches.

**Description**  
To address these challenges, the Uganda Catholic Medical Bureau (UCMB) piloted a TB case-finding initiative that engaged 175 faith and community leaders. Leveraging their community trust and influence, leaders were trained on TB symptoms, stigma reduction, early diagnosis, and referral procedures. Integrated into TB outreach programs with nearby health facilities, they mobilized residents for screenings using checklists and digital chest X-rays, and conducted door-to-door referrals of presumptive cases to diagnostic and treatment services.

**Lessons Learned**  
The intervention led to a **47% increase in TB case detection,** with nearly one-third of all identified cases linked to community leader referrals. The initiative effectively built trust and reached underserved populations. However, detection rates declined once the pilot phased out, underscoring the need for sustained community engagement and support mechanisms.

**Next Steps**  
To maintain and scale the impact, community and faith leaders should be formally integrated into TB control strategies. This includes regular refresher training, logistical support, and recognition of their contributions. This low-cost, scalable model offers promise for strengthening TB outcomes in underserved areas across Uganda and beyond.

1. **The Magnitude and factors of discordant Tuberlin test and IGRRA test results among residents of Kampala District by Waswa Joseph.**

**Introduction**  
Latent tuberculosis infection (LTBI) affects about 23% of the global population, with nearly half of cases in Africa. Accurate LTBI diagnosis and treatment with tuberculosis preventive therapy (TPT) are critical for TB elimination. The WHO recommends tuberculin skin test (TST) or interferon-gamma release assay (IGRA), but no gold standard exists, and discordant results are common. Data on TST/IGRA discordance in high TB and HIV burden settings with widespread BCG vaccination, such as Uganda, remain limited.

**Main objective;**

* To determine the magnitude of discordant IGRA and TST test results among adults in Kampala and the factors associated with this discordance.

**Specific objectives;**

* To determine the proportion of discordance (IGRA+/TST- and IGRA-/TST+) in test results among adults in Kampala, Uganda.
* To identify the factors associated with IGRA/TST discordance among adults in Kampala, Uganda.

**Methodology**  
A cross-sectional analysis was conducted using secondary data from a prospective cohort of 998 participants (≥15 years) in Lubaga and Kawempe divisions, Kampala. All were TST and IGRA negative at enrolment and followed quarterly for 18 months to detect IGRA seroconversion. Participants with valid TST and IGRA results at month 12 were analyzed. Discordance between TST and IGRA and associated factors were assessed using multivariable regression.

**Results**  
LTBI prevalence was 2.7% by TST and 5.4% by IGRA. Overall discordance was 5.7%, driven primarily by IGRA+/TST− results (4.2%) compared to IGRA−/TST+ (1.5%). Test agreement was high (94.3%), but concordance was only fair (κ = 0.26). BCG vaccination was associated with significantly lower odds of discordance (AOR 0.28; 95% CI: 0.08–0.96; p = 0.04), as was having a monthly income between 100,000–199,999 UGX (AOR 0.37; 95% CI: 0.14–0.96; p = 0.04).

**Conclusion**

* Limited concordance despite high agreement rate
* IGRA more specific, especially for BCG-vaccinated persons
* Inform Uganda's TPT strategy using IGRA where feasible
* Tailored diagnostic strategies are needed to improve LTBI detection.

1. **Timing is everything: Active TB treatment of Index patients triples TPT Uptake in adult contacts in Uganda by Louis Ocen.**

**Background**  
Tuberculosis preventive treatment (TPT) is critical for preventing progression from latent infection to active TB. However, uptake remains low in high-burden settings such as Uganda, where only 41.8% of eligible contacts received TPT in 2022. Understanding factors influencing TPT initiation is essential to achieving global TB targets. This study examined how index patient treatment status affects TPT uptake among adult TB contacts in Karamoja, Uganda.

**Methods**  
A cross-sectional review was conducted among 357 adult contacts (mean age 44.6 years, SD 17.5; 59.4% female) of bacteriologically confirmed TB patients registered at Matany Hospital between May 2022 and May 2023. Data from structured questionnaires and medical records were analyzed in STATA v14. Multivariate logistic regression assessed associations between TPT uptake and index treatment status, adjusting for age, gender, religion, and facility waiting time (p<0.05, 95% CI).

**Results**  
Among the 357 contacts, 77.6% initiated TPT, with 31.1% completing and 46.5% still on treatment. Contacts whose index patients were on active TB treatment were three times more likely to start TPT than those whose index had completed treatment (adjusted OR = 3.0; 95% CI: 1.31–6.54; p = 0.009). This association remained significant after adjusting for confounders, suggesting that active treatment of the index case enhances risk perception and strengthens family support for prevention.

**Conclusion**  
TPT initiation is significantly higher when index patients are still on active TB treatment. Synchronizing contact tracing and TPT initiation with the index patient’s treatment period offers a scalable, targeted strategy to improve TPT uptake, reduce transmission, and advance progress toward WHO End TB goals in high-burden settings.

1. **Characterizing mobility patterns of TB cases in Lubaga and Kawempe using natural language processing and network analysis by Drake Amutuheire.**

**Background**  
Tuberculosis (TB) remains Uganda’s leading cause of death from a single infectious disease, with ~91,000 new cases annually. While only 25% of transmission occurs in households, most spread likely happens in community settings. In Kampala’s high-density, high-mobility divisions of Lubaga and Kawempe, this study used Natural Language Processing (NLP) and network analysis of cellphone metadata to characterize TB patient movement and identify potential transmission hotspots.

**General objective**

* **To develop and validate a Natural Language Processing (NLP) model to characterize Mobility.**

**Specific Objective**

* **Patterns of TB cases using archived cellphone (CDR) metadata in Lubaga and kawempe Divisions of Kampala District, Uganda**
* **To develop and validate an NLP Model using archived TB cell phone-associated movement data of TB cases in the Lubaga and Kawempe divisions**
* **To identify high-risk transmission hotspots in the Lubaga and Kawempe divisions as predicted by the NLP model.**
* **To evaluate the performance of the NLP Model in extracting mobility patterns of TB cases from archived mobile phone-associated movement data of TB cases.**

**Methods**  
This retrospective cohort study analyzed secondary data from 400 bacteriologically confirmed TB patients enrolled in the Mapping Tuberculosis Transmission Study (MATTS) (2018–2022). Archived Call Detail Records (CDRs) were processed through deduplication, geospatial tower mapping, timestamp normalization, and removal of low-information movements. Mobility sequences were transformed into vectors using TF-IDF and Doc2Vec embeddings. DBSCAN clustering identified high-density activity zones. Directed mobility networks were constructed from trajectories, with centrality metrics (degree, betweenness) highlighting key transmission hubs.

**Results**  
On average, patients visited 54 distinct locations, with heterogeneous movement patterns. Two major spatial clusters emerged as consistent zones of daily activity. Network analysis identified structurally central nodes **Owino Market, Mulago Hospital, Bwaise Junction, and Kisekka Market** as high-betweenness mobility hubs bridging otherwise separate areas. These nodes showed repeated convergence across patients and timeframes, suggesting elevated TB exposure risk. The model demonstrated robust performance (mean Jaccard similarity = 0.941; silhouette score = 0.387).

**Conclusion**  
TB transmission in Kampala is driven by convergence in urban community hubs such as markets, transport junctions, health facilities, schools, and informal settlements. Mobility-informed targeting of these hotspots through active case finding, infection control, and community-led awareness can strengthen TB control. Leveraging CDRs, NLP, clustering, and network analysis offers a scalable, precise method for identifying and intervening in transmission zones.

**SESSION XI**

**Subtheme: Public Health, Session Chair: Prof. Damaile Nakanjako**

1. **Assessing the effect of indoor residual sraying on Malaria incidence in West Nile sub region Uganda, January 2017- June 2024 by Patrick Kwizera.**

**Background**  
Indoor residual spraying (IRS) is a proven malaria control intervention, but its impact in Uganda’s West Nile sub-region has not been well studied. Despite ongoing interventions such as insecticide-treated nets (ITNs) and prompt treatment, malaria burden in the region remains high. This study assessed malaria incidence trends before and after IRS implementation in nine districts of West Nile (2017–2024).

**Objectives**

* To assess the effect of IRS on malaria incidence in West Nile before (Jan 17‒Oct 22) and after (Nov 22‒Dec 24) its implementation
* To assess the effect in malaria test positivity rate in the West Nile before and after IRS in West Nile

**Methods**  
Routine monthly malaria surveillance data from DHIS2 were analyzed, covering 70 months pre-IRS (Jan 2017–Oct 2022) and 26 months post-IRS (Nov 2022–Dec 2024). Malaria incidence (cases per 1,000 population) and test positivity rates (TPR) were calculated. Interrupted time series analysis using seasonal autoregressive integrated moving average (SARIMA) models accounted for seasonality and temporal variation. Data quality was evaluated using reporting rates.

**Results**  
At regional level, IRS led to a non-significant immediate reduction in incidence (–3.1 cases/1,000; 95% CI: –25 to 19; p = 0.78), but a significant declining post-IRS trend (–1.9 cases/1,000/month; 95% CI: –3.8 to –0.14; p = 0.03). District-level analyses showed significant reductions in Madi-Okollo (–2.6; p = 0.024), Maracha (–2.23; p = 0.001), and Terego (–2.08; p = 0.028). TPR showed no significant immediate change (2.6%; p = 0.63), but declined significantly post-IRS (–1.6% per month; 95% CI: –2.3 to –0.93; p < 0.0001) across all districts.

**Conclusion**  
IRS implementation in West Nile was associated with significant long-term reductions in malaria incidence and TPR, despite no immediate effect. These findings support IRS as a core vector control tool in high-transmission areas, while emphasizing the need to strengthen implementation fidelity and monitor insecticide resistance.

1. **Implementation of community engagement in community based health research in Uganda: Gatekeepers Perceptions by Dr. Atim Fiona.**

**Background**

Community engagement is critical in health research to promote local ownership and ensure studies are relevant to community needs. Gatekeepers—such as local leaders and religious figures facilitate engagement by aligning research with community priorities. However, there is limited understanding of how gatekeepers support community engagement in practice. This study explored perceptions and roles of community gatekeepers in implementing engagement processes in Uganda.

**Methods**

A phenomenological study was conducted in Kampala and Wakiso districts, where Reach Out Mbuya and MUJHU conduct health research. Thirty community leaders—including local council chairpersons, executives, and religious leaders—were purposively selected. Data were collected through in-depth, face-to-face interviews guided by a semi-structured tool and analyzed thematically using an inductive approach.

**Results**

Six key themes emerged:

* Gatekeeping and facilitation: Leaders mobilized participants, granted access, and ensured safety, acting as research enablers.
* Understanding of ethical approvals: Gatekeepers relied on institutional letters and lacked knowledge of national clearance requirements.
* Informed consent practices: Consent was often treated as a formality, with leaders signing on behalf of participants; none had formal ethics training.
* Exclusion from study design and dissemination: Gatekeepers reported limited involvement beyond facilitation.
* Compensation and trust dynamics: Some leaders received compensation, while participants generally did not.
* Perceptions of privacy and voluntariness: While confidentiality was respected, gatekeepers often assumed their endorsement sufficed for participation, revealing gaps in understanding autonomy.

**Conclusion**

Significant gaps exist in gatekeepers’ understanding of research ethics, particularly regarding informed consent, ethical approvals, and participation in study design and dissemination. Enhancing ethical literacy and structurally integrating gatekeepers throughout research processes is essential for equitable and accountable community-based health research.

1. **An enhanced retention strategy to prevent vertical transmission of HIV in Uganda: Abudget impact analysis by Elly Nuwamnaya.**

**Background**  
Enhanced retention strategies (ERS) can reduce vertical transmission (VT) of HIV and improve outcomes for women living with HIV (WLHIV) and their infants. This study estimated the budget impact of implementing ERS versus the standard of care (SOC) in Uganda for preventing VT among women initiating antiretroviral therapy (ART) in late pregnancy. ERS includes strengthened nurse–patient relationships, phone reminders, home visits, peer support, engagement of delivery focal persons, hospital–health center collaboration, mother–baby follow-up, transportation support, and reduced waiting times.

**Objectives**

* To estimate the affordability of the ERS for all pregnant women living with HIV in Uganda.
* Budget impact analysis (BIA) assesses the fiscal implications of scaling up the new intervention to the budget holder
* A good addition to the literature on the budget impact of retention strategies among people living with HIV

**Methods**  
A budget impact analysis (BIA) was conducted from the payer (Uganda Ministry of Health) perspective over a 5-year horizon using a Microsoft Excel-based model. The model incorporated HIV epidemiological data, program expenditures, disease progression, mortality differences, and subsequent pregnancies. The eligible population included all pregnant WLHIV receiving VT prevention services. Primary outcomes were incremental budget costs and infections averted over five years.

**Results**  
Implementing ERS would increase the net budget by **$63.8 million** over five years compared to SOC. Newly enrolled WLHIV accounted for $39.5 million, while in-system patients accounted for $24.2 million. Direct programmatic costs of ERS constituted only 13% of this increase; the remaining 87% arose from ART provision for WLHIV who would otherwise be lost to follow-up. The strategy would avert an additional **6,933 infant HIV infections** compared to SOC.

**Conclusion**  
ERS would significantly increase Uganda’s Ministry of Health budget, primarily due to expanded ART coverage, but remains a relatively low-cost intervention to reduce loss-to-follow-up among hard-to-reach populations. Implementing ERS could substantially decrease VT of HIV and improve maternal–infant health outcomes.

1. **Application of 7-1-7 in an Anthrax outbreak: Missed opportunity for early detection in Kanungu District, October 2024 by Dr. Hannington Katumba**

**Introduction**  
Uganda experienced 37 anthrax outbreaks between 2014 and 2024. In 2021, the country adopted the 7-1-7 framework, which aims for outbreak detection within 7 days, notification within 1 day, and completion of early response actions within 7 days. However, its application for zoonotic infections like anthrax remains unclear. This study assessed the timeliness of response to the 2024 anthrax outbreak in a rural border district of Uganda.

**Methods**  
Human and animal health surveillance records were reviewed to document dates of outbreak emergence, detection, notification, and initiation and completion of early response actions. The 7-1-7 metrics were applied to evaluate timeliness. Interviews with district leaders, health workers, and residents were conducted, and qualitative data were analyzed thematically to identify bottlenecks and enablers.

**Results**

* **Livestock:** Detection occurred after 86 days, notification in 1 day, and early response completed in 29 days. The outbreak caused 111 livestock deaths, with three missed early detection windows.
* **Humans:** Detection took 77 days, notification 1 day, early response was jointly initiated after 5 days, and completed in 10 days. The outbreak involved 90 people, with 6 deaths (6.7%).
* **Enablers:** Real-time One Health communication platform, stakeholder engagement, partnerships, and training of community-based health workers.
* **Bottlenecks:** Weak zoonotic disease surveillance due to understaffing, low index of suspicion, misdiagnosis, and poor coordination with private health facilities.

**Conclusion**  
Response to Kanungu District’s first documented anthrax outbreak in animals and humans was delayed in detection and completion of early response actions. Strengthening cross-sectoral coordination, enhancing animal health surveillance, engaging the private sector, and training frontline workers to recognize zoonoses early are critical to improving outbreak responsiveness and preventing cross-border spread.

# **AWARD CEREMONY**

An award ceremony was held, presided over by Dr. Robert Kalyesubula where awards were given in three categories i.e. best oral presentation within a sub-theme, best abstract within a sub-theme, and best poster presentation.

**Best Awarded Oral Presentation : awarded certificate**

* Assessment of Mpox disease severity and associated factors in Uganda, November 2024- February 2025 by Dr. Emmanuel Mfitundida.

**Best Poster Presentation : awarded Certificate**

* The first month's critical window:TB mortality peaks early in Kampala(2020-2023) by Louis Ocen

**Best abstract within a sub-theme: awarded certificates**

* Emerging and Re-emeerging Epidemics subtheme:Joanita Nalwanga (Cholera outbreak linked to contaminated stream water in Agoro subcounty, Lamwo District, Uganda, December 2024-March 2025)
* NCD’S subtheme: Dr. Piloya Thereza (The relation between Mean glucose measured by continuous glucose monitor and HbA1c in Ugandan youth with Type 1 Diabetes: An Observational Study)
* HIV Subtheme: Miscah Babirye Otim (Adherence Strategies to improve uptake of Truvada and Dapivirine Vaginal ring among adolescents and young women in Uganda: Experience from MTN034 Study, Kampala MUJHU site)
* Mental Health Subtheme: Phiona Kiconco (Resilience, support systems, and psychological wellbeing: Experiences of caring for a family member with Diabetic Illnes.)
* Vulnerable population Subtheme: Dr. Janet Lubega Kobusinge (Assessment of the Munonye Campaign's outcome on Pediatric HIV case Identification, Uganda April to September 2024)
* Public Health Subtheme: Patrick Kwizera (Assessing the effect of indoor Residual Spraying on Malaria Incidence in West Nile sub-region Uganda, January 2017- June 2024)
* Tuberculosis Subtheme: Kelvin Bwambale (When and why TB patients miss VDOT Sessions in Kampala: A retrospective Cohort Study)
* Health Education Subtheme: Peter Isagara (Promoting a culture of Resarch and Critical Appraisal among undergraduate Medical Students: A case of Kabale University School of Medicine Research and Journal Club)

**PHOTO**

Best Awardeees took photos in their the respective categories.

# **ANNUAL GENERAL MEETING**

The annual general meeting was held, chaired by Mrs. Edith .N. Nshimye

1. **Chairperson’s report**

Dr. Robert Kalyesubula re-introduced the outgoing USHS executive board and thanked them for their service. He encouraged members to take up leadership positions within the USHS board to ensure continuity of society activities and emphasized efforts to grow and retain USHS membership. He reminded members that the society, founded in 1999, is now **26 years old** and currently has about **1,122 members**. Dr. Kalyesubula highlighted the society’**s vision and mission**, and outlined key activities for the year, including scientific lectures, manuscript writing workshops, data analysis workshops, and the **annual scientific conference,** which remains the society’s flagship event. He also recognized the achievements of the outgoing board in strengthening society operations and expanding member engagement. Dr. Kalyesubula noted ongoing challenges, such as the need for increased funding and growing and maintaining membership. He concluded by thanking all members for their continued participation, as well as the USHS advisory and executive board members, the conference organizing committee, sponsors, USHS patrons, and administrative staff for their contributions to the smooth running of USHS..

1. **Treasurer’s report**

The USHS Treasurer, Dr. Emmanuel Mwesiga,was represented by Dr. Racheal Alinaitwe, who presented a detailed financial report on the society’s finances. He outlined the various sources of income, including grant management fees, membership and subscription fees, and sponsorships from entities such as pharmaceutical companies. Dr. Alinaitwe also provided an overview of total income and expenditures to date, reporting a current balance of approximately UGX 30 million. Members were encouraged to pay their membership and subscription fees promptly and to help source additional grants for USHS to manage, with the aim of increasing the society’s income.

# **ELECTION OF NEW BOARD MEMBERS**

The old board members were re-elected as follows:

1. **Chairperson**- Dr.Robert Kalyesubula
2. **Vice Chairperson**- Dr.Esther Nassuna
3. **General Secretary**- Dr. Racheal Alinaitwe
4. **Treasurer**- Dr. Emmanuel Kiiza Mwesiga

**Members:**

1. Prof. Romano Byaruhanga
2. Prof. Ezekiel Mupere
3. Dr.Robert Zavuga
4. Ms. Aidah Nanvuma
5. Mr.Timothy Otaala
6. Dr.Juliet Allen Babirye
7. Grace Banturaki
8. **PHOTO FOR NEW BOARD**

# **ADJOURNMENT OF MEETING**

The chairperson thanked members for attending the conference, thanked the organizers, the masters of ceremony, the rapporteurs. He adjourned the meeting and welcomed members to have a drink at the cocktail area before leaving the conference venue.

**Attendance list for 24th Annual Scientific Conference held 7th & 8th August 2025.**

|  |  |  |
| --- | --- | --- |
| **No** | **Name** | **Organization** |
|  | Prof. William Worodria | MAKCHS |
|  | Prof. Richard Idro | MAKCHS |
|  | Prof. Irene Andia Biraro | MAKCHS |
|  | Prof. Fred Nuwaha | MAKCHS |
|  | Prof. Damalie Nakanjako | MAKCHS |
|  | Prof. Ezekiel Mupere | USHS |
|  | Prof. Romano Byaruhanga | USHS |
|  | Prof. Noah Kiwanuka | MAKSPH |
|  | Dr. Andrew Kambugu | IDI |
|  | Dr. Robert Kalyesubula | USHS |
|  | Dr. Esther Nasuuna | USHS |
|  | Dr. Emmanuel Kiiza Mwesiga | USHS |
|  | Dr. Juliet Allen Babirye | USHS |
|  | Dr. Racheal Alinaitwe | USHS |
|  | Timothy Otaala | USHS |
|  | Aidah Nanvuma | USHS |
|  | Grace Banturaki | USHS |
|  | Nansubuga Judith |  |
|  | Twinomugisha Promise |  |
|  | Elizabeth Namuyumba | ACF |
|  | Boaz Mutakangarana | Baylor |
|  | Okiror Nathan | Baylor |
|  | Dr. Andrew Katawera | Baylor |
|  | Dr. Rhona Barusya | Baylor |
|  | Dr. Fiona Atim | CIU |
|  | Oroma Prisca | Data Prize |
|  | Wilber Ssembajjwe | Data Prize |
|  | Ndigamanya Rosette Immy | Data Prize |
|  | Dr. Josephine Nankya | Data Prize |
|  | Wanayana Christine | Data Prize |
|  | Kwesiga Jeremiah | Data Prize |
|  | Namusoke Maureen | Data Prize |
|  | Dr. Sadat Katama | Data Prize |
|  | Amuge Olive | Data Prize |
|  | Dr. Raymond Mugume | Data Prize |
|  | Dr. Sophia Balinga | Data Prize |
|  | Biryeri Hafusa | Data Prize |
|  | Vivian Arinda | Data Prize |
|  | Acan Innocent | Data Prize |
|  | Dr. Dorena Leo Rutakyamirwa | Data Prize |
|  | Dr. Kaddu Andrea Kaggwa | Data Prize |
|  | Dr. Allan Komakech | Global Health |
|  | Elly Nuwamanya | IDI |
|  | Nsubuga Vincent | Image Concept |
|  | Sserubogo Emmanuel | Image Concept |
|  | Stanley Okecho | KABSOM |
|  | Okorobe Pascal Mathew | MAKCHS |
|  | Dr. Mary Lilian Nabwire | MAKCHS |
|  | Ssettimba Shaffic | MAKCHS |
|  | Bob John | MAKCHS |
|  | Nshimye. N. Edith | MAKCHS |
|  | Dr. Pamela Blessed | MAKCHS |
|  | Tonny Blair Kalungi | MAKCHS |
|  | Dr. Thereza Piloya | MAKCHS |
|  | Waswa Joesph | MAKSPH |
|  | Mathius Amperiize | MAKSPH |
|  | Mark Outeke | MAKSPH |
|  | Kawuki Nicholas | MAKSPH |
|  | Nyakato Mary | MAKSPH |
|  | Bwambale Kelvin | MAKSPH |
|  | Damalie Nakkonde | MAKSPH |
|  | Jesca Nakyanja | MAKSPH |
|  | Drake Amutuheire | MAKSPH |
|  | Mpanga Meddie | MAKSPH |
|  | Ivan Mutyaba | MAKSPH |
|  | Lillian Muyana | MAKSPH |
|  | Irene Wanyana | MAKSPH |
|  | Lukusa Lameck | MAKSPH |
|  | Wephukulu Joshua | MMU |
|  | Nicholas Yoachel | MOES |
|  | Dr. Jonathan Kitonsa | MRC/UVRI |
|  | Richard Muhumuza | MRC/UVRI |
|  | Dr. Catherine Nakaye | MUJHU |
|  | Miscah Babirye Otim | MUJHU |
|  | Brenda. C. Kakayi | MUJHU |
|  | Dr. John Byabagambi | MUSPH |
|  | Shamim Nalunkuuma Shamim | Nakaseke GH |
|  | Jovita Mirembe | New Vision |
|  | Kay Ayo | Peer to Peer Uganda |
|  | Okot Haron | SICRA |
|  | Kaliba Margaret | SNO |
|  | Hon. Dr. Monica Musenero | STI-OP |
|  | Brenda Nakazibwe | STI-OP |
|  | Lydia Namuleni | STI-OP |
|  | Lucky Alfred O | STI-OP |
|  | Odur Calvin | STI-OP |
|  | Amanya Daniel | STI-OP |
|  | Wamono Geoffrey | STI-OP |
|  | Wabera Abubakali | STI-OP |
|  | Nabimanya Sulait | STI-OP |
|  | Bogere Moses | STI-OP |
|  | Etiang Maxmat | STI-OP |
|  | Reagan Ahumuza | UBC TV |
|  | Nakuti Adiah | UBC TV |
|  | Louis Ocen | UCMB |
|  | Edwin Bakiza | UCU |
|  | Dr. Robert Kakaire | UGA |
|  | Dr. Janet Kobusinge Lubega | UNIPH |
|  | Dr. Daniel Wenani | UNIPH |
|  | Annet Namusisi | UNIPH |
|  | Dr. Bridget Ainembabazi | UNIPH |
|  | Patrick Kwizera | UNIPH |
|  | Dr. Emmanuel Okiror Okello | UNIPH |
|  | Joanita Nalwanga | UNIPH |
|  | Gertrude Abbo | UNIPH |
|  | Charity Mutesi | UNIPH |
|  | Dr. Hannington Katumba | UNIPH |
|  | Dr. Olive Loryndah Namakula | UNIPH |
|  | Dr. Emmanuel Mfitundinda | UNIPH |
|  | Joyce Owens Kobusingye | UNIPH |
|  | Aryasiingura Aireene | USHS |
|  | Nakigudde Gloria | USHS |
|  | Nalwoga Ruth Esther | USHS |
|  | Nakayenga Esther | USHS |
|  | Katta Arnold | USHS |
|  | Isabella Achokotho | USHS |
|  | Rhoda Nazziwa | USHS |
|  | Kissa Carmella Enrica | USHS |
|  | Cissy Namakula | USHS |
|  | Chryalice Mitchell | USHS |
|  | Camillus Mulondo | USHS |
|  | Laber Consy | USHS |
|  | Senvewo Richard | USHS |
|  | Cassiono Stephen | USHS |
|  | Winnie Eoju | UVRI |

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| **Evaluations for the 24th Annual Scientific Conference 2025** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| **DAY 1** |  |  |  |  |  |  |
| **SESSION 1: EMERGING AND RE-ERMERGING EPIDEMICS** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100%** |
| Cholera outbreak linked to contaminated stream water in Agoro Subcounty, Lamwo District, Uganda December 2024- March 2025 | 0.00% | 0.00% | 11.56% | 42.30% | 46.14% | 100.00% |
| Assessment of Mpox Disease severity and associated factors in Uganda, November 2024- February 2025 | 0.00% | 0.00% | 15.39% | 46.15% | 38.46% | 100.00% |
| Evaluation of Preparedness and response to anthrax outbreaks in Uganda, January-December 2024, Using the7-1-7 metrics | 0.00% | 0.00% | 3.85% | 46.15% | 50.00% | 100.00% |
| Temporal trends and spatial distribution of leprosy, Uganda 2020-2024: tracking progress towards elimination | 0.00% | 3.85% | 23.08% | 26.92% | 46.15% | 100.00% |
| Anthrax outbreak associated with handling and consuming meat from animals ta died suddenly, Kanungu District, June- November 2024 | 0.00% | 0.00% | 15.38% | 30.77% | 53.85% | 100.00% |
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|  |  |  |  |  |  |  |
| **SESSION III: HEALTH EDUCATION AND OTHERS** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100.00%** |
| Promoting a culture of Research and critical appraisal among undergraduate medical students: A case of Kabale Universit School of Medicine Research and journal Club | 0.00% | 6.68% | 40.00% | 26.66% | 26.66% | 100.00% |
| Feasibility and acceptability of training community drug shop staff to deliver oral prEp refills to female sex workers in Kampala, Uganda | 0.00% | 0.00% | 33.33% | 60.00% | 6.67% | 100.00% |
| Bridging the Gap: The need for Nursing Informatics Programs in Ugandan Public Universities. | 0.00% | 0.00% | 46.67% | 40.00% | 13.33% | 100.00% |
|  |  |  |  |  |  |  |
| **SESSION IV: MENTAL HEALTH** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100.00%** |
| Resilience, support systems, and psychological wellbeing: Experiences of caring for a family member with Diabetic Illness | 0.00% | 21.05% | 31.57% | 36.84% | 10.54% | 100.00% |
| Prevalence and associated factors of post- traumatic stress disorder, depression and anxiety disorders among Mpox survivors, Uganda 2024 | 0.00% | 5.28% | 21.05% | 26.31% | 47.36% | 100.00% |
| Frequency, factors associated and outcomes of delirium among adult patients admitted to Uganda Cancer Institute | 0.00% | 15.78% | 21.06% | 36.84% | 26.32% | 100.00% |
| Psychological impact and perceived Mpox risk among healthcare workers during ealry epidemic phase, Uganda, August-September 2024 | 0.00% | 5.27% | 21.05% | 10.52% | 63.16% | 100.00% |
| Mama Link Uganda strengthening Perinatal mental health through mobile peer navigation in Central Uganda | 21.07% | 21.05% | 21.05% | 26.31% | 10.52% | 100.00% |
|  |  |  |  |  |  |  |
| **SESSION V: NON-COMMUNICABLE DISEASES** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100.00%** |
| The relations between Mean glucose measured by continuous glucose monitor and HbA1c in Ugandan youth with type 1 diabetes: An observational Study | 0.00% | 0.00% | 0.00% | 50.00% | 50.00% | 100.00% |
| Assessing the impact of integrated HIV, diabetes and hypertension management in Uganda, 2023-2025: a time use study using before and after approach | 0.00% | 0.00% | 18.75% | 43.75% | 37.50% | 100.00% |
| Impact of integrated HIV, diabetes and hypertension on COVID 19 severity and outcomes among HIV positive patients in Soroti and Mbale Hospitals: A retrospective study | 0.00% | 0.00% | 18.75% | 62.50% | 18.75% | 100.00% |
| Integrating Digital and community-based interventions for Hypertension Management in Uganda: A mixed methods Study | 0.00% | 0.00% | 25.00% | 37.50% | 37.50% | 100.00% |
|  |  |  |  |  |  |  |
| **SESSION VI: HIV** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100.00%** |
| Adherence strategies to improve uptake of Travada and Dapivirine Vaginal ring among adolescents and young women in Uganda: Experience from MTN034 study, Kampala MUJHU site | 0.00% | 25.00% | 12.50% | 50.00% | 12.50% | 100.00% |
| Trends and distribution of HIV incidence rates among children aged 0-14 years in Uganda, 2015-2023 | 6.00% | 18.75% | 12.50% | 25.25% | 37.50% | 100.00% |
| Application of precision targeting strategy to enhance identification of HIV and TB cases in high risk rural Uganda: Lessons from Bulambuli District | 0.06% | 33.33% | 16.66% | 33.33% | 16.62% | 100.00% |
| Using quality improvement initiatives to accelerate HIV case identification among children and adolescents: lessons from the Munooye(find the child) testing campaign conducted in Eastern Uganda | 0.00% | 50.00% | 8.33% | 25.00% | 16.67% | 100.00% |
| Long term cognitive, mentality, and life outcomes in Ugandan children with perinatal HIV infection/exposer | 0.00% | 58.33% | 16.66% | 16.66% | 8.35% | 100.00% |
| **Overall evaluation** | **Below average** | **Average** | **Good** | **Very Good** | **Excellent** | **100.00%** |
| Venue | 0.00% | 4.54% | 31.81% | 36.36% | 27.29% | 100.00% |
| Food/ meals | 0.00% | 4.54% | 18.18% | 40.91% | 36.37% | 100.00% |
| Administrative Support/ responsiveness from secretariat | 0.00% | 0.00% | 18.18% | 27.27% | 54.55% | 100.00% |
| General conference organization | 0.00% | 9.09% | 27.27% | 18.18% | 45.46% | 100.00% |
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|  | **Evaluations for the 24th Annual Scientific Conference 2025** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | **DAY 2** |  |  |  |  |  |  |
|  |  | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** | **Total** |
|  | **Session VII: Vulnerable Population** |  |  |  |  |  |  |
| 1 | Assessment of the Munonye Campaign's outcome on Pediatric HIV case Identification, Uganda April to September 2024. | 0.00% | 13.33% | 6.67% | 20.00% | 60.00% | 100.00% |
| 2 | The interaction between structural, social, and biological factors that affect Vaccine impact in Vulnerable communities | 0.00% | 0.00% | 40.00% | 46.66% | 13.34% | 100.00% |
| 3 | Knowledge, Perceptions and uptake of the HPV vaccine and preferred vaccine delivery strategies among non-school going girls in two communities in Masaka, Uganda. | 0.00% | 0.00% | 20.00% | 46.66% | 33.34% | 100.00% |
| 4 | Spatiotemporal and clinical characterization of acute flaccid paralysis in Uganda, 2016–2023. | 0.00% | 0.00% | 6.67% | 53.33% | 40.00% | 100.00% |
| 5 | Factors associated with malaria vaccine acceptance among caretakers of under 5 children at Masaka Regional Referral Hospital, Uganda March 2025 | 0.00% | 6.67% | 20.00% | 53.33% | 20.00% | 100.00% |
| 6 | Non-Digital Interventions to Boost HIV testing among Adolescent Girls and young women in Uganda High burden Regions: Insights from Ankole and Kigezi. | 0.00% | 6.67% | 40.00% | 46.66% | 6.67% | 100.00% |
| 7 | Yellow Fever Vaccine hesitancy among parents and caregivers of children below 5 years in Kyetume Parish, Mukono Uganda. | 13.33% | 13.33% | 6.67% | 26.67% | 40.00% | 100.00% |
|  |  |  |  |  |  |  |  |
|  | **SESSION VIII: HIV II** | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** |  |
| 1 | Awareness of HIV Post exposure prophylaxis among medical students in Makerere. | 0.00% | 10.00% | 40.00% | 40.00% | 10.00% | 100.00% |
| 2 | Molecular Diagnostics Improve the Yield of Diagnosis of multidrug-resistant Pathogens in Hospitalized patients with HIV and community acquired Pneumonia | 0.00% | 10.00% | 20.00% | 40.00% | 30.00% | 100.00% |
| 3 | Enhanced Index & Social Network Strategy to optimize HIV testing services in Tororo, Eastern Uganda. | 0.00% | 0.00% | 10.00% | 50.00% | 40.00% | 100.00% |
| 4 | Decade long trends and burden of low-level Viremia among Ugandan children and adolescents living with NIV, 2014 – 2023. | 0.00% | 0.00% | 10.00% | 60.00% | 30.00% | 100.00% |
| 5 | Domestic financing of HIV prevention interventions: A mixed methods study of the ability to pay (ATP) and willingness to pay (WTP) for voluntary medical male circumcision in Uganda. | 0.00% | 10.00% | 20.00% | 60.00% | 10.00% | 100.00% |
| 6 | Baseline Malaria, Circumsporozoite protein specific IgG titres in HIV infected and non-HIV infected Children: Optimizing R21 vaccine in strategies in High transmission Uganda. | 0.00% | 10.00% | 20.00% | 50.00% | 20.00% | 100.00% |
| 7 | Comparative prevalence of premature cognitive aging in adult Ugandans living with HIV and demographically matched HIV negative controls | 0.00% | 0.00% | 40.00% | 50.00% | 10.00% | 100.00% |
|  |  |  |  |  |  |  |  |
|  | **SESSION III: DIGITAL TECHNOLOGIES** | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** |  |
| 1 | Use of AI and Machine Learning in health service delivery. | 0.00% | 0.00% | 22.22% | 33.33% | 44.45% | 100.00% |
| 2 | Use of AI and Machine Learning in health research and training. | 0.00% | 5.56% | 11.11% | 44.45% | 38.88% | 100.00% |
| 3 | Integrating Machine Learning into Dhis2 to Predict Multidrug Resistant Tuberculosis: A Case of The Dhis2’s Electronic Case-Based Surveillance System. Mark Outeke | 0.00% | 0.00% | 27.78% | 33.33% | 38.89% | 100.00% |
| 4 | When and why TB patients miss VDOT Sessions in Kampala: A retrospective Cohort Study | 0.00% | 5.56% | 16.67% | 55.55% | 22.22% | 100.00% |
| 5 | Unlocking the potential of wearable digital technologies for Global Health research in low-income settings: A qualitative study. | 11.11% | 5.56% | 11.11% | 22.22% | 50.00% | 100.00% |
| 6 | TB-Related Stigma is a hidden obstacle to Adherence Monitoring and engagement with video directly observed treatment among patients with Tuberculosis in Uganda. | 0.00% | 11.11% | 22.22% | 38.89% | 27.78% | 100.00% |
| 7 | Factors associated with acceptability of the video directly observed therapy selfie method for TB treatment adherence among TB patients in Kampala, Uganda. | 5.56% | 11.11% | 27.78% | 33.33% | 22.22% | 100.00% |
|  |  |  |  |  |  |  |  |
|  | **SESSION X: TUBERCULOSIS** | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** |  |
| 1 | Leveraging faith and community leaders to improve tuberculosis case detection in Zombo district, Uganda. | 0.00% | 8.33% | 8.33% | 41.67% | 41.67% | 100.00% |
| 2 | The Magnitude and factors of discordant Tuberculin test and IGRRA test results among residents of Kampala District. | 0.00% | 0.00% | 16.67% | 58.33% | 25.00% | 100.00% |
| 3 | Spatial and temporal distribution of Drug-resistant Tuberculosis and associated risk factors in the central region of Uganda (2019- 2023). | 0.00% | 0.00% | 25.00% | 50.00% | 25.00% | 100.00% |
| 4 | Timing is everything: Active TB treatment of index patients triples TPT uptake in adult contacts in Uganda | 0.00% | 8.33% | 33.33% | 33.34% | 25.00% | 100.00% |
| 5 | Characterizing mobility patterns of TB cases in Lubaga and Kawempe using naturalLanguage Processing and Networkanalysis. | 0.00% | 0.00% | 25.00% | 41.67% | 33.33% | 100.00% |
|  |  |  |  |  |  |  |  |
|  | **SESSION XI: PUBLIC HEALTH** | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** |  |
| 1 | Assessing the effect of indoor Residual Spraying on Malaria Incidence in West Nile sub-region Uganda, January 2017- June 2024. | 0.00% | 10.00% | 30.00% | 20.00% | 40.00% | 100.00% |
| 2 | Implementation of Community Engagement in Community Based Health Research in Uganda: Gatekeepers perceptions. | 0.00% | 0.00% | 50.00% | 40.00% | 10.00% | 100.00% |
| 4 | Over the counter dispensing practices of antibiotics in the management of Urinary Tract Infections in retail pharmacies in Kampala District | 0.00% | 0.00% | 30.00% | 50.00% | 20.00% | 100.00% |
| 5 | An enhanced retention strategy to prevent Vertical transmission of HIV in Uganda: A budget impact analysis. | 0.00% | 0.00% | 20.00% | 60.00% | 20.00% | 100.00% |
| 6 | One–Health and 7-1-7: Evaluating response to an Anthrax outbreak in Southwestern Uganda, September 2024. | 0.00% | 0.00% | 30.00% | 20.00% | 50.00% | 100.00% |
|  |  |  |  |  |  |  |  |
|  | **Overall evaluation** | **Below Average** | **Average** | **Good** | **Very Good** | **Excellent** | 100.00% |
| 1 | Venue | 0.00% | 0.00% | 58.33% | 8.33% | 33.34% | 100.00% |
| 2 | Food/ meals | 0.00% | 0.00% | 8.33% | 50.00% | 41.67% | 100.00% |
| 3 | Administrative Support/ responsiveness from secretariat | 0.00% | 8.33% | 8.33% | 33.34% | 50.00% | 100.00% |
| 4 | General conference organization | 0.00% | 0.00% | 25.00% | 41.66% | 33.34% | 100.00% |