RSTMH
DEDICATED TO GLOBAL HEALTH SINCE 1907

RSTMH Research in Progress West Africa

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Nigerian Institute of Medical Research, Lagos, Nigeria

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About RSTMH

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Programme

Time (WAT)	Item
09:15 AM	**Arrival and Registration**
09:30 AM	**Welcome** **Tamar Ghosh**, Chief Executive, *Royal Society of Tropical Medicine and Hygiene*
09:35 AM	Soulsby Lecture, One Health: The Confluence of Science and Society for addressing future pandemics **Professor Oyewale Tomori**, Professor of Virology, *ACEGID, Redeemer's University, Ede*
10:20 AM	**Session 1 presentations, Chaired by Professor Oyewale Tomori** Assessing human behaviours as a risk factor for seasonal incidence of Lassa fever in a highly endemic locality within Nigeria **Joseph Igbokwe**, *Obafemi Awolowo University*
10:35 AM	Spatiotemporal relationships between dog bites, dog vaccination coverages and dog and human rabies in Ghana: Implications for One Health, 2021 **Eric Odei**, *Ghana College of Physicians and Surgeons*
10:50 AM	Roles of household, community, state and non-state actors in providing social support for reliable health care financing of the elderly in Ibadan, Nigeria **Isaac Oyekola**, *Landmark University*
11:05 AM	**Morning refreshments and poster viewing**
11:25 AM	**Guidance session** How to get funding **Tamar Ghosh**, Chief Executive, *Royal Society of Tropical Medicine and Hygiene*

12:05 PM	**Session 2 presentations, Chaired by Tamar Ghosh**
	Evaluation of the Crowd sourced Image-Based Morbidity Hotspot Surveillance for Neglected Tropical Diseases in Parts of Southern Nigeria
	Ayoola Bosede, *Federal University of Technology Owerri*
12:20 PM	Comparative efficacy of Praziquantel and Artemether-Lumefantrine in the treatment of Urinary Schistosomiasis among children in endemic community of Nigeria
	Samuel Adedokun, *Osun State University*
12:35 PM	**Lunch and poster viewing**
1:35 PM	**Guidance session**
	How to get published
	Professor Fatiu Arogundade
2:15 PM	**Session 3 presentations, Chaired by Professor Fatiu Arogundade**
	Targeted Drug Delivery in enhancing the efficacy of HIV Vaginal Microbicides: Utilizing enzymes for a triggered release
	Sabdat Ekama, *NIMR*
2:30 PM	Covenant University, The expression pattern of telomerase and cyclin-dependent kinase 2A in plasmodium falciparum parasite-host relationship.
	Dorathy Anzaku, Covenant University
2:45 PM	College Research and Innovation Hub, Ibadan, Nigeria. Exploring Nigerian Medical and Nursing Students' Choice of Country to Practice and the Potential Impacts on Nigerian Future Healthcare.
	Abigail Oyedokun**, College Research and Innovation Hub, Ibadan, Nigeria**.
3:00 PM	**Afternoon refreshments and poster viewing**
3:20 PM	**Guidance session**
	How to communicate your research

Dr Francis Ohanyido, Adjunct Professor, Physician, Development Strategist

4:00 PM **Session 4 presentations, Chaired by Dr Francis Ohanyido**

West Nile Virus Sero-Reactive Animals Reveals Potential Zoonotic Threat in Nigeria.

Olanrewaju Igah, *National Veterinary Research Institute*

4:15 PM Surveillance of Artemisinin Resistance Markers and Influence on Treatment Outcomes in Malarious Patients in an Endemic Area of South-western Nigeria

Abiodun Amusan, *University of Ibadan*

4:30 PM Close

Poster Presenters

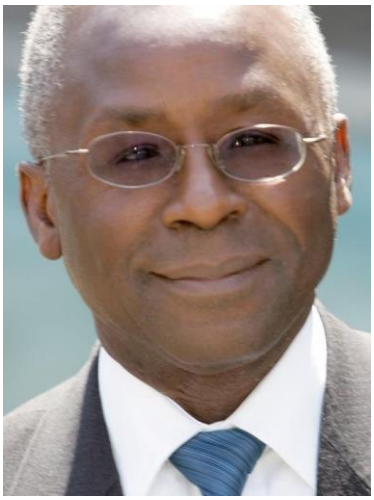
- **Abdurrahaman Mangari**, Bayero University Kano, Sentinel Survey for SASR-CoV-2 Seromarkers and Local Remedies Used in the Management of Suspected Cases of COVID-19 among Symptom and Asymptomatic Volunteers in Selected States in Nigeria.
- **Abigail Oyedokun**, College Research and Innovation Hub, Ibadan, Nigeria. Exploring Nigerian Medical and Nursing Students' Choice of Country to Practice and the Potential Impacts on Nigerian Future Healthcare.
- **Adedotun Ayodeji Bayegun**, Federal University of Agriculture, Abeokuta, Assessment of the urinary schistosomiasis and the associated risk factors among school-aged children in two endemic communities of Ogun state.
- **Amarachi Bayo**, Dukes specialist hospital, Ikeja, Inter-Ictal Heart Rate Variability In Children With Epilepsy Seen At The University College Hospital, Ibadan: A Case-Control Study.
- **Dorathy Anzaku**, Covenant University, The expression pattern of telomerase and cyclin-dependent kinase 2A in plasmodium falciparum parasite-host relationship.
- **Edidiong Solomon Akpan**, University of Uyo, Impact of malaria during pregnancy on birth weight of newborns in Uyo, Akwa Ibom State.
- **Favour Idih,** Kogi State University, Lycopene Possess an Antimalarial Effect On Chloroquine-Resistant Malaria And Its Hematological Aberrations In Murine Model.
- **Fomukong Hanneda Awodabon**, Ahmadu Bello University Zaria, Kaduna State, Nigeria, Single-cell RNA seq analysis of erythroid cells reveals a specific sub-population of stress erythroid progenitors.
- **Gbemisola Adebisi-Jose**, University of Ibadan, Malaria Parasite Population Genetic Diversity In Ibadan, Southwest Nigeria And Potential Impact On Drug Resistance.

- **Gladys Ayodele**, Helix Biogen Institute, Plant-Derived Anti-HIV Peptides as Novel Therapeutic Approach Against HIV Infections.
- **Hadiza Joy Umar**, Ahmadu Bello University, Pharmacy And Veterinary Medicine Students' Perception Of Antimicrobial Resistance And Drug Utilization In Veterinary Medicine.
- **Haleemat Shutti**, College of Medicine, University of Lagos, Knowledge, Attitude And Preventive Practices Related To Malaria In Pregnancy Among Pregnant Women Attending Antenatal Clinic In Lagos University Teaching Hospital, Idiaraba
- **Helen Olubunmi Salako**, Avon Medical Practice, 7/8 Adedamola Ojomo Close, Off Bode Thomas Surulere Lagos, Cardio-metabolic syndrome in adolescents living with HIV/AIDS infection attending the Lagos University Teaching Hospital, Nigeria: A cross-sectional comparative study.
- **Kabirat Sulaiman,** University of Medical Sciences, Ondo, Evaluation of Schistosoma spp soluble egg antigen (SEA) in non-invasive diagnosis of schistosomiasis
- **Modinat Akinboade**, Helix Biogen Institute, mRNA Vaccine Design for Epstein Barr Virus: An Immunoinformatic Approach
- **Olubukola Adelakun**, Oyo State College of Agriculture and Technology, Igboora, Q-fever Status of Cattle and Owners in Oyo State, Nigeria.
- **Olubukola Omobowale**, College of Medicine, University of Ibadan, Perceived Benefits and Harms of Child Marriage among Hausa Communities in Ibadan, Nigeria.
- **Olugbenga Akinola**, University of Ibadan, Re-defining Asymptomatic Malaria: A Parasite Survival Dynamics or Manifestation of Host Factors in Different Environment.
- **Oluwadara Asaolu**, Slum and Rural Health Initiative, Determinants of access to improved WASH among mothers of under-5 children in Nigeria.
- **Oluwapelumi Afolabi**, University of Ibadan, Efficacy of dihydroartemisinin-piperaquine plus chloroquine, a TACT regimen against Plasmodium berghei ANKA strains with varying drug sensitivities to chloroquine, in a murine malaria model.
- **Opeyemi Oladunni**, Adeleke University, Acceptance of prospective malaria vaccine among under-5 mothers in Ede South local government area, Osun state.
- **Opeyemi Akinjiola**, Lagos University Teaching Hospital Idi-Araba, Awareness and Willingness to Pay For Health Insurance Among Artisans In Ifako-Ijaiye Local Government Of Lagos State: A Cross-Sectional Study
- **Oreoluwa Oyelami**, College of medicine of the University of Lagos, Perception of infertility and willingness to uptake Assisted Reproductive Technology among married people in urban communities of Lagos, Nigeria.
- **Ponmile Alabi,** University of Ibadan, Spatial distribution of soil transmitted helminths among school children in Oyo State, Nigeria.
- **Precious Irabor**, University of Medical Sciences, Ondo, Ondo State, Nigeria, Serological Diagnosis of Urogenital Schistosomiasis using Admixture Antigens of Schistosoma haematobium and Schistosoma mansoni
- **Ridwanullah Abdullateef,** University of Ibadan, Improving Breast Cancer Diagnostics and Outcome in Africa – A Step Towards Closing Health Equity Gap.
- **Seun Olufemi,** Helix Biogen institute, Genomics Analysis Of Rotavirus-A Vp7 Gene Isolated From Some Selected Domestic Mammals And Human.

- **Sophia Quist,** Ghana College of Physicians and Surgeons, Evaluation of Buruli Ulcer Disease Surveillance System in GA West Municipality, Ghana, 2016-2019
- **Tajudeen Oriade**, University of Ibadan, Leveraging cross-reaction in the diagnosis of Schistosomiasis.
- **Tomiwa Adesoji,** Obafemi Awolowo Univeristy, Characterization of Mammaliicoccus sciuri from Hipposiderous Bats in Ile-Ife, Nigeria
- **Victor Femi-Lawal**, Polygeia Cambridge, Highlighting the Potential Role of Comprehensive Sexual Health Education for Nigerian Youths and Adolescents: A Systematic Review
- **Wakilat Tijani**, Nigerian Institute of Medical Research, Assessment of Cardiovascular Disease Risk Factors Among Women Living with HIV in Lagos State, Nigeria.

Speaker Biographies

Professor Oyewale Tomori



Oyewale Tomori DVM PHD is a past President of the Nigerian Academy of Science with experience in virology, disease prevention, and control. He was a researcher at the University of Ibadan from 1971 to 1994. He later served as the pioneer Vice-Chancellor of the Redeemer's University in Nigeria from 2004 to 2011. From 1994 to 2004, he was the virologist for the WHO-AFRO, establishing the African Regional Polio Laboratory Network. In 1981, he was recognized by the US-CDC for contributions to Lassa fever research. In 2002, he received the Nigerian National Order of Merit, the country's highest award for academic and intellectual attainment and national development. Dr. Tomori has served or continues to serve on numerous advisory committees, at national and global levels, including (national) - Lassa Fever Steering Committee, Laboratory Technical Working Group, Expert Group on Polio Eradication and Routine Immunization, Advisory Committee on Covid19 Response, and (international)- WHO SAGE, WHO-AFRO Polio Certification Committee, WHO Yellow Fever Disease Committee, , WHO TAG on COVID-19 Vaccine Composition (TAG-CO-VAC), GAVI Board, U.S. NAS Global Health Risk Framework Commission and as a Committee member of the the National Academies of Sciences, Engineering, and Medicine Future State of Smallpox Medical Countermeasures. He served as an adviser to the Regional Director WHO-AFRO, on Laboratory Planning and Quality during the 2020-2023 COVID-19 pandemic. He is a member of US-National Academy of Medicine and a Fellow of the International Science Council. He has authored/co-authored over 180 scientific publications.

Tamar Ghosh

Tamar joined as Chief Executive of RSTMH in November of 2016.Before then she was at Nesta running the Longitude Prize, a £10m science prize looking for a rapid diagnostic test to fight antibiotic resistance. Before Nesta, Tamar founded and ran two social enterprises in global and national healthcare, which continue in her spare time. She was Director of the social action campaign "Give More" on behalf of one of the Pears Foundation, promoting increased giving of money and time amongst the UK public. Prior to that, she spent 15 years developing and delivering funding strategies for international NGOs, including ActionAid and VSO. She has an MBA from Imperial College, London and a Masters in Development Studies, following an undergraduate degree in Mathematics at Bristol University. Tamar is a consultant on fundraising and strategy development, and a guest speaker at Imperial College Business School on innovation and entrepreneurship as part of their MBA and masters in health programmes.

Professor Fatiu Arogundade

Professor Fatiu Arogundade is the College Registrar of the National Postgraduate Medical College of Nigeria (NPMCN) and immediate past President of Transplant Association of Nigeria, member of Executive committee and Council of International Society of Nephrology (ISN) and Chair of the African Regional Board. He was past Secretary and President of Nigerian Association of Nephrology; Secretary/Treasurer, African Association of Nephrology. He was Chairman/Chief Examiner of the Faculty of Internal Medicine, and member of Governing Board of NPMCN (2018-2021). He had his basic medical degree from the University of Lagos and postgraduate training at the Obafemi Awolowo University (OAU) Teaching Hospitals Complex, Ile-Ife. He is a Fellow of Medical College in Physic (FMCP), West African College of Physicians (FWACP), Royal College of Physicians of Edinburgh (FRCPEdin), Royal College of Physicians of London (FRCP), Nigeria Academy of Medicine (FNAMed) and Nigerian Association of Nephrology (FNAN), He has Doctor of Medicine (MD). He served as Vice-Dean, Faculty of Clinical Sciences, OAU, 2011-2013. His research interests are in general nephrology and renal replacement therapies. He studied the aetiopathogenesis, epidemiology, survival and quality of life in Chronic Kidney Disease (CKD). He was the coordinator of the kidney transplant-KT- team of OAUTHC which performed the first KT in any public institution in Nigeria in 2002. His research interests are in defining the roles of MYH9 and APOL 1 gene polymorphisms in kidney disease. For his studies, he had and 5 grants including NIH Sponsored Human Heredity and Health (H3) Africa Study of Kidney Disease and H3 Africa Cohort Study. He has 115 publications in peer-reviewed journals including 7 chapters in books ((Citations-4083, h-index-28, i10-index-44. He has supervised 32 fellowship and 3 MSc dissertations/Theses. He is an external Examiner to several universities and has served on accreditation panels for NPMCN and Medical and Dental Council of Nigeria. He is happily married with children.

Dr Francis Ohanyido

Dr Ohanyido is an Adjunct Professor, Physician, and Development Strategist with two decades of roles in international, private and public organisations, some of the roles which are with some of the world's leading development organisations with strong multi-country experience in Sub-Saharan Africa. He is a leading global voice for universal health coverage.Ohanyido has had stints with United Nations agencies like UNHCR, UNICEF, and WHO, as well as bilateral bodies like USAID and DFID across Africa to improve the health of women and children in both development and humanitarian settings. He has also served as Sabin Vaccine Institute's Country Advisor for Global Network for Neglected Tropical Diseases (GNNTD) and supports Vitamin Angels, a global micronutrient leader as the Consultant Country Advisor for Nigeria. Other notables include; one-time Technical Advisor to the Senate Committee on Health in Nigeria and also a former Senior Technical Consultant to the Majority Leader of the House of Representatives of Nigeria and was among the advocates that successfully got the Nigerian government to pass the *National Health Act* in 2014.Between 2013-2015, he also played a key role under the United Nations Commission for Lifesaving Commodities for Women and Children (UNCoLSC), as

National Pneumonia Coordinator, funded by USAID, that led the successful market-shaping to stimulate local production of some essential medicines in Nigeria by pharmaceutical firms like dispersible amoxicillin tablets for childhood pneumonia and others.He has served on several boards and Working Groups. He is on the Governing Council of the Academy of Learning Nigeria and the global Malaria in Pregnancy Working Group. He serves as the President of the West African Academy of Public Health. He has also been part of the Supercourse Team of World Health Organization's Collaborating Center, University of Pittsburgh and the Library of Alexandria. In 2007, he founded and still moderates the International Public Health Forum (IPHF) a leading online public health community of practice with about 7000 members. He is also convener of the West Africa Civil Society Epidemic Response Mechanism (WACERM) for COVID-19. A board-certified Physician, he holds a medical degree from the University of Jos, with postgraduate education in public health. He is a Certified Professional Manager of the Nigerian Institute of Management and also has postgraduate qualifications in administration. He is also a Fellow of the UK's Faculty of Public Health (FFPH), a Fellow of the UK's Royal Society for Public Health (FRSPH) and a Fellow of Academy of Public Health. He has participated in flagship senior executive courses like the Outcome Research course of the Harvard TH Chan School of Public Health, as well as the Foundations of eGovernance course of the United Nations University International Institute for Software Technology, Macau (now the United Nations University Institute on Computing and Society). He is a Trustee of iNovate 2100 , advisor on the Harvard Business Review (HBR) Advisory Council and member of the Science Advisory Board (SAB), USA

Abstract Presenters

Abiodun Amusan

Abiodun Amusan is currently concluding his doctorate programme in Pharmacology and Therapeutics at the University of Ibadan where he obtained Bachelor of Pharmacy and MSc degrees. His recent research focused on genomic profiling of *P. falciparum* to evaluate the current prevalence of artemisinin resistance markers in Southwest Nigeria. The research involved a therapeutic efficacy study of dihydroartemisinin-piperaquine at the Malaria Clinic of the Malaria Research Laboratories, IAMRAT, University of Ibadan, and a molecular analysis that was carried out at the Medical School, University of Minnesota, USA. Abiodun's research interest is the application of genomics and bioinformatics in infectious disease control. He currently lectures at the Department of Pharmacology and Toxicology, Faculty of Pharmacy, University of Ibadan.

Surveillance of Artemisinin Resistance Markers and Influence on Treatment Outcomes in Malarious Patients in an Endemic Area of South-western Nigeria

The emergence of artemisinin-resistance markers in East Africa portends an imminent health catastrophe. This study was designed to evaluate the presence of artemisinin-resistance markers and their influence on treatment outcomes in Ibadan, before and post-adoption of artemisinin combination therapy (ACTs) in Nigeria in 2005. Dry blood spot samples (n=211) obtained from malaria patients from retrospective (2000-2005) and prospective (2021) studies were analysed. A cohort from the prospective study (n=77) was followed up for treatment outcomes with dihydroartemisinin-piperaquine. Fragments of four genes: P. falciparum kelch13 (Pfkelch13), P. falciparum coronin (Pfcoronin), P. falciparum multidrug resistance 2 (PfMDR2), and P. falciparum chloroquine resistance transporter (PfCRT) were amplified in a polymerase chain reaction, sequenced, and aligned for single nucleotide polymorphisms.

None of the WHO-validated artemisinin resistance mutations in the Pfkelch13 gene was identified in the analysed samples. However, K189T [34/53 (64.2%)] and R255K [2/53 (3.8%)] mutations correlated significantly with longer parasite clearance time in the patients (P>0.002). Other identified Pfkelch13 mutations were K189N [1/53 (1.9%)] and N217H [1/53 (1.9%)]. P76S [17/100 (17%)] and V62M [1/100 (1%)] changes were identified in Pfcoronin. Interestingly, Pfkelch13 K189T mutation [1/11 (9.1%)] and Pfcoronin P76S mutation [1/44 (2.3%)] were found in the retrospective samples which revealed an inherent potential of parasites to harbor drug-resistant genotypes before the introduction of ACTs. Only 18.6% of the popular chloroquine-resistant haplotype (CVIET) was identified within the samples.

The study revealed absence of current clinical or genetic-based evidence of artemisinin resistance in the study population but with potential for future emergence of artemisinin resistance.

Abigail Oyedokun

Abigail Oyedokun is a final-year medical student at the College of Medicine, University of Ibadan, Nigeria. She is a passionate early-career researcher and the Public Relations Officer of the College Research and Innovation Hub, Ibadan, one of the foremost and leading Nigerian undergraduate research hubs. Her research interests include public health, NCDs, and neuroscience. Abigail has presented her work at both local and international conferences. Understanding the pervasiveness of medical professional emigration and the growing impacts of the silent epidemic, she led a team to study this topic. Her research, conducted among medical and nursing undergraduates across six top universities in each geopolitical zone in Nigeria, promises to reveal the prevalence of emigration intentions and destinations among the demographic and shed light on future trends.

Exploring Nigerian Medical and Nursing Students' Choice of Country to Practice and the Potential Impacts on Nigerian Future Healthcare.

Emigration remains a critical factor driving the brain drain in Nigeria's healthcare sector. This unique research goes back to the beginning of the journey (medical and nursing school), estimating the proportion of students with emigration intentions and their preferred destinations, factors contributing to emigration, and assessing potential impacts on the Nigerian healthcare system. The Cross-sectional study engaged undergraduate medical and nursing students from six major Nigerian universities, each corresponding to a geopolitical zone. Employing the Slovin formula, a sample of 3332 participants was determined, and recruited through quota sampling. These students completed a structured, self-administered online questionnaire. Data analysis utilized STATA version 16.0 with a significance level set at $p < 0.05$. with 60% data collection and partial analysis of data, 65.8% of participants expressed a desire to work abroad, primarily seeking specialist training in the USA (28.8%), UK (23.3%), and Canada (23.3%). A significant portion planned to leave within 5 years of graduation, and 32.5% had no intention of returning. Reasons for emigration included better training, advanced equipment, and improved career prospects. Notably, 15% planned to leave after specialist training, while 45% remained uncertain. Respondents think emigration will negatively impact Nigeria's healthcare system, leading to increased mortality and eventual collapse. In conclusion, the emigration rate of Nigerian healthcare personnel is expected to rapidly increase in the coming years and urgent action is required to retain these talents. Emphasis must be placed on improved working conditions, advanced training opportunities, and competitive remuneration to stem the tide of healthcare professionals' emigration.

Ayoola Bosede

Ayoola Oluwaseun Bosede is a PhD candidate in Epidemiology and Disease Control at the Federal University of Technology Owerri, Nigeria. His research focuses on evaluating crowdsourced image-based morbidity hotspot surveillance methods for neglected tropical diseases in Southern Nigeria. Ayoola holds a Master's degree in Health Policy and Management from the University of Ibadan and a Bachelor's degree in Public Health Technology from the Federal University of Technology, Owerri, where he graduated with first-class honors. He is a dedicated researcher and teacher, with extensive experience in public health, particularly in environmental epidemiology and infectious disease control. Ayoola is also an active member of several professional associations, including the Royal Society of Tropical Medicine and Hygiene and the Parasitology and Public Health Society of Nigeria.

Evaluation of theCrowdsoursed Image-Based Morbidity Hotspot Surveillance for Neglected Tropical Diseases in Parts of Southern Nigeria

This research aimed to assess the effectiveness and efficiency of the Crowdsourced Image-Based Surveillance Method for Neglected Tropical Diseases (CIMS-NTDs) in comparison to traditional NTDs surveillance methods. Additionally, the study sought to identify NTDs hotspots in Nigeria, facilitating targeted interventions aligned with the WHO's NTDs roadmap for 2021-2030. The pilot project was conducted in three states in southern Nigeria selected based on NTDs endemicity, with three additional states serving as controls.

Preliminary results from Ondo state indicated the presence of Trachoma, LF, and Onchocerciasis in various areas. Over the April to August 2023 period, CIMS-NTDs received an average of 14 NTDs reports weekly, contrasting with the traditional method reporting 0.5 NTDs in Ondo and 0.2 NTDs in the control state, Ogun. Utilizing this data, a hotspot map for NTDs in Ondo state was created, recommending sustained drug administration and interventions in areas initially deemed free of NTDs. The findings advocate for the integration of the CIMS-NTDs method into existing government NTDs programs, highlighting its potential to enhance surveillance, reporting, and intervention strategies, ultimately contributing to the acceleration of the WHO's NTDs roadmap goals.

Dorathy Anzaku

Anzaku Dorathy Olo holds a master's degree from Covenant University, Ota, Ogun State. She has a keen interest in research of public health importance, particularly malaria, which is endemic in Nigeria and other African countries. As a research assistant with CApIC ACE, her research focused on elucidating the relationship between malaria and aging biomarkers. Currently, she is studying for a diploma certificate in data analysis at Altschool Africa. Dorathy aims to venture into health analytics, combining her expertise in public health and data analysis to contribute to innovative solutions in healthcare.

The expression pattern of telomerase and cyclin-dependent kinase 2A in plasmodium falciparum parasite-host relationship

Malaria is caused by the infection of humans with the plasmodium parasite, and it remains a major public health concern. Persistent asymptomatic malaria has been reported to accelerate cellular aging. Telomerase and cyclin-dependent kinase inhibitor 2A (CDKN2A) are aging biomarkers associated with diverse diseases including malaria. This study used reverse transcriptase quantitative polymerase chain reaction to determine the expression pattern of telomerase and CDKN2A in malaria infected and non-infected persons. Quantitative gene expression analysis was expressed as mean change in cycle threshold of target genes (telomerase and CDKN2A) against reference gene, glyceraldehyde 3-phosphate dehydrogenase (GAPDH). The level of CDKN2A and telomerase expression was not significantly different (P>0.05) between test and control samples in humans. While it was expected that there will be increase in CDKN2A expression and lower telomerase activity in infected persons, we discovered in this study that there was decrease in both the expression of CDKN2A and telomerase. The expression level of CDKN2A and telomerase activity was more in the uninfected samples compared to the infected samples although it was not significant. The influence of malaria infection on telomerase and CDKN2A expression pattern in this study can be attributed to frequent exposure of patients to bites of infected mosquitoes as well as the frequency of disease occurrence.

Eric Odei

Eric Odei MD MPH, is a Public Health Physician Specialist undertaking his fellowship residency training at the Faculty of Public Health, Ghana College of Physicians and Surgeons, and is subspecializing in Applied Epidemiology and Disease Control. His research interest is in multidisciplinary approach to communicable and non-communicable disease control interventions and the One Health approach to the control of zoonotic diseases. His current work is focused on rabies control in Ghana and the prospect of its elimination by 2030. He is particularly interested in disease modelling and spatial epidemiology and welcomes collaboration in this area. Dr. Odei is the acting Head of the Public Health Unit of the Korle Bu Teaching Hospital. He is a member of the Ghana Medical Association and the RSTMH.

Spatiotemporal relationships between dog bites, dog vaccination coverages and dog and human rabies in Ghana: Implications for One Health, 2021

To inform policy and program implementation decision making towards eliminating rabies, this study aimed to describe the spatiotemporal relationships between dog vaccination coverage, reported cases of dog bites, dog and human rabies in Ghana and some of the reasons for the observed patterns over the period 2015-2021.

From 2015-2021, average annual dog bites, human rabies cases, dog rabies cases, and dogs vaccinated were 16675, 19, 86, and 60952 respectively translating into annual dog bite rate of 58.9 bites per 100,000 persons, human rabies rate of 0.07 per 100,000 persons, dog rabies rate of 8 rabies cases per 100,000 dogs and vaccination coverage of 5.7%. Dog bites were spatiotemporally associated with dog vaccination coverage (RR:1.77; 95% Credible Interval (CI):1.26-2.46) but much less significantly so with dog rabies (RR:1.03; 95% CI :1.01-1.06) and human rabies cases (RR: 1.03; 95% CI: 1.00-1.06). Key informant interviews revealed that dog vaccinations were more reactive than proactive. There was poor collaboration for routine data sharing between the health and veterinary services. Unwillingness of pet owners to bear the cost of vaccination of their animals, the continuous presence of stray dogs in the communities, low awareness creation and lack of law enforcement regarding responsible pet ownership further contributed to the extremely low dog vaccination coverage.

We recommend a stronger collaboration for data sharing between the two sectors. Dog vaccinations should be more proactive and aimed at universal dog vaccination coverage rather than reactive.

Isaac Oyekola

Isaac Oyekola has successfully defended his Ph.D. thesis in the Department of Sociology and Anthropology, Obafemi Awolowo University, Ile-Ife. As a Development Practitioner, Oyekola has keen interest in social change and development studies, social support provisions, reliable health care financing, healthy ageing, and reduced inequalities. His ongoing research work focuses on social support provisions for health equity and healthy ageing. Oyekola is a member of national and international organisations. He has participated in national and international conferences and has published widely with more than forty (40) publications credited to him. Currently, Oyekola is a Researcher/Lecturer at Landmark University, Omu-Aran with over six (6) years university work experience, and a Student Ambassador of RSTMH. He is also a servant in the House of God.

Roles of household, community, state and non-state actors in providing social support for reliable health care financing of the elderly in Ibadan, Nigeria

The increasing proportion of the elderly in the world population results in the need for their care. In Nigeria, one important concern of the elderly (especially the vulnerable ones) is how to finance their inevitable health care services. This paper therefore seeks to examine the roles of household, community, state and non-state actors in providing social support for reliable health care financing of the elderly. This study adopted exploratory research design to collect primary data on the roles of stakeholders in providing social support for reliable health care financing in old age. Key informant interviews (KII) were conducted among 32 participants (elderly, community leaders, elderly caregivers/geriatric doctors, and health insurance officials) in Ibadan, and the qualitative data were analysed using thematic content analysis. Findings demonstrated that all elderly, either fully or partially, paid for their health care services through unreliable and unsustainable out-of-pocket health care financing. While all the participants affirmed the worthiness of supporting the elderly health care financing, the results revealed that elderly (especially the vulnerable ones) received limited supports from household, community, state and non-state actors. Lastly, the results showed various roles that household, community, state and non-state actors can play in providing social support for reliable health care financing in old age. The study concluded that the current health care financing mechanisms among the elderly in Ibadan is unreliable and unsustainable, and that policies in ensuring such reliability and sustainability should be enforced in order to reduce health inequality in old age.

Joseph Igbokwe

Dr. Joseph Igbokwe is a researcher with expertise in zoonotic diseases, particularly Lassa Fever transmission dynamics and bat pathogens in Nigeria. He holds a Bachelor of Science degree from Obafemi Awolowo University and received the Ortrud Mührer Grant for training on Epidemiology and Control of Infectious Diseases (EPICID) at Bernhard Notch Institute of Tropical Medicine (BNITM) in Hamburg, Germany. He is a member of Royal Society of Tropical Medicine and Hygiene; he was awarded the Early Career Researcher grant in 2022. Dr. Igbokwe's research has significant implications for public health, and he continues to advance our understanding of zoonotic diseases through his innovative work

Assessing human behaviours as a risk factor for seasonal incidence of Lassa fever in a highly endemic locality within Nigeria

Lassa fever is a zoonotic viral illness endemic in parts of West Africa, including Nigeria. The incidence of Lassa fever is known to be seasonal, with higher rates during the dry season. This is likely due to a number of factors, including the migration of rodents from agricultural areas to human settlements during the dry season, as well as changes in human behavior during this time.

This study assesses the role of human behavior as a risk factor for the seasonal incidence of Lassa fever in Ekpoma, a highly endemic locality within Nigeria. The study uses a cross-sectional questionnaire survey to obtain quantitative data on sociodemographic characteristics and all forms of contact with rodents (in homes and farms, contact during hunting, preparation and consumption), knowledge of Lassa fever, as well as bush burning and food storage practices.

Preliminary results of this work show that respondents encounter rodents and their droppings or urine indoors more often during the rainy season, despite similar food storage habits across the various seasons and bush burning practices being done more during the dry season.

These findings suggest that human behavior may play a role in the seasonal incidence of Lassa fever, even in the absence of changes in rodent populations or environmental conditions. Further research is needed to identify specific human behaviors that are associated with increased risk of Lassa fever infection, and to develop targeted public health interventions to reduce these risks.

Olanrewaju Igah

Dr. Igah Olanrewaju is a Veterinary Research Officer at the National Veterinary Research Institute (NVRI), Nigeria, specializing in viral vaccine production. He holds a DVM from Ahmadu Bello University and is pursuing his Ph.D. in Veterinary Public Health and Preventive Medicine under the Nigeria Engaging One Health (NEOH) project. His research focuses on arthropod-borne viral diseases while his current work is on the molecular epidemiology of Crimean-Congo Haemorrhagic Fever Virus (CCHFV) in Northern Nigeria. He received the American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) Travel Award in 2022 for his work on CCHFV and has authored several peer-reviewed articles. He advocates for an increased One Health collaboration to reveal the burden of arboviral infections in Nigeria and eliminate misdiagnosis.

West Nile Virus Sero-Reactive Animals Reveals Potential Zoonotic Threat In Nigeria.

West Nile Virus is a zoonotic mosquito borne arboviral disease responsible for the upsurge of encephalitis in horses and man globally, making it a pathogen of public health importance. Reports of epizootics of WNV in Nigeria is limited, necessitating seroprevalence studies in animals. In this study, 184 sera samples obtained from archival samples of horses 139(81%), chicken 10(5.4%), rabbits 15(8.2%) and dogs 10(5.4%) in Northern and South-Western Nigeria were screened for WNV using West Nile multi-species competitive ELISA Kit. The overall seroprevalence of WNV was 78.3% (n=144). In horses, 93.3% (n=139) of the 149 horse sera was positive making 75.5% of the total samples tested, all the 10 chicken samples tested were negative to WNV, only 1 (6.7%) of the 15 rabbits sera tested positive which makes 0.54% of the total samples tested and 4(40%) of 10 dog sera tested was positive making 2.2% of the total sample tested.

The lack of sero-reactive chicken in this study may suggest a lower incidence rate in domesticated chickens as against wild birds who are known reservoirs. However, the numbers of samples used is too small for significance. Sero-reactivity in rabbits and dogs indicates their exposure and susceptibility to WNV and therefore requires further investigation. The high sero-reactivity recorded in horses reiterates the important role they play in WNV epizootics which underscores the public health risk associated with WNV at the human-animal interface in Nigeria. *Keywords: West Nile Virus, serology, horses, dogs, rabbits, chickens*

Sabdat Ekama

Sabdat Ekama (Ph.D.) is a researcher at the Nigerian Institute of Medical Research where she is conducting research on drug design and formulation. She specialized in Pharmaceutics and Pharmaceutical Technology with a doctorate from the University of Lagos, Nigeria. She also has a fellowship in clinical pharmacy from the West African Postgraduate College of Pharmacists. Prior to her Ph.D. program she has conducted research in the field of HIV which were published in peer review journals. Her work is focused on HIV prevention and microbicide development, and she is interested in exploring targeted drug delivery to address the challenges of conventional drug delivery systems.

Targeted Drug Delivery in enhancing the efficacy of HIV Vaginal Microbicides: Utilizing enzymes for a triggered release

The quest for effective HIV microbicide prevention tools targeting the virus at the point of heterosexual intercourse has led to the development of smart vaginal gels of diverse mechanism of action using novel drug delivery techniques. This study aimed to formulate and characterize in-situ vaginal gel designed for enzyme triggered release. Microparticles of the antiretroviral drugs maraviroc and tenofovir were formulated using ionic gelation technique and designed to respond to a triggered release in the presence of the enzyme component of the male seminal fluid.

The microparticles were incorporated into a Pluronic based thermosensitive gel The gel was analyzed for various rheological parameters, safety, and efficacy. The thermosensitive gel had a viscosity value of 991 mOsm/kg and osmolality values below 1000 mOsm/kg, indicating a lower tendency for vaginal mucosa damage and epithelial stripping. The pH value of the gel was acidic (5.83) which is preferred for the vaginal environment. There was an adequate release of tenofovir and maraviroc from the gel. Tenofovir release followed Higuchi model kinetics and maraviroc, followed a zero-order kinetics order release however the presence of acid phosphatase enzyme altered the release profile. The thermosensitive gel demonstrated efficacy against the HIV-1 BaL viral strain in it achieving a lower maximum effective dose of 1.0 µg/mL. The safety and efficacy profiles of the thermosensitive gel shows promising results as potential a microbicide candidate.

Samuel Adedokun

Samuel Adedokun is a Research Scientist at Osun state University, Nigeria. He holds a PhD in Medical Microbiology and Parasitology from Ladoke Akintola University of Technology, Nigeria. He collaborates well with researchers at Center for Emerging and Re-emerging Infectious Disease, Nigeria, the Institute of Tropical Medicine, Tübingen, Germany and Rochester Institute of Technology, New York. He is interested in Molecular epidemiology of neglected tropical diseases and malaria. His current research focuses on Immunogenetics of Human resistance to *Schistosoma haematobium* infection among children in endemic communities of South-western, Nigeria. He intends to answer an important question on why some children in endemic communities are protected from schistosomiasis despite repeated exposure to the etiologic agent.

Comparative efficacy of Praziquantel and Artemether-Lumefantrine in the treatment of Urinary Schistosomiasis among children in endemic community of Nigeria

Praziquantel (PZQ) remains the only recommended drug of choice for the treatment of schistosomiasis, but the problem of reported reduced efficacy/resistance makes the need for alternative drug imperative. Some Antimalarial Combination Therapy (ACTs) are believed to be effective against schistosomiasis. This study compared the efficacy of PZQ and Artemether-Lumefantrine (AL), an ACT, for the treatment of urinary schistosomiasis in Nigerian children. Urine was collected from 625 children, examined using the filtration technique. and Schistosoma haematobium positive children were randomized into PZQ (129) and AL (132) treatment groups. Urine was screened for Schistosoma haematobium egg at 4- and 8-weeks post-treatment. Efficacy was determined based on the Egg Reduction Rate (ERR) and Cure Rate (CR).

Prevalence of urinary schistosomiasis was 41.8% (261/625). The ERR at 4- and 8-weeks post-treatment was 94.8% and 95.4% respectively for PZQ and 91.8% and 92.9% respectively for AL. The CR at 4 and 8 week post treatment was 75.2% and 97.3% respectively for PZQ and 61.7% and 93.0% respectively for AL.Both PZQ and AL were found to be effective. The use of AL could be an alternative drug against urinary schistosomiasis and could be advantageous in malaria- schistosomiasis co-infection cases.

Poster Presenters

Abdurrahaman Mangari

Abdurrahaman Mangari, CEO of A.S. Mangari Global in Nigeria, is a distinguished Medical Microbiologist and Infectious Diseases expert trained at Bayero University Kano. His career spans pivotal roles at institutions including the Nigeria Centre for Disease Control, Africa Centre for Disease Control, and World Health Organization. Notably, as a WHO fellow on COVID-19 recovery, he led immunization efforts across five African countries, demonstrating exceptional leadership. Mangari's commitment to public health is evident through his contributions to global health forums and health literacy initiatives in West Africa. His expertise in epidemiology and disease surveillance has fortified public health systems, while his current role at WHO focuses on eradicating polio through meticulous vaccination campaigns. Mangari's journey reflects unwavering dedication to advancing global health and combating infectious diseases, shaping health interventions regionally and globally.

Sentinel Survey for SASR-CoV-2 Seromarkers and Local Remedies Used in the Management of Suspected Cases of COVID-19 among Symptom and Asymptomatic Volunteers in Selected States in Nigeria

This study conducted in five states and Abuja, Nigeria, aimed to assess SARS-CoV-2 sero-markers and local remedies among 1,143 symptomatic and asymptomatic volunteers. Questionnaires gathered socio-demographic and COVID-19-related information, while blood samples were analyzed for IgG and IgM. Among the findings, 48.73% of participants were aged 10-29, and males constituted 63.25%. Impressively, 93.61% showed a good understanding of COVID-19, but only 15.57% had a clinical history, and 24.40% adhered to safety protocols. Sero-marker results revealed 11.81% positive for IgM, 31.75% for IgG, and 2.36% for both. Only 8.35% had been vaccinated, with 5.60% completing the regimen; interestingly, only those with a complete dose tested positive for IgG. Notably, 73.55% tested positive for IgG without vaccination. Traditional healers, comprising 50% aged 30-49, utilized remedies like garlic and ginger; 75% found them effective. In conclusion, the study underscores a significant gap between COVID-19 knowledge and safety protocol compliance in Nigeria, indicating potential underreporting and a low vaccination rate. The use of SD biosensor kits and traditional remedies warrants further investigation. Bridging these knowledge-practice gaps is crucial for effective pandemic control in Nigeria, emphasizing the need for targeted education and community engagement.

Adedotun Ayodeji Bayegun

Bayegun Adedotun Ayodeji is a PhD student in the Pure and Applied Zoology department, Federal University of Abeokuta, Nigeria. His research focuses on the neglected tropical diseases particularly schistosomiasis and the hybridization patterns in endemic rural communities in Nigeria. He has a deep passion for Global Health, most especially areas involving mapping distribution of neglected tropical diseases (NTDs), identifying potential risk factors influencing NTDs and understudying disease control programs and the overall processes of strengthening community awareness and participation in such program. He has worked on various projects involving schistosomiasis, onchocerciasis and malaria in the country. He has seven publications in peer-reviewed journals and six conference proceedings showcasing evidence of his writing and articulation skills.

Assessment of the urinary schistosomiasis and the associated risk factors among school-aged children in two endemic communities of Ogun state.

The snail-borne schistosomiasis is a parasitic disease of humans associated with poverty, poor sanitation and lack of safe water supplies. Therefore, in line with the SDG 3.3 goal, the status of Schistosoma haematobium was assessed among school-aged children in two endemic communities of Ogun state. Using sedimentation method, 112 urine samples were examined for the presence of Schistosoma ova while the risk factor assessment was done using well-structured questionnaire. Data were analyzed using SPSS 26.0 for descriptive statistics and Chi-square analysis was used to test for relationship between the variables. Significance value was set was p-value < 0.05. The overall prevalence of infection was 17.9%. A non-significant association (p = 0.401) exist between the infection status and age group with 21.7%, 16.1% and 50.0% of the infected pupils were within the 5-9 years, 10-14 years and above 14 years respectively. The infection among the males (21.2%) was not significant (p = 0.463) compared with the females (15.0%). The risk factors associated with S. haematobium infection showed that 62.5% visit the river/stream and among these people, 72.9% visit daily, 25.7% visit weekly and 1.4% visit every fortnight for bathing (58.0%), fetching (58.0%), washing (58.0%) fishing (51.8%), playing (51.8%) and swimming (54.5%). Less than half (13.4%) have received treatment for urinary schistosomiasis with the health centre/hospital as the main source of treatment (30.4%). This study has demonstrated the prevalence of Schistosoma haematobium among school-aged children in the study areas of Ogun state, thus, intense effort is required at meeting elimination target.

Amarachi Bayo

Amarachi Bayo is a medical doctor with 12 years of clinical practice under her belt. She is a Consultant Paediatric Neurologist at the Federal Medical Centre Ebute-Metta, with experience in diagnosing and treating children with neurodevelopmental delays, epilepsy, central nervous system infections and other neurological disorders. She is an early year researcher with interest in neurological disorders and has a firm desire to push the boundaries of paediatric neurology, striving to offer the best possible outcomes for her young patients and their families. Prior to her role as a consultant, she completed her postgraduate training at the University College Hospital Ibadan, where she was actively involved in clinical research and contributing to numerous publications. She is also a passionate advocate for child neurology education, mentoring medical students and residents. She is happily married to Dr Ray Bayo; a Cardiothoracic surgeon and they are blessed with a daughter.

Inter-Ictal Heart Rate Variability in Children with Epilepsy Seen at The University College Hospital, Ibadan: A Case-Control Study.

Epilepsy is a major public health challenge in developing countries, with numerous comorbidities, including cardiac comorbidities. Mortality due to cardiovascular dysfunction is higher in patients with epilepsy, with impaired cardiac autonomic function accessed by heart rate variability contributing to the risk of sudden unexpected death in epilepsy. The contribution of cardiac dysfunction to the associated morbidity and mortality in children living with epilepsy (CWE) remains uncertain in Nigeria. This study aimed to assess the heart rate variability (HRV) of children with epilepsy seen at the University College Hospital, Ibadan. This hospital-based case-control study of 80 children with epilepsy and 80 age-and sex-matched controls aged 5-15yrs were evaluated for heart rate variability (HRV) via 5-minutes ECG monitoring and time domain parameters and frequency domain parameters were assessed in both groups. Data were analysed with descriptive, bivariate, and multivariate analyses. There was no difference in both time domain and frequency domain parameters of HRV in cases when compared to controls. However, children with younger age at diagnosis had higher LF compared to older children, while children with remote symptomatic epilepsy had lower HF compared to their idiopathic counterpart. In conclusion, the presence of epilepsy does not appear to increase the risk of cardiovascular morbidity in children with epilepsy seen at the University College Hospital, Ibadan. Following the results from our study, children with epilepsy should have a baseline 5-minute HRV measurement before AEDs are commenced, especially in those with remote symptomatic epilepsy and those who were diagnosed at a younger age.

Edidiong Solomon Akpan

Edidiong Akpan, is an assistant lecture at the University of Uyo, with extensive experience in public health/Medical Parasitology, epidemiology and neglected tropical Diseases (NTDs). She obtained an M.Sc in Public Health parasitology from Nnamdi Azikiwe University. Acquired 4 years teaching experience in the department of Medical Microbiology and Parasitology at the University of Uyo with publications on Malaria and Preventive interventions, Malaria in Pregnancy and Malaria Elimination. Edidiong is resourceful, solution-driven and dedicated individual with strong skills in service delivery engaging lectures, and mentoring students and Proven feedback.

Impact of malaria during pregnancy on birth weight of newborns in Uyo, Akwa Ibom State

Malaria in pregnancy remains a public health problem. A continuing surveillance to assess control measures is important. To determine the birth weight of newborns in both malaria positive and negative women in Uyo, Akwa-Ibom State. A total of 405 pregnant women between the ages of 16-46years who visited the hospitals for ante-natal care participated in the study. Malaria infections were diagnosed using microscopy. Questionnaires were used to obtain information on socio-demographic data and age of pregnancy.A total number of 106 mothers had their babies delivered and 299 mothers were in their gestational period. Prevalence of placental malaria infection among women that delivered was observed to be 16.9 % (18/106). Associating the birth weight of babies delivered with their mothers who were positive for placental malaria infection, 27.7% (5/18) had a mean birth weight of 1.8 kg, 55.5 % (10/18) had mean birth weight of 2.3 kg and 16.7 % (3/18) had mean birth weight of 2.6 kg. Of the 83.0% (88/106) who were negative for placental malaria, 54.5% (48/88) had mean birth weight of 3.3 kg (range 3.0 – 3.4 kg), 39.7% (35/88) had mean birth weight of 3.7 kg (range 3.5 – 3.9 kg) and 5.7 % (5/88) had mean birth weight of 4.2 kg (range 4.0 – 4.4 kg)This study identified that malaria in pregnancy reduces the birth weight of newborns.

Favour Idih

Favour Moses Idih, PhD is an early career researcher. Presently he is a Research Fellow at the Genomics and Molecular Biotechnology Research and Training Laboratory and a faculty member at the Department of Biochemistry, Prince Abubakar Audu University (formerly Kogi State University), Anyigba-Nigeria. His research focuses on drug-resistant infectious diseases. In addition to research, he is passionate about capacity building and advancing STEM education in Africa.

Lycopene Possess an Antimalarial Effect On Chloroquine-Resistant Malaria And Its Hematological Aberrations In Murine Model

Malaria remains a significant global public health concern, with the emergence of resistance to frontline antimalarial drugs posing a major challenge. This study focuses on assessing the potential of lycopene, a novel compound, as an antimalarial agent against chloroquine resistant strains and its ability to alleviate hematological abnormalities associated with acute malaria, utilizing a murine model. Additionally, the study investigates the molecular mechanism of lycopene's antimalarial action through its interaction with Plasmodium falciparum armadillo-type repeat protein (PfATRP), a microtubule-associated protein previously characterized in our laboratory. Molecular docking analysis revealed that lycopene binds to PfATRP via a hydrophobic interaction with specific amino acid residues (PHE192, LYS193, LYS154, ILE151, and ILE191) with a binding energy of -9.5 kcal/mol. Furthermore, in vitro evaluation demonstrated significant antiplasmodial activity of lycopene. In the murine model, lycopene exhibited a remarkable reduction in parasitemia, improved survival time, and ameliorated hematological abnormalities ($p<0.05$). The findings suggest that lycopene could serve as an adjunct treatment option, particularly in resource-limited regions heavily burdened by malaria. Further investigations are warranted to explore the full potential of lycopene as a novel antimalarial agent.

Fomukong Hanneda Awodabon

Awodabon Fomukong Hanneda is a PhD biotechnology student at Ahmadu Bello University (ABU) Zaria, Nigeria, researching on the heterogeneity in stress erythroid progenitor (SEPs) using single-cell RNA sequencing. His work is focussed on studying the developmental pathways that underlie SEPs differentiation during stress erythropoiesis in sickle cell patients. His research involves a combination of single-cell library generation in Dr. I. A. Aimola's lab in Nigeria, sequencing in the USA and computational analysis. Hanneda is particularly interested in the evolution of a long-lasting treatment for sickle cell disease. He is currently working in Dr. I. A. Aimola's lab under the APTI project. Prior to his PhD, he completed an MSc. in Biotechnology at ABU Zaria, and taught biology in a sixth form college.

Single-cell RNA seq analysis of erythroid cells reveals a specific sub-population of stress erythroid progenitors

Erythroid cells are known to fulfil significant functions in both hemostasis and pathological conditions. Nevertheless, there remains a substantial deficit in our understanding of stress erythropoiesis. Stress erythropoiesis is important under pathological conditions. Two single-cell RNAseq datasets of erythroid cells deposited on GEO with accession numbers GSE149938 and GSE184916 were obtained. The datasets from two sources, bone marrow and peripheral blood were analyzed using Seurat v4.1.1, and other tools in R. The two datasets were integrated. QC metrics were performed, data were normalized and scaled. Significant principal components were identified and used for clustering the cells and to improve visualization. Clusters were defined via differential expression of features. A total of 26 distinct clusters were found and classified into 9 unique cell types, with one specific cluster being indicative of stress erythroids. The clusters exhibited distinct patterns of gene expression, as evidenced by the gene signature map. The stress erythroid cluster exhibited differential expression of several genes, namely ALAS2, HEMGN, and GUK1. The heterogeneity of the erythroid population was observed, revealing the presence of a distinct sub-cell type known as stress erythroids. This finding holds significant implications for our understanding of both steady-state and stress erythropoiesis. Furthermore, the identification of markers within this cluster may offer valuable insights for future investigations into the differentiation dynamics of stress erythroid progenitor cells.

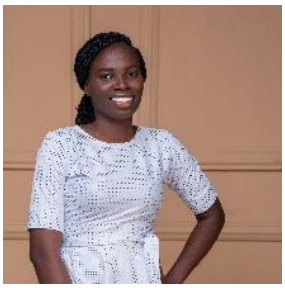
Gbemisola Adebisi-Jose

Gbemisola Adebisi-Jose is a pharmacist with experience in community and hospital practice. She holds a master's degree in pharmacology and Therapeutics from University of Ibadan, Nigeria and she is currently engaged in the research design of a PhD proposal for registration. Her research interest is focused of Molecular epidemiology of malaria, experimental genetics and surveillance of antimalarial resistance. Gbemi has participated as principal investigator in studies on the malaria parasite population genetic diversity in Southwest Nigeria and impact on drug resistance. She is also a global health enthusiast involved in education of the general populace about medications use, antimicrobial resistance and matters concerning health and general wellbeing through her podcast on social media channels called "Aunty Pharmacist Podcast.

Malaria Parasite Population Genetic Diversity in Ibadan, Southwest Nigeria and Potential Impact On Drug Resistance

Global successes achieved in the control of malaria are being threatened by the emergence and spread of artemisinin resistant genotypes to parts of sub-Saharan Africa (Eastern bloc). Continuous parasite genetic surveillance becomes an imperative to uncover patterns of genetic evolution and impact on malaria control vis-a-vis drug resistance. This study examined the current malaria parasite population genetic diversity within an endemic population in Southwest, Nigeria. Blood samples from a cohort of 100 participant enrolled in an open labelled efficacy study were obtained at presentation and confirmation of Plasmodium falciparum infection prior to antimalarial drug treatment for the study. Genetic polymorphism in PfMSP1 and PfMSP2 genes were examined using allele specific nested PCR. Specifically, the K1, MAD20 and RO33 allelic families of PfMSP1 block 2, FC27 and IC/3D7 families of PfMSP2 block 3 were amplified and resolved by agarose gel electrophoresis. Infections in this study population were predominantly monoclonal. RO33 was the most prevalent MSP1 allele, while FC27 was the most prevalent MSP2 allele in the population. Multiplicity of infection (MOI) was 1.39 and 1.02 for MSP1 and MSP2, respectively. The calculated expected heterozygosity (HE) was found to be 0.58 and 0.52 for MSP1 and MSP2, respectively. There was low genetic diversity of Plasmodium falciparum in the study population which may depict moderate intensity of malaria transmissions. The evidence suggests a conserved parasite population with low probability of undercurrents of genotypic evolution including drug-resistant changes. Continuous strengthening of the malaria control strategies already in place is recommended.

Gladys Ayodele



Gladys Adigun is a distinguished alumna of Osun State University, Osogbo, where she earned a bachelor's degree in Biochemistry. Her academic journey led her to Helix Biogen Institute as a Graduate Intern, where she engaged in numerous research projects, including "Plant-Derived Anti-HIV Peptides as a Novel Therapeutic Approach Against HIV Infections." She is now a Research Assistant at Helix Biogen Institute. Gladys continues to demonstrate her passion for scientific exploration. Her research interests include infectious diseases, immunology, and antimicrobial resistance, areas where her dedication and work ethic are clearly evident.

Plant-Derived Anti-HIV Peptides as Novel Therapeutic Approach Against HIV Infections

For decades, Human Immunodeficiency Virus (HIV) has been a persistent and significant global health concern mostly affecting adults between the age of 15 and more. HIV therapeutics had undergone huge development, but the limitations of the current therapy seem to outweigh its benefits (McLaren et al., 2023). Plant anti-HIV peptides were retrieved from Antimicrobial Peptides Database (APD), peptide sequence length >35 were excluded while toxicity and allergenicity screening of the retrieved anti-HIV peptides were predicted using bioinformatics tools. Molecular docking of the selected anti-HIV peptides to the HIV proteins (gp120 and gp41) was accomplished using Molecular Operating Environment (Vilar et al., 2008) while the molecular dynamics simulation of the docked anti-HIV peptides was done using the WebGro tool (Abraham et al., 2015). Proteins with hemolytic properties were not selected while peptides with an instability index <40 were chosen, indicating that the peptides were stable. Overall, two anti-HIV peptides with favorable features were identified, showing capacity to inhibit viral entry and replication, with Kalata B8-gp41 being the strongest peptide-based inhibitor. This study therefore aims to develop effective plant-derived anti-HIV peptides that are free from adverse effects and microbial resistance.

Hadiza Joy Umar

Hadiza Joy Umar is a pharmacist currently completing her internship program at Federal Medical Centre Keffi. As a budding public health researcher, her primary research focus revolves around the implementation of antimicrobial stewardship practices in Nigeria. Her most recent paper appraises Nigeria's approach to combating antimicrobial resistance (AMR) and she has two additional papers currently under review, studying the effects of vaccine inequities on local and global health security and assessing knowledge around antimicrobial stewardship. Hadiza advocates for better infection prevention and control practices and greater health equity in the country. She is also the project lead of the SHERO initiative, an organization she founded to empower Nigerian communities through health and education.

Pharmacy And Veterinary Medicine Students' Perception of Antimicrobial Resistance and Drug Utilization In Veterinary Medicine.

This research aimed to evaluate the perceptions of pharmacy and veterinary students on antimicrobial resistance (AMR) and antibiotic utilization in veterinary medicine. Conducted at Ahmadu Bello University, the study involved 361 respondents from the Faculties of Pharmaceutical Sciences and Veterinary Medicine. Results indicated commendable understanding among students yet identified gaps in areas such as infection control practices and cross resistance awareness. While 93.35% recognized the importance of future professionals understanding current guidelines, only 74.51% reported receiving formal lectures on rational antibiotic use. Additionally, the study revealed that 57.62% of respondents felt their academic training inadequately covered the One Health concept. Despite these gaps, 82.55% believed their degree program adequately prepared them for selecting appropriate antimicrobial agents. The recommendations from the study predominantly favoured curriculum adjustments emphasizing the clinical aspects of antimicrobial use in animal care (73.68%). This research underscores the urgent need for improved undergraduate education in Pharmacy and Veterinary Medicine, ensuring future professionals are well-equipped to address these identified gaps and contribute to global health security.

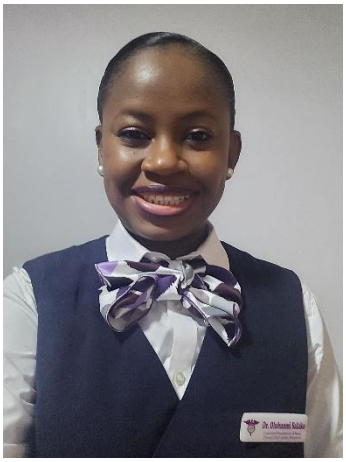
Shutti Haleemat

Dr. Shutti Haleemat recently graduated from the College of Medicine, University of Lagos. Her undergraduate research focused on Malaria in Pregnancy, investigating knowledge, attitudes, and preventive practices among pregnant women at Lagos University Teaching Hospital. Passionate about maternal health and infectious disease prevention, Dr. Haleemat believes mortality rates can be reduced, particularly from malaria, which significantly risks pregnant women and children in Africa. Her medical school experience deepened her commitment to this cause. She firmly believes no pregnant woman should lose her life to a preventable disease. Dr. Haleemat volunteers in women's health initiatives and plans to pursue a career in Obstetrics and Gynecology. She aims to provide women with the knowledge and resources needed to enhance their health, especially in resource-limited tropical regions.

Knowledge, Attitude And Preventive Practices Related To Malaria In Pregnancy Among Pregnant Women Attending Antenatal Clinic In Lagos University Teaching Hospital, Idiaraba

Malaria in Pregnancy (MiP) is a major public health problem as it is a leading cause of low birth weight, perinatal mortality and maternal anemia in endemic communities. The estimated annual mortality attributed to malaria is 700,000 to 2.7 million globally and >75% of the affected are African children and pregnant women. This study aimed to determine the level of knowledge, attitude towards MiP and its prevention among pregnant women attending antenatal clinic in Lagos University Teaching Hospital (LUTH). This was a descriptive, cross-sectional study. A proportionate stratified random sampling method was used to select 200 participants from antenatal clinics at ANC, LUTH. An interviewer-administered questionnaire was used to collect data and Epi-Info was used to analyze. Associations between selected variable were tested using Chi square and Fisher's exact tests and level of significance was set at $p<0.05$. Fifty-three percent of the respondents had good level of knowledge about malaria. However, 66.5% did not know the consequences of MiP. About half (51%) had good attitude towards MiP; but there was poor preventive practice as 56% had poor practice towards the use of ITN. There was an association between knowledge and preventive practice; as more than half of the respondents with good knowledge, had good preventive practice.
Most of the pregnant women studied at LUTH had poor knowledge, some attitude and poor preventive practice towards MiP. For better outcomes, improvement in health education of pregnant women on MiP, its prevention and complications during antenatal clinics is recommended.

Helen Olubunmi Salako



Dr. Olubunmi Helen Salako, who is currently working in AVON Medical Practice Limited, as the Head of Clinical Services and Quality Assurance, is a Consultant Paediatrician, a Fellow of the National Post Graduate Medical College (FMCPaed). She finished at the University of Ibadan and completed her Residency Training at the Lagos University Teaching Hospital (LUTH), Idi-Araba. She had her internship in France on "Clinical Trials in Cardio metabolic Syndrome in Children". She also holds a Masters Degree in Public Administration (MPA) from the University of Lagos amongst other professional certifications. Prior to joining AVON, Dr. Salako had worked with Lagos University Teaching Hospital (LUTH), AIDS Prevention Initiative of Nigeria (APIN) where she worked in conjunction with Amsterdam Institute for Global Health and Development (AIGHD) on "Monitoring Antiretroviral Resistance in Children-Nigeria-MARCH Ni Study".

Cardio-metabolic syndrome in adolescents living with HIV/AIDS infection attending the Lagos University Teaching Hospital, Nigeria: A cross-sectional comparative study.

Cardio-metabolic syndrome (CMS) a cluster of biochemical and anthropometric abnormalities highly predictive of cardiovascular disease. Antiretroviral therapy (ART) has transformed HIV from an acute infection to a chronic lifelong condition, with increasing trends of CMS among the affected population. This study describes CMS's prevalence and risk factors among Adolescents living with HIV (ALHIV). Methods: The cross-sectional study enrolled 182 Adolescents aged 10-19 years (91 ALHIV and controls, respectively) attending the Lagos University Teaching Hospital, Nigeria, over eight months. The anthropometric measurements (weight, height, and waist circumference), blood pressure, blood samples for fasting glucose, and lipid profile assays. CMS was defined using the modified International Diabetes Federation criteria. Data analysis done using SPSS with significance at the p-value <0.05. Results: The prevalence of CMS in ALHIV and controls was 2.2% and 1.1%, respectively. The proportions of CMS components among ALHIV compared to controls were 14.3% vs. 9.9% (abdominal obesity), 11% vs 23.1% (hypertension), 12.1% vs. 29.7% (impaired fasting blood glucose), 13.2 % vs 2.2% (high triglyceride) and 20.9% vs 11% (low HDL-c). Female and pubertal stages 3-5 were associated with obesity, protease inhibitors-based ART was associated with high triglyceride, pubertal stages 3-5 and WHO HIV stage 2 were associated with low levels of HDL-c (p<0.05). On multivariate analysis, female and pubertal stages 3-5 were associated with abdominal obesity, [(OR=12.762; 95% CI=2.526-64.443), (OR=5.987; 95% CI=1.147-31.247)]. The burden of CMS in ALHIV affirms the need for comprehensive services to ensure early detection and intervention. Keywords: Adolescents, Cardiometabolic Syndrome, HIV, Antiretroviral therapy.

Kabirat Sulaiman

Kabirat Adedunmola Sulaiman is an early career biomedical scientist conducting molecular biology related research with focus on parasitology, cancer, therapeutic and diagnosis. Since the inception of her doctoral degree in Molecular Parasitology at the University of Medical Sciences, Ondo City Nigeria, she has focused more on developing a holistic approach for diagnosis of *S. mansoni* and *S. haematobium* infections, the two most predominant schistosome species in sub-Saharan Africa. She has explored microscopy and immunoassays (ELISA, western blotting and dot blotting) to uncover the presence of immunogenic molecules in the schistosomes soluble egg antigen (SEA). Her M.Sc. in Zoology (Cell Biology and Genetics) equipped her with in-depth knowledge of molecular biology, genetic principles and bioinformatics. She teaches computational Biology at UNIMED, Ondo.

Evaluation of Schistosoma spp soluble egg antigen (SEA) in non-invasive diagnosis of schistosomiasis

Schistosomiasis, one of the neglected tropical diseases is the most devastating water-borne parasitic disease of human. Co-endemicity of Schistosoma spp requires the use of effective means of identification for quick intervention to reduce the overlapping rate of morbidity, and research have shown that many evolutionary conserved molecules capable of eliciting immune responses are shared among organisms of different species, genera and phyla. Hence, this study aimed to leverage the presence of antigenic molecule in S. haematobium (Sh) and S. mansoni (Sm) soluble egg antigen (SEA) for the non-invasive diagnostic potential of S. haematobium. ELISA immunoassay was used to evaluate 47 Sh positive and negative only urine samples each from the endemic area. The area under the receiver operating characteristic (ROC) curve (AUC), sensitivity (SS) and specificity (SP) for sh SEA are as; thus, (AUC 0.8859, CI 82.21-95.70%, P <0.0001, SS 91, SP 74); while sm SEA (AUC 0.8669, CI 79.04-94.34%, P <0.0001, SS 85, SP 82). The mean antibody titer against Sh SEA and Sm SEA in infected individuals (OD=0.7721±0.1802 and 0.3508±0.2719) (P <0.0001) is higher as compared to the non-infected individuals (OD=0.5347±0.1037 and 0.1355±0.0593) (P <0.0001). The notable difference in the antibody titers in the urine of the positive and negative populations in this study showed that cross-reacting marker protein in Sh and Sm SEA can be adopted for development of non-invasive diagnostic tool for the Sh and Sm.

Modinat Akinboade

Modinat is a seasoned research scientist with a first-class (Honors) degree (B.Tech) in Biochemistry at Ladoke Akintola University of Technology, Ogbomoso. Modinat is currently a teaching assistant at Helix Biogen Institute. Modinat is a visionary researcher whose interest lies with Vaccine and drug design. She is passionate about the use of computational techniques in solving prevailing health problems through the design of effective therapeutics particularly for Cancer and infectious diseases. She is also interested in conducting translational research in the therapeutics design and development field. She has gained valuable skills in computational modeling (molecular docking and molecular dynamics simulation) as well as relevant molecular biology techniques.

mRNA Vaccine Design for Epstein Barr Virus: An Immunoinformatic Approach

Epstein-Barr Virus, structurally similar to other herpes viruses, poses significant global health challenges as it causes infectious mononucleosis and also associated with various cancers. Due to this widespread impact, an effective mRNA vaccine is paramount to help curb its spread, further underscoring the need for its development. This study following an immunoinformatic approach, aimed to design a comprehensive mRNA vaccine against the Epstein-Barr virus (EBV) by selecting antigenic proteins, predicting Linear B-cell epitopes, cytotoxic T-cell lymphocyte (CTL) and helper T-cell lymphocyte (HTL) epitopes, and assessing vaccine characteristics. Seventy-nine EBV isolates from diverse geographical regions were investigated. Additionally, the physicochemical properties, transmembrane domains, solubility, and secondary structures of the vaccine construct were analysed. Molecular docking was conducted with Toll-like receptor 5 (TLR-5). Population coverage was assessed for selected MHC alleles, and immune response was simulated. The result of this study highlighted a vaccine construct with high antigenicity, non-toxicity, and non-allergenicity and possessed favourable physicochemical properties. The vaccine's 3D structure is native-like and demonstrates strong binding with TLR-5 indicating a solid affinity with TLR-5. The selected MHC alleles provided broad universal population coverage of 89.1% and the Immune simulations suggested a robust and wide-ranging immunogenic response, activating critical immune cells, antibodies, and cytokines. These findings provide a solid foundation for further development and testing of the EBV candidate vaccine, offering potential solutions for combating EBV infections.

Olubukola Adelakun

Dr Olubukola Adelakun is currently running her Ph.D. programme in the Department of Zoology, Federal University of Agriculture, Abeokuta. Her research is focused on molecular epidemiology of shistosome intermediate snail hosts in Oyo State, Nigeria. Olubukola also lectures at the Department of Animal Health Technology, Oyo State College of Agriculture and Technology, Igboora, Nigeria

Q-fever Status of Cattle and Owners in Oyo State, Nigeria

Q-fever, an important tick borne zoonosis caused by Coxiella burnetii that affects a broad range of hosts, including humans. There is limited data on its prevalence in Nigeria particularly in pastoralist community that are at risk of exposure. This study evaluated the sero-prevalence of C. burnetii antibodies and associated risk factors among nomadic pastoralists and their herds. A cross sectional study design was adopted by randomly selecting pastoralists' communities in Lanlate, Oyo State, Southwestern Nigeria. Questionnaires were administered to herdsmen to determine their knowledge, attitude and practices to Q-fever. Sera were harvested from collected blood of 384 pastoralists and 260 cattle covering 25 cattle herds, these were analyzed using a commercial indirect Enzyme-Linked Immuno-Sorbent Assay (ELISA) kit ((IDscreen® Q-fever indirect multi-species, IDvet France)). Results were analysed by a chi-square ($\chi 2$) test and predictors of Coxiella burnetii infections were determined using multivariate logistic regression. Over 90% of the herdsmen (79) have never heard of Q-fever prior to the study. Of the study population, 18.5% (71/384) pastoralists, 9.2% (24/260) cattle at individual animal level and 24% (6/25) at the herd level were positive to C. burnetii. Predictors of C. burnetii infection were gender of pastoralists and breed of cattle (OR: 1.8, 3.1; 95% CI: 1.0 – 3.0, 2.0 – 4.9) respectively. In conclusion, presence of C. burnetii antibodies among pastoralists and their cattle/herds was demonstrated which suggest exposure to C. burnetii. A need for further studies to characterize the circulating strain of C. burnetti in the studied communities is recommended.

Olubukola Omobowale

Dr. Olubukola Omobowale is a Senior Lecturer at the Department of Community Medicine, College of Medicine, University of Ibadan, Nigeria, and a Consultant Community Physician at the University College Hospital. She holds an MBBS, MPH, and is pursuing a Ph.D. at the same University. Dr. Omobowale is a global health researcher, global mental health advocate, and women's health expert. Her work focuses on developing and evaluating community-based rehabilitation interventions for vulnerable populations using methods like participatory research and community engagement. She currently leads two major projects: PALS project , which provides psychosocial support for people living with leprosy, and ENCASE, which aims to end child marriage in Nigeria through community-led initiatives. Dr. Omobowale is a member of prestigious organizations like RSTMH and the Global Network on Mental Health and Child Marriage

Perceived Benefits and Harms of Child Marriage among Hausa Communities in Ibadan, Nigeria

Nigeria is home to the largest number of child brides in Africa and many of these girls are members of the Hausa ethnic group. Understanding the perceived benefits and harms of child marriage among communities where the practice is prevalent is key to speeding progress toward ending child marriage. This article deploys qualitative methods to document the perceived benefits and harms of child marriage among Hausa communities in Ibadan, Nigeria. Using focus group discussions and key informant interviews, members of Hausa communities in Sabo and Bodija in Ibadan, produced narratives to articulate their perceptions of the benefits and harms associated with child marriage. The resulting data were analyzed thematically, using direct manual content analysis.Perceived benefits of child marriage reported by the participants include early completion of the family unit, prevention of disgrace and bringing honour to the child and family, as well as bringing wellness and prestige to the family. Less commonly reported were perceived harms such as shame, anxiety, emotional instability and regret when complications arose from child marriage. Some participants opined that due to the immature reproductive organs of the child, sexual and reproductive difficulties can occur in the aftermath of child marriage. In light of the association of child marriage with both positive and negative perceptions in Hausa communities, a more in-depth study is required to enable policymakers and those working to end the practice to put in place health education and promotion strategies and interventions that target these beliefs.

Olugbenga Akinola

Dr. Gbenga Akinola is a molecular pharmacologist and academic fellow at the Faculty of Pharmacy, University of Ibadan. He also holds a research associate position at the Malaria Research Laboratories, Institute of Advanced Medical Research and Training, College of Medicine, University of Ibadan. Gbenga is a molecular science enthusiast whose research interest is focused on uncovering newer possibilities in the development of newer antimalarial drugs that can combat drug resistant parasites. Using reverse genetics and genomic tools, his research attempts to identify and validate potential target genes that are selective to malaria parasite. Gbenga is interested in application of computational approaches and bioinformatics in identifying genetic changes in malaria parasites within sub-populations in malaria endemic regions, especially for modelling predictive genotypic outcomes.

Re-defining Asymptomatic Malaria: A Parasite Survival Dynamics or Manifestation of Host Factors in Different Environment.

The emergence of artemisinin resistant strains of Plasmodium falciparum, and increasing prevalence of asymptomatic malaria infections, threatens malaria elimination efforts globally. This study was conducted to understand the dynamics of asymptomatic malaria infections between parasites and hosts in different environments. A cross-sectional study was conducted within five study sites in Kwara state, North Central Nigeria, where malaria is highly endemic. Three hundred and twenty-two participants (age 13-19 years old) were purposively tested and clinically evaluated on-site, using malaria antigen detection kits (PfHRP2) and followed-up 90 and 150 days post enrollment. Average malaria prevalence was determined by microscopy with PCR corrections. Parasite population diversity within and between the communities were performed by PCR fragment analysis of merozoite surface proteins (MSP1 and MSP2). High prevalence of malaria infections was confirmed in all communities, with an average of 23.55% (PCR corrected values). Asymptomatic infections were observed in 83.01% of all positive cases with significantly higher incidences in rural areas (94.1%) compared to the urban centre (5.9%). There was a significant difference (P<0.05) in the parasite densities of asymptomatic and symptomatic individuals. Fragment analysis of MSP1 and MSP2 revealed insignificant diversity in parasite populations' within and between the study sites. A significant majority of asymptomatic malaria carriers used herbal decoctions periodically. The differential in asymptomatic and symptomatic individuals may not be associated with parasite survival strategies. Disease tolerance mediated by host factor differentials may be responsible for sub-latent parasitemia incapable of triggering acute malaria illness, while symptoms are often unrecognized.

Asaolu Oluwadara Taiwo

Asaolu Oluwadara Taiwo is a veterinarian specializing in public health research and grant writing, passionate about advancing global health through the transformative One Health approach. She focuses on understanding social determinants of health and strives to ensure equitable access to healthcare. Committed to evidence-based research, Oluwadara currently works as a Grants Officer at the Slum and Rural Health Initiative (SRHIN) where she writes grant proposals and supports the implementation of high-impact innovative public health initiatives, particularly targeting underserved and vulnerable communities. Her goal is to bridge healthcare gaps by integrating multi-disciplinary strategies, fostering a healthier and more inclusive world. Through her work, she aims to create sustainable change and improve health outcomes globally.

Determinants of access to improved WASH among mothers of under-5 children in Nigeria

Background: In Nigeria, more than 70, 000 children under-5 years die annually as a result of water-borne diseases caused by contaminated drinking water and poor sanitation. About one in four persons have access to improved water and sanitation. Therefore, this study aimed to determine the factors that can influence the access to improved water and sanitation among mothers of under-5years children in Nigeria. Methods: Data from the 2018 Nigeria Demographic and Health Survey (NDHS) database was analyzed using the SPSS. Descriptive analysis was used to determine the frequencies of the demographic characteristics, while logistic regression was used to determine the factors that influence the access to improved water and sanitation sources. P <0.05 and 95% Confidence Interval Results: Data was collected from 30,713 mothers of children under-5 years, of which 36.80% have unimproved water while 51.70% have unimproved sanitation. Respondents living in the rural areas are 77.20% and 74% respectively less likely to have access to improved water and sanitation compared to those living in the urban areas (OR=0.23, 95%CI=0.22-0.24; OR=0.26, 95%CI=0.25-0.28 respectively). Those who have higher education are 7.58 and 9.77 times respectively more likely to have access to improved water and sanitation compared to those with no education (OR=7.58, 95%CI=6.68-8.61; OR=9.77, 95%CI=8.73-10.94 respectively). Conclusion: The findings from the study revealed that place of residence, education, and wealth index are some of the key determinants of access to improved water and sanitation among mothers of under-5 children.

Oluwapelumi Afolabi

Oluwapelumi Afolabi is a postgraduate student at the University of Ibadan, where she is conducting research on the efficacy of Triple Artemisinin Based Combination therapy (TACT) in treating uncomplicated malaria. Her project aims to investigate the effectiveness of this treatment strategy in patients that visit the malaria clinics in Ibadan, Southwest-Nigeria. Her work also involves the collection and collation of malaria parasite genomic data for iterative pruning and prediction of genetic evolution of drug resistance. She is skilled in microscopy, murine model experiments, application of genomic tools and statistics. Oluwapelumi is interested in underpinning the mechanisms and potential drivers of drug resistance in malaria parasite and how to mitigate propagation of such parasites.

Efficacy of dihydroartemisinin-piperaquine plus chloroquine, a TACT regimen against Plasmodium berghei ANKA strains with varying drug sensitivities to chloroquine, in a murine malaria model.

Detection of artemisinin resistance markers in parasite isolates from East Africa threatens the continuous usefulness of artemisinin-based combination therapies (ACTs) as first-line treatment of malaria. Repositioning chloroquine as complementary addition to ACTs has been suggested as a viable option in mitigating this threat. This study evaluated the potential benefit or associated-risk of chloroquine (CQ) as a complementary partner to dihydroartemisinin/piperaquine (DHA/PQ) in the treatment of malaria in a mice model. A modification of Peter's 4-day suppressive and curative test was used. The anti-parasitic effect of DHA/PQ/CQ on two Plasmodium berghei (ANKA strains -311 and -671) parasites with varying sensitivities to chloroquine was evaluated in separate experiments. Potential toxicological effects of the triple combination on liver and kidney functions were also assayed. In both parasite lines, 100% chemo-suppression was observed on day-4 in all treatment groups (CQ, DHA/PQ or DHA/PQ/CQ). Complete suppression was sustained in all treatment groups except in animals infected with ANKA-311 strain treated with CQ alone, where parasite recrudescence was recorded on day 8. In the curative test, there were marked significant differences between DHA/PQ/CQ and DHA/PQ treatment groups. Parasite clearance time was 4.75±0.3 Vs 5.5±0.3 days, significantly delayed recrudescence time (28.5±1.04 Vs 13.3±0.48 days), and a prolonged mean survival time (34.5±1.04 Vs 26.7±0.48 days). There was no significant difference in toxicological parameters within and across the experimental groups. The triple combination (DHA/PQ/CQ) exhibited enhanced antimalarial activity in mice suggesting a potential benefit of addition of CQ to the existing DHA/PQ combination in the treatment of malaria.

Opeyemi Oladunni

Dr. Oladunni is a distinguished public health lecturer, consultant, and independent researcher with over a decade of relevant experience in her field. She holds a BSc in Kinetics and Health from the University of Lagos, MPH and Ph.D in Public Health from the University of Ibadan. Her professional experience includes serving as a Consultant to the World Health Organization and UNICEF (Ladysmith Collective Organization). She has also facilitated various training sessions non-governmental organizations, managed and implemented international and local projects. She is currently the Head of the Public Health Department at Adeleke University, Nigeria. Her research focuses on gender research, the development of technology for health, maternal, newborn, and child health, NCDs, NTDs, and global health.

Acceptance of prospective malaria vaccine among under-5 mothers in Ede South local government area, Osun state.

Nigeria has the highest malaria burden in the world and under-five children are at risk of infection. Malaria is still a formidable foe, despite efforts to lessen its effects other preventive measures. Although, there have not been many problems with vaccine adoption in Nigeria and malaria vaccine is needed to alleviate the misery caused by this parasite illness, which kills more than one million people annually. In light of this, the study investigated awareness, perception and acceptance of prospective malaria vaccine among under-5 mothers in Ede South local government area, Osun state. This study adopted a cross-sectional survey research design and a total of 311 mothers of under-5 children were randomly selected from 10 Health facilities in Ede South LGA. Descriptive and inferential statistics were used to analyze the quantitative data at α0.05. Respondent's age was 30.97±6.54. More than half of the respondents (55.6%) were between the ages of 21 years to 30 years old. Level of awareness of malaria vaccine was low (35.4%), respondents' perceived susceptibility to malaria was high (82%), likewise perceived seriousness of malaria (94.5%) and perceived benefit of malaria vaccine (92.9%). Acceptance of malaria vaccine was high (75.2%), however, unawareness, fear of side effects, unavailability, cost were identified as mitigating factors to willingness to take malaria vaccine. Acceptance of vaccine was found to be significantly associated with awareness (X2 4.553, df = 1, p < 0.05). The vaccination awareness is low among mothers of under-five; hence interventions should concentrate on increasing vaccine awareness among populations.

Opeyemi Akinjiola

Opeyemi is a public health practitioner with a focus on water, sanitation, hygiene, health, and safety. She holds an MSc in Public Health (Health Management) from the College of Medicine, University of Lagos, and a BSc in Microbiology from Obafemi Awolowo University. Opeyemi has experience supporting NGO projects and research initiatives, having served as a Programmes Officer and Research Consultant .. She has contributed to the Lagos International Water Conference and various health campaigns. Her skills include analytical thinking, problem-solving, communication, statistical analysis, project management, and report writing. Her master's research examined health insurance coverage disparities in Lagos State's informal sector, involving fieldwork, data collection, analysis, and policy review.

Awareness And Willingness to Pay for Health Insurance Among Artisans in Ifako-Ijaiye Local Government of Lagos State: A Cross-Sectional Study

A major challenge in achieving health universal coverage for all low- and middle-income countries is enrolling the informal sector of the economy often referred to as "the missing middle" in health insurance schemes. This sector relies on Out-Of-Pockets (OOPS) exceeding the recommended 30% of family income, often surpassing 70%. Nigerian government in May 2022 addressed this by signing into law the National Health Insurance Authority (NHIA) mandating health insurance for all citizens and legal residents. This study explored health insurance awareness Willingness To Enroll(WTE) and Willingness To Pay(WTP) among 300 artisans in Ifako-Ijaiye Local government of Lagos State Nigeria. Utilising a descriptive cross-sectional study approach, a semi structured pretested questionnaire was used to assess the socio demographic, awareness, WTE and WTP. SPSS software and Excel was used to analyse the data collected which revealed that 63% of respondents were aware of health insurance with 13% been enrolled on any form of Health Insurance. About 41.4% of the respondents were WTE for Health Insurance. Among those WTE, 49.6% were WTP a minimum premium of ₦ 8,836± 5.9. Awareness of health insurance marital status and monthly income were found to be significantly associated with WTP for health insurance. Despite high awareness about health insurance, the study reveals a low WTE and WTP among artisans. Income level emerged as a significant factor, with those earning ≥ ₦50,000 being 2.812 times more likely to pay. The findings emphasize the need for targeted strategies crucial to bridge health insurance participation gap in this demographic.

Oreoluwa Oyelami

Oreoluwa Oyelami recently completed her medical degree at the prestigious College of Medicine, University of Lagos. Her work is focused on investigating the perceptions surrounding infertility and assisted reproductive technologies (ART) among married individuals living in Lagos. Through extensive fieldwork, Oreoluwa has been able to gain valuable insights into how people in these urban communities view and understand concepts like infertility and ART treatments. Beyond this research focus, Oreoluwa is passionate about making positive impacts in reproductive health and emergency medicine - two vital areas of healthcare. As a driven young medical professional, Oreoluwa's work has the potential to drive important advancements in understanding and addressing reproductive health challenges within her local community and beyond.

Perception of infertility and willingness to uptake Assisted Reproductive Technology among married people in urban communities of Lagos, Nigeria.

Infertility is of great public health significance affecting about 190 million people globally with majority of cases seen in developing countries. Globally, most infertile couples suffer from primary infertility and the prevalence rate of infertility among couples of the reproductive age group is 15%. In Nigeria, the prevalence rate of infertility is high, as more than 60% of gynecologic clinic consultations are related to infertility. Therefore, this study assessed the perception of infertility and willingness of uptake of assisted reproductive technology (ART) among married people in urban communities of Lagos state, Nigeria.A descriptive cross-sectional study was conducted among 420 married men and women in selected communities in Lagos, Nigeria. Data were collected using a structured pre-tested interviewer administered questionnaire with the aid of KoBo Toolboox. Univariate and bivariate analyses were carried out with IBM SPSS version 26 software. Level of significance was set at $p < 0.05$. Results: Mean age of respondents was 40.46 ± 10.62 years. Majority, 81.7% and 79.5% of the respondents had a negative perception of infertility and ART respectively. Seventy percent (70%) were willing to support the use of In-vitro fertilization, intra-uterine insemination (60%) and surrogacy (20%). A statistically significant association was found between respondents' perception of ART and willingness of uptake of ART. The vast majority of respondents negative perception of infertility and ART. Public enlightenment and mass education programs on infertility and ART are recommended.

Ponmile Alabi

Ponmile Emmanuel Alabi is a PhD student at the prestigious University of Ibadan, Nigeria where he is researching the spatial distribution of soil transmitted helminths in school children. His work is focused on the soil transmitted helminths among school children in Oyo state, environmental factors that affect it, generate thematic and risk maps of its prevalence in the state and cost of treatment in Oyo state. His research work involves a combination of fieldwork in selected primary schools in Oyo state, laboratory work in parasitology laboratory at department of Zoology in University of Ibadan and GIS laboratory at GIS/RS department in FUTA. Prior to his PhD, he studied Microbiology from Federal University of Agriculture, Abeokuta, Ogun State before proceeded to Department of Zoology, University of Ibadan to obtained master's degree in Parasitology.

Spatial distribution of soil transmitted helminths among school children in Oyo State, Nigeria

Soil transmitted helminths (STHs) contribute to malnutrition, iron-deficiency and anaemia and can have adverse ton physical and mental growth in children. They are found globally in the poorest and deprived communities, where implementation of control measures are difficult to maintain due to lack of prior diagnosis and data identifying high risk areas. This study was therefore designed to obtain epidemiological data and determine the geospatial distribution of STHs in selected Local Government Areas (LGAs) in Oyo State. School children were sampled from 15 LGAs in Oyo State using systematic point sampling method. Stool samples from 819 school children were examined for STH eggs using the Kato-katz method. Of the 819 school children aged 3-16 years enrolled for the study, 48% were females and 52% were males, Ascaris lumbricoides, hookworm and Trichuris trichiura were the parasites found in the stool samples. The overall prevalence of infection was 18.6% with the highest prevalence in age group 3-6 years (22.4%). Males (20%) were more infected than females (17%). ArcGIS was used to map the prevalence of the disease. Soil transmitted helminths are prevalent in the study areas. Spatial distribution maps of STHs can aids the focalization of deworming, other interventions and in the evaluation of the state control programs.

Precious Irabor

Precious Catherine Irabor is a M.Sc. student in Molecular Parasitology at the University of Medical Sciences, Ondo, Ondo State, Nigeria. She is a young scientist whose research interest lies in the study of Neglected Tropical Diseases (NTDs) with a particular interest in Schistosomiasis. Her current research is focused on serological diagnosis of schistosomiasis. Prior to the commencement of her Master's program, she interned at The African Center of Excellence for Genomics of Infectious Diseases (ACEGID), Redeemer's University, Ede, Nigeria where she got firsthand experience by working in the 'hot lab' with a PhD student whose project was based on Lassa and Ebola. Alongside her Master's program, she is a graduate assistant at the University of Medical Sciences, Ondo, Ondo State, Nigeria.

Serological Diagnosis of Urogenital Schistosomiasis using Admixture Antigens of Schistosoma haematobium and Schistosoma mansoni

Multiple antigens have been explored as treatment targets and more than one has been utilized simultaneously as therapeutic and diagnostic targets, especially in cancer. Urogenital schistosomiasis, which is the most prevalent form of schistosomiasis is also linked to bladder cancer. This study 'thus' aimed to diagnose urogenital schistosomiasis using Schistosoma admixture soluble egg antigen (SEA) of Schistosoma haematobium (Sh) and Schistosoma mansoni (Sm) in sera and urine samples. Indirect enzyme-linked immunosorbent assay (ELISA) was used to evaluate Sh-Sm SEA antigen against S. haematobium-infected sera and urine samples, and control. The Area under curve (AUC), sensitivity (SS%), and specificity (SP%) of Sh-Sm SEA were analyzed. Diagnostic performances of Sh-Sm SEA in sera were AUC 0.56, SS 79, and SP 25 (p value 0.3050), and in urine were AUC 0.58, SS 68, and SP 33 (p value 0.1627), respectively. The low sensitivity, low specificity and p values indicate that the antibody production of S. haematobium against the admixture SEA of S. haematobium and S. mansoni in both infected individuals and the control group has no significant difference. The study showed that the admixture of S. haematobium and S. mansoni antigens does not give substantial diagnostic performance as against the use of single antigen in the diagnosis of urogenital schistosomiasis.

Ridwanullah Abdullateef

Ridwanullah Abdullateef is a final-year medical student at the College of Medicine, University of Ibadan, Nigeria. He is an aspiring physician-scientist with research interests in Cancer Biology, Immunology and Infectious Disease. He is particularly interested in viral carcinogenesis and its role in cancer metabolism and metastasis. He is passionate about the role of public health in translational biomedical research. Outside research, he is an experienced Content Writer in the MedComms industry.

Improving Breast Cancer Diagnostics and Outcome in Africa – A Step Towards Closing Health Equity Gap

Although Africa has the second lowest incidence of breast cancer globally, it currently has the highest mortality rate. A myriad of factors are responsible for this phenomenon, but usually, it is attributed to a low level of awareness, a profound lack of adequate infrastructure and substandard cancer care predominant on the continent. Despite multiple efforts, breast cancer care has remarkably fallen short of the global standards. This review aims to investigate these shortcomings and provide recommendations for improving the outcomes of breast cancer in. Data reported in this study were obtained from Google Scholar, PubMed and ResearchGate. We used the boolean operators AND and OR to combine the following keywords: "Africa", "Breast cancer", "Diagnosis", and "Outcome". We included reviews and original studies from Africa. Thirty-four papers were eventually selected. This study revealed numerous challenges responsible for poor outcomes among breast cancer patients. The commonest challenges cited include unaffordable costs, lack of awareness, poor health-seeking behaviour, poor infrastructure, inadequate resources and the social stigma associated with treatment. Closing the health equity gap in breast cancer diagnostics and outcomes has been challenging and therefore demands concerted efforts and innovations. By embracing technology, community engagement, and collaborative partnerships between the public and private sectors alike, African countries can pave the way toward earlier diagnoses, better treatment access, and improved survival rates. As early career researchers, our responsibility lies in advocating for evidence-based strategies that empower women, reduce health disparities, and contribute to the global fight against breast cancer.

Seun Olufemi

Seun is a graduate of Biochemistry from Ladoke Akintola University of Technology, Ogbomoso, Nigeria. He is deeply passionate about understanding the molecular pathogenesis of disease progression and developing therapeutics to mitigate these processes. Currently, Seun serves as a Graduate Research Assistant at the International Research Centre of Excellence, Institute of Human Virology, Nigeria. In this role, he supports research aimed at uncovering the underlying molecular mechanisms of disease progression, also he also a Research and Development Assistant at Helix Biogen Institute, Nigeria, where he supports translational research. His contributions to the scientific community are marked by his authorship of eight articles published in internationally highly indexed peer-reviewed journals. Aside from this, he co-leads initiatives around Open Sciences and Cancer health.

Genomics Analysis of Rotavirus-A Vp7 Gene Isolated from Some Selected Domestic Mammals and Human

Rotavirus A (RVA) is a variant known to infect humans, causing severe diarrhea and fatalities. This strain also induces pathogenic effects in animals. The VP7 gene within RVA encodes the VP7 protein, responsible for viral attachment, pathogenesis, evading the host's immune response, and potential vaccine design. Despite available vaccines, the death toll rises annually, necessitating further investigation. This study aims to comparatively analyze VP7 genes from RVA strains in selected domestic animals and humans to establish phylogenetic relationships and draw insights. VP7 gene sequences from RVA in various domestic animals, humans, and it's reference genome were obtained from the NCBI GenBank. Pairwise and multiple sequence alignments were conducted using MEGA 11 Software with the clustal W Algorithms. Phylogenetic analysis was performed through the Maximum-Likelihood algorithm in MEGA 11. Additionally, GLAM2 predicted recurring motifs and patterns in these sequences.
RVA VP7 genes from rats, horses, and dogs clustered closely with human genomes, while cats and horses were closest to the RVA reference genome. Multiple sequence alignment revealed significant deviations from the RVA reference genome, likely due to viral mutations. Despite diverse sources, around 70% of the sequences displayed recurring patterns, suggesting potential common ancestry. Genetic diversity in VP7 genes of RVA in humans and domestic animals indicates frequent reassortment and potential interspecies transmission, emphasizing the risk of vaccine fallout within the population. This research underscores the need for ongoing surveillance of RVA strains and the development of effective vaccines, considering RVA's genetic diversity and the possibility of zoonotic and interspecies transmission.

Sophia Quist

Dr. Sophia Quist is a senior resident in public health at the Ghana College of Physicians and Surgeons, where she is researching the Buruli ulcer disease surveillance system. Her primary focus is the evaluation of the Buruli ulcer disease surveillance system in the GA west municipality of the Greater Accra region of Ghana. Her research work involves a multidisciplinary approach that includes laboratory scientists, clinicians, data information analysts, community volunteers and health workers, health care managers and the community. Sophia spent three years at the same institution studying applied epidemiology and disease control, as well as health policy, planning and leadership before starting her senior residency programme. She is currently the municipal director of health services (Ghana Health Service) in the Ayawaso north municipality, Ghana.

Evaluation of Buruli Ulcer Disease Surveillance System in GA West Municipality, Ghana, 2016-2019

Buruli ulcer (BU) is one of the most neglected tropical diseases caused by environmental Mycobacterium Ulcerans. Globally the annual suspected Buruli ulcer cases reported was around 5000 in 2010. In Ghana, the national prevalence rate of active lesions was 20.7 per 100,000. The Ga West Municipality is known for its endemicity of Buruli ulcer. We evaluated the BU surveillance system to determine whether the system meets its set objectives and describe its attributes, and operations, and determine the usefulness of the surveillance system.A checklist based on the Centres for Disease Control and Prevention (CDC) updated surveillance evaluation guidelines, 2006 was used for the study. A retrospective data set on Buruli ulcers for the period 2016–2019 was reviewed at all levels of the surveillance system. Key stakeholders were interviewed using a semi-structured questionnaire and a checklist for observations. Data were collected and analyzed with Epi info 7.2. Results. Throughout the four-year period (2016-2019), a total of 114 cases of Buruli ulcer were reported. 57% were males and 88. % more than 15 years. The system was very sensitive, simple, and representative. However, it was found unstable, not timely, and poor data quality issues, especially at the sub-district levels. The Buruli ulcer surveillance system meets its set objectives. It is sensitive to pick up BU cases, representative However, data quality and timeliness need to be improved.

Tajudeen Oriade

Tajudeen Oriade is a PhD student at the University of Medical Sciences (UNIMED), Ondo, researching on novel immunoassay for the diagnosis of Schistosomiasis. His research focuses on the development of immuno-diagnostic technique that identifies shared protein biomarkers within arrays of Schistosoma antigens. Tajudeen's specific interest lies in identifying protein biomarkers in helminth parasites - in relation to diagnosis of tropical diseases. His research aims to validate the diagnostic performance of these biomarkers using samples from infected populations and evaluate their utility as point-of-care (POC) tests. Prior to embarking on his PhD journey, Tajudeen studied Zoology, specializing in Cell Biology and Genetics at the University of Ibadan. His research skills were further honed during his two years plus tenure as a research assistant.

Leveraging cross-reaction in the diagnosis of Schistosomiasis

The overlapping distribution of both Schistosoma haematobium and S. mansoni in sub-Saharan Africa increases the risk of co-infection, negatively impact control measures and heightens morbidity. Schistosoma worm antigen (SWA) protein-based diagnostics have several advantages over the current microscopy and filtration methods for diagnosing schistosomiasis. The effectiveness of S. haematobium (Sh) and S. mansoni (Sm) worm antigens as diagnostic targets for anti-S. haematobium antibody detection was evaluated in serum and samples of infected individuals. Sh and Sm worm antigens were used to diagnose 50 lab-stored samples (positive, negative (NE) and control (NNE)) each by Indirect ELISA. Diagnostic reference was based on initial microscopy and syringe filtration. The sensitivity, specificity and area under the ROC curve (AUC) of SWA–ELISA was determined with respect to Sh infected samples against non-infected controls for endemic (NE) and non-Endemic (NNE) population. The area under the ROC curve [AUC, sensitivity (SS), specificity (SP), p-values] for Sh–SWA on sera sample is 076 (AUC 0.76, SS 74, SP 70, p <0.0001) while that of Sm–SWA on sera sample is 0.74 (AUC 0.74, SS 80, SP 54, p <0.0001) against NE. For NNE, Sh–SWA on sera sample is 0.89 (AUC 0.89, SS 92, SP 72, p <0.0001) while that of Sm–SWA on sera sample is 0.93 (AUC 0.93, SS 92, SP 90, p <0.0001). This study showed effectiveness of Sh and Sm worm antigens in the diagnoses of Schistosomiasis. The sensitivity rate indicates potential of utilizing SWA to develop novel immunodiagnostic candidates for the identification of S. haematobium infection.

Tomiwa Adesoji

Tomiwa Olumide Adesoji is a PhD student of Microbiology at the Obafemi Awolowo University, Ile-Ife, where he is working on antimicrobial resistance and cellular cytotoxicity among staphylococci from various sources in Osun State, Nigeria. His current work focuses on the genotyping and determination of the pathogenic potential of members of the *Staphylococcus aureus* complex (SAC) among bat species in Osun State. His research combines bacteria isolation, molecular biology, genomics and cell biology. Tomiwa is passionate about antimicrobial resistance; he approaches with reference to the “One-Health” concept. Previously, he has worked on antibiotic resistance and cytotoxicity among staphylococci from the environment and human-related samples. He is passionate about research and learning

Characterization of Mammaliicoccus sciuri from Hipposiderous Bats in Ile-Ife, Nigeria

Bats are of immense importance to the ecosystem. However, they are carriers of pathogens, including members of the family Staphylococcaceae. Mammaliicoccus has been implicated in human and animal infections and is widely regarded as the ancestor of some clinically relevant antibiotic-resistance genes. This study aimed to characterize Mammaliicoccus sciuri from Hipposiderous bats in Obafemi Awolowo University, Ile-Ife, Nigeria. Swabs were obtained from captured bats, and preliminary identification as M. sciuri was based on standard cultural and biochemical techniques. The isolates were confirmed by matrix-assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF MS). The antibiotic susceptibility testing of the isolates was determined using the disc diffusion technique. Whole genome sequencing (WGS) was performed on the isolates, and genomes were analyzed using appropriate bioinformatic tools. Nine isolates of the family Staphylococcaceae were recovered from twenty-three captured bats. Four isolates were identified as M. sciuri by MALDI-TOF and confirmed by WGS. Antibiotic susceptibility testing showed that all the isolates were resistant to fusidic acid and clindamycin and 75% (n=3) to trimethoprim. Also, analysis of the genomes revealed that the isolates harboured antimicrobial resistance (mecA, salA, qacE) and virulence (clfB, icaA, icaB, icaC, and sspA) genes. The isolates were assigned to new sequence types (ST) 233 and ST234 by multilocus sequence typing (MLST). This study highlights the need to include wildlife (bats) in antibiotic monitoring and surveillance programmes. Bats could be “unnoticed” agents of zoonotic pathogens and the dissemination of antibiotic-resistance gene determinants.

Victor Femi-Lawal,

Victor Femi-Lawal is a medical student at the University of Ibadan, health advocate, and global health researcher, with interests in non-communicable diseases, SRHR, child and adolescent health, and HIV/AIDS. He is a Global Health Researcher at Polygeia Cambridge, UK, an international global health think-tank that investigates health outcomes to influence policymaking at national and regional levels. He also works with various health-focused organizations, including the Federation of African Medical Students' Associations (FAMSA), where he serves as Vice President. Victor is the Co-Founder and Director of Research and Policy at The Mafita Initiative, a non-profit organization that advances social impact through research, policy advocacy, and community-based interventions. A Kectil Colleague, Victor's research has been published in multiple peer-reviewed journals and presented at various international conferences.

Highlighting the Potential Role of Comprehensive Sexual Health Education for Nigerian Youths and Adolescents: A Systematic Review

Despite the size of Nigeria's youth and adolescent demographic, health policies and their implementation scarcely address their needs. Only recently, the Ministry of Education struck sexual health education out of the curriculum, contrary to well-documented evidence globally. This study aims to review present sexual health outcomes in Nigerian youths and adolescents and the need for a sexual health education policy to fill the needs gap. MThis study is a systematic review. PubMed, EMBASE, and African Journals Online were searched for relevant cross-sectional studies published between 1st January 2018 and 27th July 2023. Risk of bias was assessed using the JBI Critical Appraisal Checklist for Studies Reporting Prevalence Data. 124 articles were included. Knowledge about high-risk sexual practices such as multiple sexual partners and transactional sex was low in most studies. 3 in 50 Nigerian girls between ages 15 and 19 have been pregnant at least once, likely owing to low contraceptive utilization found in multiple studies. Notably, HIV testing is low in both studies reporting high and low awareness. Misinformation, folklore, and social stigma still strongly influence outcomes. Good economic background, education, and exposure to mass media are significantly linked to positive outcomes in several studies. This systematic review finds that many outcomes are far from ideal, with low contraceptive use and poor knowledge about risky sexual behaviour across the country. Good educational status is associated with positive outcomes, indicating the need for policy changes prioritizing sexual health education among youths and adolescents.

Wakilat Tijani

Wakilat Tijani is a Biostatistician and Research Fellow at the Nigerian Institute of Medical Research. She holds a Bachelor of Science degree in Statistics and a Master of Science degree in Public Health, with a focus in Medical Statistics. With over six years of experience, she expertly applies statistical methods to medical data, contributing significantly to the research community. She initiates and collaborates on research works, designing studies for quantitative, qualitative, and mixed-method research. Her expertise extends to data management and comprehensive statistical analysis. Her research interests are diverse, encompassing Infectious Diseases, Maternal and Child Health, Non-communicable Diseases, and Neglected Tropical Diseases. Her commitment to advancing public health through rigorous research and statistical analysis underscores her invaluable role in the field.

Assessment of Cardiovascular Disease Risk Factors Among Women Living with HIV in Lagos State, Nigeria

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality among women in Nigeria. Human Immunodeficiency Virus (HIV) remains a major health concern, and more than 50% of persons living with HIV are women. With antiretroviral therapy (ART), HIV-infected persons are living longer but are at risk of developing CVD. This study assessed CVD risk factors among women living with HIV (WLWH) in Lagos State, Nigeria. A single-center, cross-sectional study was conducted to assess CVD risk factors among WLWH on ART. The study recruited 427 women using a systematic sampling technique. Blood samples were collected from a subset of 117 women. Data was analyzed using descriptive statistics and multivariable logistic regression, a p-value ≤0.05 was considered significant. The mean age of the 427 respondents was 46±8.7 years, and 69 (16.2%) had hypertension. Out of 117 women with blood collection, 16 (13.7%) were found to have diabetes. Lipid panel indicated that 8(6.8%) had high total cholesterol, 10(8.5%) had high LDL, 32(27.4%) had low HDL, and 12(10.3%) had hypertriglyceridemia. The multivariable logistic regression results showed that being unemployed, being married, not taking appropriate servings of fruits and vegetables, physical inactivity, poor knowledge of CVD risk factors, and earning low income monthly significantly increased the odds of CVD risk factors among WLWH. Findings from this study buttress concern for increased risk of CVD among WLWH. This calls for better attention for an all-inclusive care for prevention and proper management of CVD and its risk factors among WLWH.

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