

The DELTAS Africa Learning Research Programme



DELTA Africa and the role of the Learning Research Programme

DELTA Africa was launched in 2015 with the aim of substantially expanding excellent science research and leadership across Africa. During the initiative's first five-year phase, approximately US\$100 million was allocated to supporting 11 research consortia, each with its own distinct focus in addressing the research needs and priorities of Africa's health sector.

DELTA Africa aimed not only to conduct and disseminate excellent research, but also to invest in research infrastructure, understand existing research systems and research cultures in Africa, and foster practices that optimise effective research management.

In the early planning phase, DELTA Africa's central administrators (originally the African Academy of Sciences and now the Science for Africa Foundation) and its two key funders (Wellcome and the UK's Foreign, Commonwealth and Development Office) met with the Liverpool School of Tropical Medicine's Centre for Capacity Research (CCR).

With over a decade of experience, and an exceptional track record in supporting capacity strengthening initiatives across international research consortia, CCR agreed to run a Learning Research Programme within the DELTA Africa initiative.

By working within and alongside the DELTA Africa consortia, the Learning Research Programme aimed to investigate the micro- to macro-level factors that drive research consortia to:

- Help or hinder the development of world-class researchers.
- Enhance or inhibit career progression and collaborations.
- Advance or block research dissemination and uptake.

Besides enabling consortia members to learn from each other's experiences in real time, the Programme made its findings widely available within and beyond the academic sector.

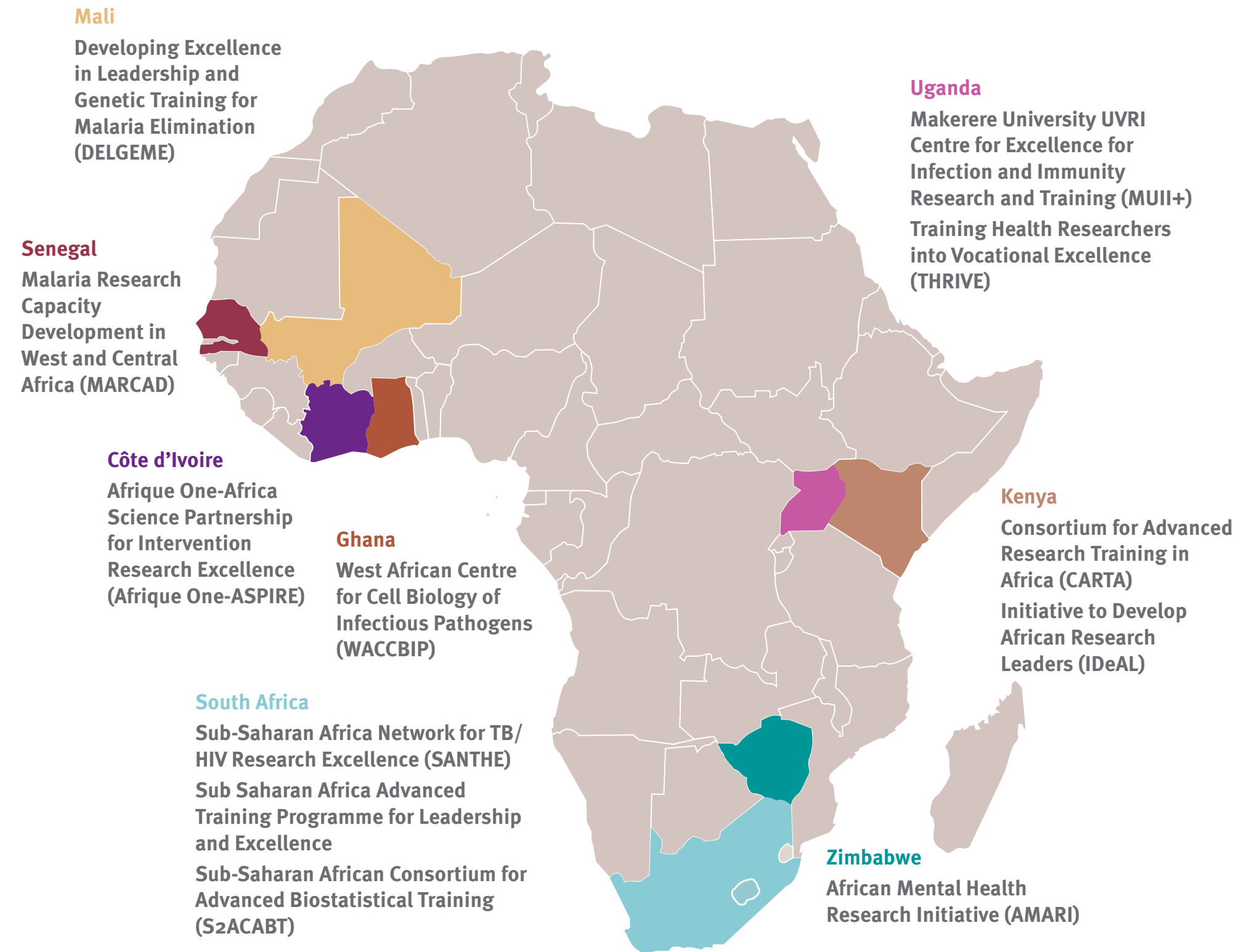
In this brief overview, we highlight some of the Programme's key insights and achievements. We encourage anyone involved in research capacity strengthening initiatives to consider employing embedded learning approaches in some form.

Our Centre welcomes every opportunity to learn from research, using this to strengthen research programmes and to contribute to the evidence base on research capacity strengthening so that future programmes benefit from everything we learn.

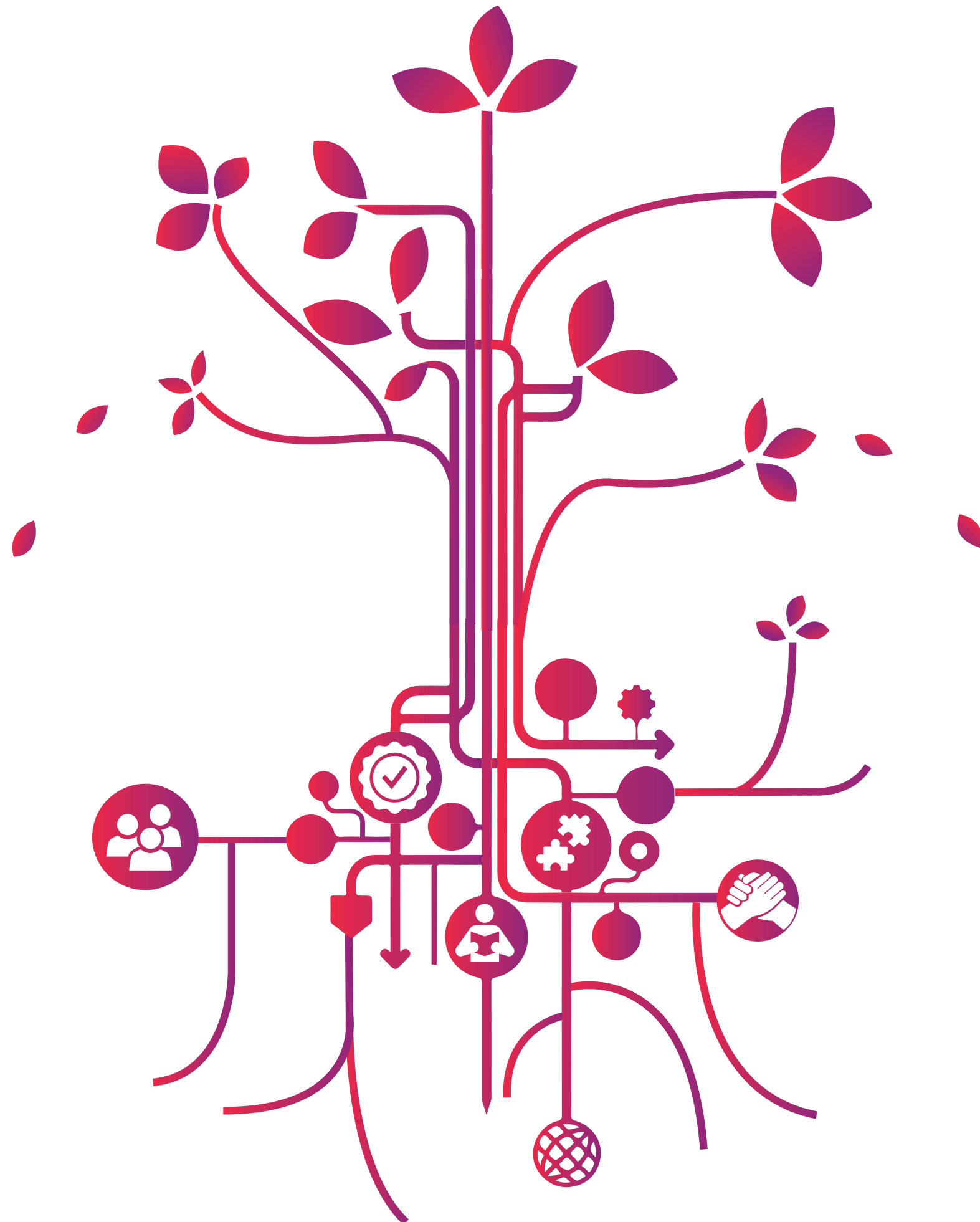
– Imelda Bates, Head of the Centre for Capacity Research



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Centre for Capacity Research (CCR)



▲ The headquarters of DELTA Africa's 11 consortia



Ensuring that research informs practice and practice informs research

The formation of research consortia is an increasingly common strategy for strengthening research capacity in low- and middle-income countries. Yet very little evidence exists to inform consortia members, their host institutions or their funders about how consortia can be organised to optimise the achievement of their aims. The DELTAS Africa Learning Research Programme set out to start filling this evidence gap by building on the work of the Centre for Capacity Research.

For over a decade, CCR has been producing evidence about how to improve the efficiency, effectiveness and inclusiveness of organisations' research systems.

Working in multidisciplinary teams, CCR researchers support international research consortia and programmes to strengthen researcher capacities while also building a base of knowledge and expertise about how this can be done.

For the DELTAS Africa Learning Research Programme, three PhD candidates and a post-doctoral research assistant were recruited. The PhD candidates were based at different African research institutions and the post-doctoral team in Liverpool; all had access to support from CCR.

With the DELTAS Africa leadership team, they selected four thematic focus areas:

- Equitable career pathways for researchers.
- Effective knowledge translation.
- Improving research consortium management.
- Improved access to skills training for researchers – linked not only to disciplinary specialisations but to the full range of skills that help researchers improve their capacities and their career prospects.

While the 54 institutions within DELTAS Africa implemented their research projects, data was collected from across selected consortia on all four themes.

The evidence and analysis that emerged was made available to all the DELTAS Africa programmes; that is, whenever good practices and clear evidence of effective strategies were identified, these were immediately shared across all 11 consortia via personal communications, quarterly updates and participation in consortia decision-making meetings. Consortia members were then able to adapt and adjust their projects and practices as appropriate.

At the same time, these lessons and ideas were communicated to the wider research sector and beyond via peer-reviewed journals, seminars and conferences, reports and a Good Practice Document for funders, as well as on Twitter and YouTube.

Capacity strengthening is ineffective if targeted at just one level; for research systems and cultures to flourish, capacity strengthening has to extend beyond individuals into organisations and across national and international structures.

Independent insiders with international back-up

Drawing out the views of a diverse array of participants across the DELTAS Africa consortia, the Learning Research Programme team systematically gathered data about the extent to which individual and institutional consortium members experienced research strengthening measures.

Importantly, members of the Learning Research Programme's team were attached to institutions that were independent of the selected consortia. Of course, the team members were sympathetic and supportive towards DELTAS Africa's objectives. However, it was made clear to everyone that the team were not accountable for, or in any way impacted by, consortia performance; nor were consortia in any way accountable to the team.

In each of the four thematic areas, research participants were selected in consultation with programme managers from each consortium and in each member institution. The research teams ensured that study participants were located across East, West and Central and Southern Africa, and, to provide a range of perspectives, individuals from different disciplines, institutional and programme roles, and career stages were included.

Participants in all four studies were made aware of the Learning Research Programme's role in DELTAS Africa. This probably afforded the research team a degree of 'insider' status – a role further reinforced by the fact that all interviews were conducted by PhD students of African descent with actual experience of attending and working in, or with, higher education institutions in Africa. Ethics approval for the study was conditional on participant confidentiality being maintained, and data records were protected.

On knowledge exchange

We found that many researchers (irrespective of discipline and career stage) avoid knowledge translation activities, not only because of their own capacity constraints but also because of institutional and systemic barriers. We were able to categorise these barriers and identify catalysts and strategies that research teams can use to improve knowledge translation capacities. These are being widely shared and used to inform future research.

– Violet Murunga, PhD fellow, knowledge translation

On improving consortia management

By working together, we were able to identify staffing structures and governance models, as well as effective communication practices that were strong enough to address and help mitigate the complex discordances that often occur between research consortia and their member institutions. Our primary recommendation is that detailed and convincing plans for optimising the funding, leadership, interaction and interface dimensions of consortia management must be seen as central to any programme proposal, and performance across each of these dimensions must be monitored over the consortium's life cycle.

– Nadia Tagoe, PhD fellow, consortium management

On enhancing gender equity

In-depth interviews with trainees, research fellows, consortia directors and research co-investigators within the DELTAS Africa consortia helped us develop insights into existing individual and institutional factors, actions and policies that aim to enhance gender-equitable career progression. We then documented participants' lived experiences and were able to use our observations and analysis to provide evidence-based recommendations for enabling positive change at the individual, institutional and systemic levels.

– Millicent Liani, PhD fellow, equitable career pathing



▲ Violet Murunga, Nadia Tagoe and Millicent Liani conducted their PhD research within the DELTAS Africa Learning Research Programme

Key findings and recommendations

Listed here are some important contributions to the evidence base on research capacity strengthening that emerged from the DELTAS Africa Learning Research Programme. Additional and complementary resources are available online, and new materials are constantly being added – please check our website for updates.

Journal articles

Aiyenigba A, Abomo P, Wiltgen-Georgi N, Bates I and Pulford J (2022) Enabling research capacity strengthening within a consortium context: A qualitative study. *BMJ Global Health* 7: e008763.

Liani M, Nyamongo IK, Pulford J and Tolhurst R (2021a) An intersectional gender analysis of familial and socio-cultural drivers of inequitable scientific career progression of researchers in sub-Saharan Africa. *Global Health Research and Policy* 6, 30.

Liani M, Nyamongo IK, Pulford J and Tolhurst R (2021b) Enablers of gender equitable scientific career progression in sub-Saharan Africa: Insights from the DELTAS Africa Initiative. *AAS Open Research* 4: 42.

Liani M, Nyamongo IK, Pulford J and Tolhurst R (2021c) Institutional-level drivers of gender-inequitable scientific career progression in sub-Saharan Africa. *Health Research Policy and Systems* 19, 1: 117.

Liani M, Nyamongo IK and Tolhurst R (2020) Towards an integrated conceptual framework for understanding intersecting gender inequities in academic scientific research career progression in higher education institutions in sub-Saharan Africa. *International Journal of Gender Science and Technology* 12, 2: 262–288.

Murunga V, Oronje RN, Bates I, Tagoe N and Pulford J (2020) Review of published evidence on knowledge translation capacity, practice and support among researchers and research institutions in low- and middle-income countries. *Health Research Policy and Systems* 18: e16.

Pulford J, El Hajj T, Tancred T, Ding Y, Crossman S, Silvester L, Savio M, Bevan N, Tagoe N and Bates I (2023) How international research consortia can strengthen organisations' research systems and promote a conducive environment and culture. *BMJ Global Health* 8: e011419.

Tagoe N, Molyneux S, Pulford J and Kinyanjui S (2022) Consortia management structures, processes and approaches: The DELTAS Africa example [version 1; peer review: 1 approved]. *Wellcome Open Research* 7: 139.


Tagoe N, Molyneux S, Pulford J, Murunga V and Kinyanjui S (2019) Managing health research capacity strengthening consortia: A systematized review of the published literature. *BMJ Global Health* 4: e001318.

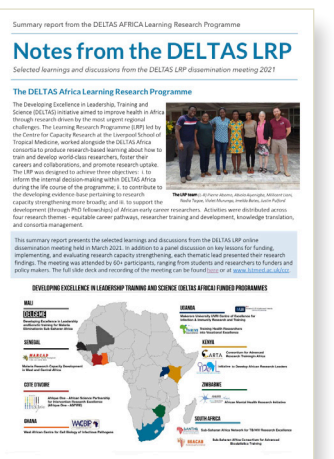
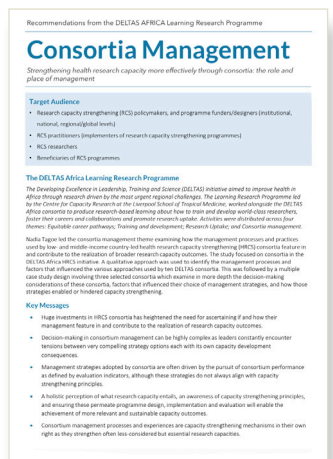
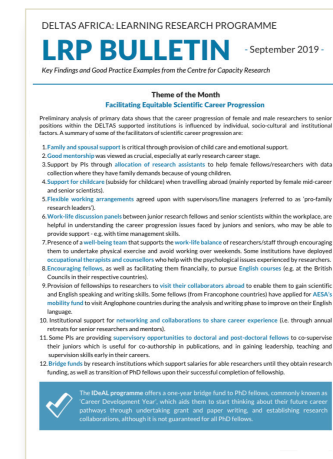
Tagoe N, Pulford J, Kinyanjui S and Molyneux S (2022) A framework for managing health research capacity strengthening consortia: Addressing tensions and enhancing capacity outcomes. *BMJ Global Health* 7: e009472.

Yarmoshuk AN, Abomo P, Fitzgerald N, Cole DC, Fontanet A, Zarowsky C and Pulford J (2021) A mapping of health professional and post-graduate health programs in the WHO African Region [version 1; peer review: 1 approved]. *AAS Open Research* 4:55

Wider outreach

ESSENCE on Health Research and CCR (2023) *Effective Research Capacity Strengthening: A Quick Guide for Funders*. Available online.

CCR (2021) *DELTAS Africa Learning Research Programme Dissemination Meeting*. Online seminar, 9 March. Available on YouTube .



Insights and impacts

The Learning Research Programme really added value to the DELTAS Africa initiative. We were able to use the findings to improve our capacity strengthening practices and we continue to draw on these findings as we move into phase two of DELTAS Africa.

– Tom Kariuki, Chief Executive Officer, Science for Africa Foundation

The Learning Research Programme's Quarterly Reports offered multiscale knowledge tracking and mutual learning for the Afrique One research capacity strengthening programme. They were a valuable resource for knowledge production and sharing in an area where there is not a lot of published evidence.

– Bassirou Bonfoh, Director, Afrique One-ASPIRE

I particularly valued being part of the Learning Research Programme because my research generated real-time knowledge that was constantly fed into the DELTAS Africa Initiative to improve its outcomes. The programme demonstrated a unique approach to enhancing capacity strengthening for individuals, institutions and networks at the same time, thus benefitting PhD fellows, researchers, host institutions, consortia and an entire continent-wide initiative.

– Nadia Tagoe, former IDeAL PhD fellow and LRP team member

I read many of the bulletins and publications produced by the DELTAS Africa Learning Research Programme. The reported findings were often useful within the context of our own international research capacity strengthening programmes in non-health areas.

– Natasha Bevan, Head of International Grants, The Royal Society



Finding and sharing solutions

Placing themselves at the interface between programme and consortia management, the Centre for Capacity Research's multidisciplinary team generate reliable data and analysis from ongoing capacity strengthening initiatives. These form the basis for clear recommendations to consortium leaders, members, funders and programme managers, about practical actions that enhance research environments, systems and cultures.

While working within research programmes, the team collects qualitative and quantitative information on research systems across the consortia they work with. They then synthesise the evidence and present it back to consortia members through presentations and seminars at annual meetings, and in reports and publications.

In principle, every research capacity strengthening programme offers opportunities to learn and assemble more robust evidence about what does or does not work and why. This can, in turn, inform how funders envisage their programme goals and help the research community to target their responses more proactively.



For more information about the DELTAS Africa Learning Research Programme, or to discuss how we can support your research capacity strengthening initiatives, please contact:

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