KEMRI | Wellcome Trust

THE ANNUAL REPORT 2025

From Evidence to Impact

VISION, MISSION AND VALUES

VISION

To be a globally leading African research institution advancing human health through impactful science, innovation, and capacity development.

MISSION

To conduct high-quality, innovative, and purposeful research that improves human health, while building sustainable research capacity and leadership in Africa.

CORE VALUES

Excellence

Integrity

Innovation

Transparency & accountability

Respect

Equity

Collaboration

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In 2025, KWTRP continued to demonstrate the power of African-led science, delivering discoveries that save lives, strengthening health systems, investing in future research leaders, and translating evidence into impact across Kenya, Africa, and the world.

Edwine Barasa, Executive Director, KEMRI-Wellcome Trust Research Programme

MESSAGE FROM THE DIRECTOR

The year 2025 was a period of significant progress for the KEMRI–Wellcome Trust Research Programme (KWTRP), marked by scientific excellence, capacity development milestones, and impact. Across the year, we produced 324 publications, secured 20 new grants worth GBP 24M in grant value, welcomed 3 new professorship appointments, and delivered over 70 engagement activities, a reflection of the breadth and depth of our work.

Several research discoveries this year stand out for their potential to save lives. In a large cluster-randomised trial in Kwale County, we showed that administering ivermectin to whole communities reduced new malaria infections by 26%, offering a promising complementary tool to bed nets in areas where mosquitoes are increasingly resistant to insecticides. In 18 public hospitals across Kenya, our investigators demonstrated that a simple, low-cost course of steroids reduced deaths from severe pneumonia in adults by 16% - evidence with immediate relevance for clinicians and policymakers in low-resource settings. And in the search for an HIV vaccine, we generated the first evidence supporting germline-targeting vaccine design in African populations, a finding of global significance. Both the malaria and pneumonia trials were published in the *New England Journal of Medicine*, underscoring the global standing of African-led science.

These advances reflect our enduring commitment to translating research into impact. Through our partnership with the University of Oxford, we advanced the ChAdOx1 vaccine against Rift Valley fever - among the most advanced candidates globally - from concept toward clinical evaluation, drawing on community engagement networks built over many years across pastoralist regions. Our Clinical Information Network, now spanning 24 hospitals in 19 counties, marked a decade of improving newborn and child care and informing health policy. And our long-standing malaria research continued to shape national and global strategy, including the ongoing rollout of the WHO-prequalified R21/Matrix-M™ malaria vaccine across several African countries.

Investing in people remained central to our mission. The training department celebrated the graduation of 8 PhD fellows, 3 Masters fellows, and 29 Postgraduate Diploma students, alongside expanded engagement with school leavers and young scientists. We were proud to host the Oxford Tropical Network Meeting 2025, strengthening collaboration across global research networks, and to welcome distinguished visitors including Dr Jimmy Volmink, Executive Director of Equity at Wellcome, and H.E. Neil Wigan, the British High Commissioner to Kenya, among many others, a reflection of the Programme's strong reputation and influence.

The achievements of 2025 are a testament to the dedication of our staff, partners, and the communities we serve. We remain committed to generating evidence that informs policy, strengthens health systems, and improves health outcomes across the region.

£24M
Value of new grants awarded

20
New grants secured

324
Publications produced

8
PhD fellows graduated

70+
Engagement activities delivered

19
Counties covered by Clinical Information Network

WHO WE ARE

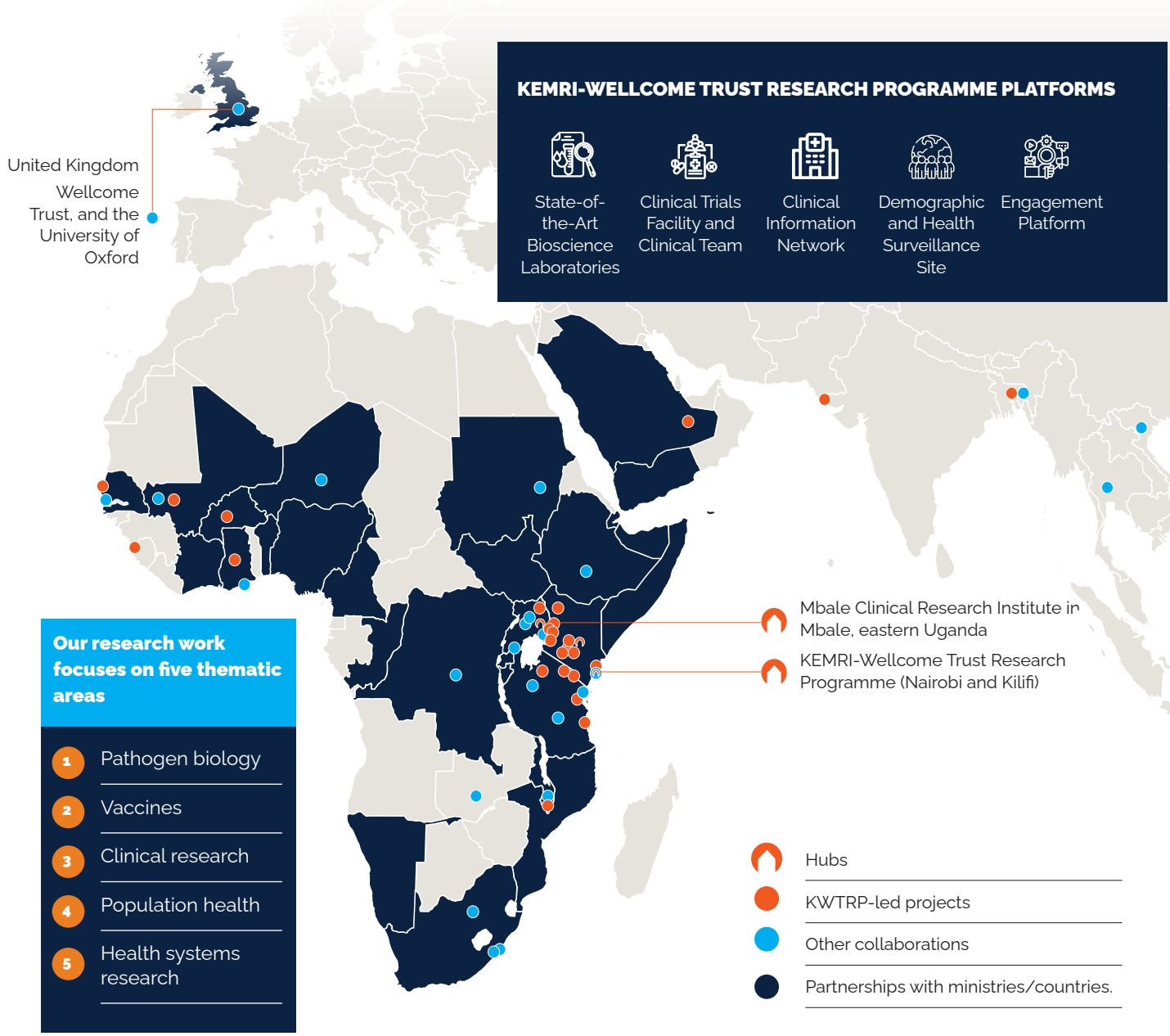
The KEMRI-Wellcome Trust Research Programme is a partnership between the Kenya Medical Research Institute (KEMRI), Wellcome, and the University of Oxford. Established in 1989, our mission is to conduct high-quality, impactful health research while building sustainable research capacity and leadership in Africa.

Since our inception, we have evolved from a focus on malaria immunology and epidemiology to a broad, multidisciplinary research portfolio organized around five thematic areas: pathogen biology, vaccines, clinical research, population health, and health systems. This work is underpinned by robust research platforms, including state-of-the-art bioscience laboratories, the Kilifi Health and Demographic Surveillance System (KHDSS), a clinical trials unit, the Clinical Information Network (CIN), and a strong community and stakeholder engagement platform.

Capacity development is central to our mandate. Through an integrated approach targeting both individual and institutional levels, we have invested significantly in training and mentoring the next generation of African health researchers.

Engagement remains a cornerstone of our approach. We have developed a deliberate engagement strategy that fosters meaningful interaction with communities, the general public, and policymakers. This ensures that our research is relevant, ethical, and responsive to the health priorities of the societies in which we work.

OUR GLOBAL FOOTPRINT



2025 IN REVIEW

PUBLICATIONS

324

Number of publications published in 2025

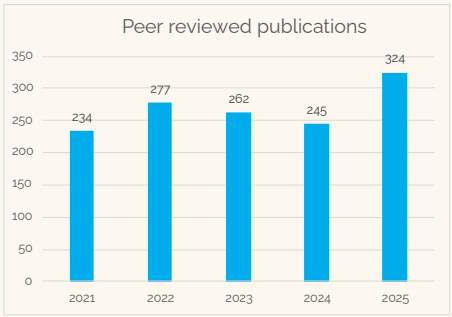


Figure 1: Programme publications

18

Number of policy briefs developed in 2025

LEADERSHIP CHANGES

Prof. Edwine Barasa was appointed as the Executive Director of the KEMRI Wellcome Trust Research Programme by the Programme's partners

OXFORD TROPICAL NETWORK MEETING 2025

We hosted the Oxford Tropical Network Meeting 2025 under the theme 'Networking for Science Discovery and Impact', bringing together colleagues from Oxford and Oxford-linked, Wellcome-funded major international programmes to showcase research and strengthen collaborations in Tropical Medicine and Global Health

VISITS

- We hosted Jimmy Volmink, Executive Director of Equity, and Yolisa Nalule, Senior Manager of Major International Programmes, from the Wellcome Trust
- We hosted H.E. Neil Wigan, the British High Commissioner to Kenya, for a courtesy visit

AWARD RECOGNITION

We were named the winner in the Best Occupational Safety and Health Services Practice in the Health Sector category at the National Occupational Safety and Health Services Conference, reflecting our ongoing dedication to workplace safety, health, and excellence

The Clinical Information Network team won the University of Oxford Vice-Chancellor's Research Engagement Award in recognition of their work, "Engaging stakeholders to build a Kenyan learning health system

GRANTS

£24M

Worth of grants secured this year, highlighting our continued success in mobilising important resources for our research

STAKEHOLDER ENGAGEMENT

70+

Stakeholder engagement meetings across community, stakeholder and policy engagements

3

Professorships and Associate Professorships

CAPACITY BUILDING

76

Number of Fellowships completed in 2024 across all schemes

Studentships Completed Breakdown

- **5** CDY Fellows
- **8** PhDs
- **3** Masters Fellows
- **29** Postgraduate Diploma students
- **12** School Leavers Attachment students
- **19** Attachment students had an opportunity to join the Programme for a three-month internship opportunity

PEOPLE AND EXCELLENCE

Professorships

Isabella Oyier

Full Professorship of Molecular Epidemiology by the University of Oxford.

Abdirahman Abdi

Associate Professorship by the University of Oxford.

Fellowship Awards

- Dorothy Oluoch was awarded a 5-year Wellcome Trust Career Development Award (CDA) to lead a project titled: Rethinking Post-Discharge Care: Learning from the Experiences of Families and Healthcare Workers in Preterm Care in Kenya.
- Abdirahman Abdi secured the Nuffield Department of Medicine Career Development Fellowship from the University of Oxford.
- Melissa Kapulu and Eunice Nduati on their selection for Cohort II of the 5-year Calestous Juma Science Leadership Fellowship.
- Beryl Maritim for being awarded the NIHR Global Advanced Fellowship.

PhD Class of 2025

Stacey Orangi

Evelyne Kabia

Kelvin Mokaya

Jacob Kazungu

Mercy Atieno

Caroline Tigoi

Patricia Kipkemoi

Doreen Mutemi

IMPACT

Research Impact

Our research in 2025 led to several important scientific discoveries that deepen our understanding of disease mechanisms and inform new approaches to prevention and treatment:

- In collaboration with the Jenner Institute, University of Oxford and Sanaria Inc., we have shown for the first time in adults living in endemic regions that R21/Matrix-M was highly protective against malaria infection, and the protective efficacy was better using intradermal inoculation rather than intravenous inoculation. This highlights the value of Controlled Human Malaria Infection as a clinical development platform.
- In a large randomised controlled trial in Kenya, we showed that community-wide administration of ivermectin can result in an additional 26% reduction in malaria transmission in areas with high coverage of long-lasting insecticide-treated nets.
- We generated the first evidence supporting the consideration of germline targeting approaches for HIV vaccine design in African populations. The eOD-GT8 60-mer mRNA-delivered germline-targeting immunogen primes VRC01-class responses (94%) in African populations, similar to levels observed in North American populations.
- We worked with hospitals in supporting Klebsiella pneumoniae outbreak investigation and control, mainly in neonatal units in Kenyan hospitals.
- We showed that changes in SARS-CoV-2 spike mutations from the wildtype to omicron variants do not significantly affect binding serological assays such as ELISA and Luminex.
- We observed that despite apparent clinical recovery, children previously treated for complicated severe malnutrition exhibit sustained systemic inflammation, immune suppression and coagulation abnormalities that are associated with later post-discharge mortality, indicating unresolved subclinical disease.
- In a cohort study across six countries in sub-Saharan Africa and south Asia, we showed that systemic inflammation impairs post-hospital discharge growth in children hospitalised with acute illness, acting most strongly on mediators of linear growth such as the growth hormone/IGF-1 axis and bone metabolism, and underscoring the need to address inflammation to optimise recovery after discharge.
- In the GASTROSAM trial in Kenya, Uganda, Niger, and Nigeria, we found that, contrary to long-standing concerns about harmful fluid overload, intravenous rehydration did not increase mortality in children with severe acute malnutrition and gastroenteritis, compared with oral rehydration.
- In a case-control study in Kenya, Uganda, Malawi, and Burkina Faso, we found that HIV indirectly impairs post-discharge growth in children with severe malnutrition by influencing baseline anthropometry and modulating proteins involved in bone mineralisation and humoral immunity, pointing to specific biological pathways for targeted intervention.

Policy Impact

- Findings from the Phase 3 trial on the safety and efficacy of the R21/Matrix-M™ malaria vaccine, to which we contributed, informed its WHO prequalification and ongoing rollout in several African countries.
- Evidence from our fractional Yellow Fever vaccine dosing trials informed the WHO's updated guidelines, which now include fractional dosing as a tool for managing Yellow Fever outbreaks. A related explanatory trial in infants showed that the minimum dose requirements established in adults are not generalisable to infants, indicating that standard yellow fever doses should be used for infants in the routine WHO Expanded Programme on Immunization.
- Two of our scientists (Ambrose Agweyu and Anthony Scott) contributed to the development of new WHO guidelines on the management of pneumonia and diarrhoea in children up to 10 years of age, reflecting our ongoing research on these leading causes of childhood mortality in our setting.
- One of our scientists (Jay Berkley) led the WHO working group that assessed the global paediatric clinical trial ecosystem and produced recommendations to strengthen it and better inform policy and programmes.

IMPACT SPOTLIGHT – EVIDENCE THAT SAVES LIVES

Antimalarial drug resistance molecular surveillance

Background

Malaria remains both preventable and curable, yet its public health toll is stubbornly high: an estimated 282 million cases and 610,000 deaths globally in 2024, with sub-Saharan Africa accounting for 95% of both. This converts into about 268 million infections in sub-Saharan Africa requiring treatment with antimalarials each year. Since 2015, the emergence and spread of resistance to the artemisinin-based combination therapies (ACTs) that anchor global malaria treatment has threatened the effectiveness of these medicines across East Africa and the Horn of Africa.

Antimalarial drug resistance (AMDR) is not a new phenomenon. The malaria parasite, *Plasmodium falciparum*, continues to evolve, and earlier waves of resistance forced two changes in global malaria drug policy, in the late 1990s and mid-2000s. On both occasions, however, resistance was detected only after widespread clinical treatment failure had already taken hold in primary healthcare facilities. This time has been different. Advances in whole-parasite genome sequencing and molecular surveillance allowed a genetic marker of artemisinin resistance to be identified as early as 2014, far faster than in any previous wave, generating early signals of potential resistance in East Africa that could then be followed up with assessments of clinical efficacy.

What KWTRP did

KWTRP used the experience and data from its malaria molecular surveillance in Kilifi to make the case to the h Kenya's National Malaria Control Programme (NMCP) using molecular DNA sequencing tools for early-warning surveillance of antimalarial drug resistance. From regular screening of dried blood spot samples collected in school surveys of asymptomatic children in malaria-endemic regions during 2022 and 2023, KWTRP generated and shared early data with the NMCP that identified emerging resistance mutations, at low prevalence (<5%), already circulating in neighbouring countries. These signals prompted intensified surveillance across the region and therapeutic efficacy trials to confirm whether the national first-line treatment remained effective.

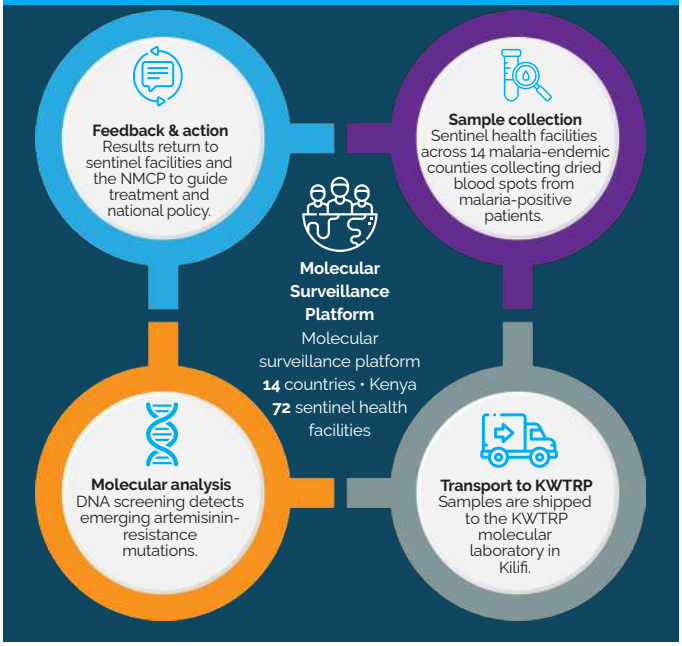
Building on a long-standing relationship with the NMCP, KWTRP helped establish Kenya's first AMDR early-warning surveillance system (figure 1), spanning 72 sentinel health facilities across 14 malaria-endemic counties in Kenya (figure 2). Trained health workers at designated facilities collect dried blood spot samples from malaria-positive patients and ship them to the KWTRP laboratory for molecular screening; the resulting data are fed back to the facilities and the NMCP to flag emerging resistance mutations as they are.

The impact

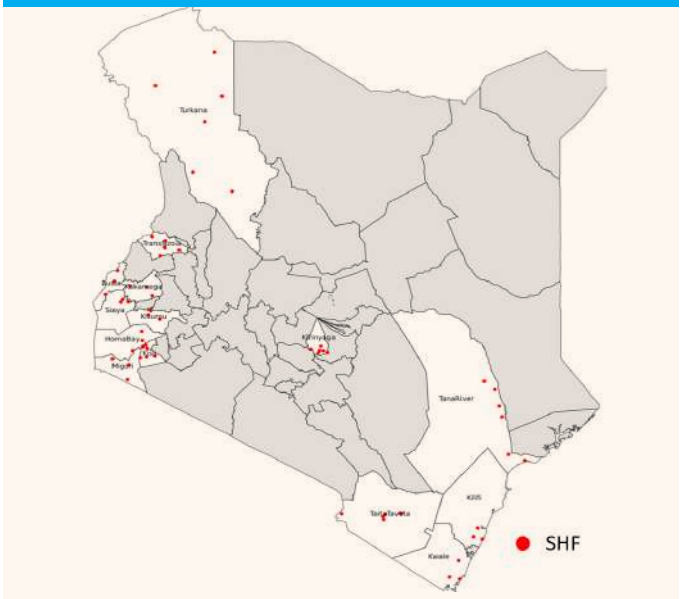
This evidence informed the NMCP's decision to align with regional efforts and adopt multiple first-line therapies (MFTs), a strategy designed to slow the emergence and spread of resistance, with implementation scheduled for the end of 2026, underpinned by a pilot trial to which KWTRP contributed molecular data. KWTRP presented evidence of AMDR mutations in western Kenya to the Ministry of Health to inform this planned national rollout.

KWTRP contributes evidence regularly to AMDR policy dialogues within the NMCP, both nationally and regionally. Across the continent, KWTRP has partnered with Africa CDC to strengthen malaria molecular surveillance in national public health laboratories, embedding sustainable early-warning systems that enable proactive monitoring where resistance is established and earlier detection of new mutations before they become widespread. Regionally, KWTRP is helping to shape an East Africa AMDR surveillance network within the East African Community. Globally, it has contributed to the development of the WHO catalogue of molecular markers for antimalarial drug resistance, supporting a common standard for malaria molecular surveillance worldwide.

Malaria molecular surveillance platform



Malaria molecular surveillance sentinel health facilities (SHF) in Kenya



Community-Wide Ivermectin Treatment Helps Lower Malaria Infection in Kenya

The Problem

Malaria remains a leading cause of illness and death in many parts of Africa, and the effectiveness of current tools such as insecticide-treated bed nets and spraying is threatened by mosquito resistance and changes in mosquito behavior. There is an urgent need for new, scalable strategies that can further reduce transmission in high-burden areas.

What We Did

In a large cluster-randomised trial of 28,932 participants in Kwale County, coastal Kenya, where malaria transmission is high and mosquito control efforts are widespread, we tested whether giving ivermectin, a widely used antiparasitic drug that also kills the mosquitoes that feed on treated people, to whole communities could reduce malaria infections compared with standard treatment.

Key Findings

We found that communities receiving regular ivermectin distribution had significantly (26%) fewer new malaria infections than control areas. The treatment was safe and well tolerated, with no unexpected safety concerns reported in participants.

Why It Matters

These results suggest that community-level ivermectin administration can be a complementary tool for malaria control, working alongside bed nets and other interventions to reduce transmission, especially in settings where mosquitoes are increasingly resistant to insecticides or where mosquitoes bite outdoors and before people go under their nets. By targeting the mosquitoes directly through humans, this approach offers a novel way to interrupt the cycle of malaria spread.

Looking Ahead

Ongoing work will refine how best to implement ivermectin distribution, including optimal dosing schedules and integration with national malaria control programmes, and evaluate its effectiveness across different transmission settings.

Pathogen Biology

Aims and Focus

Our pathogen biology theme employs a discovery approach to tackle the challenges posed by high-burden infectious diseases by advancing the understanding of host responses, host-pathogen interactions, and the mechanisms for disease transmission and resistance. This work leverages our state-of-the-art molecular and immunological laboratory facilities in Kilifi, and three unique resources: (a) a controlled human infection model platform; (b) active surveillance of a 20-year longitudinal cohort of children acquiring immunity to malaria and other pathogens; (c) primary and secondary care febrile episode surveillance. These platforms are supported by a unique biobank facility that contains over 1 million samples linked to well-curated epidemiological and clinical datasets, and pathogen genomics data. We consider pathogen biology from the perspective of the host response; direct properties of the pathogen; and the role of the vector in transmission.

New Grants and Projects

1. A Gates Foundation grant to study cord blood for neonatal immunity against K. pneumoniae.
2. A grant from IRD France, via the University of Montpellier, to design and test a low-tech device for mosquito control (the MBUSTANI project).
3. A Wellcome Discretionary Award for the Africa-Asia Single Cell Genomics Initiative, a collaborative project with members from Malawi, Southeast Asia, Oxford, and AHRI.
4. A SANTHE collaborative grant to study HIV viral evolution and its implications for contemporary immunogen design and immune-based interventions such as broadly neutralising antibodies (bnAbs).
5. A grant for the ARTIC2 project, developing a broader and deeper toolkit for real-time global pathogen detection, surveillance, and outbreak response.
6. An MRC Applied Global Health Research grant to test long-lasting ivermectin in livestock for malaria control in Kenya in response to the Anopheles stephensi invasion (the LLIMA trial).
7. A SANTHE collaborative grant to characterise adaptive immune receptor germline diversity in the Kenyan population and its implications for HIV cure strategies.
8. An EDCTP grant to lead malaria work package activities across the East African Consortium for Clinical Research 4 (EACCR4), strengthening regional networks of excellence and epidemic preparedness across a multi-partner consortium.

IMPACT SPOTLIGHT – COMMERCIALIZATION OF RIFT VALLEY FEVER VACCINE

Rift Valley Fever Vaccine

The journey towards the world's first human Rift Valley fever vaccine demonstrates what is possible when African scientific leadership, global partnerships, and local communities work together to tackle epidemic threats before they become global crises.

RVF is a mosquito-borne viral disease that primarily affects livestock such as sheep, goats, and cattle. Humans can acquire RVF through close contact with infected animals or mosquito bites. While many human cases are mild, some develop serious complications including brain inflammation, haemorrhage, visual loss, and, in some cases, death. Livestock, however, bear the brunt of the disease: young animals can experience mortality rates above 90 per cent, and almost all pregnant animals on an infected farm will abort. These devastating losses ripple through pastoral communities, driving steep economic shocks. Kenya's 2006–07 outbreak alone cost an estimated USD 32 million in livestock deaths, abortions, and reduced milk and meat production. Beyond direct losses, trade bans, market closures, and reduced food availability deepen household insecurity, raising meat prices and lowering dietary protein consumption in affected regions.

Despite nearly a century of outbreaks across Africa and the Arabian Peninsula, no licensed human vaccine is currently available for RVF. Researchers at the University of Oxford have been working to develop a vaccine to prevent RVF for more than a decade. Their candidate vaccine ChAdOx1 RVF, based on the same technology as the Oxford-AstraZeneca COVID-19 vaccine, has shown promise in human phase I trials in Oxford and Uganda, and is among the most advanced in development for RVF. Preclinical studies demonstrated robust protection in livestock and suggested the vaccine could serve both humans and animals – an innovation aligned with the One Health reality of RVF transmission.

Through partnership with the KEMRI-Wellcome Trust Research Programme, Oxford has advanced the vaccine from concept to clinical evaluation. At the centre of this effort is Prof. George Warimwe, who developed the vaccine, and whose scientific leadership and One Health strategy have shaped this vaccine from its earliest concept to licensure.

The first-in-human Phase I trial, conducted in the United Kingdom, provided early evidence that a single dose of ChAdOx1 RVF was safe and generated high levels of neutralising antibodies. A second Phase I study in Uganda confirmed these findings, strengthening confidence that the vaccine works across diverse populations. Building on this foundation, we and our partners at Oxford launched a CEPI-supported Phase II trial in Kenya in 2025, placing the country at the centre of global RVF vaccine evaluation in an endemic setting. This Phase II trial is generating key safety and immunogenicity data essential for subsequent regulatory authorisation and deployment.

ChAdOx1 RVF was recently commercially licensed to the Serum Institute of India (SII), who have already manufactured a large batch of vaccine for clinical evaluation during future outbreaks, bringing this scientific journey closer to real-world protection. Within just 16 days of receiving the necessary materials, SII manufactured over 100,000 doses of vaccine and filled and labelled 12,000 vials ready for clinical evaluation, demonstrating that future outbreak responses can move at a radical pace. CEPI's support of up to USD 3.5 million has made it possible to create an investigational vaccine reserve, allowing countries to begin clinical testing within weeks of detecting outbreaks. This represents a practical manifestation of CEPI's global "100 Days Mission," which aims to compress vaccine development timelines for epidemic threats.

Beyond generating scientific evidence, we have helped build the clinical and laboratory infrastructure needed to evaluate epidemic-preparedness vaccines rapidly and ethically. Our investment in community engagement across pastoralist regions has been particularly important. RVF outbreaks often occur in remote communities where trust, understanding of research, and culturally tailored communication are essential, and our established networks have accelerated trial approvals, participant recruitment, and continuous dialogue with community leaders – ensuring that research takes place in partnership, not in isolation.

For African research institutions, the RVF vaccine is a powerful example of local leadership in global health innovation. From early immunology and vector research to cutting-edge clinical trials, our contributions demonstrate how African science is shaping global epidemic preparedness. "Rift Valley fever is a devastating and often forgotten disease, affecting the lives and livelihoods of communities in many parts of Africa. It means a great deal to know that our research can now move beyond the lab and towards helping people directly," Professor Warimwe notes.

As climate change increases the frequency and geographic range of RVF outbreaks, the need for a safe, effective human vaccine grows ever more urgent. With strong global partnerships driving momentum, the world is closer to delivering the first human vaccine against Rift Valley fever – and the KEMRI-Wellcome Trust Research Programme is central to this noble effort.

90%+

Mortality rate in young livestock during RVF outbreak, highlighting the urgent need for prevention.

$32M

Economic losses from Kenya's 2006–07 RVF outbreak reflecting the devastating impact on livelihoods and food security.

100,000+

RVF vaccine doses manufactured in just 16 days demonstrating rapid outbreak-response capability.

12,000

Vials prepared for clinical evaluation bringing the first human RVF vaccine closer to deployment.

$3.5 M

Invested in epidemic preparedness supporting an investigational vaccine reserve for future outbreaks.

2

Countries where successful Phase I clinical trials were completed generating strong safety and immune response data in the UK and Uganda.

Clinical Development of RTS,S Malaria Vaccine

Malaria has long been one of the gravest threats to child survival in sub-Saharan Africa. Plasmodium falciparum alone caused an estimated 584,000 deaths in 2013, the overwhelming majority of which were young African children. For decades, control relied on bed nets, indoor spraying and prompt treatment; despite real progress, no vaccine had ever been licensed for malaria or any human parasite. Developing one that could be delivered safely and affordably through routine childhood immunisation in the highest-burden settings was a defining unmet need in global health.

The KEMRI-Wellcome Trust Research Programme (KWTRP) in Kilifi was a central scientific partner in the clinical development of the RTS, S/AS01 vaccine, from the earliest efficacy trials through to the evaluation of real-world deployment of the causative agent of the outbreak.

In phase II, KWTRP investigators led and co-led the pivotal paediatric trials in Kenya and Tanzania. They showed that RTS, S/AS01E reduced clinical malaria by 53% in children aged 5–17 months, characterised efficacy and the anti-circumsporozoite antibody responses underlying protection, established the vaccine's acceptable safety and tolerability profile, and demonstrated the duration of efficacy over four and then seven years, highlighting the risk of rebound and the importance of booster doses. Pooled and modelling analyses across phase II sites defined how efficacy varied with transmission intensity, age and adjuvant, and how waning antibody titres predicted the duration of protection.

KWTRP was one of eleven sites in the large phase III programme, which confirmed efficacy against clinical and severe malaria in children and infants across seven African countries and informed the antibody surrogates and dosing implications for the vaccine.

When the vaccine moved to sub-national implementation through the Expanded Programme on Immunisation in Ghana, Kenya and Malawi (2019–2024), KWTRP scientists again contributed. The cluster-randomised pilot evaluation showed that the three primary doses could be delivered effectively through national systems, found no evidence of the phase III safety signals - meningitis, cerebral malaria, or excess mortality among girls - and recorded a 32% fall in hospital admissions for severe malaria. Extended follow-up then demonstrated a significant reduction in all-cause child mortality, averting roughly one in eight deaths.

Following the success of RTS, S, a similar vaccine, R21, was developed by The Jenner at Oxford and licensed to the Serum Institute in India, where high-throughput, low-cost manufacturing is possible. KWTRP was a pivotal site in clinical development, conducting the first-in-human studies on the continent for the new Serum Institute-manufactured product (rather than waiting for European trials, as had previously been the practice), and then one of five sites conducting phase III trials that led to successful licensing of the vaccine.

The impact: a licensed vaccine, deployed at scale

This collective evidence base underpinned the WHO recommendation, prequalification and licensure of RTS, S as the first malaria vaccine - and the first vaccine against any human parasite. R21 rapidly followed as the second malaria vaccine and has dramatically expanded access to the vaccine across Africa at low cost. RTS, S/AS01E has since been introduced into childhood immunisation schedules across 25 sub-Saharan African countries, including Kenya, reaching millions of children. By generating the evidence on efficacy, safety, duration and real-world impact that regulators and WHO required, KWTRP helped turn a decades-long scientific aspiration into a deployed public-health intervention that is now saving young lives across the continent.

The KWTRP Investment: a two-decade evidence chain	
Phase II Leadership	Led and co-led pivotal paediatric trials in Kenya and Tanzania. Demonstrated 53% efficacy in children aged 5–17 months, characterised immune responses underpinning protection, established the safety profile, and tracked efficacy over four and then seven years, including the risk of rebound and importance of booster doses.
Phase III Contribution	One of eleven sites in the large multinational trial across seven African countries, confirming efficacy against both clinical and severe malaria in children and infants.
Real-World Pilot (2019–2024)	Contributed to the WHO-mandated cluster-randomised implementation pilot in Ghana, Kenya and Malawi. The vaccine was found deliverable through national immunisation systems with no evidence of earlier safety signals.
Extended Follow-Up	Demonstrated a statistically significant reduction in all-cause child mortality, averting roughly one in eight deaths, among the most powerful evidence yet of the vaccine's real-world value.

53%
Reduction in clinical malaria among children aged 5–17 months in the pivotal Phase II trial.

7
African countries participating in the Phase III trial that generated the evidence for vaccine licensure.

7 years
KWTRP demonstrated that vaccine protection could be followed over seven years, providing critical evidence on long-term efficacy and the need for booster doses.

25 countries
RTS,S has been introduced into routine childhood immunisation programmes across 25 sub-Saharan African countries, including Kenya.

IMPACT SPOTLIGHT – CLINICAL DEVELOPMENT THAT LED TO LICENSURE AND ROLLOUT

Clinical Development of R21 Malaria Vaccine

From early clinical trials in Kilifi to WHO prequalification, KWTRP helped transform R21/Matrix-M into a malaria vaccine now protecting African children while generating discoveries that will shape the next generation of malaria vaccines.

The introduction of RTS,S/AS01 was a landmark, but it was only available to children in some parts of Africa. What the field needed was an improved vaccine, with a price and manufacturing scale that could reach every child at risk. R21/Matrix-M – also targeting the circumsporozoite protein, available at over 100 million doses a year for under US$4 per dose - became that candidate, and the KEMRI-Wellcome Trust Research Programme (KWTRP) in Kilifi helped both prove that it works and explain why.

Clinical development that led to licensure and rollout

KWTRP's first contribution came at the early safety and dose-defining stage. The Serum Institute of India modified the manufacturing process to achieve scale, and a KWTRP-led phase 1b age-de-escalation, dose-escalation trial in Kilifi vaccinated adults, children and infants established the vaccine's safety and immunogenicity across all three age groups. It also showed that the strongest anti-circumsporozoite responses were generated in infants - the target group - with a booster restoring antibody levels a year later. These bridging data, alongside the phase 2b efficacy signal from Nanoro, Burkina Faso, were critical and fixed the dose and schedule carried forward into pivotal phase 3 testing. KWTRP accelerated the process through first-in-human studies in Kenya, without waiting for European data, as had been the previous practice.

KWTRP was one of five sites across four African countries in the phase 3 licensure trial, with the Kilifi site enrolling over 600 children. The trial showed that three doses of R21/Matrix-M conferred 75% efficacy against clinical malaria at seasonal sites and 67% at perennial ('standard') sites over 12 months, rising to 79% in the most-studied 5–36-month age group, and remained well maintained to 18 months after a booster, with no safety concerns and anti-NANP antibodies correlating with protection. This evidence underpinned the WHO policy recommendation and prequalification of R21/Matrix-M, and its licensure and rollout across a growing number of African countries, beginning with Nigeria, Ghana and Burkina Faso.

Challenge studies that unravelled how protection works

Beyond confirming efficacy, KWTRP used controlled human malaria infection (CHMI) - deliberately and safely infecting consenting healthy adult volunteers under tightly controlled conditions - to ask why anti-circumsporozoite vaccines provide only partial protection.

A KWTRP-led R21 challenge efficacy trial produced a striking discovery: volunteers vaccinated with R21/Matrix-M were fully protected against malaria parasites delivered into the skin, but not against the same parasites injected directly into a vein. Because mosquito bites deliver a mixture of both, this route dependence explains the 'leaky', partial protection observed in the field and shows that correlates of protection must be defined separately for each inoculation route - a finding that reshapes how the next generation of antibody-based vaccines should be tested.

Immunology studies that provided the right kind of immunity evidence

Companion immunological work dissected the quality, not just the quantity, of R21 antibodies, showing how functional measures such as complement fixation and inhibition of sporozoites, and the influence of age, adjuvant dose and pre-existing immunity, shape the protective response. Furthermore, vaccination not only generated high antibody responses but also strong cellular immunity important for memory recall responses, thereby enhancing protection. In addition, R21 induced robust, functionally relevant humoral immunity in malaria-exposed adults, further warranting its use as an elimination tool across all ages.

The impact

Through these two strands, KWTRP helped advance R21/Matrix-M from an early-phase candidate to a WHO-prequalified, licensed vaccine now being deployed to protect African children, while generating fundamental insights into how vaccine-induced immunity works that will guide the more potent malaria vaccines still to come. KWTRP investigators provided scientific and clinical trial site leadership from phase 1 through to phase 3 licensure, and the Kilifi site enrolled and recruited a combined total of over 750 infants, children, and adults across all trial phases, further demonstrating the impact of African-led science leadership in developing and contributing to a better malaria vaccine.

750+

Adults, children and infants enrolled in African-led R21 malaria vaccine trials.

75%

Efficacy achieved against clinical malaria in seasonal settings.

100+ M

Vaccine doses can be produced annually at under US$4 per dose, expanding access across Africa.

600+

Kenyan children participated in the pivotal Phase III licensure trial.

Vaccines

Aims and Focus

Research under our vaccines theme aims to accelerate the development, access, and uptake of the most effective vaccines against local and global health priorities. We do this by leveraging in-house multi-disciplinary capabilities in epidemiology, immunology, molecular biology, and expertise in health economic evaluation, and health systems. We leverage our longstanding community and public engagement platform and a broad network of stakeholders within the vaccines ecosystem to achieve translational impact against infectious diseases. We develop the next generation of vaccinologists through a dedicated workforce development program.

New Grants and Projects

We secured several grants to initiate new projects to further our vaccinology work. These include:

1. A Wellcome Trust grant to identify correlates of protection to support vaccine development for Shigella (the ShigAfriCoP project).
2. An EDCTP3 HORIZON Research and Innovation Actions grant to optimise a deployable high-efficacy multi-stage vaccine for Plasmodium falciparum malaria within the 2nd Generation Malaria Vaccine Consortium (MVC-2G).
3. A Gates Foundation grant to uncover targets of protective immunity for next-generation malaria vaccines.

Vaccines Capacity Development

Our vaccine workforce development programme expanded across several fronts in 2025. We delivered 18 vaccinology webinars to over 1,200 early-career researchers from 65 countries, conducted in English and French. Our competitive apprenticeship scheme, which places talented African scientists at vaccine manufacturers globally to build biomanufacturing skills, has now seen 37 apprentices complete the programme - including 10 who undertook a three-month placement at Biogeneric Pharma (BGP) in Egypt in Q4 2025, our first 'Africa-to-Africa' apprenticeship. In June 2025, in partnership with the Jenner Institute (University of Oxford) and Institut Pasteur Dakar, we held the masters'-level Vaccinology in Africa course for 39 early-career scientists from 23 African countries, taught by leading African and international faculty across the early vaccine development pipeline. Alumni report tangible career transformation: four secured PhD places and twelve were promoted into leadership and technical roles.

1,200+ Researchers

Trained through 18 vaccinology webinars across 65 countries strengthening the next generation of vaccine scientists worldwide.

The Clinical Information Network: A Decade of Partnership, Progress, and Transformative Impact

The CIN Network has over the years been supported primarily by funding from Wellcome, with additional funding from UKAID, World Bank Group, Medical Research Council-UK, NIHR and the Bill and Melinda Gates Foundation, Children's Investment Fund Foundation, ELMA, and the MacArthur Foundation (through NEST360) among others.

The Clinical Information Network (CIN) is a learning health system that links Kenyan public hospitals, researchers, policymakers, and clinicians to improve the quality of paediatric and neonatal inpatient care. Its central idea is simple but powerful: that high-quality, patient level routine health data, collected consistently and fed back regularly, can drive continuous improvement in how care is delivered.

CIN was established in 2013 as a partnership between the KEMRI-Wellcome Trust Research Programme, the Ministry of Health, and the Kenya Paediatric Association, building on more than a decade of earlier work examining the quality of care in Kenyan district hospitals and developing national paediatric guidelines and the linked ETAT+ training course. It addressed a persistent problem: across many hospitals, routine clinical data were incomplete, inconsistent, and rarely used to understand or improve outcomes. Without reliable information, variations in care quality went unseen, and evidence struggled to reach the bedside. CIN was designed to close that gap by standardising records, generating performance reports, and providing timely feedback to the hospitals themselves. The CIN also offers a platform to conduct multi-disciplinary research studies, including pragmatic clinical trials.

Beginning with 14 county hospitals, the network grew to 24 public county hospitals by 2024, collecting data daily across all sites simultaneously. This created a platform that interconnects research, clinical practice, and policy so that each continuously strengthens the others - and that supports implementation research, health services research, and large, pragmatic clinical trials.

Over ten years, CIN has reshaped how paediatric and neonatal care is delivered in Kenya. Notable impacts include:

- Standardisation of medical records across CIN hospitals that enable learning by examining variations in quality of care and outcomes across time and place
- Progressive improvements in guideline adherence across multiple paediatric and neonatal conditions including success promoting antibiotic stewardship
- Revision of WHO and Kenya pneumonia treatment protocols, informed by CIN evidence
- Supporting policy decisions such as the national rollout of WHO-approved malaria vaccine
- Surveillance of severe acute respiratory illnesses during the COVID-19 pandemic and conduct of a globally important clinical trial demonstrating benefit of steroids in severe adult respiratory infection of unknown aetiology
- Identifying and understanding examples of successful technology implementation and priorities for strengthening health service delivery, for example to improve experiences of parents of hospitalised newborns and redesign healthcare training and health worker tools and practices

These gains are visible at the frontline, where clinicians report sustained improvements in treatment quality, oxygen delivery, clinical outcomes, and documentation.

The network is jointly supported by KEMRI-Wellcome, the Ministry of Health, the Kenya Paediatric Association, the Kenya Paediatric Research Consortium, and county hospitals, sustained by a distributed community of hospital clinicians, nurses, information officers, researchers, and data staff.

CIN is now extending its model in new directions: integrating maternal healthcare within hospital settings, applying artificial intelligence to make core processes more efficient, and adapting its principles for wider use across Kenya and East Africa. The long-term vision is to transition CIN into a national and regional asset - with the Programme continuing as technical experts while Ministries of Health anchor its principles of shared learning within digital health record systems to ensure sustainability.

A decade on, CIN stands as a testament to what sustained investment, quality data, and committed partnership can achieve: a durable platform for better neonatal, child, and maternal health, built to benefit generations of Kenyan children.

24

Public Hospitals connected through a national learning health system using routine patient data to improve paediatric and neonatal care across Kenya.

10

Years of continuous health system improvement, transforming how evidence informs care for children and newborns.

2

Global Policy Influences: Evidence contributing to revised pneumonia treatment guidelines and supporting malaria vaccine rollout.

“By connecting hospitals, clinicians, researchers, and policymakers, we have built a learning health system that is improving the quality of care for Kenya's children and newborns while shaping national and global health policy.

RESEARCH SPOTLIGHT – GLUCOCORTICOIDS IN SEVERE PNEUMONIA

Glucocorticoids Reduce Deaths from Severe Pneumonia in Kenyan Hospitals

The Problem

Community-acquired pneumonia (CAP) remains a major cause of serious illness and death in adults across sub-Saharan Africa, particularly in public hospitals with limited diagnostic and treatment resources. While steroid medicines have shown benefits for pneumonia in well-resourced intensive care settings, their effect in low-resource general hospital wards was previously unclear.

What We Did

In a study published in the New England Journal of Medicine, we conducted a large, pragmatic randomised trial in 18 public hospitals across Kenya, comparing usual care alone with usual care plus a 10-day course of low-dose oral glucocorticoids (steroid medication) among adults newly admitted with CAP.

Key Findings

Among the 2,180 participants enrolled, those who received adjunctive glucocorticoids had a significantly (16%) lower risk of death at day 30 compared with those receiving standard care alone. The reduction in deaths occurred without major increases in reported harms.

Why It Matters

These findings provide strong evidence that a simple, widely available, and affordable treatment – low-dose steroids – can improve survival for adults with CAP in routine hospital care in low-resource settings. This has immediate relevance for clinicians and policymakers working to reduce pneumonia fatalities in Kenya and similar contexts.

Looking Ahead

Given the high burden of pneumonia in Africa and globally, this study supports updating clinical guidelines and training to include adjunctive glucocorticoid therapy for adults admitted with CAP outside of intensive care environments.

Clinical Research

Aims and Focus

Our clinical research theme aims to improve care and outcomes for sick children, neonates, and mothers, by tackling major global health challenges that include malnutrition, high burden infections, and mental health. This research is underpinned by an integrated platform that includes a clinical trials facility (CTF), hospital surveillance (Kilifi County Teaching and Referral Hospital), bioscience laboratories, and the clinical research platform in Mbale, Uganda. Our research also extends across the Clinical Information Network (CIN), a hospital surveillance network of 24 public hospitals in 19 counties in Kenya, where we collect routine data on admissions, care and outcomes in paediatric, neonatal, and adult wards and conduct pragmatic clinical trials.

New Grants and Projects

We secured several grants and initiated new projects to advance our clinical research. These include:

1. A Gates Foundation grant to strengthen the Clinical Information Network and improve maternal health services in Kenya, leveraging the Kilifi Health and Demographic Surveillance System to understand community-level drivers of maternal and newborn morbidity and mortality and to bring operational data visibility through a maternal-newborn dyad cohort.
2. A Wellcome grant to study the links between climate variability and child aflatoxin exposure, testing an integrated mitigation package and co-designing behaviour change and policy levers with communities and decision-makers in Kenya and the Gambia.
3. An EDCTP grant for the PEDISEP trial in Kenya, Uganda, and Malawi, aiming to reduce antibiotic use and the transmission of antimicrobial resistance through early discharge and phone follow-up of very low-risk children.
4. A Wellcome Trust Career Development Award to rethink post-discharge care by learning from the experiences of families and healthcare workers in preterm care in Kenya.
5. An NIHR grant for the MIMBLE 3 randomised controlled trial, comparing a new legume-based feed to standard feeds in children hospitalised with severe malnutrition in Kenya, Zambia, and Ghana, with mortality and readmission as key outcomes.
6. An EDCTP and Gates Foundation grant to establish neonatal sepsis surveillance across Kenya, Uganda, Tanzania, Ghana, and South Africa within the SNIP-Africa consortium, developing novel methods to determine the unit-level resistome and predict neonatal sepsis outbreaks.
7. A Gates Foundation grant to investigate the prevalence and impact of congenital cytomegalovirus (CMV) infection in rural Kenya, including neurodevelopmental outcomes and survival.
8. A Gates Foundation grant for the NeoBAC-2 study, conducting neonatal sepsis surveillance in five Kenyan public hospitals to determine the prevalence of bacteraemia and antimicrobial resistance among neonates and the hospital environment.
9. A Gates Foundation grant for the CHAIN-PoP proof-of-principle trial, testing maternal support and cash transfer to prevent post-discharge mortality in high-risk hospitalised children.

A 36-Year Legacy of Evidence, Innovation, and Impact in Malaria Control

For 36 years, our research has transformed the fight against malaria, from shaping treatment and prevention policies to advancing vaccines and surveillance systems. The result is a 95% reduction in severe malaria admissions in Kilifi and evidence that continues to guide malaria control across Kenya, Africa, and beyond.

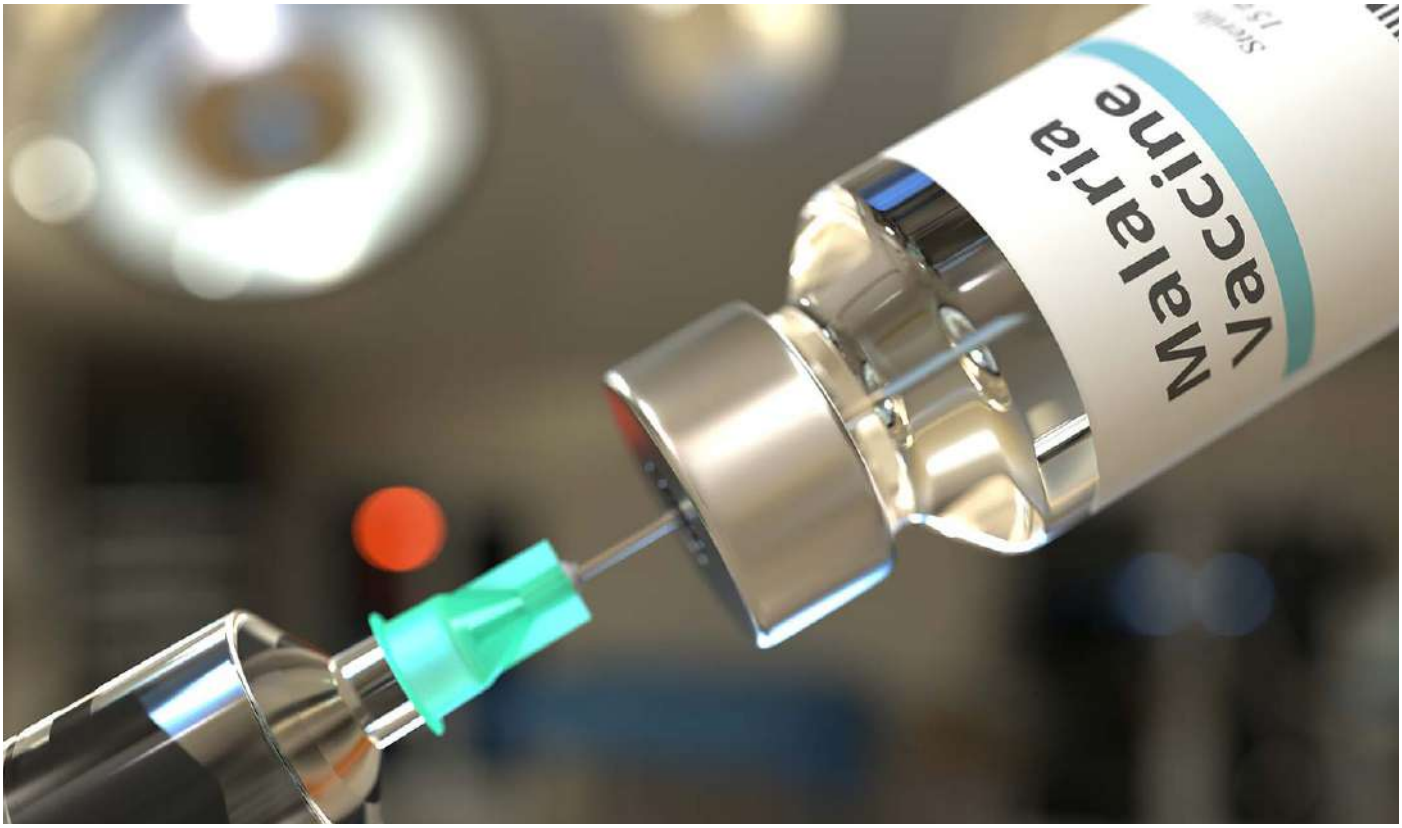
KWTRP was established in Kilifi in 1989, with an initial focus on malaria, integrating laboratory, clinical, epidemiological, and social sciences to understand why some children develop severe, life-threatening disease. This foundational work provided the platform for the future expansion of research at the Kilifi site, iteratively growing its linked community, laboratory and clinical surveillance, scientific staff and capacity, infrastructure and scope of diseases studied.

Over the last three decades, our work has significantly shaped global and national malaria policy. Notably: (i) the transition from failing monotherapies to efficacious artemisinin-based combination therapies (ACTs) (1989–2006); (ii) the public health impact of insecticide-treated nets (1994–1995) and strategies to maximise coverage and reduce inequity through the provision of free nets (2006–2007); (iii) the impact of presumptive treatment of malaria in pregnancy using sulphadoxine-pyrimethamine (1996–1997); (iv) changing guidelines for the definition (1989–1992), treatment (artesunate; anaemia, seizure and fluid management) (1995–2010) and sequelae (1994–2006) of severe malaria; (v) vaccine Phase II and III trials (2005–2024) and integrated sub-national deployment through the Expanded Programme on Immunization (2019–2024); (vi) epidemiological sub-national tailoring to operationalise and maximise impact (2010–2020); (vii) quality of care surveillance for malaria outpatient diagnosis, treatment and referral (2011–2016); and (viii) national vector (2011–2023) and parasite (2008–2024) resistance surveillance to guide prevention and treatment policies nationally and regionally; studies on immunity to malaria (1990–present) leading to clinical trials to optimize and test vaccines (2004–present) in collaboration with the Jenner Institute (Oxford), GSK, and Serum Institute India contributing to licensure of RTS,S and R21 vaccines.

We have also provided support for epidemiological risk stratification for control and elimination of malaria to 14 other sub-Saharan African (SSA) countries, recently extending support to North Africa and the Middle East in collaboration with WHO/EMRO for the cartography of risks posed by the re-introduction of malaria.

We continue to undertake basic science research in malaria, including: demonstrating associations between the frequency of parasite exposure from birth and clinical outcomes – from severe, mild and asymptomatic, and the corresponding varied development of immunity; pathophysiology – biomarkers that can differentiate cerebral malaria from other causes of coma; humoral and cellular immune responses of protection from infection, clinical malaria, severe malaria or multiple episodes; and the human genetic resistance to disease – HbAS/sickle cell trait, thalassemias, Dantu blood groups. Increasingly, this work is undertaken collaboratively across national and regional networks (e.g. the Clinical Information Network; the Severe Malaria Africa: A Consortium for Research and Trials – SMAART).

Furthermore, over the last decade, all this work informed the



IMPACT SPOTLIGHT – MALARIA CONTROL

36

Years of generating evidence that has shaped malaria control in Kenya and beyond.

95%

Reduction in severe childhood malaria admissions in Kilifi since the early 1990s.

14

African countries supported with malaria risk mapping and evidence for targeted control.

68%

Vaccine efficacy demonstrated through malaria vaccine trials helping advance RTS,S and R21 deployment.

development of our unique technical capacity in human challenge studies, to better understand malaria disease mechanisms and guide potential vaccine candidate selection. Moreover, we have sustained our expansion as an internationally recognised centre for parasite genomics and novel vector species detection using MALDI-TOF mass spectrometry. Phase I, II, III, post-licensure clinical trials and human infection studies with experimental challenge continue to form an important part of the malaria research portfolio, to include cluster-randomised trials of ivermectin and patient-randomised trials of Triple ACTs and the RTS,S and R21-Matrix vaccine (highlighting a 12-month vaccine efficacy of approximately 68%). These outputs now enable us to extend our molecular tools and clinical trial experience beyond Kilifi County, leveraging platforms such as repeated national school surveys and supporting National Malaria Control Programme (NMCP) surveillance activities.

Our scientific staff work closely with the WHO on strategy, guideline, and policy development. Since the late 1990s, we have worked directly with the National Malaria Control Programme (NMCP) within the Ministry of Health (MoH) as members of technical steering committees: building momentum around the Roll Back Malaria initiative and the first national strategic plan in 2001, working alongside bilateral funding agencies and the Global Fund; establishing the first sub-regional MoH-academic network to monitor antimalarial treatment efficacy (EANMAT; 1998–2002), providing evidence for the national policy treatment change in East Africa from sulphadoxine-pyrimethamine to the current ACTs in 2006; and generating the evidence and risk maps that enabled sub-national deployment of prevention in Kenya in 2010, pioneering this approach in sub-Saharan Africa and a decade later underpinning WHO recommendations for national action plans. Our connections to policy decision-makers enable new findings to feed rapidly into national strategies.

The impact of our wide malaria research output through global and national policy change is best illustrated by data from Kilifi County Hospital since 1990. This time-series represents the longest surveillance of hospitalised malaria anywhere in Africa. Between 1990 and 1996, malaria admission rates from the Kilifi health and demographic surveillance sites were 13.2 per 1,000 children per annum; between 2010 and 2024 this had declined to 0.65 per 1,000 children per annum. These impressive reductions in the burden of severe malaria have not been seen everywhere.

It remains as important now as it did 36 years ago to build and sustain intensive clinical surveillance in Kilifi (to define any rebound) and Western Kenya (to understand why disease burdens remain high) to provide a data-driven, scientific basis on what could happen over the next decade. Furthermore, amid a changing landscape, we have documented multiple emerging threats to malaria control in Kenya, including parasite resistance mutations to artemisinin and diagnostic-evading mutations, widespread vector insecticide resistance, shifts in vector behaviour and species composition, recently compounded by the detection of invasive aggressive vectors, Anopheles stephensi and Anopheles coluzzii, and climate change. These emerging factors, taken together with reduced global investment in malaria control, threaten a "perfect storm."

Basic scientific research must continue to elucidate the evolving threats to malaria risks and outcomes, while robust surveillance systems serve as the fundamental core for guiding effective policy. In the context of inevitable declines in the traditional donor assistance to fund malaria control, we remain committed to supporting the Government in developing compelling, evidence-driven business cases. This is critical to secure future domestic investments and strategic donor funding for sustainable malaria control.

Population Health and Surveillance

Aims and Focus

Our Population Health and Surveillance theme provides timely, actionable evidence on the infectious and non-communicable conditions that account for the largest burden of disease in Africa. Working across seven research groups, we pursue three inter-related objectives: describing the evolving health of populations, with a focus on high-burden infectious, mental health, and cardiometabolic conditions; evaluating the impact of interventions, including vaccines for malaria, pneumococcal disease, HPV, and RSV, and changes in health-system organisation and financing; and measuring the population-level effects of large-scale disruptions and emerging threats such as climate change, identifying vulnerable groups and modifiable responses. This work is underpinned by long-standing surveillance platforms, principally the Kilifi Health and Demographic Surveillance System, which has followed some 300,000 Kilifi residents since 2000.

New Grants and Projects

We secured several grants and initiated new projects to advance our population health research. These include:

1. A Wellcome Discovery Award to study how some malaria parasites evade the protective effect of sickle haemoglobin, using epidemiological, population-genetic, multi-omic, parasite gene-editing, and parasite phenotyping approaches to answer fundamental questions about host-pathogen co-evolution and human malaria resistance (the Genetic Epidemiology project).
2. A Wellcome and NIHR Global Health Research grant for the Virus Genomics for Outbreak Response (ViGOR) project, studying the genomic epidemiology of respiratory, haemorrhagic, and diarrhoeal viruses capable of causing outbreaks in Kenya, the Democratic Republic of the Congo, and the Comoros, and improving the integration of genomics and modelling for outbreak response into health systems.
3. A Science for Africa Foundation grant for the Surveillance Platforms and Immunology for Zoonotic Viruses with Pandemic Potential in Africa (SPIL-OVA) project, strengthening African-led pandemic preparedness by identifying and characterising bat-borne viruses with zoonotic potential before spillover into human populations.
4. A Roche Africa Genomic Programme grant to conduct whole genome sequencing on samples from cardiovascular disease studies in Kenya and the Gambia, helping to uncover genetic variants contributing to cardiovascular disease and to catalyse locally adapted diagnostic and therapeutic options.
5. A Gates Foundation grant for the Global South Leaders in Epidemic Analysis and Response Network, providing modelling capacity support to national public health institutes in Africa and exploring approaches to integrating multiple surveillance data types through modelling.

IMPACT SPOTLIGHT – EVIDENCE INFORMED Healthcare PRIORITY SETTING

Institutionalising evidence-informed healthcare priority-setting in Kenya

Over the past decade, our research has helped transform how healthcare priorities are set in Kenya. By embedding evidence into policy, legislation, and national institutions, we have contributed to a health system where limited resources are increasingly directed towards interventions that deliver the greatest benefit for patients and communities.

Like other low- and middle-income countries, Kenya faces a fundamental challenge: healthcare needs consistently exceed the resources available to meet them. Policymakers must decide which services to fund, which technologies to adopt, and how to allocate limited resources across competing priorities. Historically, many of these decisions were shaped by ad hoc practices, historical budgeting patterns, political considerations, and donor priorities. Well-intentioned as they often were, such approaches risked inefficiency and inequity and left potential health gains unrealised. As Kenya embarked on ambitious reforms - devolution, Universal Health Coverage (UHC), the development of benefits packages, and, most recently, the Social Health Insurance Act - the need for transparent, evidence-informed ways of setting priorities became increasingly urgent.

A systems approach, not just research

Over the past decade, the KEMRI-Wellcome Trust Research Programme (KWTRP), through its Health Economics Research Unit (HERU), has supported Kenya's shift from the sporadic use of evidence towards institutionalising evidence-informed priority-setting, embedding it in the routine practice of health policy. Rather than producing research alone, HERU worked to strengthen the institutions, capacities, processes, and relationships that allow evidence to inform decisions consistently over time. Three strands of work, evidence, capacity, and sustained policy engagement, came together to make this possible.

Building the evidence base

HERU generated a body of evidence on how priorities were actually being set across the health system, in hospitals, in county health systems, and nationally, and on strategic purchasing, the barriers and enablers to using evidence, and what institutionalisation would require. This research showed that priority-setting at every level was largely ad hoc and inadequately informed by evidence, and it identified the specific obstacles and opportunities for change. HERU also developed a normative framework for evidence-informed priority-setting. Together, this work, the most comprehensive on healthcare priority-setting in Kenya to date, set out the need, the gaps, and a credible pathway towards institutionalisation.

Building capacity

Evidence alone changes little without people and institutions able to use it. HERU developed short courses in health technology assessment (HTA) and ran trainings for both the "users" and the "doers" of HTA, policymakers and decision-makers at the Ministry of Health and the national health insurer, and colleagues from academic and research institutions. Cumulatively, these reached more than 250 participants, deliberately building capacity at both the individual and institutional levels to support a functioning HTA ecosystem.

10+ Years

Supporting Kenya's journey towards evidence-informed healthcare priority-setting

250+

Policymakers, researchers and health professionals trained in Health Technology Assessment (HTA)

3

Strategic pillars driving systems change: Evidence, Capacity Building and Policy Engagement

1

National framework developed to guide evidence-informed healthcare priority-setting in Kenya

IMPACT SPOTLIGHT – EVIDENCE INFORMED HEALTHCARE PRIORITY SETTING

From evidence to institutions

At the heart of this story is a decade of sustained engagement in which HERU researchers were repeatedly invited into the policy process, each step building on the last:

2015

HERU supported the development of Kenya's health financing strategy and chaired the strategic purchasing sub-committee of its technical working group. This work first surfaced the case for institutionalising HTA as a priority-setting mechanism, laying the foundation for later policy debate.

2018

HERU researchers were appointed by the Cabinet Secretary for Health to the health benefit package appraisal panel (HBPAP), as panel members and as part of its joint secretariat, mandated to develop an evidence-informed benefit package under the UHC ("Big Four") agenda and to recommend how HTA could be institutionalised. The panel produced an HTA roadmap for Kenya that guided subsequent development.

2019

Appointed by the Cabinet Secretary for Health to the panel reviewing the National Hospital Insurance Fund (NHIF), HERU helped assess the Fund's performance and recommend reforms. The panel's report, ***The NHIF We Want***, lead-authored by a HERU researcher - called for institutionalising HTA for benefit package development to turn the NHIF into a strategic purchaser, and became a key reference for the health insurance reforms that followed.

2023

As the new government pursued sweeping reforms, including the creation of the Social Health Authority (SHA), HERU was asked to help develop an evidence-informed benefit package for SHA and to support the legislation institutionalising HTA as the mechanism for developing and maintaining that package. That legislation provided the legal mandate for the institutional structures and processes now used to define and update Kenya's benefit package.

2025

HERU was appointed as one of the assessment partners to the newly established Benefits Package and Tariffs Advisory Panel (BPTAP), conducting HTA assessments and providing the evidence that informs benefit package decisions - a continuing, formal role in the system it helped build.

Partnerships that accelerated progress

International collaboration, facilitated by HERU, helped sustain this work. In 2019, HERU joined the International Decision Support Initiative (iDSI), a Gates Foundation–funded network supporting HTA institutionalisation in low- and middle-income countries, which helped mobilise resources for evidence generation, advocacy, and capacity development. A linked partnership with Thailand's Health Intervention and Technology Assessment Program (HITAP) followed a 2018 three-year UHC cooperation agreement between the Kenyan and Thai governments, with KWTRP and HITAP as technical facilitators. It enabled Kenyan policymakers and legislators to learn directly from Thailand's experience, supported HTA training, and funded scholarships - including Masters and PhD study at Mahidol University for two Kenyans who now serve as the BPTAP secretariat, the body coordinating benefit package development in Kenya.

The impact

Since 2024, Kenya has:

- Enacted legislation mandating the use of HTA to inform how health benefit packages are developed and updated, set out the legal framework for HTA's institutional arrangements, and prescribed the evidence-based criteria and process for benefit package design;
- Established the Benefits Package and Tariffs Advisory Panel (BPTAP) and its secretariat, hosted at a local university;
- Developed and begun implementing an evidence-informed benefit package; and
- Applied HTA on an ongoing basis to manage and update that package.

The most significant achievement, though, is not any single law, panel, or publication. It is the gradual emergence of a system in which evidence-informed priority-setting is becoming part of how health policy is routinely made. With HERU's support, Kenya is progressively moving from ad hoc decisions towards structured processes, from reliance on individual experts towards institutional capacity, from external technical advice towards local ownership, and from one-off studies towards a sustained evidence ecosystem.

This transformation is still underway and gaps remain. But it illustrates how a long-term research partnership can contribute not only knowledge, but also the institutions that turn knowledge into better policy, helping direct scarce resources towards the interventions that deliver the greatest health benefit for Kenyans. Institutionalising evidence-informed priority-setting is not the product of a single project or reform; it is the result of sustained investment in research, relationships, capacity, and institutions over many years.

Looking ahead

Kenya's progress is increasingly shaping conversations beyond its borders. Drawing on this experience, KWTRP has worked with regional bodies, including WHO AFRO and Africa CDC, to advance evidence-informed priority-setting across the continent, with KWTRP researchers co-chairing the Africa CDC expert group developing a continental framework for it. KWTRP also established and coordinates AfroHTA, a network of policymakers and academics supporting HTA institutionalisation in Africa, which has developed a continental HTA curriculum to help build health economics capacity across the region.

Health Systems Research

Aims and Focus

Our health systems research aims to generate evidence to guide the development of equitable, efficient, quality, ethical, and responsive health systems. Our research on health systems spans health economics, health policy and systems research, health services research, and empirical ethics. Our health economics research seeks to address key health financing and policy changes in LMICs, including how LMICs can make sustainable progress towards Universal Health Coverage (UHC), while enhancing the equity and efficiency of health systems. Our health services research is dedicated to strengthening health systems by enhancing the quality of paediatric and neonatal care in Kenyan public hospitals, undertaking research that aims to ensure that every child has access to high-quality healthcare services. Our health policy and systems research applies systems thinking approaches and complexity theories to examine how the governance, organization, functioning, and actor dynamics can promote responsive and resilient health systems. Our empirical ethics research seeks to understand how the ethics of research in LMICs could be strengthened and examine the responsibilities of research institutions in situations of increasing vulnerabilities and inequities.

New Grants and Projects

We secured several grants and initiated new projects to advance our health systems research. These include:

1. An NIHR grant for the economic evaluation of pathway-strengthening interventions to reduce cancer delays.
2. A Wellcome grant for the African Population Cohorts Consortium (APCC), hosted by the Science for Africa Foundation, to strengthen and harmonise population cohort research across Africa.
3. A WHO Alliance for Health Policy and Systems Research grant for a multi-country study of blended provider payments for primary healthcare.
4. A Wellcome grant to rethink neonatal discharge care.
5. A Gates Foundation grant for the Clinical Information Network to develop routine quality measures of care.
6. A European Union grant for the REConneCteD project (Risk-Enhanced Community Care After Discharge), implementing and evaluating a digital integration of a facility-based smart discharge system with a community-based digital platform.
7. A Global Health Bioethics Network grant supporting bursary projects on young people and mental health, climate and artificial intelligence, and pandemic ethics.

Capacity Development

Through the Africa Health Economics Study Group (AfHESG), our Health Economics Research Unit (HERU) delivered eight training sessions on core health economics and health financing topics, training 2,762 participants. The training covered health financing systems, incidence analysis, public financial management, health technology assessment, resource tracking, and benefit package design. In addition, three of our HERU researchers were awarded PhDs during the year, while two others submitted their theses and are awaiting their viva examinations.

IMPACT SPOTLIGHT – INDIVIDUAL CAPACITY DEVELOPMENT

From school leaver to scientist – Clement's Story

One opportunity changed the trajectory of a young student's life. Seven years later, Clement is a Master's Fellow. His journey reflects the long-term impact of investing in talent early, nurturing it through mentorship, and creating the next generation of African scientists who will lead research that changes lives. Clement's story is more than an individual success. It demonstrates how a deliberate investment in young talent creates lasting impact, building a pipeline of African scientists whose research, leadership, and innovation will shape stronger health systems and improve lives across the continent for generations to come.

Clement Mwagwabi's story shows what becomes possible when a young person is given an early, well-supported entry point into science. It begins with our School Leavers Attachment Scheme (SLAS), a schools engagement programme that introduces high school graduates to science and STEM careers. Under SLAS, competitively selected recent high school graduates are attached to the Programme for three months, rotating across departments and receiving mentorship from our scientists, an opportunity many would otherwise never encounter.

In 2018, aged 18 and fresh out of high school, Clement was selected for SLAS. Like many talented young Kenyans, he had little prior exposure to health research or a clear sense of what a science career involved or how to pursue one, and his school had no proper laboratory facilities. SLAS placed him in the same space as globally renowned scientists, where he could learn directly from them. Working alongside established researchers, he came to see science not as an abstract subject but as a practical, collaborative endeavour.

That early exposure set him on a sustained path, with the Programme opening doors at each stage. Following his attachment, he was selected to attend the 59th London International Youth Science Forum at Imperial College London, a two-week gathering of outstanding students from around the world, where he deepened his appreciation of collaboration as essential to solving complex health challenges. In 2020, he joined a Wellcome Trust–funded project raising awareness of antimicrobial resistance among young people in Kilifi County, grounding his training in real-world public health needs and community-engaged research.

After completing his undergraduate degree, Clement returned to KWTRP in 2023 as a postgraduate diploma student at Pwani University, offered through our partnership with the Initiative to Develop African Research Leaders (IDeAL), part of the DELTAS Africa programme supported by the Science for Africa Foundation. Attached to the Improving Hypertension Control in Rural Sub-Saharan Africa (IHCoR) project, he experienced implementation research first-hand.

Today, Clement is pursuing a Master's Degree in Bioinformatics at Pwani University, fully funded by the Gates Foundation in collaboration with the Kenya AIDS Vaccine Initiative.

His progression, from a school leaver with no laboratory at home to a postgraduate researcher in seven years, is exactly the outcome SLAS was designed to make possible. It illustrates how a single, deliberate point of entry, reinforced by mentorship and sustained support across successive career stages, can transform individual potential into capability. Clement's journey is not only his own success; it is a measure of what our capacity development platform achieves: a resilient pipeline of African scientists equipped to lead research that is both locally relevant and globally connected.

> **It was my first time assisting with DNA extraction in the lab. I was so excited that I told everyone at home about each experience, including my friends.**

> **I saw how taking BP measurements and giving hypertension education directly and positively impacted community members' health.**

Strengthening health systems research and leadership through strategic collaboration with Strathmore University

IMPACT SPOTLIGHT – INSTITUTIONAL CAPACITY DEVELOPMENT

For nearly a decade, KWTRP and Strathmore University have built a partnership that strengthens institutional capacity for health systems research and is training a new generation of health management leaders for Kenya and the wider continent.

The partnership between Strathmore University (SU) in Kenya and the KEMRI-Wellcome Trust Research Programme (KWTRP) is, in part, a story of capacity coming full circle. Strathmore's Institute of Health Management (IHM), which drives the collaboration, is led by senior researchers who began their careers at KWTRP. Over almost eight years, that connection has grown into a flourishing collaboration built around joint health systems research and advanced training, and a model for how one institution can help strengthen the research capacity of another.

What began as KWTRP staff contributing to teaching and supervision in Strathmore's master's in healthcare management has evolved into something more ambitious. Responding to growing demand for advanced training in the field, the two institutions co-developed the curriculum for, and launched, a PhD in Healthcare Management at Strathmore, supported by a grant from the German Academic Exchange Service (DAAD). KWTRP has continued to support the programme through teaching and supervision.

The only programme of its kind in the region, the PhD has enrolled more than 40 students to date, many of whom benefit from co-supervision by researchers at both Strathmore and KWTRP, bridging academic training and applied health systems research.

The collaboration's ambition extends beyond the two institutions. Strathmore was formally included as a consortium member in the second phase of KWTRP's flagship capacity-development platform, the Initiative to Develop African Research Leaders (IDeAL). As a consortium member, Strathmore draws on shared resources to strengthen its own institutional capacity and to advance a common goal: scaling capacity development for health research across Africa.

That shared goal has also reached health leaders well beyond Kenya. Together, the partners co-organised and facilitated a leadership course for healthcare managers in Kenya, as well as a Gates-funded Leadership, Management and Governance training programme for senior leaders of National Malaria Control Programmes and Ministries of Health across six countries - Kenya, Mali, Côte d'Ivoire, Ghana, Rwanda, and Cameroon.

Like the strongest of KWTRP's institutional partnerships, this one rests on a deeper foundation than any single grant or programme: a shared vision, and leaders who trained at KWTRP and now build capacity in turn. In strengthening Strathmore, the partnership is helping to equip the institutions - and the people - that African health systems will depend on for years to come.

40+

Future health systems leaders enrolled through East Africa's only PhD in Healthcare Management, co-developed by KWTRP and Strathmore University.

8 Years

Building institutional capacity together. A partnership that has evolved from teaching support into joint research, doctoral training, and regional leadership development.

PEOPLE AND CAPABILITIES

Research Capacity Development

In 2025, we supported 76 trainees to completion and awarded 120 new studentships – the majority based at KWTRP, with others based at institutions that partner with us in training through the IDeAL and other DELTAS consortia. This sustained investment yielded clear scientific returns, including high-impact publications, the development of advanced analytical tools, and growing research independence among our early-career scientists.

Across the cohort, our postgraduate diploma, Master's, PhD, and postdoctoral fellows published first-author papers in leading journals, signalling both scientific rigour and a growing confidence to lead research agendas.

These achievements were underpinned by a strong culture of mentorship and supervision. A network of 202 dedicated supervisors and mentors played a central role in guiding our Fellows through critical stages of their training, from study design and analysis to publishing, leadership, and career progression. Through consistent, hands-on mentorship, our Fellows gained not only technical expertise but also the skills to communicate their work, compete for funding, and navigate complex research environments.

Scheme	Female	Male	Total
School Leavers Attachment Scheme	6	6	12
Undergraduate Attachment Students	10	9	19
Postgraduate Diploma	15	12	27
Masters Fellows	11	15	26
PhD Fellows	11	25	36
Grand Total	**53**	**67**	**120**

Table 1: Distribution of IDeAL fellowship awards by scheme

120

Studentships awarded to develop the next generation of African scientists.

76

Fellowships completed in 2025 across all schemes, with 8 PhD Fellows successfully defending their viva examinations

202

Mentors shaping scientific leaders: Researchers providing expert supervision, mentorship and career development across the training pipeline.

Continuous Professional Development

We run a continuous professional development (CPD) initiative aimed at building the capacity of all our staff – both scientific and non-scientific. The initiative supports ongoing skills enhancement for staff directly involved in research, as well as for those who provide essential managerial and logistical support. Our goal is to ensure that all staff maintain up-to-date competencies to perform their roles effectively while also advancing their professional growth. The table below presents the number of CPD trainings we supported by department in 2025.

Section	Department	No. of CPD trainings in 2025
Science	Bioscience	21
Research governance	Research governance	4
Science	Epidemiology and demographic	12
Science	Clinical research	28
Operations	Facilities and transport	9
Operations	Finance	36
Operations	Health and safety	4
Operations	Human resources	19
Operations	Information technology	18
Science	Health systems and research ethics	9
Operations	Nairobi Programme	8
Training	Training	2
Total		**170**

Table 2: CPD trainings supported by the Programme

ENGAGEMENT

We continued our engagement work across the three broad areas of community and stakeholder engagement, public engagement, and policy engagement. In response to community feedback, we introduced a new community engagement activity, led by KCR members, known as Community Dialogues. The approach is borrowed from development and public health programmes where community members come together to discuss pertinent issues. We conducted a total of 32 community dialogue meetings, reaching 3,193 community members.

A highlight for our schools engagement programme (SEP) was receiving two Global Health Bioethics Network (GHBN) awards. Both projects will be implemented in collaboration with the Malawi Liverpool Wellcome (MLW) Programme and the Africa Health Research Institute (AHRI). The projects will explore young people's perceptions of ethical issues around climate change and health in Kenya & Malawi, and the ethical responsibility of schools in prioritising adolescents' mental health.

3,193
Community members engaged, helping shape research through two-way conversations.

3
Leading African research partners: KWTRP, Malawi Liverpool Wellcome Programme and Africa Health Research Institute co-designing ethical research with young people.

32
Community dialogues held. A new engagement model introduced in response to community feedback, creating space for local voices to influence research.

2
International research awards secured: Global Health Bioethics Network awards supporting collaborative research on climate change, health & adolescent mental health.

IMPACT SPOTLIGHT – ENGAGEMENT

Inspiring Future Scientists in Kilifi through Biographies of 12 Remarkable African Life Scientists

The KEMRI-Wellcome School Engagement Programme (SEP) aims to promote interest in science and science-related careers among students in Kenya, while enhancing awareness of locally conducted research. To enhance science literacy and inspire students to pursue careers in science, we use materials developed by scientists as learning resources. One such resource is the 12 Remarkable African Life Scientists book, authored by Dr. Tabitha Mwangi, a former KEMRI-Wellcome malaria scientist, which we have actively integrated into our school engagement activities. The book profiles 12 leading African life scientists whose contributions have significantly advanced population health and biomedical science. Through their personal journeys, the authors highlight three central themes – passion, patience, and progress – which are interwoven across the narratives to motivate and encourage young learners.

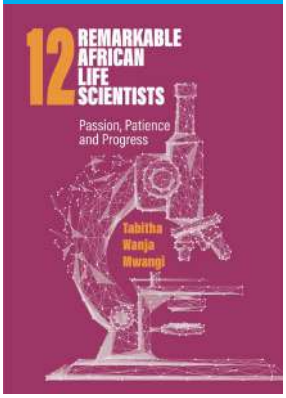
Funded by Wellcome through KEMRI-Wellcome's PPE core grant, the book serves as a powerful tool to inspire the next generation of scientists by showcasing the achievements of African scientists and positioning them as relatable role models for students. While primarily targeting junior and senior secondary school students, the book also offers valuable insights for university students.

The official launch of the book was conducted in February 2024 at St. Thomas Girls Secondary School in Kilifi County, bringing together over 100 students from schools across the County alongside participants from Pwani University.

The launch included interactive sessions with the author and virtual short talks by a few of the featured scientists, all fostering meaningful dialogue and inspiration among students. Students also presented interesting and fun articles: drama, poems and short talks about their most favourite featured scientist.

To further engage young people beyond those reached through identified schools, the SEP team, in collaboration with the Kilifi County Library Services, initiated a Science Literacy programme in line with SEP's objective to inspire interest in science among students in Kilifi County. Other partners are Pwani University, SHOFCO (Shining Hope For Communities), Moving the Goalposts

> **This programme changed the way I see myself. I used to think science wasn't for me because I struggled with it, but today I believe I can succeed just like everyone else. I want every student in Kenya to know that your background or your challenges do not define your future. Everything is possible.**



(MTG), and KESHO Kenya.

Together with these partners, a series of Science Literacy Open Days have been held in 2024 and 2025. The event was designed to engage junior secondary and high school students who have access to the various library sites to read the Twelve Remarkable African Life Scientists book to understand the journeys of the 12 scientists and various careers in life sciences, with the hope that they will get inspiration to pursue science and health research. To support literacy engagement, each participating library site received 20 copies of the book for lending, along with structured guidelines developed by a steering team that consisted of representatives from the participating partners.

A total of 274 young people so far have participated in two science literacy engagement events held in 2024 and 2025, presenting creative items that showcased their understanding of the different life journeys of African scientists, the inspiration drawn from reading, and relatable experiences linked to their own career aspirations. A range of articles have been used to depict the young people's reading, internalising and personalisation of the lives of the 12 African scientists. The articles include speeches, spoken word (a type of poetic narration), songs, poems, drama, dialogue, and mimicry. The book has inspired diverse forms of expression and creativity among young people, enabling them to showcase their talents as they showcase their understanding of the scientists' biographies. KWTRP researchers supported these open days through showcases of malaria research, vaccinology, and microscopy using mobile laboratory technology and VR kits.

A total of 460 books have been distributed to 46 schools as a resource to all students in the schools. Overall, students expressed a renewed commitment to their personal and career development, inspired by the scientist biographies and engagement with KEMRI scientists. Many reported increased motivation to work harder in their studies, a more positive attitude toward engaging in technical and science subjects, and a willingness to adopt improved reading techniques and learning strategies, as shown in the quote below shared by one student during the science literacy events.

Moving forward, we will develop strategies to take the book to other Kenyan schools. Plans are already underway, and we have held meetings with the national leadership of the Kenya National Library Services and the SHOFCO Nairobi branch to begin discussing how to start similar activities around the book, which has been a clear hit among young people.

460

Books placed in 46 schools to inspire future African scientists.

274

Students actively engaged in science literacy through creative learning.

100+

Students attended the inaugural book launch and interacted directly with African scientists.

RESEARCH ENVIRONMENT

We are committed to building a research environment that is equitable, inclusive, and led from the Global South. Monitoring the composition of our training pipeline, the distribution of grant leadership, and the gender balance of our scientific authorship allows us to track progress against these commitments and to identify where targeted action is still required. This section summarises three dimensions of that environment in 2025: the gender balance of training opportunities, the share of grants held by Global South relative to Global North researchers, and the gender balance of publication authorship and science leadership.

Training opportunities by gender

In 2025, we awarded 120 new studentships that were close to gender parity overall, with women holding 44% (53 places) and men 56% (67 places). The balance is strongest at the earliest career stages and narrows as seniority increases. Women are at or above parity in the School Leavers Attachment Scheme (50%), undergraduate attachments (53%), and the Postgraduate Diploma (56%), but their share falls to 42% at Masters level and to just 31% at PhD level, where men hold roughly seven of every ten places.

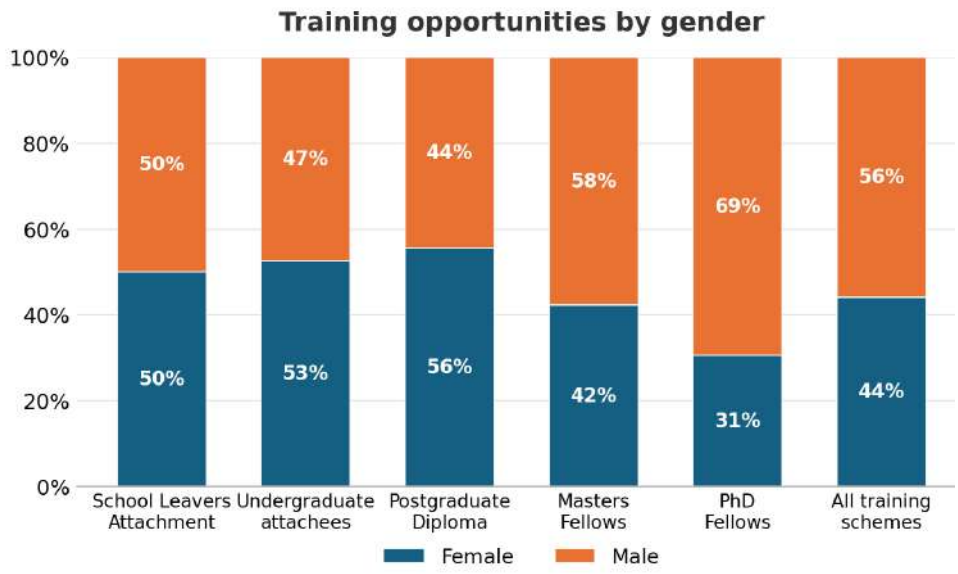


Figure 2: Gender distribution of new studentships by training scheme

Grant holding by Global South and Global North researchers

The share of our grants held by Global South researchers has risen steadily and substantially over the past two decades, reflecting a deliberate shift towards African-led research. In 2005–2009, Global South researchers held just 37% of grants, with the majority (63%) held in the Global North. The balance crossed the halfway mark in 2010–2014 (57%), reached 70% over 2015–2022, and has continued to climb each year since – 73% in 2023, 83% in 2024, and 89% in 2025.

By 2025, therefore, nearly nine in ten grants were held by Global South researchers, a near-complete inversion of the position twenty years earlier. This trajectory is a strong indicator of growing research leadership within the region, consistent with our strategic commitment to equitable partnership and locally-driven science.

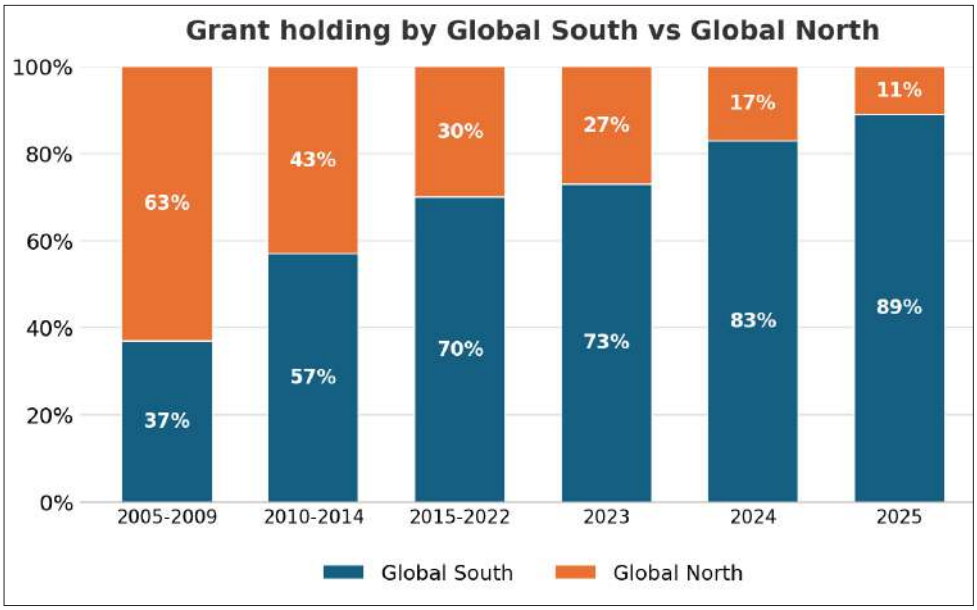


Figure 3: Share of grants held by Global South versus Global North researchers

Publications by gender

We report gender balance in authorship across three positions: all authors, first authors (typically the early-career scientist leading a study), and last authors (typically the senior researcher or principal investigator). Across all three measures, 2025 shows clear movement towards parity.

For all authorship positions combined, the female share held broadly steady between 2021 and 2024 at around 45%, before rising to 47% in 2025 – the highest in the five-year window.

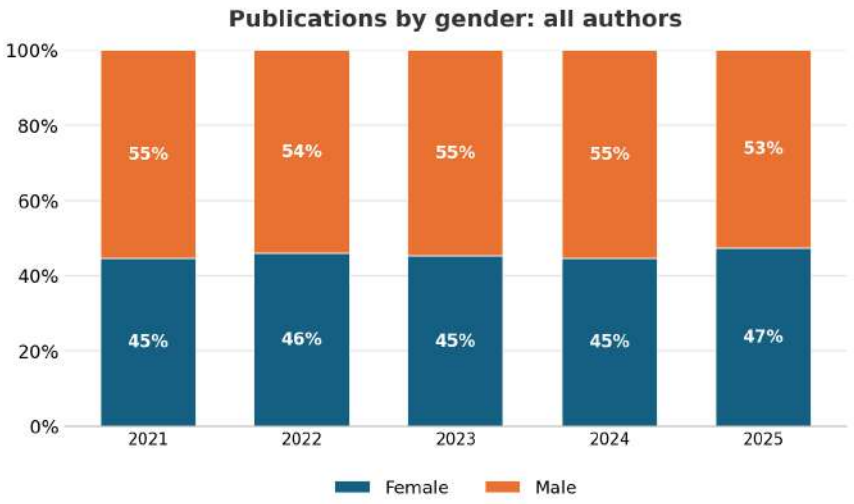


Figure 4: Gender distribution of all authorship positions

First authorship shows the most encouraging picture. Women moved from a minority position in 2021 (43%) to the majority in both 2024 (55%) and 2025 (54%), indicating that early-career women are now leading at least as many studies as their male peers.

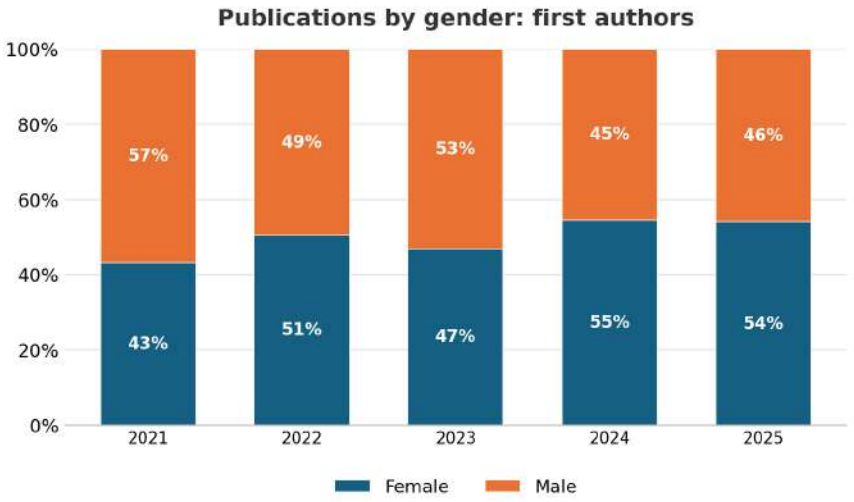


Figure 5: Gender distribution of first authorship

Last authorship, the position most closely associated with senior research leadership, has also been improving. The female share rose from 39% in 2021 to 49% in 2025.

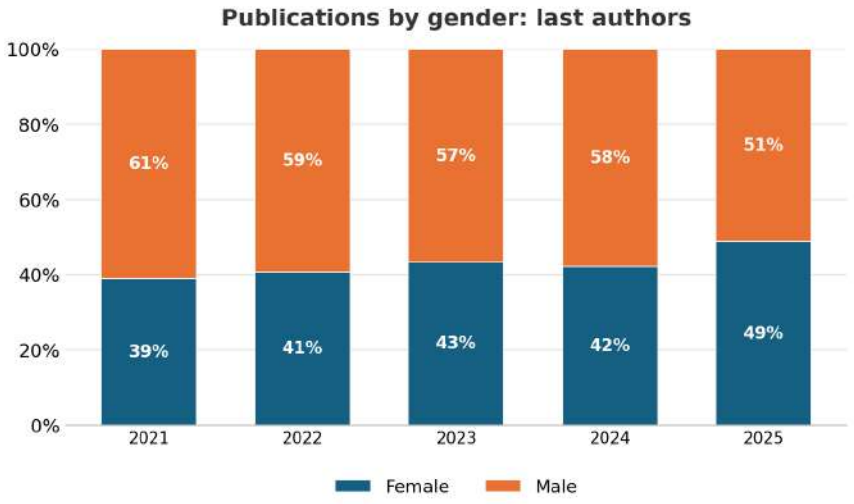
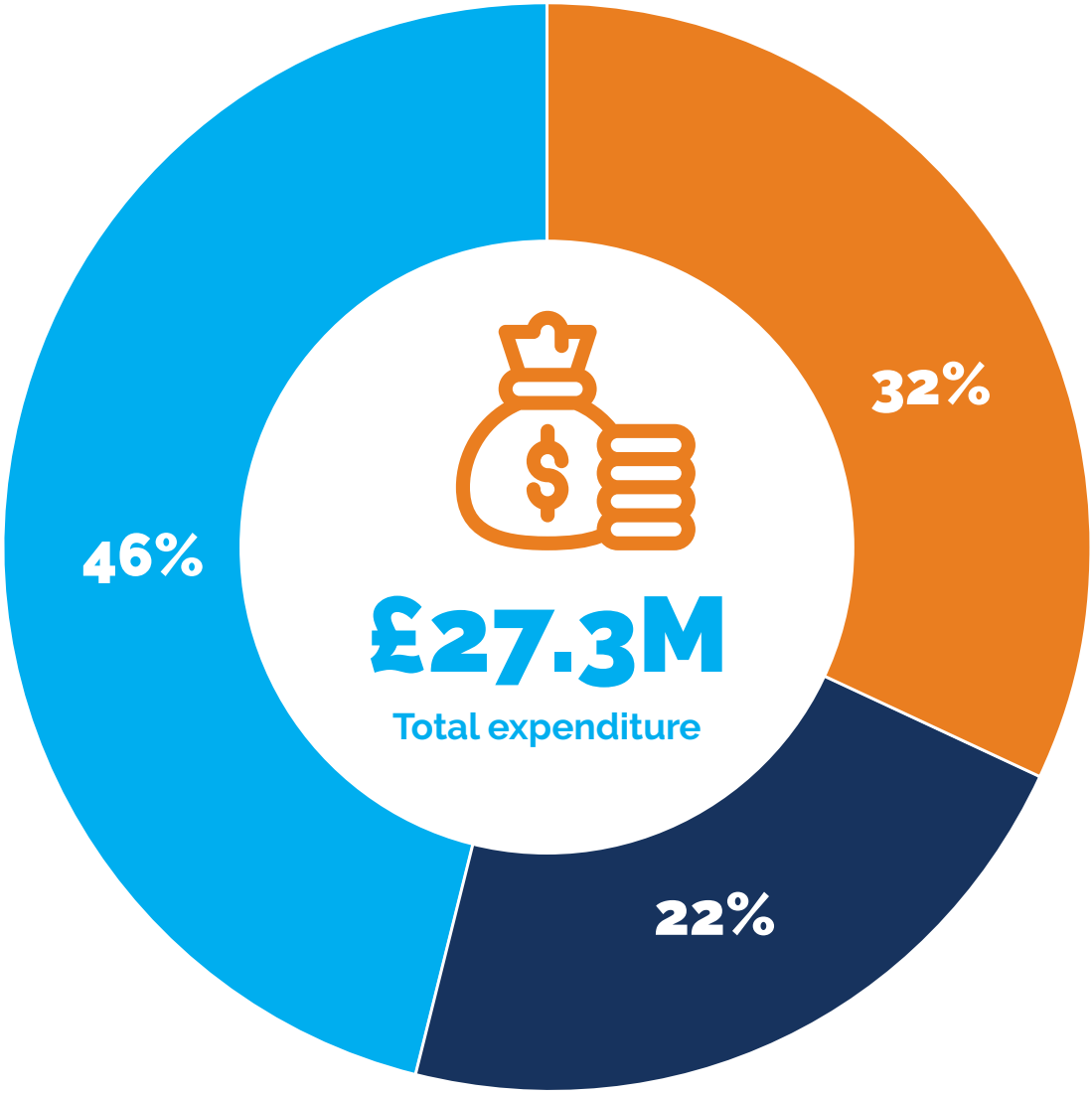


Figure 6: Gender distribution of last authorship

Taken together, the three measures describe a research environment in which women are now leading at the first-author stage and are steadily closing the gap in senior, last-author leadership – even as that senior tier remains the final frontier for full parity.

FINANCE SUMMARY

We are funded through a Wellcome Core grant that supports our core operational and scientific platforms, Wellcome Investigator Awards made to individual principal investigators, and grants from other (non-Wellcome) funders awarded to individual principal investigators. In 2025, our total expenditure was approximately £27.3 million. The Wellcome Core grant accounted for 32% of this, while research grants from Wellcome and from third-party funders together accounted for the remaining 68% – 22% through Wellcome Investigator Awards and 46% through non-Wellcome funders. Figure 7 shows the contribution of each funding source to our total expenditure in GBP.



Wellcome Core: **£8,810,059**

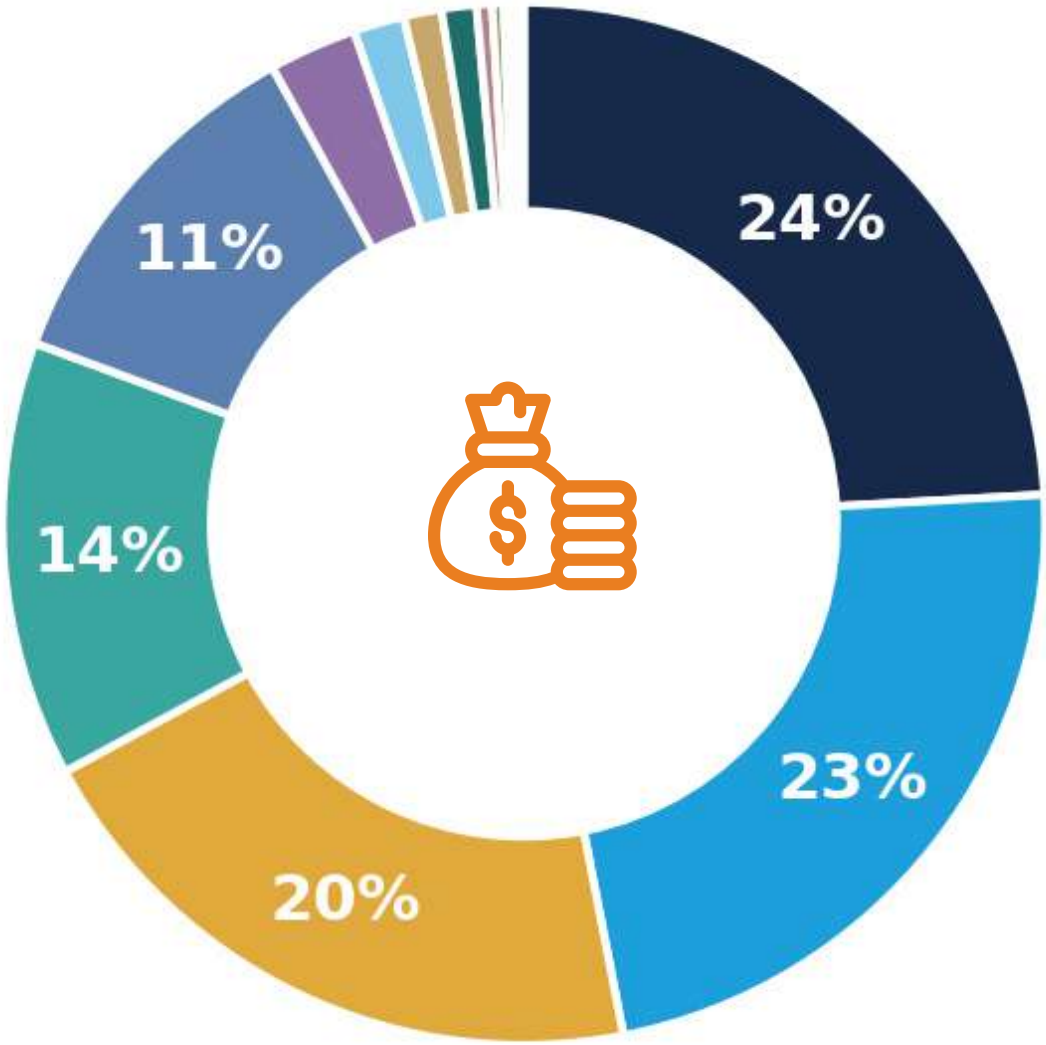
Wellcome Investigator Awards: **£5,892,480**

Non-Wellcome Funders: **£12,638,516**

Figure 7: Annual expenditure by donor category in GBP, 2025

FINANCE SUMMARY

Our research is supported by a broad and diversifying base of funders. In 2025, our largest funders by total new award value were the Gates Foundation, the Beginnings Fund, the Wellcome Trust, the National Institute for Health Research (NIHR), and the European and Developing Countries Clinical Trials Partnership (EDCTP), which together accounted for over 90% of total award value. A long tail of further funders – including Roche, the Norwegian Institute of Public Health, the London School of Economics, the National Institutes of Health, and the World Health Organization – made up the balance. Figure 8 shows the share of total award value secured in 2025 by funder.



- Gates Foundation - 24%
- Beginnings Fund - 23%
- Wellcome Trust - 20%
- National Institute for Health Research (NIHR) - 14%
- European and Developing Countries Clinical Trials Partnership (EDCTP) - 11%
- Roche - 3%
- Norwegian Institute of Public Health (NIPH) - 2%
- London School of Economics- 1%
- National Institutes of Health - 1%
- Sanofi Pasteur Inc. - <1%
- French Institute of Research for Sustainable Development (IRD) - <1%
- Cornell University - <1%
- Harvard T. H. Chan School of Public Health - <1%
- Africa Research Excellence Fund - <1%
- EuroQol Research Foundation - <1%
- World Health Organization - <1%

Figure 8: Share of total award value by funder, 2025

ANNUAL REPORT 2025

Conducting high-quality, innovative, and purposeful research that improves human health, while building sustainable research capacity and leadership in Africa.

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