

# HEALTH INNOVATIONS

SUMMER 2025



*News from HJF Medical Research International - Kenya*

## New Technical Working Group to strengthen Kenya's response to influenza and other respiratory pathogens

A new Technical Working Group (TWG) on influenza (flu) and other respiratory pathogens at the Kenya Ministry of Health (MOH) was recently launched to provide expert guidance on identification, preparedness and response to respiratory pathogens in Kenya. The team awaits an official appointment from the MOH Director General.

Since 2006, the U.S. Centers for Disease Control and Prevention (U.S. CDC) has supported the Kenya MOH to track flu. HJFMRI played a pivotal role as the implementing partner to establish this TWG focused on enhancing surveillance sustainability and continuity. As the implementing organization, HJFMRI facilitated the development of the TWG's Terms of Reference, led the identification and selection of key TWG members, and organized the inaugural meeting in July 2025. These efforts help build a strong foundation for long-term, ministry-led surveillance initiatives.

The TWG is comprised of 14 experts drawn from the MOH, HJFMRI, U.S. CDC and the Kenya Medical Research Institute (KEMRI) who will provide advice, advocacy and guidance to the MoH on surveillance and response to flu and other respiratory pathogens as well as pandemic preparedness and response. Additionally, they will provide guidance on respiratory disease data sharing and utilization for decision making across different stakeholders, inclusivity and sustainability of respiratory disease surveillance activities, and advise on health information systems to adopt for efficient and effective surveillance systems.

The U.S. CDC has been providing financial and technical assistance to HJFMRI since 2021 to support the Kenya MOH's surveillance of respiratory pathogens.



*HJFMRI helped organize and participated in a newly established Technical Working Group (TWG) on Influenza and other respiratory pathogens tasked to provide expert guidance on identification, preparedness and response to respiratory pathogens in Kenya. HJFMRI Executive Director Dr. Daniel Ochiel is pictured here with Dr. Ahmed Fidhow, Head of the Disease Surveillance and Response Unit (DSRU), Ministry of Health, Kenya at the first meeting held in July.*



*HJFMRI Research Director Dr. Deborah Langat with Alice Airo, a data manager at the Kericho Clinical Research Center*

## Working towards an HIV cure in Kericho

The KEMRI Kericho Clinical Research Center is preparing to conduct a new Phase 1 clinical study that is part of the global HIV cure research agenda. This trial, named DELIVER-02/DART, will enroll 24 participants and is slated to begin in late 2025.

This study, funded by the U.S. National Institutes of Health (NIH), will evaluate the safety and tolerability of two novel investigational products in combination with an HIV latency reversing agent in people living with HIV who are virally suppressed on antiretroviral therapy. The study is a collaboration with The Walter Reed Army Institute of Research - Africa (WRAIR-A), U.S. Military HIV Research Program (MHRP), HJFMRI, KEMRI, and the University of North Carolina.

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This ambitious trial builds on years of strategic investment in Kericho's research infrastructure. Over the past year, MHRP has worked closely with the site to transform its laboratories into a state-of-the-art genomic research facility. The upgraded infrastructure will house next-generation sequencing platforms, advanced bioinformatics, ultrasensitive PCR technology, and sophisticated automation systems, among other capabilities. These cutting-edge tools empower researchers to pursue HIV reservoirs with unprecedented precision in complex anatomical sites such as the central nervous system and lymphoid tissues.

These capabilities are critical for evaluating the effectiveness of investigational therapies, which aim to disrupt and eliminate persistent HIV reservoirs that have long challenged cure efforts.

According to Dr. Fred Sawe, the KEMRI/HJFMRI Co-Investigator, "Sub-Saharan Africa (SSA) bears the world's highest HIV burden. Achieving an HIV cure would have the potential to create a profound and lasting impact, highlighting the urgent necessity for SSA to take a leading role in the HIV research agenda through robust capacity and capability building."

## **WRAIR Africa symposium: 50 years of progress**

HJFMRI took part in a collaborative symposium hosted by WRAIR-Africa held in conjunction with the KASH conference. Col. Gerald Kellar, director of the Western Kenya Field Station and Prof. Elijah Songok, Acting KEMRI Director General, led the symposium to commemorate 50 years of contributions to health in Kenya through collaborations with WRAIR, KEMRI and the Kenya Defence Forces (KDF).

These partnerships have driven many successful medical research initiatives and implementation of the President's Emergency Plan for AIDS Relief (PEPFAR) program, which provides support to adults and children living with HIV.

Working together, WRAIR, KEMRI, HJFMRI and other collaborators have led advancements in vaccine development to prevent diseases including Respiratory Syncytial Virus (RSV), COVID-19, Ebola, Polio, HIV, enteric diseases, and more. The 50-year partnership has also included therapeutic studies, disease surveillance, lab capacity development, training and technical support to facilitate research.

## **KASH Conference: HJFMRI supports and presents science to advance health research**

HJFMRI took part in the 15th KEMRI Annual Scientific and Health (KASH) Conference between February 11-15 in Nairobi, Kenya. This year's conference was grounded on the theme of Research Technology and Innovation for Sustainable Health Systems: A Community Driven Agenda.

HJFMRI welcomed visitors at its exhibition booth to learn more about how HJFMRI supports the Kenya Medical Research Institute (KEMRI) and other partners on research, the various fields of medical research involved, areas of collaboration and progress made in ongoing vaccine clinical studies in Kisumu and Kericho.

HJFMRI was privileged to have 12 scientific poster presentations during the conference, two of which received awards. Congratulations to Nancy Otieno and Victor Opere for their awards.

- "Performance of Surveillance Case Definitions for Respiratory Syncytial Virus (RSV) Infections through the National Sentinel Surveillance System for Influenza and other Respiratory Pathogens in Kenya, 2024" by Nancy Otieno
- "Documentation Practices in Health Care Facilities: Experiences from Data Abstraction to Inform Threshold for Severe Acute Respiratory Illness and Influenza-associated Hospitalization in Kenya" by Victor Opere

In addition to the KASH conference, HJFMRI also took part in a collaborative symposium hosted by Walter Reed Army Institute of Research-Africa (WRAIR-Africa). COL Gerald Kellar and Prof. Elijah Songok, Acting KEMRI Director General, showcased the long standing 50 years of contributions to health research in Kenya. Working together, WRAIR, KEMRI and other collaborators have led advancements in vaccine development to prevent diseases including Respiratory Syncytial Virus (RSV), COVID19, Ebola, Polio, HIV, etc. The 50-year partnership has included therapeutic studies and programs, disease surveillance, lab capacity development, training and technical support to facilitate research.





## Tackling Malnutrition: CHAMPS data to action leverages locally available foods, training

Along the dirt roads deep inside Bar Agulu Village in Siaya County, freshly plowed farms are ready for planting season during the March to June rainy season. Several mango trees can be seen in almost every grass thatched or semi-permanent house within the homesteads. At one of the homesteads, six caregivers and seven children have their morning snack, porridge, under a blend of shade from a house and a mango tree. This is Uhuru Positive Deviance Hearth (PD Hearth), a 12-day community-based behavior change program aimed at rehabilitating underweight and moderately malnourished children.

These children, aged between six and 36 months, were selected with their caregivers for the PD Hearth program after measurements including the height, weight, and mid-upper arm circumference (MUAC) fell below program criteria. Some were found to weigh as low as 9kgs at 24 months, indicating moderate malnourishment. Others could not eat and were too weak to play with other children.

The target during the 12-day PD Hearth program is for the children to gain at least 200 grams and to provide caregivers education on how to feed them with diversified local foods in well-rounded, complete meals to improve their health within their family budgets.

The mapping of the moderately malnourished children within Bar Agulu village was conducted by the Community Health Promoters, Community Health Assistants and the Nutritionist supporting the Child Health and Mortality Prevention Surveillance (CHAMPS) data to action program. Caregivers receive support throughout the CHAMPS International Association of National Public Health Institute program in collaboration with HJFMRI, KEMRI and the Siaya County Department of Health. HJFMRI supports CHAMPS through funding from The Gates Foundation.

Each morning at 9:00 am, caregivers converge at a selected home (hearth) with their children. They designate roles and start preparing food they brought for their children. Some start to prepare porridge and snacks, while others ensure that the children are actively playing with locally made toys. Others begin putting together firewood to prepare the foods they brought. County Nutritionists and primary healthcare personnel provide guidance for these activities.

“We make meal plans every evening for the next day’s meal. The menu is well balanced and can meet the demands of the children. We have children who can take only mashed foods while others take family foods. So, we ensure we encompass all of them when preparing the menu.” Said Christine Okoth, Nutritionist at the Siaya County Referral Hospital.







## HJFMRI boosts GEIS-funded infectious disease surveillance lab capacity and expertise

In Kenya, the U.S. Military's Global Emerging Infections Surveillance (GEIS) program is working to identify and track infectious disease threats through collection of samples from sentinel sites. Scientists conduct rapid pathogen identification and drug resistance analysis at regional laboratories run in collaboration with Kenyan health authorities and local research partners, like the KEMRI, with support from HJFMRI.

Bolstering local laboratory capabilities and developing the next generation of scientists is critical to the success of collaborative surveillance research in the area, which requires robust systems and well-trained personnel to respond effectively. The Acute Febrile Illness (AFI) Basic Science laboratory in Kisumu, Kenya, has become an important local resource, thanks in part to its involvement in collaborative disease surveillance activities.

The lab receives samples from hospital patients who have AFI, which can be caused by many diseases that have similar presenting signs, ranging in severity from flu to malaria, dengue or Ebola. On receiving the samples, the AFI lab uses broad detection systems to determine the pathogens they're dealing with. With funding from different collaborative programs, the lab has been able to buy robotics to automate workflows to help increase the daily throughput, and to buy new equipment to make sure the facility stays on the leading edge of technology, including whole genome sequencing for pathogen discovery and characterization.

The AFI Basic Science Lab fosters collaboration between local institutions and international partners, enabling the exchange of data, knowledge and best practices. HJFMRI supports the GEIS surveillance and lab activities through agreements with WRAIR in the US and WRAIR-Africa, headquartered in Nairobi. The longstanding partnership advances science, international health collaboration and health system strengthening, ensuring Kenya and the surrounding regions are better prepared to face the evolving landscape of infectious disease.

## Just a bug or the next big outbreak? U.S. CDC surveillance for influenza and other upper respiratory illness

A young girl with tired, feverish eyes waits in a small office in the Siaya County Referral Hospital in Kisumu, Kenya, with her mother and two siblings. Her ambiguous symptoms – fever, cough, fatigue – could be a common cold, or it could signal a more serious emerging public health threat.

James Owugo is the first step in determining where this little girl fits into the larger landscape of health and illness in the region. He screens patients for Influenza and other upper respiratory illness sentinel surveillance under the U.S. CDC program in collaboration with local partner, the Kenya Medical Research Institute (KEMRI) and Ministry of Health.

Early detection through sentinel surveillance sample collection is critical for timely intervention and disease control. HJFMRI supports surveillance efforts designed primarily to detect influenza, COVID and RSV.

Owugo collects samples from clinical sites throughout Siaya County for the program and sends swab samples to collaborating KEMRI labs for analysis and banking. By tracking data from diverse geographical and demographic groups, the research helps identify emerging health threats, track endemic diseases and understand transmission patterns. Sentinel sites serve as early warning systems, helping local health officials respond quickly to outbreaks and prevent larger epidemics. Beyond the region, data from Kenya's surveillance is reported to the U.S. CDC and the WHO to fill in the global picture of global health patterns.

HJFMRI supports the surveillance sentinel and lab activities through agreements with the U.S. CDC in collaboration with Ministry of Health and KEMRI. The longstanding partnership advances science, international health collaboration and health system strengthening, ensuring Kenya and the surrounding region is better prepared to face the evolving landscape of infectious disease.





## Making connections, saving lives: Workshop brings together partners to improve HIV services

HJFMRI and MHRP held a weeklong high-level technical workshop in Narok, Kenya, bringing together colleagues from Kenya, Nigeria, Philippines, Tanzania and Uganda. The workshop's goals were to promote integrated approaches and innovative strategies to address gaps and ensure the quality of HIV services. It provided attendees a learning and sharing platform for capacity building and allowed for discussions around implementation of evidence-driven HIV programs within their countries.

Narok County Governor, H.E Patrick Ole Ntutu, officially opened the gathering, praising the longstanding partnership between Kenya and WRAIR-Africa. In his remarks, he highlighted the tangible impact of the collaboration, including the employment of more than 200 health workers, procurement of laboratory and medical equipment, and logistical support. HJFMRI implements PEPFAR programs in the region with WRAIR's Military HIV Research Program.

As part of the workshop, teams visited various program locations depending on their expertise. The HIV prevention and testing team travelled to Kericho County where they paid a courtesy call to the County Director of Health, Dr. Betty Langat, before proceeding to the Live with Hope Center, a local partner within the county. After a brief introductory session there, the team proceeded to Nyangacho Community Health Post where a PEPFAR-funded local partner provides accessible, decentralized HIV prevention, care and treatment services.

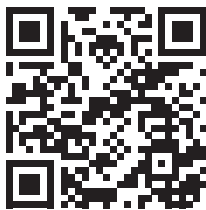
Another team visited the Transmara region where they held strategic discussions with the Medical Superintendent's office, reviewed facility performance, and conducted an analysis on HIV case finding and care cascade. Clinical and laboratory specialists visited the Narok County Referral Hospital to learn how the facility makes use of artificial intelligence and machine learning for TB screening and data. The Laboratory team visited to Ololulunga Sub-County Hospital, where they saw how the facility maximizes the WHO-approved TB molecular diagnostic testing using the Truenat platform.

The fourth day of the workshop focused on monitoring, data utilization and interpretation, quality improvement, laboratory best practices and quality improvements, and the relationship between HIV and non-communicable diseases. Additionally, various awards were issued to staff based on their accomplishments within their in-country implementations.

The workshop ended on an inspiring and creative note. Participants were challenged to design their vision of what an AIDS-free world would look like. The activity served as a reminder of the human impact of their work and the collective goals that drive their work forward.







## HJFMRI: Partnering to power research innovation

The future of health and biomedical research is collaborative. Breakthroughs happen when scientists, institutions and innovators come together across disciplines and geographies.

Working side-by-side with researchers, HJFMRI provides a wide range of services that facilitate laboratory research, scientific trials, clinical care, training, capacity-building, facility and laboratory management, and more. From mentoring small entities to managing large consortiums, HJFMRI partners with leading medical research organizations, universities, foundations, and private industry partners to identify, prevent, and treat diseases around the world.

We are a global leader in international medical research programs related to infectious diseases, such as antimicrobial resistance, HIV and other sexually-transmitted infections, febrile and vector-borne illnesses, malaria, Ebola, enteric infections, and respiratory infections.

Dr. Daniel Ochiel, HJFMRI's Executive Director in Nairobi, recently sat down to discuss how HJFMRI is able to spot synergies, align interests and create efficiencies among research partners shooting for the same goal.

Having a partner who can identify and pursue opportunities within collaborative ecosystems isn't just helpful, it's essential for success.

View his interview here: <https://www.hjfmri.org/about-hjfmri>

## WRAIR-Africa leadership visits HJFMRI in the Western Region

In early 2025 WRAIR Africa leadership paid a courtesy call to the HJFMRI Western Region Office as they kicked off their field visits to various clinical research stations in Kisumu.

The WRAIR- Africa team was led by Col. Gerald Kellar, Director of the Western Kenya Field Station, accompanied by Maj. John Eads, Chief of Entomology, Maj. Luis Pow Sang, Chief of Microbiology Operations, Lt. Evans Martin, director of the Kombewa Center, and Capt. Robert Haynes, COR of the GEIS contract.

Key highlights from the courtesy session were in areas of existing and future direct collaborations between WRAIR Africa, CDC, HJFMRI and other funders for the advancement of programs within the region. Program leaders shared program and study updates, both ongoing and upcoming, and discussed how to achieve better outcomes based on needs and focus areas.





## WRAIR-Africa signs MOU with Narok County Government for HIV response

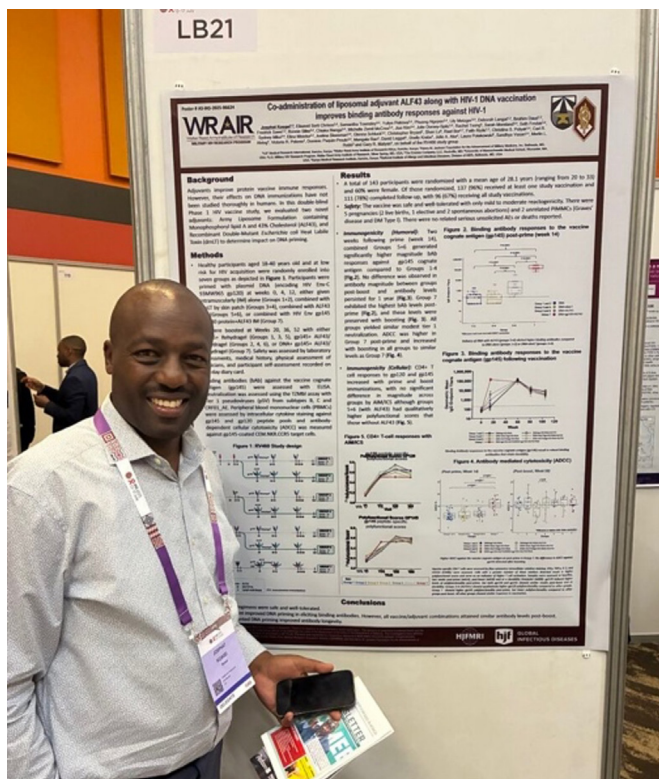
A 2025 Memorandum of Understanding (MOU) between WRAIR-Africa and the Narok County Government will help advance HIV research and services. HJFMRI is WRAIR's implementing partner for PEPFAR services in the county and supports HIV research.

The MOU outlines three main priorities in transitioning HIV response to local government: shifting from mostly donor funds to domestic ownership, improving access to Health Products and Technology and response, and integrating the HIV program with country's Universal Health Care framework.

The Governor, Hon. Patrick Ole Ntutu, highlighted the progress made by the county in curbing the spread of HIV while at the same time acknowledging the support from PEPFAR-funded WRAIR program for the past 20 years. "We have reduced the county's prevalence rate from 5.6% to 1.8% in 2024," Hon Ole Ntutu stated.

Col. Lacy, WRAIR- Africa Director, acknowledged the importance of the MOU since it will provide guidance for HIV response going forward. "The MOU provides a framework for the future of HIV response in Narok County," outlined Col. Lacy. "This is more than a symbolic signature but a turning point in our partnership."

Col. Lacy went on to commend the dedication of health workers since they work in a unique and vast county to deliver the much-required last mile health response. The approach noted in the MOU provides a platform for partners to work with county governments to have a sustainable way of working for epidemic control.



## HJFMRI researcher presents vaccine study at IAS 2025

HJFMRI researcher Dr. Josphat Kosgei presented at the International AIDS Society (IAS) 2025 Conference on HIV Science in Rwanda in July. Dr. Kosgei presented early findings from the U.S. Military HIV Research Program (MHRP) study RV460, a Phase 1 trial to evaluate whether a novel adjuvant boosts immune response to HIV vaccines.

An adjuvant is a component of a vaccine that can help make it more effective by improving the immune response or causing the immune response to last longer. The study was led by MHRP scientists in partnership with the KEMRI-Kericho Clinical Research Center (CRC) in Kericho, where the study took place.

The Kericho CRC has completed four HIV vaccine studies, and therapeutic studies related to HIV/AIDS care and associated infections, such as tuberculosis, malignancies (Kaposi's sarcoma) and malaria. In addition, the CRC has participated in polio, Ebola, Shigella, yellow fever, respiratory syncytial virus (RSV), hepatitis B and COVID-19 vaccine clinical trials.

## HJFMRI participates in 12<sup>th</sup> EDCTP Forum

HJFMRI was in Kigali, Rwanda, for the 12<sup>th</sup> EDCTP Forum in June to learn and connect with others at the conference who share HJFMRI's goal: creating healthier futures through innovation and collaboration. Representing HJFMRI at the meeting were two of our leaders: Dr. Abdulwasiu Bolaji Tihamiyu, Clinical Research Director, HJFMRI Nigeria and Nairobi-based Dr. Daniel Ochiel, Executive Director Research & Partnership-Africa.



(L-R): Dr. Daniel Ochiel, Executive Director, HJFMRI-Africa, Dr. Gabrielle Breugelmans, Director of Epidemiology, CEPI and Dr. Abdulwasiu Bolaji, Clinical Research Center Director.



(L-R): Abdulwasiu Bolaji, Clinical Research Director (HJFMRI Nigeria), Dr. Sushant Sahas-trabuddhe, IVI Associate Director General, Dr. Nicaise Ndambi, IVI Africa Regional Director and Dr. Daniel Ochiel, Executive Director, HJFMRI-Africa.

## Kericho community posts take HIV services beyond the clinic

HJFMRI, along with MHRP, KEMRI/Walter Reed Project and local stakeholders opened new community posts in outlying areas of Kericho, Kenya, to provide accessible, decentralized HIV prevention, care and treatment services funded by the President's Emergency Plan for AIDS Relief (PEPFAR).

The community post model expands the footprint of HIV services by opening small outposts in communities away from larger clinics and treatment facilities. The model harnesses community platforms such as churches, markets and bus stops to deliver more accessible continuum of care services and alleviate the burden on overwhelmed health systems.

Community posts offer convenience to PEPFAR clients, addressing barriers to service by reducing the time, resource, and stigma constraints of accessing HIV treatment and care from traditional clinic settings. Posts are chosen and outfitted to appear discreet, and they employ local, trusted staff trained in customer core "RECIPE" values: responsibility, empathy, compassion, integrity, passion, and ethics.

"We learned men do not easily visit health facilities, but when testing is available near them, they easily take up testing," said Lugalia. "Individuals living with HIV who interrupt treatment due to various barriers are brought back to treatment through a community post and monitored on a weekly basis."



### About HJFMRI

HJFMRI works with many organizations in Kenya to support medical research and HIV prevention, care and treatment programs funded by PEPFAR. Our main research partners include: WRAIR-Africa, KEMRI, KEMRI-Kericho Clinical Research Centre; KEMRI-Kisumu Clinical Research Center; KEMRI-Kisian Laboratory; KEMRI-Kombewa Clinical Research Centre; Microbiology Hub Kericho; and Moi University Clinical Research Center.

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