Conducting integrated epidemiological, laboratory, clinical, and health systems research, with results feeding into local and international health policy.
The KEMRI-Wellcome Trust Research Programme (KWTRP) has delivered internationally competitive research and capacity building for the last 30 years. Established in 1989 as a partnership between Kenya Medical Research Institute (KEMRI), the University of Oxford, and the Wellcome Trust, the programme has two hubs in Kenya (Kilifi and Nairobi) and one in Uganda (Mbale).

The Nairobi Programme of KWTRP coordinates clinical, health services, health systems, and population health research, with results feeding directly into local and international health policy, and also aims at enhancing the country’s capacity to conduct internationally competitive health research.

---

**Our Mission**
To deliver high quality research relevant to global health and to build local capacity for undertaking research.

---

**Our Vision**
To establish long term sustainable capacity for research in human health that improves global health.

---

**Aims of the programme**
To conduct research to the highest international scientific and ethical standards on the major causes of morbidity and mortality in the region in order to provide the evidence base to improve health.

To train an internationally competitive cadre of Kenyan and African research leaders to ensure the long term development of health research in Africa.
Health Services Unit

The Health Services Unit (HSU) conducts multidisciplinary research, both basic and applied, that examine the use, costs, quality, accessibility, delivery, organization, financing, and outcomes of health care services to increase knowledge and understanding of the structure, processes, and effects of health services for individuals and populations. The key focus at HSU is the understanding and acquisition of knowledge on how to improve quality and coverage of effective interventions to achieve desired health outcomes. Research at HSU includes pragmatic clinical trials, measuring effectiveness, clinical policy, measuring and understanding outcomes, implementation health research, quality improvement, Service delivery innovation, health governance, human resource for health, patient and family experiences, and health information systems.

Ongoing Research

Clinical Information Network’ collaboration (CIN)
The Clinical Information Network (CIN) is a collaboration initiated in 2013 to help support the use of information to improve hospital care for children and newborns admitted to county hospitals; and provide information to guide policy and practice in each county and in Kenya as a whole. CIN is a collaboration between KWTRP, Kenya Paediatric Association (KPA), Ministry of Health (MOH) Kenya, and County Hospitals. Through this collaboration hospitals have adopted standardised recording of patient information, hospitals receive regular audit and feedback on care provided, and there are regular meetings to share experiences across hospitals. KWTRP has also conducted research to investigate most appropriate ways to to improve uptake of policy/guidelines at hospitals and find out who are best placed to spur positive change at the hospital level. Initially CIN focused on paediatric care with only one hospital focusing on newborns (2013-2018), but since 2018 CIN expanded the newborn focus across
Supportive Care and Antibiotics for Severe Pneumonia among Hospitalised Children (SEARCH) A Pragmatic Randomised Controlled Trial.
This is a pragmatic randomised controlled trial that seeks to compare injectable antibiotic treatments and tube feeding versus fluid treatment for children with severe pneumonia. Specifically, the study aims to address two questions: (1) whether either intravenous amoxicillin-clavulanic acid or ceftriaxone is superior to benzylpenicillin plus gentamicin (standard care) for the treatment of children hospitalized with severe pneumonia and (2) therefore whether nasogastric feeding is superior to intravenous fluid therapy for supportive management of children with severe pneumonia. The study will enroll 4392 children at up to ten hospitals in Kenya, one in Tanzania, and one in Uganda.

Malaria (RTS,S/AS01) Vaccine Sentinel Evaluation
Kenya’s Ministry of Health (MoH) working with WHO is conducting phased introduction of RTS,S/AS01 malaria vaccine (Mosquirix®) in the lake region of Kenya, which still has a high burden of malaria disease. During this phased introduction sub-counties within 8 counties (Homabay, Migori, Kisumu, Siaya, Busia, Vihiga, Kakamega, and Bungoma) in the Lake region have been randomly assigned to either introduce the vaccine immediately (vaccinating clusters) or later (comparison clusters). The reason for the pilot introduction and the randomisation is to allow for rigorous evaluation of 3 areas; the vaccine's impact in reducing mortality in children aged under-five years old (through community mortality surveys); programmatic feasibility of giving 4 doses of the vaccine required for protection, between ages 6-24 months (through household surveys); and provide further information on the vaccine’s safety in the context of routine implementation (through sentinel hospital surveillance). Six hospitals currently in CIN have been selected as sentinel hospitals. Results from Kenya will be combined with those of two other countries conducting phased introduction, Malawi and Ghana, and will inform policy on wider use the malaria vaccine.

Roles of Nurses in Delivery of Quality Care
This study aims at raising the profile of the nursing profession by developing and pre-testing tools, co-designed with the nursing community, to produce nurse specific indicators on quality of care which will translate into demonstrating the tasks nurses undertake on routine basis and therefore their vital role in improving quality of care. By examining how nurses are socialized into their profession we will examine how their professional identity influences the ability to agitate for change and improvement in the delivery of care. We will explore if and how the use of nurse specific indicators on quality as evidence based information gives nurse managers power and agency in management decisions, debate on policy and practice. It is expected that our findings will inform the gaps in the current staffing norms and practice and how this might
be influencing quality of care delivered across the country; but also develop a new and broader area of research with important implications for evidence based and informed decisions on staffing that recognizes the importance the nursing profession in improving the health services in the country.

**The System Strategy to Optimise Neonatal Inpatient Care in Kenyan Hospitals (SONIC)**

The research project aims to work with hospitals’ paediatricians, senior nurses and their administration to co-design better approaches to providing care on Newborn Units in hospitals. It will specifically focus on improving the tools doctors and nurses use to plan and guide care (e.g. progress monitoring charts, clinical audit approaches) and explore ways to improve the organisation of care, teamwork, the introduction of new technologies and the delivery of essential forms of care such as assisted feeding.

**Additional projects under the Health Services Unit include:** (1) Work in implementation science to understand why policies do not get implemented and (2) developing novel training approaches using mobile technology such as the development of a simulation training tools on smartphones (www.oxlifeproject.org).

---

**Prof. Mike English**

Mike is a UK trained paediatrician who has worked in Kenya for over 20 years through the support of a series of Wellcome fellowships. His work often takes child and newborn health as a focus but increasingly tackles health services or wider health systems issues. He works as part of the KEMRI-Wellcome Trust Research Programme (KWTRP) in collaboration with the Ministry of Health and a wide set of national and international collaborators. His work focuses predominantly on improving care in African District (sub-national) Hospitals. His team’s work spans: clinical epidemiology (including developing national, evidence-based guidelines for care of severely ill children and newborns, clinical trials and observational studies); implementation research (including cluster randomised trials and mixed methods research), and health systems research (qualitative studies of health worker and managers’ behaviour and rethinking the health workforce). He co-leads Health Systems Research in KWTRP and established the Oxford Health Systems Research Collaboration (OHSCAR). Recently Mike helped establish a team focused on delivering simulation based training using gamification through mobile phones and virtual reality.
Dr. Sam Akech

Sam is a Principal Investigator at the Health Services Unit, KEMRI/Wellcome Trust Programme, Nairobi, and a Visiting Research Fellow, University of Oxford, United Kingdom. He is a consultant paediatrician with Dphil in Clinical Medicine from the University Of Oxford, UK. His PhD studies investigated haemodynamic status of children with severe febrile illnesses and also involved conducting a number of clinical trials comparing different fluid regimens for treatment of shock in different groups of severely ill children. His current research interests are in the investigation of effectiveness of treatments recommended for children admitted with severe illnesses. He is also interested in identifying risk factors for mortality and morbidity of common childhood conditions, guidance compliance, and outcomes spanning hospitals (clusters) in Kenya. This is aimed at informing case management of these conditions with high mortality and identify outstanding questions that may be addressed by pragmatic clinical trials. He is currently leading the safety evaluation of Malaria (RTS,S/AS01) Vaccine in Kenya.

Dr. Ambrose Agweyu

Ambrose Agweyu is a paediatrician and epidemiologist. Based on competitively-awarded funding for training and research, he has developed a 10-year career in pragmatic clinical trials, evidence synthesis and clinical guideline implementation. Working closely with the Kenya Ministry of Health, his early research involved conducting systematic reviews for a national exercise to adapt the WHO paediatric clinical practice guidelines using the GRADE methodology. Following this, Ambrose was Principal Investigator on a pragmatic clinical trial to study the effectiveness of alternative antibiotics for childhood pneumonia whose findings contributed towards a major revision in the Kenyan guidelines and are likely to influence practice in the region. Building on this work, he recently led a successful grant application jointly awarded by the UK MRC, DFID, NIHR and Wellcome Trust to undertake a large clinical trial comparing antibiotic treatments and supportive care strategies in critically-ill children. Alongside this trial, he currently co-leads a multi-site implementation science project to integrate methods for high-quality routine clinical data collection through promoting quality of clinical documentation and implementation of recommended pediatric care practices in 14 hospitals in Kenya and one in Tanzania.
Prof. David Gathara

David is a health systems researcher currently leading work on nursing services research aimed at developing indicators, tools and approaches for evaluating the quality of nursing care delivered in hospitals. He also co-leads the Health Services that Deliver for Newborns programme of work whose focus is understanding the burden, need and access of newborn care services as well as evaluating the quality of newborn care services. He holds a Master of Science in Epidemiology from the London School of Hygiene and Tropical Medicine and a PhD from the University of Amsterdam. Since joining KWTRP in August 2008, his research work has spanned a range of disciplines including, clinical trials, evaluation of quality of care within hospitals and exploration of the application of various statistical methods (propensity score analysis, multi-level models and statistical process control) to routine data.

Dr. Jacinta Nzinga

Jacinta is an Early Career Research Fellow at the KEMRI-Wellcome Trust Research Programme, adjunct faculty with the Institute of Health Care management at Strathmore Business School, and Pwani University in Kenya and visiting lecturer at the University of Oxford, UK. She has a PHD in Health and Social Studies (University of Warwick) and a masters degree in global health (Oxford University). Her research work and interests are mainly in the areas of management of human resources for health, health policy analysis and the interpretive analysis of their implementation, organizational change and implementation of innovation, organizational behavior and clinical leadership and health system governance. She co-led the ethnographic element of the Health Services that Deliver for Newborns (HSD-N) study and recently won an HSRI development grant as a co-applicant to develop health workforce research on the role of nursing in the delivery of quality of care, focusing on nurse identity and nurse leadership.

Dr. Jalembo Aluvaala

Aluvaala is a post-doctoral researcher with an interest in perinatal-neonatal clinical and health services research. After training in Paediatrics (University of Nairobi, 2009) and Epidemiology (London School of Hygiene and Tropical Medicine, 2013) he completed a DPhil in Clinical Medicine at the Nuffield Department of Medicine (2018). For his doctoral work, he developed prognostic models using routine data to predict in-hospital mortality in the neonatal units. He leads the neonatal component of the Clinical Information Network (CIN) under Prof. Mike English at the KEMRI-Wellcome Trust Research Programme in Nairobi. Aluvaala is also a member of the Ministry of Health Technical Working Group on Neonatal Health. In addition, he holds a research track post as a Research Fellow/Lecturer at the Department of Paediatrics and Child Health, School of Medicine, University of Nairobi.
Prof. Grace Irimu

Grace Irimu is an Associate Professor in the Paediatrics and Child Health and a paediatric nephrologist at University of Nairobi. She is passionate about promotive, preventive paediatrics and secondary health care especially high impact interventions and integrating these with tertiary care services, instilling these values to the undergraduates and the postgraduates. She holds a PhD in Public Health and is a senior researcher with KEMRI Wellcome Trust. Her interests are in Health Systems Research with her niche being developing and disseminating evidence-based clinical practice guidelines and improving their uptake by using audit feedbacks. She is accredited for being instrumental in developing and scaling ETAT+ in pre-service and in-service training programmes in Kenya and beyond. She was instrumental in the formation of Clinical Information Network (CIN), a collaborative project involving 16 county hospitals, Ministry of Health, Kenya Paediatric Association and KEMRI Wellcome Trust. CIN works with hospitals to improve quality of hospital data and its utilization and helping hospital become learning systems. She is the Clinical Advisor in the Newborn Essential Solutions and Technologies programme (NEST), Kenya chapter. NEST is a multi-country programme that aims at providing essential equipment to address the common causes of newborn deaths and build capacity among the practitioners and biomedical technicians/engineers to use and maintain these technologies. She is the Secretary of, Kenya Paediatric Research Consortium (KEPRECON).
The Health Economics Research Unit (HERU) conducts research across three broad thematic areas: health financing; costing and cost-effectiveness analysis of healthcare interventions; and broader health systems and policy analysis. HERU’s health financing research focuses on examining health financing reforms that are either needed or currently implemented by LMIC governments to accelerate progress toward Universal Health Coverage (UHC). Research in this area includes the assessment of the equity and efficiency of health systems; and, assessing country progress towards the attainment of UHC along both the effective service coverage and financial risk protection dimensions. HERU’s work on economic evaluation focuses on generating evidence on the costs and cost-effectiveness analysis of healthcare interventions with the aim of informing planning and prioritization decisions. Our broader health systems and policy analysis work focuses on examining organizational and institutional arrangements and how these affect health system performances, the role of governance in health systems strengthening, and assessing the implementation of health sector policies. Healthcare priority-setting and resource allocation is a cross-cutting interest in our work.

Ongoing Research

Examining the level and variation in the efficiency of county health systems in Kenya, and how it can be improved

This project is funded by Wellcome Trust, DFID, and MRC under the Health Systems Research Initiative (HSRI) track to examine the efficiency of the Kenyan health system. This study will examine the level and determinants of the efficiency of county health systems in Kenya and explore the potential for efficiency gains.
Priority setting for Universal Health Coverage
HERU is a core partner of the International Decision Support Initiative network (IDSI). Funded by a Bill and Mellinda Gates Foundation (BGMF) grant, our IDSI work focuses on 1) generating evidence, 2) developing capacity, and 3) engaging policy makers to develop an institutionalized, evidence informed, transparent and systematic process for healthcare priority setting in Kenya, and the broader East African Region.

VALUE-TB
This is a BGMF funded project that aims to cost the delivery of tuberculosis services in the public sector in Kenya from a health system perspective. The study is in collaboration with the National TB programme in Kenya and will examine both facility level and above facility programmatic costs of delivering TB services that will inform planning and priority setting for TB services.

Participatory action research to improve the delivery of the Linda Mama programme in Kenya
In partnership with THINKWELL, this is a BGMF funded project that aims to evaluate the impact of the Linda Mama free maternity programme in Kenya and conduct a process evaluation to examine the implementation experience of the programme. The study uses participatory action research approaches to co-produce research questions with policy makers and create feedback loops to implementers aimed at improving the programme's implementations over multiple iterations of data collection, analysis, and feedback.

Scaling up the Primary Health Integrated Care Project for Chronic Conditions in Kenya: an implementation research project
This project is funded by the Global Alliance for Chronic Diseases (GACD) and aims to inform and support the scale up of a Primary Health Integrated Care model for chronic Conditions (hypertension, diabetes and breast and cervical cancers) in Kenya. The project will 1) examine the implementation process, 2) assess the experiences of patients, 3) assess the health benefits (on hypertension, diabetes and cancer control) and potential unintended consequences (on HIV viral suppression), and 4) evaluate the effectiveness of the NHIF chronic care benefit package in providing financial risk protection to people with hypertension, diabetes, breast and cervical cancers.

Examining Informal Payments (Petty Corruption) for Healthcare in Kenya: Implications on Equitable Access
This work is funded by a Wellcome Trust Fellowship and aims to explore informal payments (petty corruption) for healthcare services in Kenya and their effect on equitable access. Specifically, the study will investigate the level of informal healthcare payments in the Kenyan health system, examine demand and supply side factors associated with informal payments for healthcare in public health facilities in Kenya, and explore how gender and geographical location intersect with poverty to influence informal payments for healthcare in Kenya.
Examining the policy and implementation of HIV prevention through private retail pharmacies in Kenya
This work is funded by a Wellcome Trust fellowship and aims to examine the policy and implementation of HIV prevention through private retail pharmacies in Kenya. Specifically, the study will focus on the HIV self-testing and the pre-exposure prophylaxis policies in Kenya.

Examining the implementation of performance based financing for primary healthcare in Kenya
This study aims to examine the implementation and effects of performance-based financing in the Kenyan health system. Specifically, the study will 1) examine the influence of context on the emergence, design, introduction, and implementation of performance based financing (PBF) in Kenya, 2) examine implementation fidelity and the factors (and how) that influence differences between PBF design and implementation at the national, county, and health facility level 3) examine the perceptions of national, county, and facility level stakeholders on the intended and unintended effects of PBF on the Kenyan health system, and 4) examine the changes over time of the PBF programme performance indicators.

Examining the economic burden, experiences and coping strategies for patients with hypertension in Kenya
This study aims to estimate the economic burden of hypertension to households, and explore the experiences, pathways to care and coping strategies for patients with hypertension in Kenya.

Eliciting the preferences of NHIF members for attributes of outpatient healthcare providers in Kenya
This study aims to elicit the preferences of NHIF members for the attributes of outpatient healthcare providers in Kenya and consider how these might inform provider identification and contractual arrangements to improve access, equity and quality of services.

Measuring Effective Coverage with Essential Health Interventions in Kenya
This study aims to 1) apply a systematic and deliberative process to identify and select health service indicators for universal health coverage monitoring, 2) develop national and sub-national (county) estimates of effective coverage with healthcare services, and 3) examine the inequality in effective coverage of healthcare services in Kenya.

Assessing Fiscal Space for Health in Kenya
This study aims to examine the effects of decentralisation on fiscal space for health at county government level in Kenya. Specifically, the study will 1) analyse the effects of fiscal arrangements and changes in the government-citizen agency relationship on the level and pattern of public health expenditure at decentralised level, and 2) analyse the determinants of public health expenditure at decentralised level in Kenya.
Dr. Edwine Barasa
Edwine is the director of the KEMRI-Wellcome Trust Nairobi programme, and also heads the Health Economics Research Unit (HERU) at the programme. He is a health economist and health financing specialist with 14 years of research, advisory, and practice experience in Kenya and in the broader Sub-Saharan African region. He holds a PhD in health economics (University of Cape Town), a masters in health economics (University of Cape Town), and a bachelors degree in Pharmacy (University of Nairobi). Edwine’s interests and current research work focuses on analysing health financing reforms, priority setting in healthcare, equity and efficiency analysis in healthcare, economics of non-communicable diseases, economic evaluation of healthcare interventions, measuring health systems performance, and health system governance. He has a keen interest in evidence informed policy making and the nurturing of synergistic relationships between policy makers and researchers. Besides doing research, Edwine advises the Kenya Ministry of Health as well as several international development organizations including the World Bank and the World Health Organization (WHO) on health financing, focusing on the Sub-Saharan African region. Edwine is also Adjunct faculty at Strathmore University where he teaches health financing. Before joining the KEMRI-Wellcome Trust Research Programme, Edwine worked as a clinical pharmacist for 2 years in both the public and private sectors.

Dr. Julie Jemutai
Julie has a background in Economics and Mathematics and a PhD in health economics from The Open University, UK. Her PhD topic was “Efficiency Measurement in Kenyan Hospitals using Frontier Analysis Methods”. She holds an IDEAL early career postdoctoral fellowship working with Prof. Jay Berkley’s research group. Her research interests are in economic evaluation, efficiency measurement, statistical modelling and data science. Her current focus is assessing the costs and cost effectiveness analysis of antibiotics treatment for children with Severe Acute Malnutrition (SAM) in 4 sites in Kenya and Uganda. Julie is the analysis lead for socio-economic, household and maternal mental health data in an observational cohort study following SAM children in 9 sites in Africa and Asia.

Dr. Peter Mugo
Peter is a postdoctoral research scientist in the Health Systems Research Department. He has over ten years of experience in HIV research, with interest in epidemiology, clinical trials, and implementation sciences. He is currently leading a study aimed at creating a better understanding of the policy environment surrounding pharmacy-based HIV prevention, including an evaluation of the HIV self-testing and pre-exposure prophylaxis policies. He holds a Bachelor of Pharmacy degree, a Master’s in clinical trials and a PhD in public health. Before joining the programme, Peter was a quality assurance pharmacist at the Kenya Medical Supplies Agency.
The population health unit (PHU) conducts research aimed at understanding the changing epidemiology of malaria, the determinants of health transitions, access to services and vulnerabilities at fine scales, and to embed the use of data for decision making by national ministries. Since 1996, the team has established regional leadership in defining the spatial and temporal epidemiology of malaria, which also included generation of data driven profiles of malaria control for 20 African countries. PHU also conducts research on relationship between transmission intensity and disease outcomes (age/immunity) across Africa, in addition to the use of hospitals as sentinels for disease surveillance and monitoring intervention in resource poor settings. The unit is also conducting research aimed at providing credible county level estimates of under 5 mortality from 1990 and explore the impact of other determinants on observed temporal and spatial trends in mortality. PHU work on access to services entails working with various national and international organizations to assemble an inventory of geocoded health facilities in sub-Saharan Africa and use spatial analytical tools to define geographic access to these services. This work has also been extended to defining treatment seeking rates for indicators of illnesses such as fever.

**Ongoing Research**

- Epidemiology of severe, life-threatening malaria in Africa: Age and clinical phenotypes of disease under changing landscape of treatment access and transmission.

- Use of hospital surveillance to monitor community interventions aimed at reducing malaria parasite exposure or vaccination.

- Sub-national malaria stratification using model-based geostatistical methods of survey infection data and routine health information systems.
Supporting national governments and the WHO in the science of malaria stratification and impact monitoring.

Understanding and evaluating sub-national disparities and determinants of child health across counties in Kenya looking at trends since the 1990s.

Evaluating health access to critical care and emergency care services across countries in Sub Saharan Africa and in Kenya.

Spatial data science for seasonal malaria risk mapping at subnational levels in Kenya.

Spatial statistics for characterising hospital catchments in the region being trailed for the malaria vaccine.

The Team

Dr. Emelda Okiro
Emelda heads the Population Health Unit within the KEMRI-Wellcome Trust Research Programme in Kenya which aims to understand determinants of health transitions and vulnerabilities at fine scales across Africa and works to embed the use of data for decision-making by national ministries. Prior to this position Emelda was a Program Officer/Gates Fellow within the Global Health Team at the Bill and Melinda Gates Foundation. She has worked on evaluating the public health impact of malaria control, on evaluating anti-retroviral treatment programs while at the Institute for Health Metrics and Evaluation-IHME and on developing strategies for primary health care at Philips Research Africa. Emelda holds a PhD in Epidemiology, has been awarded two internationally competitive Wellcome Trust (UK) Fellowships and is widely published.

Prof. Bob Snow
Bob is the longest serving Oxford scientist at the Kenyan Programme. Bob’s career began in The Gambia where he undertook the first clinical trials of insecticide treated nets (ITN) [1984-1988]. Following a move to Kenya, he established the framework to undertake linked community-based mortality and hospital admission trials at Kilifi and directed one of four large-scale, community-randomized mortality trials of ITN in Africa [1989-1993]. Subsequently he investigated the possible long-term effects of reduced parasite exposure on the clinical epidemiology of malaria to understand the consequences of sustained ITN use and/or its interrupted use on disease burdens [1994-2003]. This was used as a basis to establish new epidemiological methods to define the mortality,
Dr. Victor Alegana

Victor is an Early Career Research Fellow at the KEMRI-Wellcome Trust Research Programme. He holds a PhD in Geography and Masters degree in applied Geographic Information Systems and Remote Sensing both from the University of Southampton, UK. He has a keen interest in use of routine health data and application of spatial-statistical data science to public health problems in low- and middle-income countries. This include broad areas of population health particularly on spatial epidemiology (disease burden estimation), health care access, delivery of health interventions, and monitoring Sustainable Development Goals related to vulnerable populations. Victor is currently investigating ways of improving the use of routine data for estimating disease burden in East Africa.
Malaria Case Management

Malaria case-management work at KWTRP builds on over 15 years of operational experiences working collaboratively in Kenya and other African countries with National Malaria Control Programs (NCMP) and policy implementers on measuring, monitoring, evaluating and improving health systems readiness and translation of malaria case-management policies into practice. In Kenya, technical support to the large-scale evaluations from their conception over data collection to the analysis and reporting with focus on the project embeddedness into national malaria control strategies and plans, modalities of the implementation through the NMCP, high levels of engagements with formal and informal capacity building of the NMCP personnel, and use of findings for improvements through programmatic interventions and indicator reporting for performance monitoring are critical components of such collaborative work.

Ongoing Research

- Monitoring of national health systems readiness and malaria case-management practices using biannual outpatient quality-of-care surveys at 170 health facilities in Kenya.
- Monitoring of national hospital readiness and inpatient malaria case-management using annual inpatient quality-of-care surveys at 47 county referral and 43 faith-based hospitals in Kenya.
- The effects of malaria endemicity, interventions and non-interventional determinants on the quality of malaria case-management in Kenya.
- Monitoring and improving hospital readiness and inpatient malaria case-management at all government hospitals in six states in Nigeria.

Dr. Dejan Zurovac

Dejan is an epidemiologist and lead scientist of Malaria Case Management and Drug Evaluation Group within the Department of Public Health Research of the KEMRI/Wellcome Trust Research Programme in Nairobi, Kenya. Since 1997 he has worked in several African countries as a medical doctor, health programme manager and public health researcher within the field of malaria control and the quality of health service delivery. He is translational scientist working in close collaboration with Ministry of Health’s National Malaria Control Programme. Dejan is affiliated to the University of Oxford, UK and Boston University, USA and is member of several national and international advisory and technical working groups on malaria case management, surveillance, monitoring and evaluation, and operational research.
Malaria Vector Control

The Entomology group work at KWTRP builds on over 30 years of basic research on Biology of African malaria vectors and other mosquito vectors in Kenya. For the last 20 years, we have been working closely with the National Malaria Control Programme (NMCP) and the Division of Vector Borne Diseases (Now Vector Borne Diseases Unit) of the Ministry of Health to understand the research needs on vectors of Diseases. The Unit has a research portfolio spanning from operational vector control interventions, behaviour and ecology of disease vectors, insecticide resistance, operationalisation and implementation of integrated vector management approaches, and development of tools for monitoring and evaluation of disease transmission. Our aim is to contribute to the control or elimination of vector borne diseases especially malaria in Africa. The purpose of vector control is to limit contact between humans and vectors, and to reduce vector populations or their life expectancy so that they are unable to transmit diseases. We have been working on different aspects of vector biology and control including; 1) larval population regulation of Anopheles gambiae and An. funestus mosquito, 2) outdoor malaria transmission, and 3) pyrethroid resistance. Currently, we are working with the NMCP and partners in developing guidelines and policies on Integrated Vector Management (IVM) strategies), Insecticide resistance Management (IRM), and Larval Source Management (LSM) in Kenya.

Ongoing Research

- Sustainable Malaria and Schistosomiasis control in Kirinyaga County: Up-scaling of the Adaptive Integrated Vector Management (IVM).
- Arboviruses transmission dynamics along the Kenyan coast.
Prof. Charles Mbogo

Charles is a public health entomologist with over 30 years’ experience in the conduct of entomological studies in Kenya, Ethiopia and Eritrea. His focus has been the study of malaria vectors and has worked on the large-scale evaluation of insecticide-treated bed nets, insecticide resistance, and integrated vector management (IVM) strategies. He pioneers research in the biology, ecology and behaviour of mosquitoes and other disease vectors. He works closely with the National programmes in the areas of disease vectors and has developed and implemented vector surveillance systems at local and national scales. He serves on various national and international technical committees including WHO and FNIH. He maintains a keen interest in translating research into policy and practice and has played a key role in the formulation of national policy guidelines on IVM and in the development of the National Insecticide Resistance Management strategy. He is founder and the current President of the Pan African Mosquito Control Association (PAMCA), an association of African entomology professionals dedicated to improving human health through suppression/elimination of mosquitoes and mosquito borne diseases. He is chair of the KEMRI Annual Scientific and Health (KASH) Conferences, a forum for the dissemination of the research findings and networking with KEMRI and other scientists nationally and in the region.
The Childhood Acute Illness & Nutrition (CHAIN) Network brings together a network of clinical scientists to build the evidence base to help undernourished children survive, thrive and grow during and after an acute illness. Globally, there has been a remarkable reduction in overall child mortality since 1990. However, undernutrition underlies almost half of all child mortality because it causes an increased susceptibility to common infections, such as pneumonia and diarrhoea.

The CHAIN Network aims to improve care for acutely ill children living in countries with limited resources and prevent both in-hospital and post-discharge mortality.

With 9 research sites around the globe and three sites in Kenya, the CHAIN secretariat is stationed at the KEMRI Wellcome Nairobi office with ongoing research in Nairobi at the Mbagathi District Hospital.

For information on Chain Visit https://chainnetwork.org
Or contact them via chainsupport@kemri-wellcome.org
+254 706 621 858
Prof. James Jay Berkley

Jay is a consultant paediatrician and sub-specialist in paediatric infectious diseases and immunology based at the KEMRI Wellcome Trust Research Programme. He leads a research group focusing on infection and inflammation in childhood malnutrition, and on perinatal health. Jay joined the KEMRI/Wellcome Trust Collaborative Research Programme in Kilifi, Kenya in 1997. He undertook a Wellcome Trust Research Training Fellowship on invasive bacterial infections and their relationships with malaria, HIV and malnutrition. After completing specialist training in paediatrics and sub-specialist training in paediatric clinical immunology and infectious diseases in the UK, Jay returned to Kilifi. His current Wellcome Trust Intermediate Clinical Research Fellowship is on tackling infection and inflammation to prevent mortality in malnourished children. Jay is involved in the Kenyan national training programme on integrated management of Severe Acute Malnutrition (SAM) and is an expert adviser to the Ministries of Health and the World Health Organisation.

Dr. Kui Muraya

Kui Muraya is a research fellow and gender expert based at the KEMRI-Wellcome Trust Research Programme, Kenya and a fellow of the Initiative to Develop African Research Leaders (IDeAL). Her research interests are primarily around gender and health, and health systems research more broadly. She has a PhD in Health and Social Care, a Bachelor of Arts degree (majoring in Psychology & Anthropology) from the University of Adelaide, Australia; and an Honours Degree in Health Sciences (General Practice) from the same institution. More recently she was a co-principal investigator in a multi-country study exploring gender and leadership within health systems in Kenya, Nigeria, and South Africa. She currently plays a leading role as a gender specialist and social scientist in a multi-country study exploring (socioeconomic, cultural and household) factors that contribute to post-hospital discharge mortality in acutely ill undernourished and well-nourished children, with a goal to develop targeted actionable interventions to lower mortality. She is also a member of the Research in Gender & Ethics (RinGs): Building Stronger Health Systems Network and a mentor in The Alliance for Health Policy & Systems Research mentorship programme for early career female researchers. Her other research interests include qualitative research methods, research uptake and communicating research evidence, and translation of research evidence into policy.