



**International Research
Centre of Excellence (IRCE)**

3rd IRCE Annual
**Scientific
Symposium**

Theme: Combating Viral Threats
through Public Health Response
and Research

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Welcome to the International Research Centre of Excellence (IRCE) at the Institute of Human Virology Nigeria (IHVN)

Meet the IRCE-IHVN Executives



Dr. Patrick Dakum,

MBBS, MPH, Dip. Theo

Chief Executive Officer,
Institute of Human Virology, Nigeria (IHVN)

Associate Professor, Department of Epidemiology and Public Health
at the University of Maryland School of Medicine, Baltimore.

Prof. Alash'le G. Abimiku,

MON, MSc., PhD

Executive Director,
International Research Center of Excellence (IRCE) of the
Institute of Human Virology Nigeria (IHVN).

Professor, Department of Medicine at the University of
Maryland School of Medicine

Co-founder, IHVN



Dr. Charles Olalekan Mensah,

CGMA, MACHE

COO/Managing Director, Institute of Human Virology Nigeria (IHVN)

Dr. Evaezi Okpokoro,

MD, MPH

Assistant Director and Coordinator, International Research
Center of Excellence (IRCE) of the Institute of Human Virology
Nigeria



Scientific Symposium Committee

Prof. Alash'le Abimiku	Executive Director, IRCE (Chair)
Dr. Evaezi Okpokoro	Coordinator, IRCE & Assistant Director (Co-Chair)
Mr. Olu Alabi	Director of Finance and Administration (Member)
Dr. Sophia Osawe	HOD Research Operations, IRCE & Senior Research Manager (Member)
Dr. James Onyemata	HOD Molecular Diagnostics/Omics Research, IRCE & Program Manager (Member)
Mrs. Rita Okonkwo	HOD Global Health Security/Surveillance, IRCE & Senior Research Manager (Member)
Mrs. Fati Murtala-Ibrahim	Director, Strategic Information (Member)
Dr. Helen Omuh	Director, Prevention Care and Treatment (Member)
Mrs. Petronilla Ozumba	Deputy Director & HOD Clinical Laboratory Services (Member)
Ms. Blessing Ukpabi	IEC Manager (Member)
Dr. Abiodun Enoma	Program Officer, Infection Prevention Control and Quality Improvement, IRCE (Secretary)
Secretariat	
Dr. Abiodun Enoma	Program Officer, Infection Prevention Control and Quality Improvement, IRCE – (Lead)
Ms. Temitope Olukomogbon	Post Award Research Grant Administrator (Member)
Mrs. Chidinma Ibe	Project Lead, Infection Prevention and Control, IRCE(Member)
Mrs. Clare Ohunayo	Administrative Officer, IRCE (Member)

Opening Remarks



On behalf of the IHVN board of directors and the executive, I extend a warm welcome to all our guests, policy makers and representatives from the government of Nigeria, researchers – young and seasoned, industry partners, colleagues from the academia, students, and the community we serve. It is an honour to welcome you to the IHVN campus for the 3rd IRCE Annual Scientific Symposium (ISS2025).

This year's theme, "Combating Viral Threats Through Public Health Response and Research" could not be more timely. The COVID-19 pandemic and several re-occurring outbreaks in Nigeria including Mpox, Lassa, Yellow fever, Dengue, all point to the fact that we will continue to face these viral threats and unless we use our experiences to develop our ecosystems so that we are better prepared for the next one which will inevitably manifest, we will continue to suffer the consequence including increase in morbidity and mortality and stress on our health infrastructure and workforce. The current shift in global funding for research and public health poses new challenges for researchers everywhere, but particularly in developing countries, where resources are often stretched and competing priorities are many. These changes have tested the resilience of our institutions, the creativity of our researchers, and the strength of our collaborations. Yet, history and experience have taught us that in the face of challenges - we as humans push forward, we innovate, we adapt, and we persist. We have all continued, against all odds and by sheer passion, to find creative and resourceful ways to confront unrelenting public health challenges, knowing that these threats are inevitable.

In the two days of our scientific symposium, you will hear from experts as they bring us keynote address, plenary presentation and participate in dialogues as panelists. You will also hear from the young and early career researchers with fresh perspectives and innovative approaches. These insights from the seasoned researchers and our Gen Zs will challenge our thinking, spark collaborations, and inspire bold new ideas.

Let us use this gathering not only to share knowledge, but to forge lasting partnerships with each other and with our governments. Let us commit ourselves to building resilient health systems, ensuring that our research continues to serve our communities, especially the people who need it most.

Let us together make these two days count – for research and innovation, for collaboration, for solutions to public health that we face, and for the legacies we are building.

As the Executive Director of the International Research Center of Excellence at the Institute of Human Virology Nigeria, I welcome you once again to the 3rd IRCE Annual Scientific Symposium (ISS2025).

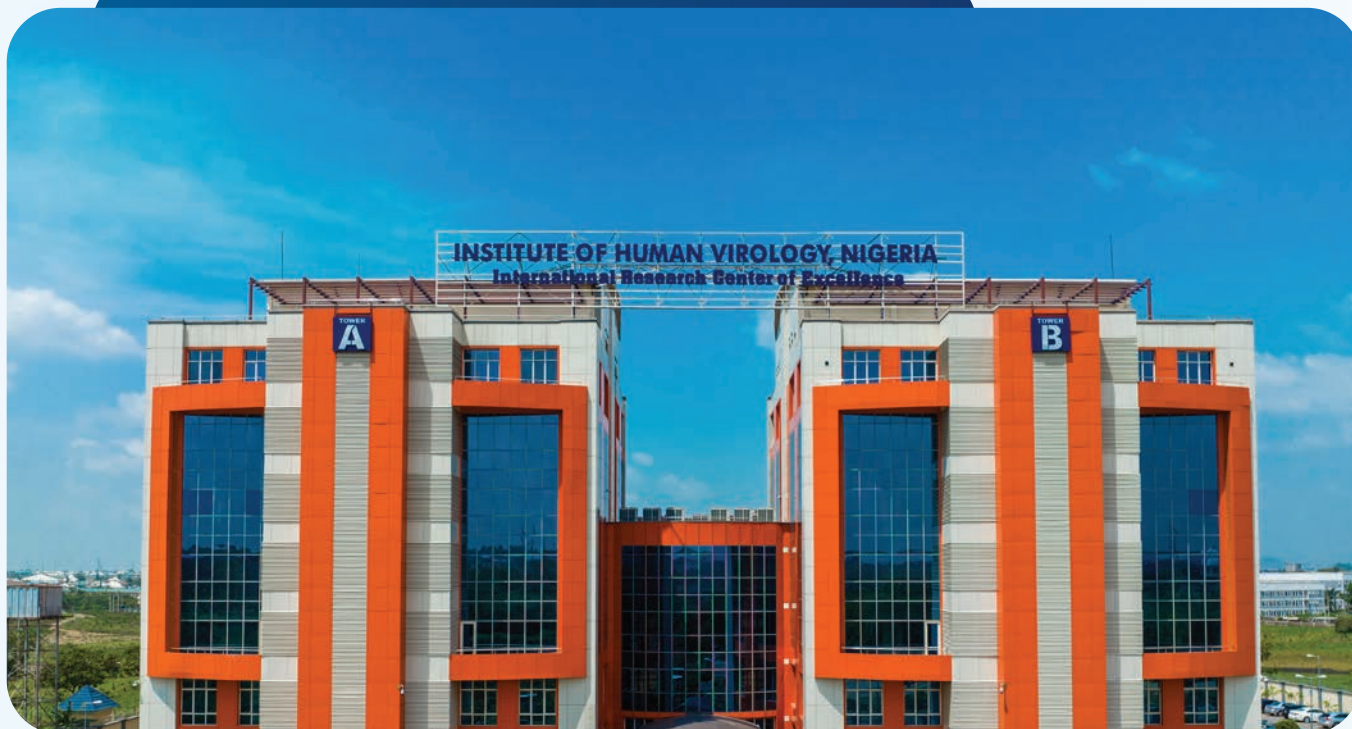
With Regards,

Prof. Alash'le Abimiku MON PhD

Executive Director, International Research Centre of Excellence (IRCE).

Professor, Institute of Human Virology at the University of Maryland, School of Medicine, USA

Overview of IRCE



Preamble

The actualization of the International Research Centre of Excellence (IRCE) solidifies the Institute of Human Virology Nigeria's (IHVN) prime position as a leader in providing quality health services, capacity building, and health-related research in West Africa, as well as its commitment to excellence in research and collaboration. IHVN, through IRCE, aimed to bridge the gap between its two centres, IRCE and Centre for Public Health Implementation (CPHI), through research, treatment, and prevention by fostering collaboration between scientists, both international and local, healthcare providers, the government of Nigeria, and the communities it serves. Over the years, IRCE has played a pivotal role in pioneering innovative research geared towards providing high-quality healthcare services and building capacity within the Nigerian healthcare system. Take a closer look at the historical milestones of the IRCE:

Gaps filled by IRCE

The PEPFAR and Global Fund-funded HIV and TB program at IHVN, since its inception in 2004, has developed critical infrastructure, capabilities, and capacity that supported translational research that was siloed and not well coordinated. The need to harness and expand these research activities and better link research and service programs led to the formal establishment of two centers at IHVN: the Center for Public Health Implementation (CPHI) and the International Research Centre of Excellence (IRCE) in 2016. The establishment of IRCE, provides an enabling environment for established and young IHVN researchers, fostering collaborations with Nigerian and international academic and research institutions to address locally relevant public health challenges while showcasing and documenting research outputs and growth.



IRCE Goals and Objectives

IRCE possesses a clear vision and mission that aligns with IHVN's. These vision and mission statements form the basis for the overall goal and objectives of IRCE.

Goal

To provide leadership in research in Nigeria/ (West) Africa through globally standardized expertise, transparency and accountability, positively shifting the culture of research in Africa.

Objectives of IRCE

IRCE has the following main objectives to fulfill its goal of creating an enabling environment for creative thinking and innovation in science to address Nigeria's and global health priorities:

1. Promote the research mandates of IHV and IHV-Nigeria.

2. Provide a world class platform for research including clinical trials using international scientific standards, and ethical norms.

3. Foster collaborations and provide opportunities for synergism between Nigeria's finest researchers and their counterparts in international research institutions.

Formation & Early Years

At the inception of IRCE, in 2016, there were only 4 funded researchers, mostly from the diaspora. The center engaged IHVN personnel with a passion for research as well as relevant experiences to drive the vision and mission of the center, and to train and mentor these pioneer personnel towards becoming the critical mass needed to push the research agenda of the center. The founding Executive Director, Prof Alash'le Abimiku, had a pioneer coordinator in the person of Dr. Florence Bada from 2016 to 2018. Dr. Bada is known for her drive for details and timeliness. She eventually left for her PhD and handed over the role to Dr. Elima Jedy-Agba, who stabilized the centre and contributed significantly towards strengthening the grantsmanship, funding, and human resource development at IRCE from 2018 - 2023. Dr. Okpokoro is currently the assistant director for the centre and has firmed up the operational structure of IRCE towards meeting the growth, vision, and mission of IRCE. Currently, the centre over 20 research faculty and over 112 supportive staff with diverse and complementary expertise and skills.

Currently, IRCE supports and encourages its staff to apply for fellowships at renowned centres with a view to coming back to strengthen the capacity of IRCE. Three staff members successfully completed the WHO Tropical Disease Research Fellowship and are back at the Centre in leadership positions while training others. Through its multidisciplinary team of scientists, clinicians, and public health experts, the centre has conducted ground-breaking studies, generated crucial data, and contributed to the global understanding of viral diseases.

Research Diversification and Excellence

Given the background of IHVN on curbing the HIV epidemic, most of the research themes and interests of IRCE have been on HIV/AIDS. This edge-cutting HIV/AIDS research work was crucial in expanding the understanding of the epidemic, exploring transmission dynamics, studying drug resistance, optimizing treatment strategies, and developing innovative prevention interventions.

However, IRCE gradually expanded its research portfolio to include other infectious diseases such as Tuberculosis, Malaria, viral Hepatitis, COVID 19, Monkey Pox, emerging viral infections and noncommunicable diseases. This diversification has allowed the centre to contribute to the understanding and control of both infectious and non-infectious diseases. IRCE currently has over 35 active grants across diverse research interest as depicted in the chart.

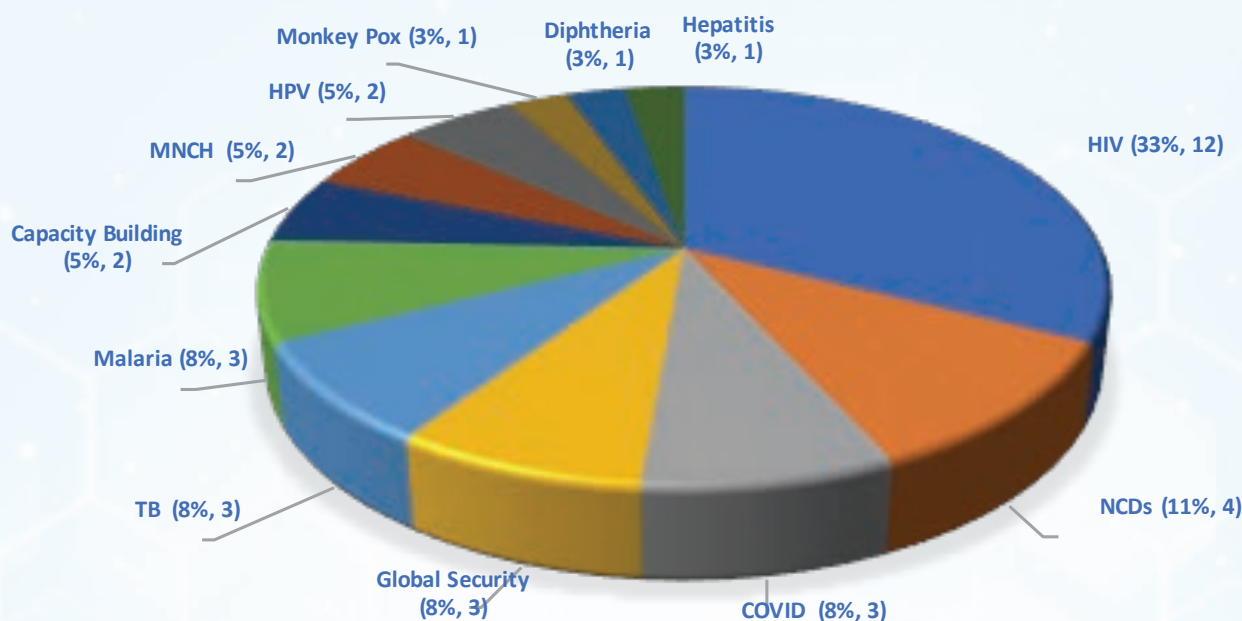


Figure 1 Research areas of IRCE

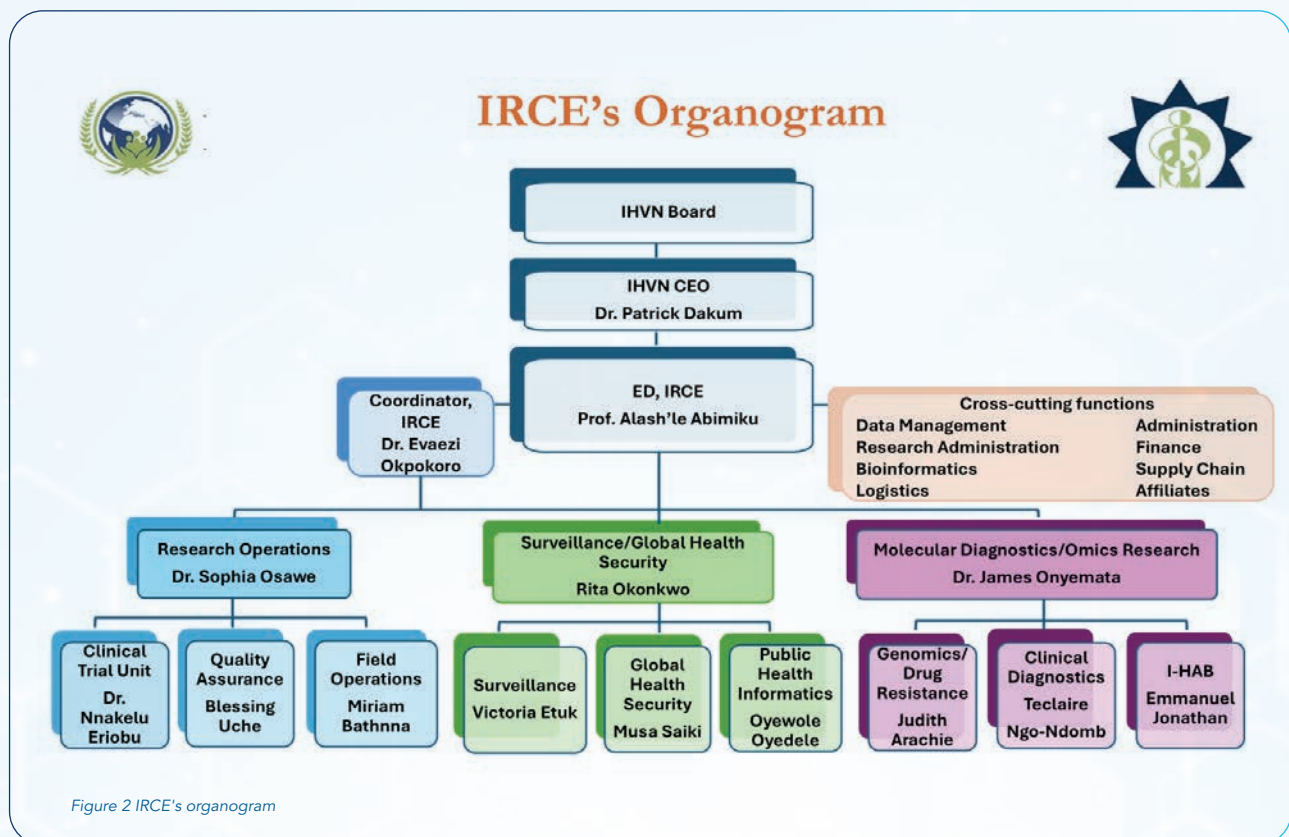
Operational Structure

IRCE's operational structure adopts a hybrid model in which the Principal Investigator (PI) leads the execution of each research study, with targeted support provided by IRCE's core departments. These departments oversee the supportive units, which offer operational expertise based on the needs of each project, while also ensuring adherence to ethical norms.

This model reflects the transition from previously defined "supportive units" to formalized departments, each with designated leads, as outlined:

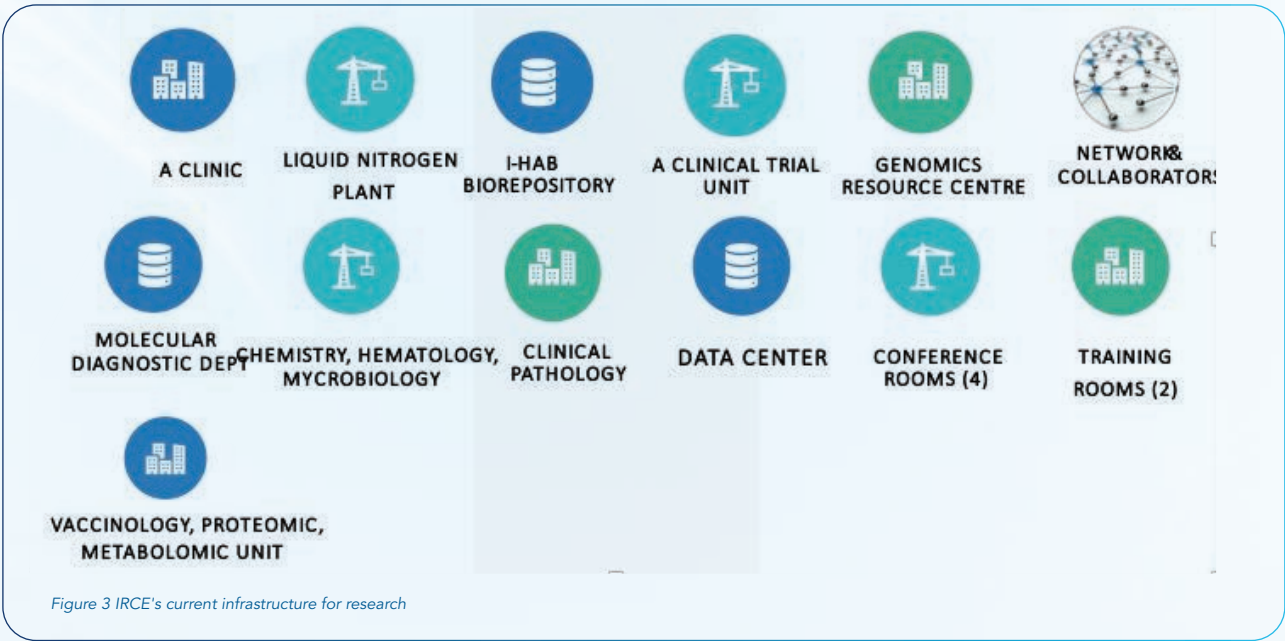
- Coordinator, IRCE – Dr. Evaezi Okpokoro
- Molecular Diagnostics/Omics Research Department – Dr. James Onyemata
- Global Health Security/Surveillance Department – Rita Okonkwo
- Research Operations Department – Dr. Sophia Osawe

This departmental framework ensures cross-functional collaboration, improved oversight, and strengthened research implementation across IRCE's diverse scientific portfolios.

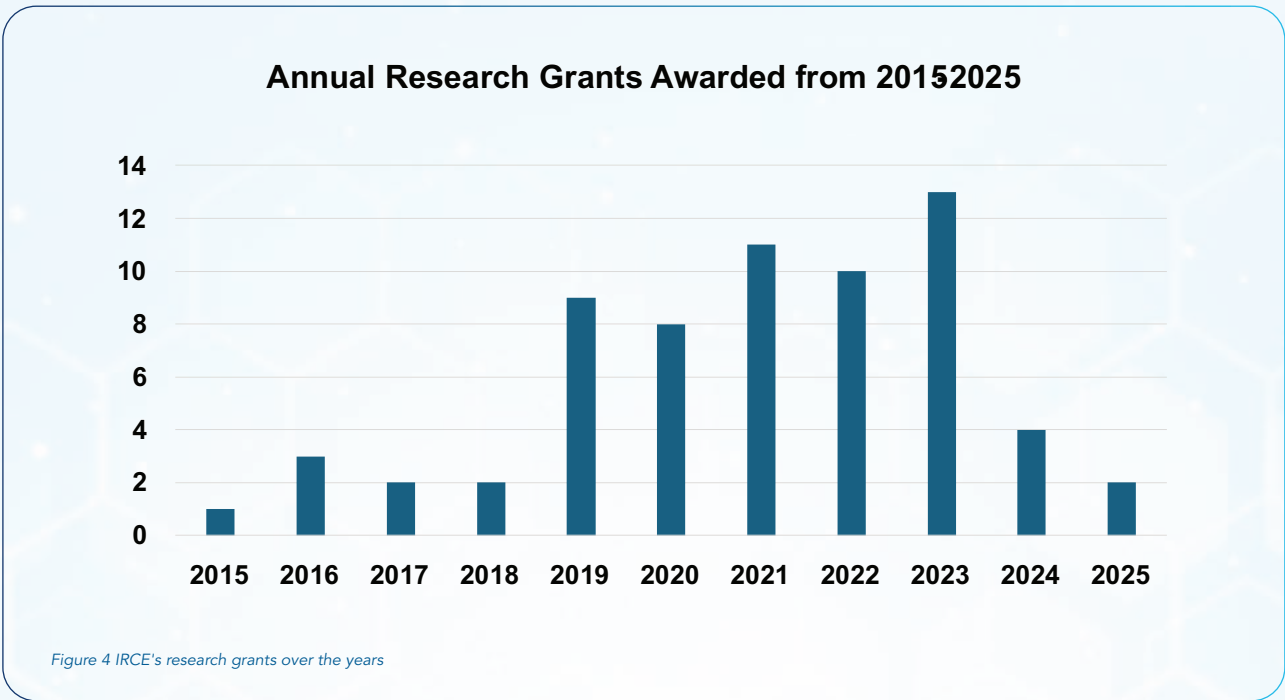


Research Infrastructure

IRCE’s research efforts are successfully supported by our robust infrastructure.



IRCE’s staff strength is over 112 researchers and research staff, actively engaged in the implementation of diverse research projects. The research output of the centre is categorized in the sections below.



Collaborative Partnerships

The impact of the Institute of Human Virology Nigeria's International Research Center of Excellence (IRCE) extends well beyond its groundbreaking scientific contributions. IRCE has established itself as a hub for collaboration, fostering enduring partnerships with a wide range of stakeholders including leading local, national, and international research institutions, funding agencies, universities, government bodies, industry partners, and non-profit organizations. These collaborations serve as a cornerstone of IRCE's mission, enabling the attraction of significant research funding, the strengthening of healthcare systems, and the building of research capacity through knowledge exchange, training, and mentorship. Importantly, such partnerships have also facilitated the translation of scientific discoveries into real-world interventions and practical solutions that address pressing public health challenges.

The vibrancy of IRCE's collaborative network is evident in the steady growth of its engagements with key partners. In 2022 alone, the Centre welcomed nine collaborative visits from both current and potential partners. These included

high-profile engagements with industry partners like Roche, Health Focus GmbH & UNIGLOVES Nigeria, Inqaba Biotech West Africa (IBWA) and academia/research institutions such as West Africa Centre of Excellence for Emerging Infectious Diseases (WAC-EID), the Aurum Institute in South Africa, the African Academy of Sciences (AAS), and others. Each of these visits provided opportunities to explore new research directions, expand technical capacity, and strengthen regional and global networks. Building on this momentum, IRCE has already recorded ten collaborative visits in 2023, a figure that continues to grow as the Centre attracts increasing recognition as a leader in health research and innovation.

Through these strategic collaborations, IRCE not only enhances its own capacity but also contributes to broader scientific advancement and public health improvement across Africa and beyond. Its role as a trusted partner and convener underscores its vision of advancing cutting-edge research while ensuring that outcomes are translated into tangible benefits for communities.

Impact on Policy and Practice

Key research conducted by IRCE have had significant impact on health policies

and practices in Nigeria. The center's contributions to HIV/AIDS research have informed global efforts in managing and controlling the epidemic. For instance, through the Nigerian Canadian Collaboration on AIDS Vaccine study (PI – Prof Abimiku), the team was invited in revising of the National HIV vaccine plan. Other studies conducted in IRCE have influenced treatment protocols, and prevention strategies, leading to improved healthcare delivery and outcomes. IRCE collaborations with international partners have facilitated knowledge exchange, shared learning, and the implementation of best practices worldwide.

Highlights from the 2nd IRCE Scientific Symposium

The 2nd IRCE Annual Scientific Symposium brought together experts on sickle cell disease, cancer, and other health challenges to strengthen collaboration and exchange ideas. In his keynote address, Dr. Mark Gladwin, Dean of the University of Maryland School of Medicine, highlighted that Nigeria records the highest number of births with sickle cell disease worldwide, yet the condition often receives less priority than infectious diseases such as HIV, malaria, and tuberculosis. He emphasized the importance of early

diagnosis and recommended the use of hydroxyurea, which has been shown to improve survival, reduce painful episodes, and prevent organ damage, though not a cure. He also noted ongoing advances in new therapies for sickle cell disease.

Dr. Gladwin reaffirmed that the University of Maryland's long-standing partnership with the Institute of Human Virology Nigeria (IHVN) in HIV, TB, and malaria research would serve as a foundation for expanding into non-communicable diseases like cancer and sickle cell. Welcoming participants, IHVN's CEO, Dr. Patrick Dakum, stressed the Institute's commitment to strengthening both local and international partnerships across public, private, and faith-based organizations. IRCE's Executive Director, Prof. Alash'le Abimiku, expressed optimism that the symposium would foster meaningful collaborations to drive innovation and research capacity. She reiterated IRCE's mission to serve as a hub for discovery, collaboration, and mentorship, while upholding ethical research for the benefit of both local and global communities.

Book of abstracts ISS2024:

<https://ihvn-irce.org/latest/ook-of-abstracts-irce-2nd-annual-scientific-symposium/>

Theme for ISS 2025: Combating Viral threats through Public Health Response and Research

The International Research Centre of Excellence (IRCE) of the Institute of Human Virology Nigeria (IHVN) proudly presents the third edition of its Annual Scientific Symposium, ISS2025 focused on knowledge exchange to inspire progress in the fight against viral threats. This year's scientific symposium is a hybrid event bringing together researchers, scientists, policymakers, healthcare providers, early career researchers, and public health professionals to share data and discuss Combating Viral Threats Through Public Health Response and Research.

ISS2025 serves as an immersive platform where early-career and established investigators alike converge to explore innovative and interdisciplinary approaches to viral surveillance, diagnostics, therapeutics, and epidemic preparedness. Through five thoughtfully structured thematic tracks, participants will delve into wide-ranging topics from epidemiology, molecular diagnostics, and AI-driven surveillance in Track A, to vaccine and therapeutic advancements in Track B. Track C emphasizes One Health and climate-sensitive perspectives on spillovers and co-infections, while Track D focuses on strengthening health systems, pandemic preparedness, and infection control. Track E rounds out the program by engaging attendees in community engagement strategies, behavioral insights, and communication science. The symposium also encourages broad participation by inviting submissions of oral and poster abstracts across these themes. Researchers are provided guidance to ensure submissions are clear, concise, and methodologically robust, enhancing peer review and fostering high-quality presentations. Early bird registration opens in July, followed by standard and late registration phases to accommodate a diverse audience.

Whether attending in person or virtually, participants will gain the opportunity to network with regional and international experts, shape research agendas, and contribute to strengthening the continent's collective response to viral disease threats through scientific excellence and public health action.

Program of Events

3rd IRCE Scientific Symposium 2025: Combating Viral Threats through Public Health Response and Research

Monday 8th September 2025
Venue: IHVN Symposium hall
Plenary talks /Parallel sessions / Round table:

8:30-9:00 AM	Arrival and Registration	
9:15-9:20 AM 9:20 - 9:25AM 9:25 - 9:30AM	Chair: Prof Alash'le Abimiku Topic Speaker	
	Welcoming address	Patrick Dakum (CEO IHVN)
	Opening remarks	Alash'le Abimiku (ED IRCE)
	Goodwill messages	FMoH, Dr. Jide Idris (DG NCDC), Dr. Temitope Ilori (DG NACA), Dr. Muyi Aina (DG NPHCDA), Prof. Charles Anosike (DG NiMET), Dr. Zubaida Umar Abubakar (DG NEMA), Dr. Farah Hussain (US CDC), Prof. Patricia Lar (Past Acting VC of UoAbuja), Dr Adebobola Bashorun (DG NASCP)
Plenary Chair: Prof Alash'le Abimiku		
9:30 - 9:50 AM	Plenary Talk 1: Viruses of pandemic and public health importance in Nigeria	Dr. Tosin Afowowe (NCDC)
9:50 - 10:10 AM	Plenary Talk 2: State governments' efforts towards combating Lassa fever & Dengue fever in Edo state	Dr Cyril Adam Oshomole (Hon. Commissioner for Health, Edo state)
10:10 - 10:30 AM	Plenary Talk 3: Surveillance: An important early warning tool for pandemic preparedness	Dr. Husain Farah (US CDC)
10:30 - 11:00 AM	Tea Break & Poster viewing	
11:00-11:30 AM	Key note address: Threats to Global collaborations on pandemics in the new dispensation	Prof. Manhattan Charurat

Program of Events

Parallel Sessions Chairs:			
11:30-13:00	Chair: Prof Rosemary Audu (NIMR) Mpox parallel session (Room 1)	11:30 -1:00	Chair: Dr. Sylvia Adebajo HPV/Hepatitis/SARS-CoV-2/Other diseases Parallel session (Room 2)
11:30-11:45	Prof. Dimie Ogoina: History, and epidemiology of mpox in Nigeria.	11:30-11:40	Dr Nanma Tongnan Cosmas (University of Jos): HPV Prevalence and risk factors among adolescent girls, women living with HIV, and sexual abuse survivors in Jos, Nigeria
11:45-12:00	Dr. Adeyinka Adedeji: Monkeypox virus animal reservoir surveillance in Nigeria. Lessons learned so far.		
12:00-12:07	Dr. Christine Navarro: Effectiveness of modified vaccinia Ankara-Bavarian Nordic vaccine against mpox infection: emulation of a target trial	11:40-11:50	Dr Victoria Igbinomwanhia (IHVN): Cervical Cancer Screening Uptake Among Women in Rural Communities in FCT Abuja, Nigeria- A Community-based Cross-sectional Study (ISS044)
12:07-12:14	Dr Adam Abdullahi (IHVN-IRCE): Silent Mpox Transmission and Residual Smallpox Immunity in a Nigerian population (ISS015)	11:50-12:00	Dr. Amadou Kodio (USTTB-Mali): Diagnosis of HPV using GeneXpert in MSM using anal swab samples
12:14-12:21	Dr. Joseph Shaibu: Detection and phylogenetic analysis of circulating clades of mpox among human and environmental samples in Nigeria.	12:00-12:10	Dr. Nifarta Andrew (IHVN-IRCE): Burden of Respiratory Syncytial Virus (RSV) and Associated Mortality among Under- Five Children in Sub-Saharan Africa: Implications for Vaccination Policy and Public Health Planning (ISS066)
12:21-12:28	Chinye Osa-Afiana (IHVN-IRCE) Beyond Diagnosis: Lived Experiences, Stigma, and Naming of Mpox – Findings from the VERDI Nigeria Qualitative Study	12:10-12:20	Ambi Ibrahim (: Predictors of COVID 19 vaccine uptake among students of a tertiary institution in north central Nigeria (ISS075)
12:28-13:00	Q&A session/Panel discussion: Dr. Oluwadara Asaolu, Dr. Adejoke Kolawole, Dr. Maren Damala - Barriers and gaps in mpox public health response and research	12:20-13:00	Q&A session

Program of events

	Topic	Speaker
13:00- 14:00 PM	Lunch	
14:00- 15:00 PM	Moderator: Dr Evaezi Okpokoro	
	Early Career Investigators presentations	
	Presentation 1: Awareness of HPV Vaccination among Adolescent Girls Living with HIV in Benue State, Nigeria (ISS001)	Onyeka Uchejim
	Presentation 2: Silent Signals-Unearthing Arbovirus Molecular Secrets and Diagnostic Challenges in Senegal and West Africa	Dr. Idrissa Dieng
15:00- 16:00 PM	Presentation 3: Seroprevalence and Molecular Characterization of Dengue Virus Among Febrile Patients Attending Federal Medical Center Keffi, Nigeria (ISS007)	Anzaku Mark
	Chair: Dr. Muyi Aina (DG NPHCDA)	
	Round table panel discussion on Vaccines, Vaccine uptake, Vaccine Hesitancy	
16:00- 17:00 PM	Panellists: Prof Morenike Ukpong (IVI), Dr Joseph Urang (Rivers SIO), Dr. Okoli Nicholas (FCT SIO), Sophia Osawe (IHVN-IRCE), Dr. Uzodinma Adirieje (Community rep)	
	Poster viewing and Exhibitions	

Program of Events

3rd IRCE Scientific Symposium 2025: Combating Viral Threats through Public Health Response and Research

Tuesday 9th September 2025
Venue: IHVN Symposium hall
Plenary talks /Parallel sessions / Round table:

8:30-9:00 AM	Arrival and Registration	
9:00 - 9:10AM	Chair: Prof Alash'le Abimiku	
	Topic	Speaker
	Opening remarks: Dr Patrick Dakum (CEO, IHVN)	
Plenary Chair: Dr. Patrick Dakum (CEO, IHVN)		
9:10- 9:20 AM	Plenary Talk 1: Strengthening State-Level Surveillance Systems for Lassa Fever: Lessons from Ondo, Nigeria	Prof. Michael Simidele Odimayo (Ondo state)
9:20- 9:40 AM	Plenary Talk 2: Importance of the President Initiative for UnlockingHealthcare Value Chain (PVAC) in preparing for the next pandemic	Dr Saidu Sa'adu (PVAC)
9:40- 10:00 AM	Plenary Talk 3: Surveillance: An important early warning tool for pandemic preparedness	Prof Alash'le Abimiku (ED IRCE)
10:00- 10:30 AM	Keynote note address: Emerging viruses: Is Dengue becoming a public health concern in Nigeria?	Prof Oyewale Tomori
10:30-11:30 AM	Tea Break & Poster viewing and exhibition	

Program of Events

Parallel sessions Chairs:			
11:30-13:00	Chair: Dr. Tosin Afowowe (NCDC)		Chair: Dr Banji Ipadeola (US CDC)
	Disease Surveillance/Wastewater Surveillance (Room 1)		One Health/AMR parallel session (Room 2)
11:40-11:50	Dr Emelda Chukwu (NIMR): Tracking Public Health Threats through wastewater: Lessons from surveillance of wastewater canals in Lagos State.	11:30-11:40	Dr Sati Ngulukun (NVRI): The One Health approach to address public health issues
11:50-12:00	Chinedu Ude (IHVN-IRCE): Implementing a wastewater surveillance strategy within the FCT region: The IHVN-IRCE strategy.	11:40-11:50	Dr Callista Osuocha (MSH): Antimicrobial Resistance: Surveillance & Stewardship Across Humans, Animals, and the Environment in Nigeria: MSH/Flemming Fund Support
12:00-12:10	Idowu Peter Adewumi: Trends, Public Health Implications, and Emerging Concerns of Lassa Fever in Ondo State, Nigeria (ISS009)	11:50-12:00	Mrs Niniola Williams (DRASA): From People to Policy: DRASA's Approach to Driving AMR Innovation
12:10-12:20	John Noah: Climate-Sensitive Predictors of Lassa Fever Outbreaks in Kogi State, Nigeria: A Retrospective Analysis (2019–2024) (ISS029)	12:00-12:10	Yusuf Amuda Tajudeen: Investigating the risk of zoonotic pathogen spillover at the human-animal interface in a biodiversity hotspot in Ibarapa District of South-Western Nigeria: A Mixed-Method Study (ISS063)
12:20-13:00	Q&A session	12:10-12:21	Q&A session:

Program of Events

	Topic	Speaker
13:00- 14:00 PM	Lunch	
14:00- 15:00 PM	Moderator: Dr. James Onyemata	
	Early Career Investigators presentations	
	Presentation 1: Using Machine Learning to Classify Viral Lineages Presentation 2: , IHVN-IRCE: Vaccine Coverage Mapping: A Proactive Tool to Plan and Prepare for Future Epidemics and Pandemics in Nigeria. Presentation 3: Spatiotemporal and Trend Analysis of Monkeypox Incidence in Eight African Countries using Surveillance Data from 2022 to 2024 (ISS065)	Daniel Van Zyl, Stellenbosch Univeristy: Victoria Etuk, IHVN-IRCE: Abisola Babatope,
	Chair: Mrs. Zubaida Umar (DG NEMA)	
15:00- 16:00 PM	Round tabel panel discussion on Data Science & Genomic Tools (Geospatial, ML/AI approaches, Mobile apps)	
	Panellists: Panelists: Prof Lanre Lawal (UoPortHarcourt), Dr Vincent Meurrens (EPCON), Christina Riley (AKROS Inc), Prof Alash'le Abimiku (IHVN-IRCE)	
16:00- 16:10 PM	Closing remarks by Dr. Charles Mensah, IHVN COO/MD	
16:10- 17:00 PM	Poster viewing and Exhibitions	

Profile of Key Speakers



PLENARY TALK 1: VIRUSES OF PANDEMIC AND PUBLIC HEALTH IMPORTANCE IN NIGERIA

Dr. Tosin Afowowe is a Senior Veterinary Officer and Virologist at the Nigeria Centre for Disease Control and Prevention (NCDC). He holds a Doctor of Veterinary Medicine (2010) and MSc in Virology (2016) from the University of Ibadan, and a PhD in Virology (2023) from Nagasaki University, Japan. His research focuses on antiviral discovery, including his recent work identifying Topoisomerase II as a novel antiviral target against panarenaviral diseases.

Dr. Afowowe is the first Nigerian beneficiary of the JICA PREPARE Program and the first Nigerian virologist to present at the Global Virology Symposium. He has received international recognition, including a travel grant to the 43rd Annual Meeting of the American Society for Virology in Ohio, USA. At this conference, he will serve as Session Chair for the parallel session on Disease Surveillance/Wastewater Surveillance.



PLENARY TALK 2: STATE GOVERNMENTS' EFFORTS TOWARDS COMBATING LASSA FEVER & DENGUE FEVER IN EDO STATE

Dr. Cyril Adams Oshiomhole is the **Honourable Commissioner for Health, Edo State, Nigeria**, a physician and public health specialist with extensive training in environmental health, toxicology, and disaster management. He holds an MBBS from Ahmadu Bello University, an MSPH from Tulane University, a Postgraduate Certificate in Clinical Research from Harvard Medical School, and a Postgraduate Certificate in Gastroenterology from Queen Mary University of London. Dr. Oshiomhole has broad experience in healthcare delivery, research, and policy advocacy. He has also advanced training, leadership, crisis management, and civic engagement, with a strong focus on improving health outcomes for underserved populations. His leadership reflects a deep commitment to equity, innovation, and evidence-based public health practice.

Profile of Key Speakers



PLENARY TALK 3: SURVEILLANCE: AN IMPORTANT EARLY WARNING TOOL FOR PANDEMIC PREPAREDNESS

Dr. Farah Husain is the Program Director for the U.S. CDC's Division of Global Health Protection. She joined CDC in 2008 as an Epidemic Intelligence Service (EIS) Officer with the Emergency Response and Recovery Branch. Her expertise spans communicable disease surveillance and water, sanitation, and hygiene (WASH) in emergency and humanitarian settings.

Over the past decade, Dr. Husain has led and supported emergency disease surveillance and outbreak response efforts in more than a dozen countries, including Iraq, Syria, Cameroon, Uganda, South Sudan, Sri Lanka, Pakistan, Haiti, Nepal, Mozambique, Jordan, Turkey, and Kenya. She has collaborated closely with the World Health Organization to develop standardized guidelines for evaluating emergency disease surveillance systems and advancing epidemiological methods among WASH partners in crises.

Before joining CDC, Dr. Husain worked with International Medical Corps and the Pan American Health Organization. She earned her BS from McGill University, a Doctor of Dental Medicine (DMD) from Tufts University School of Dental Medicine, and a Master of Public Health (MPH) from Harvard University.



PRESENTATION #1 : AWARENESS OF HPV VACCINATION AMONG ADOLESCENT GIRLS LIVING WITH HIV IN BENUE STATE, NIGERIA (ISS001)

Uchejim Onyeka Eva is a public health professional with over ten years of experience in monitoring and evaluation of PEPFAR, Global Fund, and other donor-funded programs across HIV/AIDS, TB, and malaria. She holds a B.Sc. in Human Physiology and an MPH in Epidemiology at Ahmadu Bello University, Zaria. Skilled in data quality assurance, program evaluation, and scientific writing, she has expertise in platforms such as DHIS2, NMRS, NDR, and DATIM.

Eva has coordinated large-scale projects, including UNICEF's Independent Verification Assessment and APIN's ART Surge, where she ensured timely reporting and strengthened program monitoring systems. Her research focuses on cervical cancer prevention among women and adolescents living with HIV, with several abstracts presented at national conferences. She has co-authored peer-reviewed publications and is committed to advancing evidence-based interventions to improve public health outcomes in Nigeria and beyond.

Profile of Key Speakers



PRESENTATION #2: SILENT SIGNALS-UNEARTHING ARBOVIRUS MOLECULAR SECRETS AND DIAGNOSTIC CHALLENGES IN SENEGAL AND WEST AFRICA

Dr. Idrissa Deng is a dedicated academic researcher at the Institute Pasteur de Dakar, specializing in medicine and dengue virus research. With an h-index of 4 and 10 peer-reviewed publications, his work focuses on dengue genomics, molecular epidemiology, and emerging arboviruses.

Mr. Dieng is affiliated with the Arboviruses and Hemorrhagic Fever Viruses Unit within the Virology Department of the institute, where he applies systems biology and bioinformatics methods to understand dengue evolution and spread in West Africa.

Notable work includes: Detailed investigation of circulating dengue virus serotypes and genotypes in Senegal during 2017–2018, mapping spatial-temporal virus spread. Full-genome phylogenetic analysis of Dengue Virus 2 (DENV-2) in Senegal, revealing regional diversification and clade-specific mutations.

His expertise in dengue virus surveillance and molecular epidemiology makes him a valuable contributor to regional arbovirus research and public health strategy.



PRESENTATION #3: AWARENESS OF HPV VACCINATION AMONG ADOLESCENT GIRLS LIVING WITH HIV IN BENUE STATE, NIGERIA

Anzaku Mark is a dedicated Medical Microbiologist with a strong focus on infectious disease epidemiology and virology. He is committed to driving significant public health impact through rigorous research, evidence-based practices, and science communication.

Mr. Mark holds a Bachelor of Applied Science in Microbiology from Nasarawa State University Keffi, where he built a robust foundation in microbial pathogenesis, immunology, and molecular diagnostics. His academic background ignited a passion for addressing public health challenges, particularly in the areas of outbreak investigation and pathogen surveillance.

Profile of Key Speakers



ROUND TABLE PANEL DISCUSSION: VACCINES, VACCINE UPTAKE, VACCINE HESITANCY

Professor Morenike Oluwatoyin Folayan Ukpung is a Professor at the Obafemi Awolowo University and a clinician at the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife, Nigeria, where she trains undergraduate and postgraduate students in child and adolescent oral health. She serves as Deputy Director of the College of Health Sciences Research & Partnership Advancement (CoRPA) Unit and Head of the Research and Innovation Support Unit, focusing on grants, partnerships, and research capacity building.

Her research spans the epidemiology of early childhood caries, adolescent oral health integration, and management of dental anxiety in children. With over 25 years of experience in HIV research, prevention, advocacy, and bioethics across Nigeria and Africa, she has led multiple community engagement initiatives, national HIV strategic plans, and evaluations for global partners such as WHO, UNAIDS, UNICEF, and USAID.

Professor Folayan Ukpung serves on several international scientific committees, including WHO/UNAIDS advisory groups, CROI, IAS, and ICASA, and holds editorial roles with BMC Oral Health, Global Bioethics, Community Dental Health Journal, and the Nigeria Journal of Health Sciences.



ROUND TABLE PANEL DISCUSSION: VACCINES, VACCINE UPTAKE, VACCINE HESITANCY

Dr. Hadley Ikwe is a Senior Immunization Specialist with the U.S. Centers for Disease Control and Prevention (US-CDC). A dedicated public health physician and epidemiologist, he is a transformative leader with a profound passion for improving health outcomes for underserved populations, particularly women and children.

His expertise spans health systems strengthening, vaccines, reproductive health rights, and humanitarian response. With a career dedicated to equity, Dr. Ikwe specializes in strategic program management, technical writing, and developing impactful public health interventions.

He champions an integrated approach to strengthen Nigeria's health systems, combining primary healthcare with immunisation, HIV/AIDS, tuberculosis, and malaria programs.

Profile of Key Speakers



ROUND TABLE PANEL DISCUSSION: VACCINES, VACCINE UPTAKE, VACCINE HESITANCY

Dr. Uzodinma Adirieje is a Nigerian health economist, evaluator, researcher, and a prominent figure in the field of sustainable development and public health. He is known for his work in monitoring and evaluation (M&E) and his leadership of the Afrihealth Optonet Association. As the Chief Executive Officer, Afrihealth Optonet Association (AHOA): Dr Adirieje heads AHOA, a global network and think tank for civil society organizations (CSOs) focused on health and sustainable development.

With over 15 years of expertise, he specializes in designing and implementing large-scale M&E systems, program reviews, and surveys across health and development sectors, particularly focusing on HIV/AIDS, TB, malaria, COVID-19, immunization, and primary healthcare in Africa and the Global South.

Dr. Adirieje has served as an M&E consultant for prestigious organizations including UNICEF, the British Council, the Global Fund, GAVI, the World Bank, and the Federal Ministries of Health and Finance in Nigeria. He led the development of Nigeria's National Monitoring and Evaluation Policy (2020).



ROUND TABLE PANEL DISCUSSION: VACCINES, VACCINE UPTAKE, VACCINE HESITANCY

Dr. Sophia Osawe is the Head of Research Operations at the International Research Centre of Excellence (IRCE), IHVN, where she leads the Clinical Trial Unit, Quality Assurance Unit, and Field Operations Unit. With over 17 years of expertise, she specializes in infectious diseases, immunology, vaccine research (particularly prenatal vaccine hesitancy and uptake), maternal and neonatal health, and laboratory systems strengthening.

A accomplished leader in global health research, Dr. Osawe has directed 10 medical laboratories in Nigeria and Malawi to ISO 15189 accreditation and managed large-scale studies, including SARS-CoV-2 serosurveys and NIH-funded clinical trials. She holds a PhD in Medical Microbiology and Immunology, an MPH, an Executive MBA in Clinical Research Administration, and specialized training in virology.

Dr. Osawe has co-authored over 20 peer-reviewed publications and continues to advance research ethics, quality management, and equitable vaccine access through her work at IHVN.

Profile of Key Speakers



PLENARY TALK 1: STRENGTHENING STATE-LEVEL SURVEILLANCE SYSTEMS FOR LASSA FEVER: LESSONS FROM ONDO, NIGERIA

Professor Odimayo Michael Simidele is a distinguished microbiologist and public health leader, currently serving as the Special Adviser on Health Matters to the Government of Ondo State, Nigeria. Prior to this appointment, he was a Professor in the Department of Medical Microbiology at Ekiti State University, Ado-Ekiti, where he dedicated his career to research and education.

His research expertise spans antibiotic resistance, microbial molecular biology, infectious diseases (particularly tuberculosis), and antimicrobials. With a strong foundation in bacteriology, molecular microbiology, and advanced laboratory techniques such as PCR, Prof. Simidele has contributed significantly to understanding microbial pathogenesis and treatment challenges. His recent investigative work also includes the study of male infertility patterns and associated factors, demonstrating the breadth of his scientific inquiry.

An active contributor to the global scientific community, Prof. Simidele has authored, reviewed, and edited for several international journals. He has published 10 influential articles, receiving notable citations for his work. His ongoing commitment to research, policy, and public health



PLENARY TALK 2: IMPORTANCE OF THE PRESIDENT INITIATIVE FOR UNLOCKING HEALTHCARE VALUE CHAIN (PVAC) IN PREPARING FOR THE NEXT PANDEMIC

Dr. Saidu Saadu Ishaq, is a physician–public health specialist with more than two decades of clinical and program leadership experience.

Dr. Ishaq has held senior roles advancing HIV prevention, treatment, and health systems strengthening. He was Medical Director at Friends in Global Health/Vanderbilt Institute for Global Health (FGH/VIGH) and later Director, Clinical Services at Friends for Global Health Initiative in Nigeria (FGHiN). He served as HIV Technical Lead/Linkage to Care Coordinator for the Nigeria AIDS Indicator and Impact Survey (NAIIS) and, Technical Adviser for HIV Epidemic Control and Sustainability with the Global Fund/NACA.

Currently he is the Technical Adviser to the Presidential Initiative for Unlocking the Health Care Value Chain (PVAC). His expertise centers on epidemic control, linkage-to-care innovations, and building resilient service delivery systems.

Profile of Key Speakers

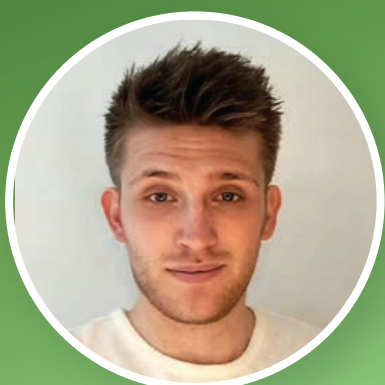


PLENARY TALK 3: ROLE OF DATA SCIENCE IN PANDEMIC PREPAREDNESS: LESSONS FROM THE COVID PANDEMIC.

Prof. Alash'le Abimiku is the Co-founder of IHV-Nigeria and Executive Director of the International Research Center of Excellence at the Institute of Human Virology-Nigeria. She is also a Professor at the University of Maryland School of Medicine, Institute of Human Virology.

Her research focuses on HIV subtypes and drug resistance, HIV pathogenesis and immunity using Nigerian birth cohorts, multidrug-resistant tuberculosis, laboratory system strengthening, and global health security.

Prof. Abimiku's career spanning over 30 years has distinguished her as an academic, scientist, and researcher. She first documented the unique HIV strain prevalent in Nigeria, HIV subtype G, which differs from the subtype B circulating in Europe and the USA. She co-founded IHV-Nigeria and continues to play a pivotal role in establishing long-term collaborations between institutions in Nigeria and research institutions in the USA and the north. She has also worked extensively to build infrastructure and mentor young scientists to support research in Nigeria and other African countries.



PRESENTATION #1 : STELLENBOSCH UNIVERSITY: USING MACHINE LEARNING TO CLASSIFY VIRAL LINEAGES

Daniel Van Zyl is a Computer Science PhD student at Stellenbosch University and a researcher at the Centre for Epidemic Response and Innovation (CERI). His work focuses on machine learning and artificial intelligence, with published research in both bioinformatics and astronomy. Passionate about AI-driven innovation, he won the Rhodes Forum Innovation Challenge at the University of Oxford in 2024. He will be presenting his latest research on applying machine learning to model viral genomic sequences."

Profile of Key Speakers



PRESENTATION #2: VACCINE COVERAGE MAPPING: A PROACTIVE TOOL TO PLAN AND PREPARE FOR FUTURE EPIDEMICS AND PANDEMICS IN NIGERIA.

Victoria Etuk is an infectious disease epidemiologist and data scientist with research interests at the intersection of epidemiology, disease surveillance and data systems. She is particularly interested in population level vaccination data, epidemic and pandemic prone diseases (emerging and re-emerging diseases), vaccine preventable diseases and HIV/TB. She is an RSTMH Early Career Grant Awardee, GSK Africa Open Lab Awardee and currently co-leads the Vaccine Coverage Mapping Pilot Project under the INFORM-Africa Research Hub of the DSI-Africa Consortium, and multiple travel grants. She holds a Bachelor of Pharmacy and Master's in Epidemiology from the University of Nigeria and University of Ibadan respectively.



PRESENTATION #3: SPATIOTEMPORAL AND TREND ANALYSIS OF MONKEYPOX INCIDENCE IN EIGHT AFRICAN COUNTRIES USING SURVEILLANCE DATA FROM 2022 TO 2024 (ISS065)

Abisola Esther Babatope is a researcher and lecturer whose work focuses on infectious disease surveillance, digital health, and public health, with a particular interest in spatiotemporal modelling of epidemic trends in Africa. She has contributed to multi-country analyses of zoonotic diseases through a recent study on monkeypox incidence and forecasting. Beyond research, she is passionate about strengthening health information systems, integrating One Health approaches, and applying data-driven methods to inform evidence-based public health decision-making.

Profile of Key Speakers



**ROUND TABLE PANEL DISCUSSION:
DATA SCIENCE & GENOMIC TOOLS (GEOSPATIAL, ML/AI APPROACHES,
MOBILE APPS)**

Vincent Meurrens is the founder of EPCON, a company dedicated to leveraging data-driven solutions to improve patient access to care. Based in the Brussels Region of Belgium, he leads initiatives that harness the power of data analytics to address systemic barriers and optimize healthcare pathways.

With a passion for transforming complex data into actionable insights, Mr. Meurrens focuses on developing innovative strategies that enhance the efficiency and equity of healthcare delivery. His work at EPCON is centered on creating tangible improvements in how patients navigate and receive care, ensuring that data serves as a catalyst for meaningful change in the health sector.



**ROUND TABLE PANEL DISCUSSION:
DATA SCIENCE & GENOMIC TOOLS (GEOSPATIAL, ML/AI APPROACHES,
MOBILE APPS)**

Christina Riley is the Portfolio Lead at Akros and a Research Consultant for Namvela Consulting. She is also currently pursuing a Ph.D. as a candidate at Wageningen University & Research. Her work is focused on leveraging geospatial data and technology to improve public health in disadvantaged communities. She oversees the design, management, and technical implementation of targeted health interventions.

Profile of Key Speakers



ROUND TABLE PANEL DISCUSSION: DATA SCIENCE & GENOMIC TOOLS (GEOSPATIAL, ML/AI APPROACHES, MOBILE APPS)

Prof. Alash'le Abimiku is the Co-founder of IHV-Nigeria and Executive Director of the International Research Center of Excellence at the Institute of Human Virology-Nigeria. She is also a Professor at the University of Maryland School of Medicine, Institute of Human Virology.

Her research focuses on HIV subtypes and drug resistance, HIV pathogenesis and immunity using Nigerian birth cohorts, multidrug-resistant tuberculosis, laboratory system strengthening, and global health security.

Prof. Abimiku's career spanning over 30 years has distinguished her as an academic, scientist, and researcher. She first documented the unique HIV strain prevalent in Nigeria, HIV subtype G, which differs from the subtype B circulating in Europe and the USA. She co-founded IHV-Nigeria and continues to play a pivotal role in establishing long-term collaborations between institutions in Nigeria and research institutions in the USA and the north. She has also worked extensively to build infrastructure and mentor young scientists to support research in Nigeria and other African countries.



ROUND TABLE PANEL DISCUSSION: DATA SCIENCE & GENOMIC TOOLS (GEOSPATIAL, ML/AI APPROACHES, MOBILE APPS)

Professor Olanrewaju Lawal is an expert in Geocomputation and Integrated Geographic Analysis, specializing in the application of AI and advanced statistical methods to analyze complex social, economic, and environmental data. His work focuses on generating actionable insights for sustainable development and resource management, particularly through multidimensional vulnerability assessments.

He has led pioneering research initiatives, including the development of social vulnerability indices at regional and national scales, climate change vulnerability modeling, flood risk assessments, and analyses of facility accessibility. Currently, he leads a team within the INFORM Africa project, creating sub-Saharan Africa's social vulnerability indices and examining their linkages to health outcomes.

A Fellow of the Royal Geographical Society and member of the Association of Nigerian Geographers and Nigerian Environmental Society, Prof. Lawal brings deep interdisciplinary expertise to the intersection of geospatial science, sustainability, and public policy.

List of Abstract Posters for Presentation

1 ISS013 - Where research meets Impact: Human Papillomavirus Knowledge Assessment in Youths and Mothers Living with HIV in Nigeria.

O. Peter, E. Osagie, P. Akhigbe, N.L. Idemudia, O. Obuekwe, F. Eki-Udoko, N. Schlecht, Y. Bromberg, N. Osazuwa-Peters, M.O. Coker, HOMINY Study Group

2 ISS032 - Humoral Signatures of Mpox Virus (MPXV) Exposure highlighting Residual Immunity and Asymptomatic Transmission in a Nigerian Population.

Haruna Wisso, Adam Abdullahi, Sophia Osawe, Martin Edun, Ude Chinedu, Alash'le Abimiku

3 ISS060 - Ecological Dynamics and the Impact of Climate Change on Lassa-Fever in High-burden State of Nigeria.

Oyewole Oyedele, Rita Okonkwo, Musa Saiki, Stephen Fagbemi, A. Abimiku*

4 ISS012 - Addressing Vaccine Hesitancy through Human-Centered Design (HCD) Methodologies: Lessons from adopting an Integrated Immunization Model in Kano State, Nigeria.

Sunday James, Comfort Kingsley-Randa, Layi Jaiyeola, Moses Adebajo, Damilola Olaniyan, Jessica Ango, Elija Mmokutmfon, Nafisa Tijjani, Auwalu Idris, Sharif Yahaya Musa, Lilian Anomnachi

5 ISS023 - Lessons Learnt from Mpox Vaccine Deployment in Nigeria: Experience of the IRCE-IHVN Mpox Research Study Group.

Victoria Etuk, Peter Ekele, Sophia Osawe, Evaezi Okpokoro, Edun Martin, Adejoke Kolawole, Adam Abdullahi, Ahmed Rufai-Garba, Alash'le Abimiku and the IRCE Mpox Research Study Group

6 ISS018 - Global Lessons from Community-Led One Health Surveillance: A Comparative Analysis with African Models.

Bahago I. N (FAIPHP), Ibrahim G.J Ishar C.O

7 ISS024 - Dynamics of Mpox Epidemics by the Interplay of COVID-19 Pandemic in Africa.

Oyewole Oyedele, Nifarta P Andrew, Motunrayo Olalere, Monalisa O Owie, Victoria Etuk, Temitayo Lawal, Olugbenga Akinbiyi, Evaezi Okpokoro, Alash'le Abimiku

8 ISS041 - Post-pandemic Prevalence of SARS-CoV-2 RNA in the Saliva of HIV/AIDS Patients in Jos, Nigeria.

Lipigwe Lauya, Nanma T. Cosmas, Edmund Banwat, Nimzing Lohya, Rapp C. Nyam, Godwin E. Imade, Okonkwo C. Stanley

9 ISS045 - Equal Access, Safer Communities: Strengthening Lassa Fever Risk Communication for Persons with Disabilities in Taraba State.

Wesley Markus Kutte, Glory Sebastian, Praise Ebube - Today For Tomorrow Initiative

10 ISS049 - Emerging Zoonotic Spillovers in Nigeria: Advancing Viral Threat Surveillance through a One Health Lens.

Salawudeen Mukhtar Oluwasesan

11 ISS034 - Molecular surveillance of arboviruses in field-caught Aedes mosquitoes from selected sites in Plateau state.

Nantip Miri

12 ISS016 - Assessing Public Awareness and Attitudes Towards Supplementary Immunisation Programme (SIP) for Yellow Fever in Lagos: A Rapid Survey.

Sunday Oko, Abara Erim, Hannah Ajayi, Kemisola Agbaoye, Anwuli Nwankwo, Vivianne Ihekweazu

13 ISS055 - Leveraging the Community Health Champion (CHC) Approach to Strengthen Prevention and Surveillance of Infectious Diseases in Two LGAs in Lagos, Nigeria.

Niniola Williams, C. Aliu*, A. Tayo-Ojo**, C. M. Okoli*, M. Odumesi*, K. C. Akowa*, A. Akiode**

14 ISS061 - Strengthening Epidemic Preparedness in Africa through Effective Disease Surveillance Systems.

Abisola Esther BABATOPE, Adetola Rachael BABATOPE, Idowu Peter ADEWUMI, Damola Olanipekun AJISAFE, Oluyemi Adewole OKUNLOLA, Kayode Olayiwola ADEPOJU

15 ISS017 - Supporting sub-national medical laboratories in Lassa fever diagnosis through QMS implementation and training

Esosa OSAGIE, Sophia OSAWE, Victor Ejeh, Aminu Abudulahi DOGODAJI, Bamitale ADEOTUN-BANJO, Musa Saiki, Rita Okonkwo, Alash'le Abimiku*

16 ISS048 - Youth Voices in Viral Preparedness: Strengthening Risk Communication Through Peer Health Influencers in Yola and Mubi, Adamawa State.

Wesley Markus Kutte, Praise Ebube Okoro, Glory Sebastian-Today For Tomorrow Initiative

17 ISS067 - CHECKLENS - SAIRA: A Symptom-Augmented, AI-Driven Image Recognition Application (SAIRA) for Self-Screening of Suspected Mpox Lesions in Rivers State.

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18 ISS043 - Assessment of Hepatitis B Vaccination Uptake and Influencing Factors Among Healthcare Workers at FMC Keffi, Nigeria.

Stephen Olaide Aremu, Adamu Ishaku Akyala, Yakubu Boyi Ngwai, John Noah Onuche, Arinze Joseph Ezeobi

19 ISS046 - Harnessing Plantain Peel Waste for Antiviral Solid Oral Dosage Forms with Antioxidant Properties: Design, Development, and Evaluation.

Isaac Johnson Ajeh, Durojaye Bisoye Aishat, Oluwalola Blessing Oluwagbemisola*

20 ISS028 - Bridging the Gap: The Role of Community Engagement and Social Science in IPC and Outbreak Response.

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21 ISS057 - Barriers to Community Participation in Infectious Disease Surveillance: A Qualitative Study on Ward Development Committee Challenges in Ibadan, Nigeria.

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22 ISS086 - Improving Under-Five Vaccination Coverage in Kwara, North Central Nigeria: The Automated Digitalized Immunization System.

Divine Akpan

23 ISS089 - Combating Viral Threats through Public Health Response and Research: Realities of Community Engagement in Kano State, Northern Nigeria.

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24 ISS069 - D.R.U.G: An Open-Source Bioinformatics Tool for Detecting Mosnodenvir Resistance Mutations in Dengue Virus.

Idrissa Dieng

25 ISS090 - Persistent Monkeypox Virus at Oro-Genital Sites Following Apparent Recovery: Reinfection, Relapse, or Recrudescence?

Chizaram Anselm Onyeaghala, Avwerosuoghene Progress Obidinma-Igwe&, Datonye Dennis Alasia

Awareness of HPV Vaccination among Adolescent Girls Living with HIV in Benue State, Nigeria

Authors

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ISS001



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Scientific Symposium

BACKGROUND:

Human papillomavirus (HPV) is one of the most prevalent sexually transmitted infections and a primary cause of cervical cancer globally. Adolescent girls living with HIV (AGLWH) are at significantly higher risk of persistent HPV infection and progression to cervical cancer due to their compromised immune systems. While the HPV vaccine is a proven preventive intervention, awareness and uptake remain low in many resource-limited settings, including Nigeria.

OBJECTIVES:

This study aimed to assess the level of awareness of HPV vaccination, identify the primary sources of information, and examine the perceived importance of HPV vaccination among AGLWH in Benue State, Nigeria.

METHODOLOGY:

A descriptive cross-sectional study was conducted across nine health facilities in Benue State during Operation Triple Zero (OTZ) adolescent support group meetings. A total of 400 AGLWH aged 9–14 years were selected using purposive sampling. Data were collected through interviewer-administered structured questionnaires and analyzed using SPSS version 27. Descriptive statistics were presented using means and percentages, while bivariate and multivariable logistic regression were used to explore associations.

RESULTS:

Overall, 54.75% of participants demonstrated poor awareness of the HPV vaccine, while 45.25% had good awareness. The main sources of information were healthcare providers (37.5%), parents (22.7%), schools (19.3%), television/radio (9.7%), social media (5.7%), and friends (5.1%). Perception toward the vaccine was positive in 43.3% of respondents, negative in 2.7%, while 54% had no opinion.

CONCLUSION:

Despite their increased vulnerability to cervical cancer, awareness of the HPV vaccine among AGLWH remains low. Interventions to improve awareness should prioritize healthcare providers, parents, and schools as key channels for communication. Enhanced, culturally sensitive health education is essential to promote vaccine awareness among this high-risk group.

KEYWORDS:

HPV Vaccine Awareness, Adolescent Girls, Cervical Cancer, HIV/AIDS, Nigeria

Seroprevalence of Hepatitis C Viral Infection among HIV Patient in North Central, Nigeria



3rd IRCE Annual
Scientific Symposium

Authors

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ISS004

BACKGROUND:

Due to shared mode of transmission, hepatitis C coinfection has been found to be common in HIV individuals and is associated with an increased mortality and renal morbidity. In developing countries such as Nigeria, free testing of HCV is not provided alongside free HIV testing and treatment in many centers. In this study the prevalence of HCV infection among HIV patients in North- central region and associated risk factors were determined.

METHODOLOGY:

This was a cross sectional study conducted from March 2015 to June 2018. Serum samples from a total of 1,000 confirmed HIV positive patients and 300 from HIV- negative subjects were collected and analyzed for the presence of HCV antibodies using Enzymes linked immunosorbent assay (Diagnostic Bioprobes Srl, Italy). Prior to this study, ethical clearance, informed consent was obtained and structured questionnaires were administered. Data were analyzed using SPSS version 20.0 and p-value ≤ 0.05 were considered significant.

RESULTS:

Of the 1,300 samples analyzed, 63(4.8%) were positive for HCV {60(6.0%) for the study population and 3(1.0%) for the control subjects} with statistical significant difference ($p < 0.001$). The highest prevalence rate was found among age barracks 16-25years (9.5%) in the study population and 26-35 years (1.5%) in the control group. Prevalence of HCV antibodies was higher among females (6.4%) than males (5.1%) in HIV patient and among males (1.1%) in the control group. A high prevalence rate was also observed among those from other ethnic group 32(9.9%) in the study population and the Yoruba speaking 3(1.1%) in the control group; $p = 0.007$ and $p \leq 0.001$ respectively. Associated risk factor was the number of sexual partners among HCV/HIV coinfecting patients ($p = 0.006$).

CONCLUSION:

This study reveals a higher prevalence of HCV infection among HIV patients than in HIV negative subjects. The need for HIV/HCV coinfection intervention initiatives in Nigeria is therefore advocated.

KEYWORDS:

HCV, HIV, seroprevalence, coinfection, risk factor

Seroprevalence and Molecular Characterization of Dengue Virus Among Febrile Patients Attending Federal Medical Center Keffi, Nigeria



3rd IRCE Annual
Scientific Symposium

Authors

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ISS007

BACKGROUND:

Dengue fever (DF) is a rapidly spreading mosquito-borne viral infection that poses a significant public health concern. It is caused by the dengue virus (DENV) and transmitted primarily by *Aedes* mosquitoes. This study aimed to determine the seroprevalence of dengue virus infection, identify associated risk factors, and characterize the circulating DENV serotypes among febrile patients attending Federal Medical Center (FMC), Keffi.

METHODOLOGY:

A cross-sectional study was conducted involving 200 consenting febrile patients. Blood samples were screened for DENV IgG, IgM antibodies, and NS1 antigen using serological assays. Socio-demographic data were collected using a structured questionnaire. PCR was used to confirm positive cases and determine viral serotypes.

RESULTS:

Out of the 200 patients screened, 2 (1%) tested positive for DENV IgG and were confirmed by PCR. There was no significant association between infection and age, marital status, or education level ($P > 0.05$). However, a significantly higher prevalence was observed among rural residents compared to urban dwellers ($P < 0.05$), suggesting that environmental and occupational exposures such as poor sanitation, farming activities and prolong outdoor exposure may increase infection risk. The use of mosquito repellents was associated with lower infection rates, as no positive cases were recorded among users, while a 1.1% prevalence was noted among non-users, though not statistically significant. Molecular analysis of the two positive samples revealed the presence of DENV-1 and DENV-3.

CONCLUSION:

The findings underscore the need for increased public awareness, effective vector control strategies, and strengthened diagnostic capabilities to prevent and manage DENV infections in Nigeria.

Trends, Public Health Implications, and Emerging Concerns of Lassa Fever in Ondo State, Nigeria

Authors

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3rd IRCE Annual
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ISS009

BACKGROUND:

Lassa fever (LF) remains a public health concern, particularly in West Africa, mostly impacting Nigeria, with 10,098 suspected cases in 2024 and 1,309 confirmed cases with 214 mortalities, indicating a case fatality rate of 16.3%. While Ondo State is the epi-centre of LF in Nigeria, this report examines Lassa fever trends in Ondo State from 2020 to 2024, its public health implications, and emerging concerns requiring immediate intervention.

METHODOLOGY:

Publicly available data from the situation report of the Nigeria Centre for Disease Control and Prevention on Lassa Fever were obtained from 2020-2024, including suspected and confirmed cases, healthcare workers' infections, and mortalities. The data was analysed and visualized using line and combo charts to show trends over time.

RESULTS:

In Ondo State, suspected and confirmed Lassa fever cases rose by about 388 and 21 cases annually from 2020 to 2024, reaching a peak in 2023 (1,672 suspected; 433 confirmed). Infections among healthcare workers decreased from 20 in 2023 to 4 in 2024 at an annual rate of 1.2. Mortality decreased from 83 deaths in 2020 to 27 in 2024, a decrease of 10.9 per year. Early 2025 data, however, indicate emerging concerns, with 974 suspected, 249 confirmed, 30 deaths, and 9 HCWs affected as of week 11. A five-year projection (2025-2029) predicts an average annual increase of 66 confirmed Lassa fever cases in Ondo State, emphasizing the emerging public health challenge.

CONCLUSION:

The burden of Lassa fever in Ondo State reveals mortality trends, occupational hazards, and surveillance gaps, necessitating improved outbreak response, infection control, and diagnosis. To reduce Lassa fever, research on adaptive intervention, policy changes, improved surveillance, and protection for healthcare workers is highly recommended.

KEYWORDS:

Emerging Concerns, Lassa Fever, Outbreak, Public Health, Trends

Silent Mpox Transmission and Residual Smallpox Immunity in a Nigerian population

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3rd IRCE Annual
Scientific Symposium

ISS015

BACKGROUND:

Mpox remains a global public health threat, particularly in endemic West Africa, where transmission patterns remain heterogeneous. Emerging evidence suggests possible undetected asymptomatic infection in addition to residual immunity from smallpox vaccination. Understanding these factors is essential for guiding vaccination strategies.

METHODOLOGY:

Our study population comprised two independent convenient cohorts recruited during the COVID-19 pandemic: healthcare workers (HCWs) enrolled in Lagos (March 2021, n=75; T0) and general population participants enrolled in Abuja (January 2023, n=101; T0). Longitudinal sampling was available for (n=153) individuals (T1). IgG binding responses to six MPXV antigens (A29L, H3L, M1R, A35R, B6R, and D6L) were quantified using a validated Luminescence assay. Antibody correlations were visualized using matrix heatmaps, and serological differences were analyzed by occupational group and age cohort (pre- and post-1980) using boxplots. Magnitude breadth plots were generated to assess the cumulative antibody response between groups and timepoints.

RESULTS:

Pairwise correlation analysis at study entry (T0) revealed moderate positive correlations between EEV-associated antigens A35R and B6R ($p=0.53$), and B6R and M1R ($p=0.51$, $p<0.0001$), and weaker correlations between A35R and M1R ($p=0.65$; indicating variable serological reactivity among MPXV antigens. HCWs demonstrated modestly higher geometric mean titres (GMT) for four antigens compared to the general population; however, these differences did not reach statistical significance. Notably, individuals born before 1980 exhibited significantly higher IgG responses across all antigens compared to younger participants, with the most pronounced differences observed for A35R (~4.4-fold increase) and B6R (~1.2-fold increase), consistent with residual smallpox-induced immunity. Evidence of MPXV exposure was identified in 3% (5/153) of participants, who demonstrated a ≥ 2 -fold increase in antibody magnitude (AUC) between baseline (T0) and follow-up (T1) alongside increases in antibody levels to at least four MPXV antigens. These individuals exhibited a significant rise in magnitude-breadth (AUC: 5688 vs 27038; $p<0.01$), with B6R showing the highest fold increase (median of 11-fold) indicate possible exposure signature. This pattern suggests undetected Mpox transmission events.

CONCLUSION:

The patterns of MPXV-specific antibody responses observed indicates heterogeneous MPXV serological profiles driven by legacy immunity. Evidence of asymptomatic infection suggests population level exposure levels may be underestimated.

Climate-sensitive Predictors of Lassa Fever Outbreaks in Kogi State, Nigeria: A Retrospective Analysis (2019–2024)

Authors

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ISS029



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BACKGROUND:

Lassa fever remains a recurrent viral zoonotic threat in Nigeria, particularly in endemic states such as Kogi. Its transmission is closely associated with climatic and ecological dynamics influencing rodent behaviour. This study investigated the impact of seasonal variation and climatic parameters on the incidence of Lassa fever in Kogi State to identify early warning indicators for improved outbreak preparedness.

RESULTS:

Lassa fever incidence showed a consistent seasonal trend, with peaks during the dry season (November to March), notably in January 2022 and February 2024. Temperature was significantly correlated with Lassa fever incidence ($r = 0.282$, $p = 0.029$), while rainfall and humidity had weak or non-significant associations. LGAs with the highest case burdens were Lokoja, Ibaji, and Idah. Multiple regression yielded a modest R^2 value of 0.089. Notably, outbreak-prone thresholds were observed at temperatures $>35^\circ\text{C}$ and humidity levels between 60–80%, particularly during dry months.

METHODOLOGY:

A descriptive cross-sectional design was employed using retrospective data on laboratory-confirmed Lassa fever cases and meteorological variables (temperature, rainfall, and humidity) from January 2019 to December 2024 with the exclusion of 2021 due to incomplete data. Data were sourced from the SORMAS platform (NCDC) and the Nigerian Meteorological Agency (NiMET). Statistical analysis included Pearson correlation and multiple linear regression using SPSS version 23. Geospatial mapping was performed with QGIS.

CONCLUSION:

Climatic factors particularly elevated temperatures play a contributory role in Lassa fever outbreaks. While climate variables alone offer limited predictive power, they can support early warning systems when combined with surveillance and ecological data. The integration of such indicators within a One Health framework could guide risk alert systems, community sensitization, and pre-emptive public health interventions in high-risk LGAs.

Cervical Cancer Screening Uptake Among Women in Rural Communities in FCT Abuja, Nigeria- A Community-based Cross-sectional Study

Authors

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BACKGROUND:

Cervical Cancer (CC) is the second most common malignancy in Nigeria, caused by high-risk types of the Human Papilloma Virus (HPV). The burden on especially women of reproductive age has been established, constituting a public health threat with rising mortalities and morbidities. Early detection through screening and treatment is essential to prevention. This study assesses the CC screening uptake of women in rural communities who are mostly at risk of CC.

RESULTS:

A total of 333 women were interviewed, with a mean age of 39.95 (SD 9.02) years, and more than half of 199 (59.8%), <40 years. Less than two-thirds 198 (59.5%) of the participants were traders, practiced Islam, 203(61%), and had secondary education, 121 (36.3%).

About 77% had poor knowledge of CC screening, a positive attitude in 212 (63.7%), and 234 (70.3%) were willing to be screened. However, 321 (96.4%) had never been screened. A positive attitude toward CC (aOR = 3.82, 95% CI: 1.7–8.7) significantly increased the likelihood of screening by 4 times.

METHODOLOGY:

A community-based cross-sectional study was conducted among consenting women aged ≥ 30 years in Dagiri and Gwagwalada, FCT, from October to December 2024. Data was collected via interviewer-administered semi-structured questionnaires on socio-demographics, knowledge, attitude, and cervical cancer screening uptake. Research Electronic Data Capture (REDCap) was used for data management. Descriptive analysis and binary logistic regression were conducted using Stata MP 18, with statistical significance set at $p < 0.05$.

CONCLUSION:

Despite a willingness to screen and a positive attitude towards screening, the study reveals that uptake is low. The poor knowledge of CC noted in the findings underscores the need for community-based education and awareness campaigns in simplified language targeted at women with low educational status living in rural communities, most at risk of cervical cancer, to improve knowledge and address misconceptions.

Investigating the risk of zoonotic pathogen spillover at the human-animal interface in a biodiversity hotspot in Ibarapa District of South-Western Nigeria: A Mixed-Method Study

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ISS063



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BACKGROUND:

With 2.5 billion cases of human illness and 2.7 million deaths annually, zoonosis continues to pose a significant threat to global health. The Ibarapa District of South-Western Nigeria is an important biodiversity and infectious disease hotspot with communities unaware of the risk of spillover event and associated health risk. The study aims to investigate spillover pathways and exposure risk in Ibarapa.

METHODOLOGY:

We conducted a cross-sectional mixed-method study from March to August 2023, and interviewed 405 respondents, using a semi-structured interviewer-administered questionnaire from eight villages that make up the Ibarapa Districts. Additionally, we conducted 7 focus-group discussions consisting of 7-10 participants to explore the attitudes and perceptions of the community about wildlife hunting and their health-seeking practices concerning zoonosis. Qualitative and quantitative data were analyzed using content analysis and R version 4.3.2 software package respectively.

RESULTS:

Most of the respondents involved in wildlife hunting such as bush rodents 152(37.5%), wild ruminants 104(25.7%) and, 19(4.7%) non-human primates with forest interior 217(53.6%) as the perfect location for hunting wildlife. Consumption and sales were the major reason why communities hunt 219(54.1%), followed by recreational purposes and exercise 28(6.9%), and to derive valuable products for medicinal uses 18(4.4%). Other reasons for the persistent hunting of bush meat are due to their deliciousness, facilitate speedy recovery of mothers after birth, and perceived immunity. However, respondent reported illnesses after bushmeat consumption at least once (6.4%, CI: 4.60-10.3) with 3.7% (CI: 2.73-8.46) reporting the occurrence of similar symptoms among their family members. Few respondents 45(11.1%) reported illnesses after consumption of bush meat and their family members/neighbours 21(5.2%). Generally, most respondents 323(79.8%) were aware of disease transmission from wildlife with 382(94.3%) having heard of Rabies, Marburg or Ebola. Knowledge of zoonotic diseases ($\chi^2 = 62.529$, CI: 95%, $p = 0.008$), and numbers of people involved in preparations of hunted meats ($\chi^2 = 11.855$, CI: 95%, $p = 0.025$), involvement in hunting ($\chi^2 = 7.396$, CI: 95%, $p = <0.001$) are associated with likelihood of falling sick after consuming bushmeats. Having more than five six people in preparation of bushmeat was associated with increased odds of falling sick after consumption (cOR = 2.8, 95% CI = 1.4-6.8), and participants who consumed bush rodents have reduced odd of getting sick (cOR = 0.2, 95% CI = 0.2 – 0.7) and (cOR = 0.9, 95% CI = 0.1-2.2).

CONCLUSION:

The result revealed that increased human-wildlife interactions is driven by participants' survival need leading to pressure on the biodiversity. Studies have revealed that the fragmentation of biodiversity area to farmland has resulted in shift in wildlife dietary change and human-wildlife conflict, thereby highlighting the need for targeted risk communication strategy directed at farmers and hunters in Ibarapa, South-Western Nigeria.

KEYWORDS:

Zoonosis; Spillover; Ibarapa.

Spatiotemporal and Trend Analysis of Monkeypox Incidence in Eight African Countries Using Surveillance Data From 2022 to 2024



3rd IRCE Annual
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ISS065

BACKGROUND:

Monkeypox is an endemic disease in West and Central Africa, with periodic outbreaks for over fifty years. In the last two decades, over 400 incidents have been recorded across Africa. Therefore, this study aimed to analyse the spatiotemporal patterns of Mpox cases across African regions.

RESULTS:

Mpox trends from 2022–2024 showed different significant national patterns. Ghana and Nigeria saw steep declines (–58.5 and –283.5 slopes), while Liberia (+28.5), DR Congo (+5,410), and CAR (+31) recorded surges. DR Congo remained the epicenter with cases escalating to 10,820 by 2024. Forecasts to 2027 predict continued rises in DR Congo, Central African Republic (CAR), and Liberia, while Ghana, Nigeria, and Cameroon trend downward. Regionally, Central Africa experienced exponential growth, West Africa declined, then stabilized, and South Africa showed consistently low case numbers.

METHODOLOGY:

This is a retrospective study using publicly available secondary data on Mpox cases reported between 2022 and 2024 extracted from Our World in Data. Python was adopted for trend analysis and forecasting, while epidemic curves were created using Excel and Stata 15. QGIS facilitated geographic mapping to visualize spatial heterogeneity.

CONCLUSION:

This study affirms significant regional disparities in Mpox trends across Africa. Central Africa has the reported the highest case of Mpox, West Africa showed a steady decline, While South Africa maintained the lowest cases due to better health systems. Control of Mpox must be strengthened, governments and global partners must enhance zoonotic surveillance, invest in diagnostics, improve reporting systems, and expand healthcare capacity for timely, coordinated responses.

KEYWORDS:

Mpox (Monkeypox), Spatiotemporal Analysis, Epidemic Forecasting, Surveillance Systems and Africa.

Burden of Respiratory Syncytial Virus (RSV) and Associated Mortality among Under-Five Children in Sub-Saharan Africa: Implications for Vaccination Policy and Public Health Planning

Authors

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BACKGROUND:

Respiratory Syncytial Virus (RSV) remains a leading cause of severe respiratory illness and mortality among children under five years in Africa. Despite the recent World Health Organization (WHO) prequalification of the first maternal RSV vaccine (Abrysvo®) in March 2025 maternal RSV immunization programs are largely absent or evolving across African nations. Understanding the current RSV burden, maternal RSV immunization status, and vaccine readiness in Africa is critical to inform future public health strategies in the region. This study explores the incidence of RSV in SSA and its relationship with under-five mortality, while assessing immunization preparedness.

METHODOLOGY:

We analyzed RSV incidence data among children under five years of age alongside associated mortality rates (MR) and immunization planning across 22 SSA countries including Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Senegal, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, Cape Verde, Mali, Niger and Sierra Leone. Data sources included United Nations World Population Prospects (UN WPP 2022), national immunization plans, WHO reports and recent peer-reviewed studies. Median rates, interquartile ranges (IQR), correlation and quantile regression analyses were conducted to describe and examine associations between RSV and mortality.

RESULTS:

The pooled median RSV rate across SSA was 16.5 (IQR: 10.5–24.0) per 100 under five years children. A significant positive correlation was found between RSV incidence rates and under-five MR (Spearman's rho = 0.4211, $p < 0.05$). Regression analysis further revealed significant association ($\beta = 0.000055$, $p = 0.026$) between RSV and MR in under-five children, suggesting that for every 8.35-fold increase in RSV incidence, there is a corresponding 1 per 1,000 increase in MR. As regards vaccination preparedness, among the 22 countries studied, only South Africa had initiated RSV vaccination but limited to private facilities, while 45.4% had plans for RSV vaccination, the others (50%) had no current initiatives.

CONCLUSION:

RSV poses a significant health burden in sub-Saharan Africa, especially among children under five years. The strong correlation with under-five mortality underscores the urgent need for enhanced surveillance, equitable access, and accelerated RSV vaccination efforts focused on regulatory approval, funding, policy development, and community sensitization in the region.

KEYWORDS:

Respiratory Syncytial Virus, Mortality Rates, Under-five Children, Vaccination Preparedness, sub-Saharan Africa

Predictors of Covid-19 Vaccine Uptake among students of a Tertiary Institution in North Central Nigeria

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ISS075



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BACKGROUND:

The COVID-19 pandemic has caused significant morbidity and mortality worldwide. The development of vaccines brought hope for control of the pandemic, and Nigeria participated in the global vaccination rollout. Understanding the predictors of vaccine uptake is essential, not only for improving COVID-19 vaccination coverage but also for preparing for future pandemics or health emergencies. This study assessed predictors of COVID-19 vaccine uptake among students in a tertiary institution in North-Central Nigeria.

METHODOLOGY:

This descriptive cross-sectional study aimed at determining the predictors of the uptake of COVID-19 Vaccine among students of a Tertiary Institution in North central Nigeria was carried out amongst 201 students at Bingham University using a multi-stage sampling method. Self-administered questionnaires were used to collect information on demography, knowledge, perception, acceptance and uptake of COVID-19 Vaccine. Data were analysed using STATA 15.1. The level of significance was at $P < 0.05$.

RESULTS:

The majority of respondents 191 (95%) had good knowledge of the COVID-19 Vaccine and 87 (51.2%) respondents attributed source of information to social media. Although many 99 (58.2%) respondents had positive perceptions of the vaccine, 16 (9.4%) had taken the vaccine. Less than quarter 24 (22.1%) planned to receive COVID-19 Vaccine while majority 120 (77.9%) had no plans to, citing safety concerns. There was a statistically significant association between age ($P = 0.001$), level of training ($P = 0.034$) and uptake of COVID-19 Vaccine.

CONCLUSION:

COVID-19 vaccine uptake among the students was low despite good knowledge and generally positive perceptions. University authorities should strengthen risk communication strategies targeting specific concerns about vaccine safety to improve uptake among students.

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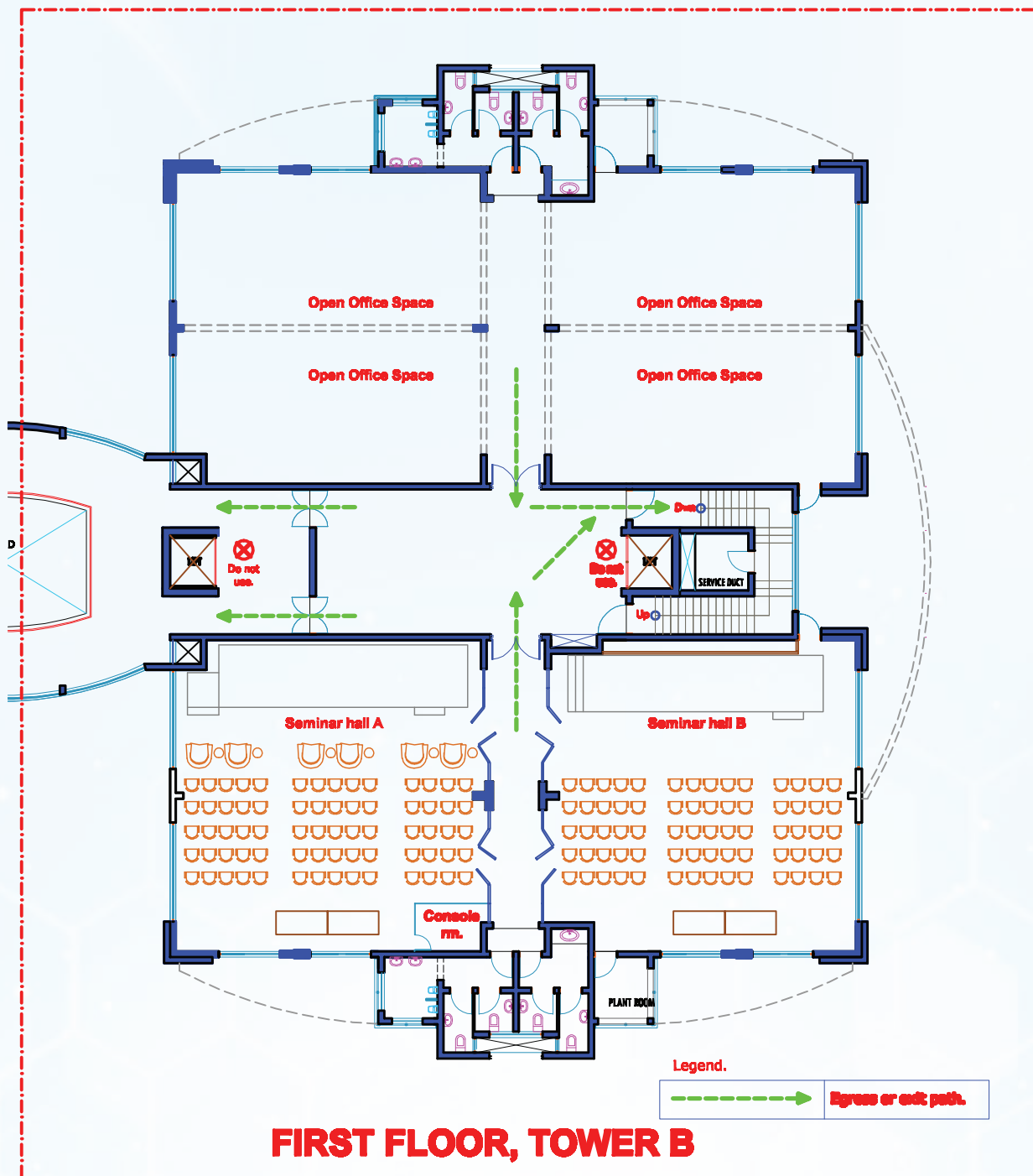
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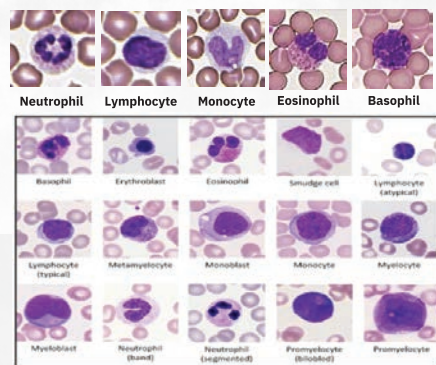
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