



**EDCTP**

*The power of sharing science*

# Fellows meeting 2023

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**Report**

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## About EDCTP

The European & Developing Countries Clinical Trials Partnership (EDCTP) is a public–public partnership between 15 European and 28 African countries, supported by the European Union.

EDCTP's vision is to reduce the individual, social and economic burden of poverty-related infectious diseases affecting sub-Saharan Africa.

EDCTP's mission is to accelerate the development of new or improved medicinal products for the identification, treatment and prevention of infectious diseases, including emerging and re-emerging diseases, through pre- and post-registration clinical studies, with emphasis on phase II and III clinical trials. Our approach integrates conduct of research with development of African clinical research capacity and networking.

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Photo: TRIP project staff member and clinical volunteer, Tanzania.

# Introduction

EDCTP has successfully supported equitable European-African clinical research collaborations focused on poverty-related diseases, and enhanced the capacity of countries in sub-Saharan Africa to undertake collaborative clinical research. The fellowships are part of the broader EDCTP funding strategy to support the development of African health research capacity, implemented with a long-term perspective in spirit of sustainable development goals (SDGs) and leaving no one behind. The response to the COVID-19 pandemic has brought to bear the need for increased investments in such initiatives aimed at developing local scientific leadership enriched with international cooperation.

The Eleventh EDCTP Forum in Paris, France, was preceded by two special events on Tuesday, 7 November 2023, focusing on the EDCTP fellowship programme and the epidemiology and biostatistics fellowship programme run in partnership with the Africa Centres for Disease Control and Prevention (Africa CDC).

The **Fellows Alumni Meeting** is a unification of fellows supported from the first and second programmes of EDCTP. The meeting aimed to bring together and facilitate the networking of African researchers who are in various phases of their career, to achieve unity of purpose among them, consolidate existing and develop new collaborations, and to showcase their potential, achievements and impact to the broader global community.

The **meeting of the EDCTP-Africa CDC Master's Fellows in Epidemiology & Biostatistics** brought together, for the first time, the ten consortia supported under the EDCTP-Africa CDC joint initiative to support the training of a new generation of epidemiologists and biostatisticians, to increase regional capacity for disease detection and pandemic response, within the context of Africa CDC's framework for public health workforce development.



Participants of the Fellows' Day meeting



## Fellows' Day Meeting

The 2023 Fellows' Day Meeting themed "Amplifying the Alumni Impact beyond two decades: Building Sustainable Scientific Leadership and Partnerships for Global Health Research in Africa" provided an opportunity to reflect on EDCTP's fellowship programme and the role of such programmes has played in capacity-building for clinical research in sub-Saharan Africa over the past 20 years. Presentations also covered new developments, including the introduction of a redeveloped **EDCTP Alumni Platform** and the new **African Clinical Research Fellows Funders Group**, while wide-ranging discussions touched up key issues including the importance of mentoring, gender barriers, and attracting young people into clinical research careers and collaboration with new partners to African research ecosystem such as Industry.

Opening the meeting, **Dr Michael Makanga**, Executive Director of the EDCTP2 programme, noted that capacity-building was central to EDCTP2's mission, and that investing in people was central to the capacity-building component of the programme.

Dr Makanga highlighted the fact that there had been a seven-fold increase in the number of fellows supported by EDCTP between the first EDCTP programme (EDCTP1, 2003-2015) and the second programme (EDCTP2, 2014-2024).

This expertise proved critical to the response of African countries to the COVID-19 pandemic, with current and past fellows able to adapt their research to focus on SARS-CoV-2 and its local impacts, as well as to offer expert advice to health authorities on treatment of infected patient, SARS-CoV-2 epidemiology and its control.

The EDCTP fellowship programme supports African researchers at all stages of their research career. In doing so, it helps to ensure a continuing supply of scientific talent to the African clinical trial ecosystem, and identifies and supports these scientific leaders working at all levels.

In an opening address, **Michelle Nderu**, EDCTP Project Officer based at the EDCTP Africa Office in Cape Town, South Africa, discussed the wider goals of the EDCTP Fellows Meeting, the contributions being made by EDCTP fellows, and the opportunities offered by the event.

The Fellows Meeting, she indicated, was a way to showcase the achievements of researchers funded by EDCTP and to convey a sense of the excellence of the science being carried out in sub-Saharan Africa. By bringing EDCTP supported fellows together in one location, it also offered important opportunities for networking, exchange of ideas and development of new collaborations.

Figure 1: EDCTP2 fellowship programme.







Michelle Nderu gives her opening address at the Fellows' Day meeting.

With many early-career researchers attending the EDCTP Forum in Paris, it provided a key opportunity for emerging scientists to build their professional networks and experience new areas of research, supporting their personal and professional development. The Forum's events, such as Meet the Experts and other networking opportunities, also enabled early-career researchers to gain advice on navigating research career pathways in Africa and to identify potential mentors.

**Dr Thomas Nyirenda**, EDCTP's Strategic Partnerships and Capacity Development Manager and Head of the Africa Office, based in Cape Town, South Africa, highlighted some of the core principles underlying EDCTP activities related to capacity-building and fellowship funding.

One critical element of the EDCTP approach, Dr Nyirenda suggested, was to **work in partnership** with others. EDCTP is only one part of a much wider ecosystem and its impact will be much greater if it coordinates its work and works collaboratively with other organisations with similar goals.

Dr Nyirenda highlighted three core messages central to capacity building and EDCTP's fellowship programme: adhering to good practice, being rational and being inclusive.

In terms of good practice, EDCTP has a strong commitment to equitable research partnerships. It is guided by 11 principles of North–South research partnerships laid out in 1998 by the Swiss Commission for Research Partnerships with Developing Countries (KFPE)<sup>1</sup> and by UKCDR/ESSENCE guidelines, which outline

ten ways in which funders can make research partnerships more equitable<sup>2</sup>.

These principles apply both to how EDCTP operates as an organisation and the management of the research partnerships it funds. They are founded on the need for a partnership of equals, which is dependent on principles, such as shared decision-making, building of mutual trust between partners, and open sharing of information. Partnerships must also establish agreed mechanisms for monitoring and evaluation, disseminating and applying findings, building on achievements, and strengthening capacity to address gaps.

Implementing these principles in practice, Dr Nyirenda suggested, depended on having a good understanding of the context in which they would be applied. He pointed out that Africa is home to 20% of the world's population, and accounts for 25% of the world's disease burden, but generates only 2.5% of the world's scientific outputs. For EDCTP to be effective and improve these numbers, it needs to have a deep understanding of how science operates in this difficult environment.

Dr Nyirenda also highlighted the importance of **diversity**, including its implications for the development of new medical interventions. Africa is characterised by high genetic diversity so is an ideal location for the testing of new interventions; trials in less genetically diverse populations could miss important factors relevant to an intervention's efficacy or safety.

**Inclusivity** is another core EDCTP principle. This is an area where the legacy of colonialism casts a long shadow, with countries divided into linguistic blocks according to their colonial history, which creates barriers to collaboration and effective co-working. A further potential barrier relates to perceptions of corruption, a real issue in many parts of Africa (but not Africa alone). Scientists need to ensure that these perceptions do not deter potential collaborations based on rational drivers of action, such as disease burdens and the presence of the most relevant scientific expertise.

The need to build a **critical mass** of health researchers is a key challenge for sub-Saharan Africa. Compared to high-income countries, which average 400 full-time equivalent (FTE) research staff per million population, countries in sub-Saharan Africa average around seven FTEs. Increasing these numbers will need to build on

<sup>1</sup> Swiss Commission for Research Partnerships with Developing Countries (KFPE). [A Guide for Transboundary Research Partnerships \(3rd edition – 2018\)](#). 2018. Bern, Switzerland: KFPE.

<sup>2</sup> UKCDR and ESSENCE on Health Research. [Four Approaches to Supporting Equitable Research Partnerships](#). 2022. London: UKCDR.

what already exists, emphasising the importance of research networks, including the four [Regional Networks of Excellence](#) funded by EDCTP. The [EDCTP Alumni Network](#) can also provide a foundation on which to build communities of practice.

In light of the inequities seen during the COVID-19 pandemic, in 2022 the World Health Assembly passed a resolution (WHA75.8) focusing on **strengthening of clinical trial capacity**. Delivering on this resolution, argued Dr Nyirenda, will require not just investment in physical infrastructure, but also in the development of people.

## The fellows' perspective

To illustrate some of the challenges faced by researchers from Africa and factors that can facilitate career progression, former EDCTP Senior Fellow **Professor Jean Nachege** described his career journey and the role played by his EDCTP fellowship.

Born in the Democratic Republic of the Congo (DRC), Professor Nachege's family was forced to flee the country due to political persecution, relocating to Belgium, where Professor Nachege began his medical training. Keen from the beginning to undertake health research in Africa, he studied towards a Master's degree in Public Health.

Highlighting the critical importance of mentors in his career progression, one of his professional advisers offered Professor Nachege the opportunity to run an HIV programme in South Africa, during the initial stages of antiretroviral drug rollout. His research studies were highly influential, showing that rollout of antiretroviral therapy in low-resource settings was feasible and demonstrating the importance of social support rather than direct observation of drug-taking to adherence.

Committed to research, Professor Nachege was able to obtain his PhD in Africa on the basis of his publication track record. As well as mentors, he also highlights the importance of mentees, as he developed a strong team of researchers around him to carry forward a programme of research.

His personal journey continued with an EDCTP Senior Fellowship, which supported research on

prevention of TB-IRIS, immune reconstitution inflammatory syndrome, a potentially serious side effect of antiretroviral therapy in people with TB infections, as a reinvigorated immune system responds too aggressively to TB. He then secured a fellowship at Harvard to build his skills in biostatistics.

As well as his own career, Professor Nachege has also been strongly committed to building the health research base in Africa. He led a successful proposal to the Wellcome Trust for a capacity-building grant to support the **Southern Africa Consortium for Research Excellence (SACORE)**, one of seven programmes funded through the Wellcome initiative. As well as South Africa, SACORE also included links to countries with less well-developed research bases, including Malawi, Zambia and Zimbabwe. Other important funding came through a major initiative funded by the US President's Emergency Plan for AIDS Relief (PEPFAR) and the US National Institutes of Health (NIH).

During the COVID-19 pandemic, Professor Nachege took the opportunity offered by lockdown to collate and analyse data on COVID-19 from across Africa and its interactions with locally important co-infections, such as malaria – illustrating how EDCTP fellows were able to make important contributions to understanding and responding to COVID-19 in Africa. Studies on COVID-19 in women and children were particularly influential.

Professor Nachege is also mindful of the need to strengthen research capacity in francophone countries, including the DRC. A recent funding application is focused on building capacity for research into locally important infections, including mpox, Ebola and multidrug-resistant TB.

EDCTP Senior Fellow **Professor Dorothy Yeboah-Manu**, the first female director of the Noguchi Memorial Institute for Medical Research at the University of Ghana, provided an overview of the key needs for capacity-building in sub-Saharan Africa.

Professor Yeboah-Manu emphasised the many infectious disease challenges in sub-Saharan Africa, including endemic and epidemic diseases, and the continuing need for research to address them. She also stressed that research needed to adopt a wide perspective, considering not



From left to right: Dr Jutta Reinhard-Rupp, Professor Dorothy Yeboah-Manu, Dr Thomas Nyirenda and Professor Jean Nachega.

just the technical challenges of new intervention development, but also the public acceptability of such interventions and take up by communities.

She suggested that there were multiple aspects to human capacity development, including technical training and skills development, mentoring, continuing professional development, and learning and broadening perspectives through collaborations.

Researchers in Africa face a significant challenge in the limited in-country resourcing for research. She called on researchers to make more efforts to bridge the **researcher–policymaker divide**, to convince policymakers of the relevance and applicability of research being carried out, thereby encouraging more local investment in research by demonstrating its value.

**Epidemic preparedness** remains low in most African countries. In this and other areas, interventions developed in high-income countries are not necessarily applicable in African contexts, emphasising the importance of ‘home-grown’ solutions.

Professor Yeboah-Manu also stressed the need for an **interdisciplinary approach** that encompasses the need for effective engagement with patients and communities. She highlighted the case of Buruli ulcer, a common bacterial

infection in West Africa that has been difficult to treat. Through the STOP-BU project, an effective antibiotic treatment was developed. However, uptake of this treatment was low, owing to cultural beliefs about the infection and patients’ experiences of care. Professor Yeboah-Manu put together an interdisciplinary team, including social scientists and ethnographic specialists, to develop a deeper understanding of knowledge, attitudes and practices, to inform approaches to ensure greater take up.

As well as promoting interdisciplinary team-based approaches, Professor Yeboah-Manu also argued for a prioritisation of **leadership training**, and highlighted the importance of **mentoring** and **collaboration** to build capacity. As science is often a competitive activity, this can discourage collaboration and promote silo-working, but in the long run, progress will be greater if people work together, including across country boundaries.

Professor Yeboah-Manu also highlighted the need to consider **diversity and equity**, echoing Professor Nachega’s sentiments. She concluded by suggesting that fellows needed to maintain a broad perspective and be responsive to changing environments and research needs, paying attention to wider cultural issues as well as the latest publications in the scientific literature.

Industry has a critical role to play in the development of new medical interventions, and **Dr Jutta Reinhard-Rupp**, Head of the Global Health Institute at Merck in Switzerland, provided a perspective on capacity-building and human capacity development from an industry perspective.

Dr Reinhard-Rupp explained that the Global Health Institute was a relatively small team within Merck whose mission was to leverage the organisation's capacities to advance the development of interventions for global health priorities, particularly for women and children. Because of its small size, it works in partnership with other organisations to advance new interventions and promote their implementation.

A notable example is a project to develop a **child-friendly formulation of praziquantel**, a highly effective treatment for parasitic worm infections that is widely used in chemopreventive mass administration campaigns, but is not suitable for children under five years of age. Through the **Paediatric Praziquantel Consortium**, a new formulation has been developed, **arpraziquantel**, and evaluated in clinical trials funded by EDCTP and the Japan-based Global Health Innovation Technology Fund. A follow-up implementation research project (ADOPT) in several African countries is exploring practical issues relating to the introduction of arpraziquantel once it is approved.

Dr Reinhard-Rupp identified a range of key needs for effective human capacity development, including development of **scientific leadership skills**, **mentoring** of early-career researchers, and learning through **international networks**.

To ensure sustainability, she argued for more emphasis on **South–South collaborations**, and for greater **engagement with local industry**, as R&D and manufacturing capacity in the region begins to grow.

She also suggested that it was important to adopt a rigorous approach to **impacts**. Key performance indicators (KPIs) need to be identified and monitored to ensure that programmes remain on track and deliver what they intended. Strong links between researchers and policymakers are also needed, to ensure that R&D activities feed through into changes in policy and practice.

Dr Reinhard-Rupp concluded by saying that cross-sectoral partnerships, including

industry participants, would remain critical to the development and implementation of interventions for infectious diseases. Although progress has been made in many disease areas, huge challenges remain, and are likely to be intensified by the impacts of climate change in the region.

In the following panel discussion session, Dr Raji Tajudeen from the Africa Centres for Disease Control and Prevention (Africa CDC) highlighted the importance of structured **mentorship programmes**, to provide early-career researchers with support on navigating career pathways and advancing their careers in Africa. He also stressed the importance of coordination, collaboration, communication and cooperation to advance the African health research agenda.

Dr Nyirenda raised the question of **quality assurance**. Lately, much attention has been given to research training opportunities, but assessing the quality of training, as opposed to the volume of training, is a significant challenge. It is not yet clear what indicators would be appropriate for monitoring quality.

He also suggested that some partnerships do not thrive over the long term because they lack effective **coordination mechanisms**. A coordinated approach to workforce development would be a positive move, but research careers rarely follow a predictable path, so career support schemes need to balance systematic creation of opportunities with flexibility. He suggested that there may also be a need to introduce research possibilities earlier into the training of doctors and other healthcare professionals. Above all, he argued, solutions need to be relevant to African contexts and needs.

In response to a question from the floor, the issue of **sustainability** was also raised. Funding is still overwhelmingly from high-income countries, which may have their own priorities and funding is not guaranteed to continue. Professor Nachegea noted that some African countries were beginning to increase domestic funding for research, and that international funding was often not ringfenced, but based on investigators' proposals. Professor Yeboah-Manu highlighted that, through the **Abuja Declaration**, countries had committed to increasing their expenditure on health, and advocacy was required to promote adherence to these commitments and support for health research.

## EDCTP Alumni Network

The [EDCTP Alumni Network platform](#) provides information on current and former EDCTP fellows and their research, to support networking and development of collaborations. **Adriaan Kruger** of Nuvoteq, a digital technology company based in South Africa, provided a brief introduction to the redeveloped version of the platform and its new functionalities.

The revamped virtual platform has been designed to be more intuitive to users and provides greater scope for updating of information by fellows, for example, they can add information on new grants received or articles published. It is now also easier to identify fellows based on geographic or disease area criteria.

In addition, linkages have been created with the [Clinical Trials Community \(CTC Africa\) Platform](#), which brings together information on clinical trial sites in the region. Information provided on the EDCTP Alumni Network platform can be automatically integrated to the CTC Africa platform, to avoid the need for duplicate data entry.



Adriaan Kruger presents the revamped EDCTP Alumni Network platform



## African Clinical Research Fellows Funders' Group

**Michelle Nderu** described a new EDCTP initiative, designed to create a forum through which funding bodies providing clinical fellowships in sub-Saharan Africa can meet, exchange information and develop collaborations. Launched in 2023, the African Clinical Research Fellows Funders' Group currently has around 12 members, but applications from interested fellowship funding bodies are welcomed.

EDCTP2 has included an extensive fellowship programme, having supported more than 200 fellows in 26 sub-Saharan African countries, plus a further 150 supported through the Epidemiology and Biostatisticians scheme run in

partnership with Africa CDC. Partnerships have helped to expand the reach of the programme, including specific fellowship schemes run with the Africa Research Excellence Fund (AREF, preparatory fellowships), the Special Programme for Research and Training in Tropical Diseases (TDR, pharmaceutical development technical fellowships), the Botnar Foundation and GlaxoSmithKline.

The development of the Fellows Funders Group will bring together all those with an interest in development of clinical research capacity in sub-Saharan Africa, to promote greater alignment and collaboration and maximise impact.

## Panel discussion

The fellowship meeting concluded with a panel discussion, featuring a range of speakers with an interest in human capacity-building in Africa.

**Caxton Murira**, from the [Science for Africa Foundation](#), Kenya, described how his organisation has an objective to increase investments in clinical trials in the region. This is achieved in partnership with multiple organisations, including industry partners. It hosts the [Clinical Research and Trials Community \(CRTC\)](#), which manages the Clinical Trials Capacity platform discussed above. Activities include a cross-pharma capacity development initiative, which aims to strengthen clinical trial capacity through collaborative efforts and has developed a joint framework for action.

**Dr Mahnaz Vahedi**, WHO/TDR, manages the recently launched TDR Clinical Research Leadership Programme, funded by the Bill & Melinda Gates Foundation, which builds on an earlier scheme run in partnership with EDCTP. It aims to support a cohort of 60 clinical research leaders globally, including in sub-Saharan Africa. A master's level postgraduate training programme has also been developed by TDR, focusing mainly on health system implementation projects.

**Dr Akiko Keller**, Associate Director Scientific Capabilities, Novartis, Switzerland, leads scientific capability building programmes in Novartis's Global Health Initiative. Novartis and EDCTP have partnered on a career development partnership and the company has also hosted EDCTP fellows. As well as benefiting the fellows through training and mentorship, Dr Keller suggested that Novartis also gains through these partnerships, learning from fellows about local contexts and challenges. She suggested a key question was the longer-term impacts of fellowships – whether fellowships provide experience and skills that are applicable at later stages of a career and in other contexts.

The final panel member was EDCTP's **Dr Thomas Nyirenda**. He noted that training programmes were generally designed by senior figures who had undertaken their training many years previously. He argued that it was important to listen to today's early-career researchers to identify the most relevant current challenges and to develop the most appropriate solutions.

It may be more common now to consider family issues in career decision-making, for example, whether funding restrictions, such as relating to age, may be excluding or disadvantaging certain groups.

Prompted by questions from the floor, discussions ranged over several key issues related to human capacity development:

**Mentoring:** The importance of mentoring was widely emphasised. While there is considerable enthusiasm for mentoring, there was felt to be **limited mentoring capacity** within Africa. Furthermore, those with an interest in mentoring often felt they **lacked the skills** to be effective mentors. It was suggested that mentoring was a skill that could be taught and was not solely dependent on innate abilities.

With limited mentoring capacity available, it can be difficult for early-career researchers to find a suitable mentor. An effective mentor–mentee relationship depends on trust and interpersonal chemistry, so it can be hard for young researchers to have sufficient contacts to find someone suitable. **Cross-country mentoring** is feasible, but language barriers can be an issue. As **women researchers** face gender-specific barriers, they may find women mentors particularly valuable, but may be even harder to find given the under-representation of women in science. **'Triangular mentoring'** has been attempted, with early-career researchers having a mentor from both a high-income country and sub-Saharan Africa, but was thought to be challenging to implement.

It was suggested that mentoring needed to be seen as a **long-term priority**, rather than as something addressed just within individual projects. A **mentoring platform** could be developed to support the development of mentors' mentoring skills, to increase the number of mentors available, to ensure mentors are equipped to mentor effectively, and to catalyse the creation of new mentor–mentee relationships. It was noted that mentees could over time become mentors, learning from their mentoring experience, and thereby increase the pool of mentors.

**Gender barriers:** A recurring theme of discussions was the need to consider **gender-related barriers**, given the under-representation of women in the scientific workforce.

It was suggested that **consultation with women** was needed to identify the factors that discourage or encourage them to pursue careers in research. Household and family priorities are powerful determinants of decision-making, and funders need to be aware of barriers that might dissuade women from applying for or taking up research positions and to ensure their funding policies are sufficiently flexible to accommodate women's preferences.

It was suggested that funders also need to consider factors, such as age criteria for particular schemes, as training periods are likely to be longer for those who take career breaks.

As well as funders, research institutions were also felt to have a critical role to play in establishing family-friendly environments that enable women and families to combine child-rearing and learning and research activities. Examples were provided of research institutions that consulted women and had taken steps in response, for example, by providing space for breastfeeding and childcare on campus.

**Early exposure to research:** The importance of attracting young people into scientific careers was highlighted. It was suggested that the possibility of research should be introduced into education as early as possible, and currently often comes too late in most medical curricula.

One option for early exposure is via **laboratory placements** for students. One specific response suggested was for EDCTP to provide funding to fellows to enable them to offer training grants and internships in laboratories to provide a taste of research.

It was also suggested that **sensitisation to research careers** should begin even earlier, for example, through engagement with schools.

**Domestic funding:** Lack of domestic funding for research was raised as an obstacle to capacity-building. Lack of funding at particular stages of a research career can make it difficult for early-career researchers to continue in research. The majority of research positions are contract dependent, with limited or no sustainability of posts. Some research schemes can be heavily over-subscribed, limiting opportunities for progression.

It was suggested that bodies, such as Africa CDC and the African Union, could **advocate** for increased investment by countries in health and in health research. The Abuja Declaration could be leveraged, stressing governments' accountability for honouring the investment pledges made.

From left to right: Dr Thomas Nyirenda, Dr Akiko Keller, Dr Mahnaz Vahedi and Caxton Murira



Participants of the meeting of the EDCTP-Africa CDC Master's Fellows in Epidemiology & Biostatistics





CTP Forum  
Forum for Global Health Research Innovation and Impact in Africa  
November 2023 | Harare, Zimbabwe  
Organized by CTP, ZVW, SIDA and partners



## EDCTP–Africa CDC Master’s Fellows in Epidemiology and Biostatistics Meeting

In 2020, EDCTP and Africa CDC jointly organised an initiative to support consortia providing master’s-level training in epidemiology and biostatistics. Ten grants have been funded, mostly in sub-Saharan Africa. The 2023 meeting of the EDCTP-Africa CDC Master’s Fellows in Epidemiology and Biostatistics provided the opportunity to review progress to date and to identify lessons learned in order to inform future activities.

Speaking on behalf of Dr Jean Kaseya, Director-General of the Africa CDC, **Dr Raji Tajudeen** congratulated EDCTP on its 20th anniversary and noted that Africa CDC was proud of the partnership established with EDCTP to support the epidemiology and biostatistics master’s programmes. Dr Tajudeen was particularly pleased to see the representation of English-, French-speaking and Portuguese-speaking countries among the funded consortia.

For Africa CDC, the initiative sits within the context of the [New Public Health Order for Africa](#), a framework for action launched in 2021 to ensure Africa’s health security. This framework was driven largely by the experience of the COVID-19 pandemic, when the region initially had limited access to medical countermeasures. The New Public Health Order seeks to develop the region’s capabilities in order to achieve self-reliance in health protection and ensure the region’s health security.

**Workforce development** is a critical aspect of this new framework, and one of its five strategic pillars. It also underpins other strategic pillars, such as strengthening of public health institutions, which is not possible without skilled and motivated individuals. More broadly, these activities will make a key contribution to achieving the development goals set out in the [African Union’s Agenda 2063: The Africa We Want](#).

Speaking on behalf of EDCTP, **Dr Thomas Nyirenda**, EDCTP’s Strategic Partnerships and Capacity Development Manager and Head of the Africa Office, described the history of the scheme and the rationale for its launch.

Launched in April 2020 with a relatively modest €5 million budget, sufficient to support [10 master’s programmes](#), the scheme was designed to address the disconnect between clinical research and national disease control programmes. Too often, Dr Nyirenda suggested, these two areas operate independently, so clinical research is insufficiently driven by national needs and disease control programmes do not make sufficient use of research evidence. By building the capacity of programme staff, the initiative will ensure that research is better integrated into programmatic activities.



The initiative has supported 10 consortia, which have collectively recruited 151 fellows, 63 of them female and 88 of them male. The programmes are:



**CDAE**, led by the African Population Health Research Center, Kenya, with partners from Kenya and Sweden, and fellows from Kenya, Malawi, Somalia, Tanzania, Uganda and Zambia



**ENTRANT**, led by the London School of Hygiene and Tropical Medicine, UK, with partners and fellows from Botswana, Ethiopia, Kenya, Tanzania, Uganda and Zambia



**IDEA**, led by Busitema University, Uganda, with partners from Uganda and fellows from Uganda



**FETP-CV**, led by Universidade Nova de Lisboa, Portugal, with partners from Angola, Cabo Verde, Denmark, Guinea-Bissau and Mozambique



**MPHEBDOER**, led by the University of Ibadan, Nigeria, with partners from Nigeria and the UK, and fellows from The Gambia, Nigeria and Sierra Leone



**MSC EpiBiostat**, led by Kinshasa School of Public Health, DRC, with partners from the DRC and fellows from the DRC



**PREP-EPID**, led by l'Institut Africain de Santé Publique, Burkina Faso, with partners from Guinea Conakry and Burkina Faso, and fellows from Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Côte d'Ivoire, Guinea, Madagascar, Mali and Togo



**SCEPRESSA**, led by Jomo Kenyatta University of Agriculture and Technology, Kenya, with partners from Malawi, and fellows from Kenya, Malawi, Namibia, Rwanda, South Sudan, Tanzania and Uganda



**TEBWA**, led by the University of Abomey-Calavi, Benin, with partners from Benin and the UK, and fellows from Benin, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria and Togo



**TEDOER**, led by the University of Ghana, Ghana, with partners from Germany and fellows from the DRC, Ghana, The Gambia, Liberia, Sierra Leone and Zambia.

Completing the introductory talks, **Dr Raji Tajudeen**, Head of the Division of Public Health Institutes and Research at Africa CDC, described how the programme fitted in with the broader Africa CDC strategy.

Africa CDC was launched in 2017 by the African Union, but is now an autonomous entity with a mandate to support member states in protecting the health of their populations. Its organisational centre in Addis Ababa, Ethiopia, is complemented by five regional coordinating centres and national public health institutes within member states. A total of 22 countries have existing national public health institutes, 18 are in the process of creating one, and discussions are being held with a further 15 countries.

In 2018, Africa CDC established a [Framework for Public Health Workforce Development](#), which is integrated within the New Public Health Order strategy. A **health workforce task team** has been established to deliver the health workforce strategy.

Pandemic preparedness, prevention and response are important functions of national public health systems. An [African Epidemic Service](#) has been launched, comprising an elite workforce supporting member states. It consists of three tracks – epidemiology, laboratory leadership and public health informatics. Through the epidemiology track, a two-year applied epidemiology training programme is organised to build capacity in epidemic prevention and response.

Africa CDC is also focusing attention on **community health workers**, who play a key public health role in many African countries, often on a voluntary basis. The goal is to ensure there are sufficient numbers of community health workers to meet public health needs, to ensure their integration within national public health systems, and to promote their sustainable financing.

Other related activities include a public health fellowship and leadership programme. Organised in partnership with the Kofi Annan Foundation, the [Kofi Annan Global Health Leadership Programme](#) was launched in 2020 to develop the leadership skills of senior public health professionals from Africa.

Development of manufacturing capacity is a priority for the region, with the [Partnership for](#)

[African Vaccine Manufacturing \(PAVM\)](#) having set ambitious targets for building regional vaccine manufacturing capacity. These kinds of initiatives also depend on the existence of a skilled workforce.

**Global connectivity** is a further priority for Africa CDC, illustrated by the recent signing of an agreement with the USA on a Joint Action Plan to strengthen public health systems. Over the past year a series of global burden of disease workshops have been held in partnership with the Institute for Health Metrics and Evaluation to support training of ministry of health and other public health staff on data science and evidence-based decision-making.

Africa CDC has also established a new network to strengthen national public health institutes. Further details of Africa CDC's future plans can be found in its recently published [Strategic Plan for 2023–2027](#).

## Panel discussion

To explore some of the key issues facing the field, particularly with regard to national public health institutes, representatives from the ten consortia held a panel discussion. Participants included **Professor Romain Lucas Glele Kakai** (Benin), **Dr Seni Kouanda** (Burkina Faso), **Dr Manshida Kulimba** (DRC), **Dr Patrick Owili** (Kenya) and **Dr Harriet Bonful** (Ghana).

One key question addressed was that of **retention** – how to ensure that fellows continue to work in the region when they have completed their training.

One important factor was that the initiative was demonstrating that **high-quality training** could be carried out in Africa and did not require a move abroad. It was also acknowledged that alumni of the programme would not necessarily work for a ministry of health throughout their career – fellows have their own career aspirations. However, even if they continue to work within the field for other stakeholder organisations, this would still benefit the region.

**Selection of fellows** has been important, with programmes often working closely with local ministries of health. Fellows typically need the support of their employers in order to participate in a programme, and in some cases have to make an undertaking to continue working for

their existing employer for a set period after they graduate. In some cases, as in the DRC, increasing political devolution has created some challenges, requiring extensive dialogue between national and state stakeholders.

In Ghana, attempts are being made to establish criteria for career progression, through an epidemiologist career level system. This is based on levels, such as 'frontline' for local staff, 'intermediate' for those working at the regional level, and 'advanced' for those at the national level. One challenge is that epidemiologists may come from a range of backgrounds, so have differing salaries initially. In addition, career hierarchy systems for epidemiologists need to be consistent with wider categories within the health system.

## Lessons learned and recommendations

A second panel discussion with representatives from the consortia sought to identify key lessons learned during the first year of the initiative, to inform future actions. Panel members included **Dr Maxwell Otim Onapa** (Uganda), **Professor Mohsin Sidat** (Mozambique), **Professor Kamija Phiri** (Malawi) and **Professor Olufunmilayo Fawole** (Nigeria).

**Women:** A key theme from discussions was the challenges experienced in recruiting female fellows. In large part, this reflects the under-representation of women in the scientific workforce in Africa. The consortia made special efforts to ensure good representation of women, for example, by explicitly encouraging applications from women in advertisements and by including gender-related considerations in formal programme governance documents and policies.

In addition, the consortia have attempted to provide support to women during their participation in the programme. Many fellows are at a stage in their lives when they have young families or are thinking about starting a family – there were fellows who became pregnant while completing the programme. The consortia have been supportive and flexible so that female fellows can continue to participate, allowing maternity breaks, providing catch-up activities, providing more time to complete the programme, and being especially sensitive to their situation. For example, one programme

arranged for a field position close to the fellow's home so she could easily commute each day.

In future, it was suggested that female fellows who have completed the programme could be effective **advocates** and encourage other women to apply.

**Diversity/inclusivity:** Several programmes have recruited from multiple countries and have been mindful of the need to ensure **diverse representation** on their courses. One of the biggest challenges related to language barriers, particularly for English-language programmes recruiting students whose first language is not English. The need to provide tailored support for was recognised so that they are not disadvantaged. This illustrates a more general principle of offering individualised support according to need, rather than attempting to build a 'conveyor belt' of new fellows.

**Mentorship:** Mentorship was felt to be an important component of the programmes. The programmes have adopted different approaches to mentorship. One programme allocated a mentor to each fellow, established terms of reference for the role, and provided training to mentors; another person acted as a field supervisor providing technical support and training. Other programmes combined the roles of supervisor and mentor, ensuring that key aspects of mentoring, such as advice on careers, grant-writing and support for networking, were covered. Female mentors are crucial – women can relate to women.

One possible future action could be to document mentoring practices across the programmes in order to develop a **mentoring framework** capturing good practice, allowing for cross-fertilisation across programmes.

**Integration with public health systems:** Several programmes were developed in partnership with ministries of health and/or national public health institutes. In some cases, existing field epidemiology training programmes were integrated within the programme. Participation in the programmes has been dependent on approvals from host institutions, again ensuring that programme activities reflect programmatic needs in countries.

One challenge has been the **intensity of courses**. This has been particularly true of part-time courses, where fellows also continue with their

day jobs. On the other hand, full-time release of fellows has sometimes created challenges for employers.

The importance of having the support of **senior leaders**, on the academic and programmatic side, was emphasised. One consortium encountered difficulties following a change of senior leadership at the university, leading to some questioning of commitment to the programme, although this was resolved through dialogue without adversely affecting the programme.

It was also suggested that the consortia should **engage more widely than just with ministries of health and/or national public health institutes**. Epidemic prevention and control are relevant to multiple other departments, including ministries of finance, and efforts should be made to engage with additional policymakers and to secure their support.

### The fellows' perspective

The meeting concluded with presentations from two fellows (Sarah Nyangu, Zambia, and Christopher Baleke, Uganda) and a discussion on their experiences. The fellows both spoke positively about their fellowship, highlighting factors, such as the rigour of the teaching, the benefits of meeting fellow students from a wide range of backgrounds, and the diversity of

academic and other staff they had contact with.

The fellows pointed to the flexibility and responsiveness of the programme organisers, particularly those who had become pregnant during the programme. It was felt that programmes saw them as individuals, or “whole people”, providing personal and pastoral support as well as expert tuition.

Several fellows mentioned that, on return to their home institutions, they had taken on additional responsibilities or became more involved in research activities, in some cases leading on certain aspects of data analysis within research projects. Some discussed their desire to continue research training and to enrol in PhD studies.

The advantages of having a cohort of peers was also noted, and establishing an **alumni network** for epidemiology and biostatistics fellows could be a further future action. The epidemiology and biostatistics fellows are also part of the greater EDCTP Alumni Network and can take advantage of its platform to strengthen collaborations. Fellows mentioned the possibility of using connections to underpin **multisite and multicountry collaborations**. It was suggested that a next step could be the provision of **funding** to allow fellows to plan and undertake their own mini-research projects on their return to their home institutions.

Sarah Nyangu shares her experiences as a fellow.





## Annex 1: Fellows' Day agenda

Session 1: Michelle Nderu		
10:00 – 10:05	Welcome Address	Michelle Nderu
10:05 – 10:20	Partnering for Innovation in Global Health Research in Africa: A Future Outlook	Thomas Nyirenda
10:20 – 10:30	Partnering for Progress: The Journey to Building Sustainable and Impactful Research Partnerships in Africa	Jean Nachega
10:30 – 10:40	Human Capacity Development For Current And Future Global Health Threats	Dorothy Yeboah-Manu
10:40 – 10:50	The Role of Cross-Sector Collaborations in Driving Global Health Research Innovation and Impact in Africa: An Industry Perspective	Jutta Reinhard-Rupp
10:50 – 11:00	Q&A session to all presenters	Michelle Nderu (moderator)
Session 2: Pauline Beattie		
11:00 – 11:25	EDCTP Alumni Platform v3.0 and other online global health online tools	Adriaan Kruger
11:20-11:35	Presentation on the African Clinical Research Fellows Funders Group: Funders Group Objective and Future Outlook	Michelle Nderu
11:35 – 11:55	Shape the ACRFG Agenda: Suggestions, recommendations, and Feedback from Fellows: <ul style="list-style-type: none"> <li>• Mahnaz Vahedi (TDR)</li> <li>• Tom Nyirenda (EDCTP)</li> <li>• Caxton Murira (Science from Africa)</li> </ul>	Pauline Beattie (moderator)
11:55 – 12:00	Closing remarks and call to action for alumni engagement in global health research through partnerships.	Thomas Nyirenda



## Annex 2: EDCTP-Africa CDC Master's Fellows in Epidemiology & Biostatistics meeting agenda

13:00 – 13:05	Welcome Address	Raji Tajudeen
13:05 – 13:20	Africa CDC Health Workforce strategy – Progress and Achievements	Raji Tajudeen
	EDCTP-Africa CDC Master's Fellowships in Epidemiology and Biostatistics: Overview of grants	Thomas Nyirenda
13:20 – 13:50	Panel discussion 1: Strategies for engagement with National Public Health Institutes and retention of trained epidemiologists	Moderators: Nuraan Fakier, Tiruneh Baye
	<ul style="list-style-type: none"> <li>• Romain Lucas Glele Kakai (TEBWA)</li> <li>• Seni Kouanda (PREP-EPID)</li> <li>• Manshinda Kulimba (MSc EpiBiostat)</li> <li>• Patrick Owili (CDAE)</li> <li>• Harriet Bonful (TEDOER)</li> </ul>	
13:50 – 14:00	Q&A session	
14:00 – 14:30	Panel discussion 2: Lessons learnt and recommendations for running effective MSc multi-country training programmes	Moderators: Andiswa Zitho
	<ul style="list-style-type: none"> <li>• Maxwell Otim Onapa (IDEA Fellowship)</li> <li>• Mohsin Sidat (FETP-CV)</li> <li>• Kamija Phiri (SCEPRESSA)</li> <li>• Olufunmilayo Fawole (MPHEBDOER)</li> </ul>	
14:30 - 14:40	Q&A session	
14:40 – 14:50	Two Fellows' experiences and perspectives on path from training to future science leadership	Moderator: Michelle Nderu
	<ul style="list-style-type: none"> <li>• Sarah Nyangu and Christopher Baleke (ENTRANT)</li> </ul>	
14:50 – 14:55	Q&A session	
14:55 – 15:00	Closing remarks	Pauline Beattie

## **European & Developing Countries Clinical Trials Partnership**

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