

The UK-PHRST and Partners Learning Review

Post Review Reflections & Actions Cape Town 2022

Editors

Maryirene Ibeto and Femi Nzegwu June 2023









Organisations that encourage the wheel of learning, which relish curiosity, questions and ideas, which allow for space for experiments and reflection, which forgive mistakes and promote self-confidence, these are learning organisations and theirs is a competitive advantage which no-one can steal from them.

Charles Handy, 2007

Foreword



Dr Edmund NewmanDirector, UK Public Health
Rapid Support Team

This publication is a reflective piece which follows up on and summarises the Cape Town Learning review that the UK-PHRST and Partners held in September 2022. The publication pays testimony to the enthusiasm and commitment of our partnerships to continue to learn from each other about what has been successful, but importantly what has been challenging in our work with partners over the review period. The report also helps to document how far we travelled and evolved our partnerships over the 18-month period under review.

At UK-PHRST we aim to embed equitable partnerships across the three pillars of our triple mandate (Outbreak Response, Capacity Strengthening and Operational Research) as we believe that only by being partner-led can we ensure the support we provide across our mandate is truly relevant, sustainable, and impactful.

In the spirit of being a team and collection of partnerships that is continuously seeking to learn, we believe that it is in the interest of ourselves, our partners, and our funders that the learning and knowledge from our work over the past eighteen months is shared and embedded. By giving a voice to our staff and partners to capture and share some of the lessons we identified, and by being candid about the difficulties we encountered - as well as highlighting the successes - we can continue to learn from those lessons and grow stronger in our collaboration and in the activities we jointly undertake.

A huge thanks are due to not only those on my own team who made the meeting and this subsequent follow-up possible but also the representatives from our partners, that attended and engaged so willingly in the learning review – without who's opinions and inputs this report would not be as rich a source of information and reflection.

I hope this report inspires a wider audience to see the added value in taking time to reflect on what has been successful and challenging, and how to improve your work and also those of others. I hope that you will find the publication an informative and enjoyable read. Please do share it widely with any colleagues you think would find it of interest.

Learning is not attained by chance, it must be sought for with ardour and attended to with diligence.

Abigail Adams, 1780

Acknowledgements

We wish to express our thanks to the UK-PHRST and Partners for making the Cape Town Learning Review such a rich learning experience. In particular we wish to thank the UK-PHRST senior management team for their demonstrated commitment to learning, the honorable Minister of Health and Wellness, Dr Nomafrench Mbombo for so gracefully opening the event, and everyone who participated in making this learning review such a success. In addition, we are grateful for the efficiency of the organising team (Kate Jones, William Nicolas and Lauren Tetteh) who worked behind the scenes to ensure a fruitful experience for all in attendance.

Contributors to this publication

Mr Thom Banks
Dr Radjabu Bigirimana
Prof. Miles Carroll
Dr Flora Fabian
Ms Annie-May Gibb
Mr Nkwan Jacob Gobte
Dr Farhana Haque
Mr Emilio Hornsey

Prof. Gwenda Hughes
Dr Maryirene Ibeto
Ms Susan Ismaeel
Dr Albert Luswata
Dr Femi Nzegwu
Dr Chinwe Lucia Ochu
Dr Abdul Karim Sesay
Dr Issiaka Soulama

Department of Health and Social Care Disclaimer

The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care. The UK Public Health Rapid Support Team, funded by UK aid from the Department of Health and Social Care, is a partnership between the UK Health Security Agency and the London School of Hygiene & Tropical Medicine.



Contents

3	Foreword				
4	Acknowledgments				
8	Introduction				
11	The Cape Town Learning Review: An overview				
Post Le	arning Review Reflections				
17	Lessons learnt or lessons identified Reviewing UK-PHRST's learning record	47	Building blocks in gender responsiveness Disease outbreak work		
23	Establishment of a continental lead African Rapid Response Team for public health emergencies	52	Engaging family caregivers Infection Prevention and Control (IPC) in Banso Baptist Hospital, Cameroon		
31	How sustainable is strengthening capacity? Helping to advance learning and practice in the framework of UK-PHRST	56	Application of genomics in epidemic preparedness and response research Learning from the past to create a better future		
35	Enhancing uptake and sustainability International efforts in national epidemic responsethrough inclusive post-deployment engagement	62	Programme management in an evolving outbreak context		
42	Gender mainstreaming in public health practices Long-term sustainable development Lessons from the TESCEA project	66	Inequitable Partnerships in Health Research A call for action		
Appendix					
73	Appendix 1	82	Appendix 3		
76	Appendix 2	91	Appendix 4		

Learning is not compulsory... neither is survival.

William Edwards Deming (1900 – 1993)

Introduction

Learning is not a foregone conclusion. The question is not whether learning is being identified in the course of delivering our work, but rather whether learning is being implemented.

There are key questions that any project, and certainly one as important and potentially impactful as the UK-PHRST, should be asking itself. Are we identifying our learning – collectively as a project, at the team level and individually? How are we identifying our learning – through what mechanism or mechanisms? Are we keeping pace with our learning – are we learning fast enough? Are we able to adapt quickly enough to shape and impact our future work in meaningful ways?

"Performance and learning are not sequential or overlapping, but learning is a by-product of performance". ¹ If this is so, then the task becomes embedding learning in our psyche and intentionally identifying and drawing on that learning in real-time. The impetus for making this happen comes from not only senior management encouraging and cultivating a culture of learning, but from everyone embracing and committing to this approach. ^{2,3}

How much time is set aside for learning? Is there demonstrated ongoing learning occurring? What about the culture of reflection and learning – what are the degrees of non-territorial, open, engaging and blame-free enquiry that we witness as a project? Are these elements easily recognisable in the ways we work? These are all very important questions for any project or organisation to reflect on and engage with on its "learning journey".

In September of 2022, the UK-PHRST hosted a learning review for it partners the third in its seven year history. This was a critical review of our collective work, as partners, over the previous 18-months. evaluating our strengths and weaknesses and recommending improved ways of working. Our intent was to carry out a structured, interactive and shared reflective learning exercise to understand the nature of our successes, challenges and what we could do better to work more effectively. A group of 36 partners, strongly supported by UK-PHRST's Senior Management Team (SMT), spent three very productive days reviewing, reflecting and commenting on our collective effort and its outcome.

This publication is a further reflection on the topics discussed and the many complexities and insights which these conversations raised. It starts with a recall of the three-day event – The Cape Town Learning Review:

An overview. This is followed by a series of reflective articles written by attendees of the review: Post Learning Review

Reflections. Recommendations for future practice generated during the review and subsequent UK-PHRST's management response to each recommendation are included are included in the appendices.

We present this in the hope that it will provide further insight into the workings of the UK-PHRST and partners and the value we collectively ascribe to learning together.

Femi Nzegwu

Assistant Professor, UK Public Health Rapid Support Team

 Baird, L., Holland, P. and Deacon, S. (1999) 'Learning from action: Imbedding more learning into the performance fast enough to make a difference', Organizational Dynamics, 27(4), pp.19-32. doi.org/10.1016/S0090-2616(99)90027-X

•••••••••••••••••••••••••••••••

- Senge, P. (2001) Peter Senge and the learning organization. Available at: infed.org/mobi/peter-senge-and-the-learningorganization/ (Accessed 26th May 2023)
- Coleman, H.J. (1996) 'Why employee empowerment is not just a fad', Leadership & Organization Development Journal, Vol. 17 No. 4, pp. 29-36. doi.org/10.1108/01437739610120574



▲ lightlounge.co.za

We would like a situation where people don't have to struggle to have what others achieve. People should be able to achieve without having to put too much extra effort.

Dr Albert Luswata, The UK-PHRST Cape Town Learning Review participant, September 2022

The Cape Town Learning Review: An overview



▲ lightlounge.co.za

Background to the review

In line with the UK-PHRST's practice of holding periodic learning reviews as a reflective (and adaptive) approach to its work, the team organised a threeday learning session in Cape Town from September 27-29, 2022. This was a critical review of partners' collective work over the preceding 18-months, evaluating our strengths and weaknesses and recommending improved ways of working.

Participants of the review included staff from UK-PHRST, 10 country partners, two regional bodies, four UK-based universities and a charity and the UK Department of Health and Social Care (DHSC). Thirty-six people attended the review. Sectors represented included; research, deployment, capacity strengthening, gender equity & responsiveness, and sustainable ways of working.

Our intent was to carry out a structured, interactive and shared reflective learning exercise to understand the nature of our successes, challenges and what we could do better to work more effectively. There were two specific objectives:

- review key learning from the last 18months of UK-PHRST and partners' collaborative working – to include; deployment, research and capacity development, and underpinning themes such as gender equity and sustainability, and
- agree ways of working that build on our good practice, minimise/eliminate poor practice and encourage sustainable ways of working.



lightlounge.co.za

What happened during the event?

The review was conducted as a highly participatory three-day event which occurred mostly as panel and group discussions to capture a rich range of views and practice. This was supplemented with Q&A sessions, plenary discussions and gallery walks of workshopped-posters.

An account of the different session that occurred over the three-day event is detailed below.

Day one

Opening and setting the scene

The UK-PHRST Director, Dr Ed Newman in his welcome gave an overview of previous UK-PHRST learning reviews and presented a vision of how the UK-PHRST and its partners can continue to strengthen their working relationship. In his words

"what we're really trying to understand and leave with is a deeper understanding of the value of our partnerships, where we should grow, what we should keep doing that we're doing well, but also where we want to change and importantly, recommendations of how we can achieve that change, and make things better going forward."

The opening address by the Western
Cape Minister of Health and Wellness,
Dr Nomafrench Mbombo, welcomed
members of the review to her region and
eloquently challenged the group to examine
a number of issues. First, on partnership
she stated

"I saw part of the [UK-PHRST] strategic framework that talks about the partnerships. Please remember, that you are supposed to be part of a [global] partnership. So, think about us and work with us. We always welcome working with everyone, especially from academia."

As part of that partnership Dr Mbombo championed a vision of a strengthened health system that starts at a household level and makes families and communities co-carers and core-carers in a nation's health system, thereby enabling people-centred care and giving greater agency to people.

On equity, she continued,

"I always remind my colleagues that when you don't address the issues of inequalities, when you don't address the issues of poverty, the issues of unemployment, it means that it will eventually impact all of us".

The UK-PHRST Programme Manager,
Thom Banks, set the scene on the collective
work of the UK-PHRST and its partners
over the preceding 18-months (April 2021
- November 2023). He also referenced the
previous learning review held as a virtual
event in 2021 with a focus on partnership
working, the programme's strategic direction,
teaching & training, communication, and
human resource expansion giving insight
into how much ground the programme in
conjunction with its partners had covered
in that time period.

Deployments

Three panel discussions followed the opening and scene-setting sessions.

These discussions focused on the different phases of deployment – pre, during, and post deployment. The panel reflected on our collective work and described major areas of deployment-related learning that had emerged for them/their team.

Panel one considered the question "preparing for deployment: did we get it right?" Panellists were Dr Ram Vadi (Health Director, UK-MED) who provided an overview of the work of UK-MED since 2020, and the key underpinning learning themes, particularly the need for flexibility and adaptation as needed and the expansion of remote support; Ms Cristina Leggio (Lead Microbiologist, UK-PHRST) described UK-PHRST's deployment mechanisms and the challenges and opportunities associated

with each approach; and Dr Nafiisah Chotun (Technical Officer, Africa Centres for Disease Control) reported the results of an interesting mini-survey of deployees to capture the challenges encountered, what went well and what could be improved.

Panel two reflected on the achievements and challenges of the actual deployment and the factors that impact outcomes. The three panellists were Dr Wessam Mankoula (Lead of Emergency Operations Centre, African CDC), Dr Ram Vadi & Dr Stacey Mearns (UK-PHRST Senior Infection Prevention & Control specialist).

Dr Wessam provided an overview of the joint history of Africa CDC's Emergency Preparedness and Response Team and the UK-PHRST, and outlined their vision for the next steps in this relationship as being the exploration of joint deployments and increased joint experience sharing and learning.

Dr Vadi outlined UK-MED's main achievements and challenges during that time period and identified two factors – the need to strengthen national EMTs/Health services, and a continuing need to be flexible and agile in how the deploy while still adhering to EMT minimum standards.

Finally, Dr Mearns provided an overview of the partner feedback received on the outcomes of deployments undertaken by UK-PHRST and enumerated four key determinants of the impact and sustainability of deployment outcomes, including the type, mechanism, length, and timing of deployments; concluding that we need to continue,

"what we are doing and broadening how we are doing it, so that we can offer more and take advantage of the complementary effects of that breadth on impact and sustainability."

Panel three reflected on how successfully we learn from our deployments and then go on to implement our learnings during the post-deployment phase. Panellists were Dr Radjabu Bigirimana (Technical Officer & Programme lead, African

Volunteers Health Corp – AVoHC) who spoke about the current limitations of a process that effectively terminates at the conclusion of the deployment with the completion of an exit report and a debriefing session before the deployee returns home.

Dr Radjabu emphasised the need for improved, centralised mechanisms to collect, store, analyse, share and implement learning from data gathered during the deployment as urgent if lessons learnt are to be used for improving the quality of the programme.

Dr Haque (Epidemiologist, UK-PHRST) outlined the various mechanisms currently operational at the UK-PHRST to capture and share learning including post-deployment briefings with the UK-PHRST's Senior Management Team, the full team, external agencies, deployee, and partner feedback forms. She concluded by reflecting on four factors that would hugely support the learning effort:

- systematic action plan/needs assessment following deployments
- mechanisms to improve linkages with national partners
- mechanisms to foster ongoing collaboration with national partners (e.g, promote hybrid remote/in-person support, and
- regular review and analysis of the deployee/partner survey to inform practice.

Panel discussions were followed by group sessions that explored two questions:

- whether the areas of learning discussed resonated with the group, and
- whether there were any identifiable gaps that needed to be incorporated.

Two recommendations on ways to embed the learning and make for more sustainable ways of working were identified following the group work. These were then discussed in a plenary session.

Day one closed with a session on the importance of embedding mental health and wellbeing in public health emergency responses, in the context of the support mechanisms and structures that need to be in place to support people personally, within their organisations as well as in homes – especially in providing support to carers.

Discussants were Dr Namoudou Keita (Programme Officer for Primary Health Care, Health Systems Strengthening and Non-Communicable Diseases at West Africa Health Organisation (WAHO), and Dr Otrida Kapone (Head – Zambia National Public Health Reference Laboratory Public Health Laboratory Scientist-Infectious Diseases Antimicrobial Resistance Fleming Fund Policy Fellow Laboratory Systems & Networks).

Day two

Research

Day two was dedicated to discussions and reflections on our research and was kickstarted by Professor Gwenda Hughes who presented a scene-setting session on knowledge creation, uptake, and impact.

Professor Hughes linked UK-PHRST's current research trajectory with findings from the previous After Action Review, the Itad-led evaluation of UK-PHRST, and direction from the DHSC & NIHR, identifying three key considerations in our research:

- the importance of LMIC co-ownership, co-creation, and leadership & community engagement
- the need for strengthened research dissemination to ensure it informs decision-making and policies, and
- the need for strengthened links between research topics and response needs/ evidence gaps.

Three panels followed:

Panel four responded to the question "how appropriate was our research? Did we get the areas of our research right? Were the relevant parties fully involved? And, were the right voices heard about the types of research that are most beneficial/impactful?

Mr Jacob Nkwan (Infection Prevention & Control/WASH Nurse, Cameroon Baptist Convention Health Services) discussed and reflected on his study on "Development and evaluation of resources to support IPC engagement with caregivers in hospitals." Professor Miles Carroll presented his research "A Novel One Health Approach to Marburg Virus Detection and Surveillance", and Dr Stella Atim (Head, Division of Veterinary Diagnostics and Epidemiology, Ministry of Agriculture, Animal Industry and Fisheries, Entebbe, Uganda) discussed her research on "Strengthening viral haemorrhagic fever preparedness in Uganda through serosurveillance of Healthcare Workers."

Panel five tackled the issue of equity in our research, responding to the question, "Collaborating equitably on research: myth or reality?"

Dr Abdul Sesay (Assistant Professor and Head of the Genomics Strategic Core platform at the MRC Unit, The Gambia at London School of Hygiene and Tropical Medicine) shared and reflected on his own experience and research citing the following as fundamental to any equitable collaboration – Trust, Respect, Decolonisation, collaboration, Opportunity, Education, Inclusivity, Equality, and Responsibility.

Dr Tom Edwards (lecturer in infectious disease diagnostics at the Liverpool School of Tropical Medicine, UK) shared important lessons learnt from his experiences of a UK-PHRST funded project with UK and Turkish partners.

Panel six closed the panel discussions for the day, reflecting on how well research findings impact practice and policy, and where the evidence of impact lies. Mr Jacob Nkwan and Dr Abdul Sesay returned to lead the discussion building on the earlier presentations of their work and what impact meant for them personally as scientists and in their practice.

Group work and plenary discussions followed each panel session in a similar vein to Day one. Day two also saw the beginnings of generating recommendations from the six sessions.

Day three

Equity and capacity strengthening.

The focus of day three was on the consideration of issues of equity and capacity strengthening in our work led by two panels.

Panel seven explored how we embed gender equality and responsiveness across our work remit in a sustainable manner. Against the backdrop that in public health, inequalities continue to imbalance the structure and norms of institutions, determine career pathways and restrict workplace opportunity. The panel discussed how to improve our skills and technical processes to address this issue in each of our pillars or areas of work, more broadly.

Panellists were Ms Annie-May Gibb (Equity & Human Rights Advisor at UK-PHRST), Professor Flora Fabian (Professor of Biomedical Science and Vice Chancellor, Mwanza University, Tanzania and gender responsive pedagogy expert), and Dr Albert Luswata (Senior Lecturer Ethics, and Director Institute of Ethics Uganda Martyrs University, Uganda).

Ms Gibb gave an overview of the importance of gender equality as an all-encompassing term that requires equality of access to and benefit from the work of the UK-PHRST and partners, including equal roles in leadership for women in a sector where this has traditionally not been the case.



▲ lightlounge.co.za

Professor Fabian and Dr Luswata shared lessons from an East African higher education project (Transforming Employability for Social Change in East Africa – TESCEA) that successfully integrated greater levels of gender responsiveness in the design, delivery and assessment of learning and teaching in a range of universities.

Panel eight focused on the topic of capacity strengthening and discussed how to enhance and strengthen our collective capacities at the individual, organisational and global/network levels. Participants noted that two underpinning and recurring themes throughout the meeting were about capacity strengthening and sustainability, which indicated their importance to our ways of working.

Panellists were Dr Abdul Sesay and Dr Issiaka Soulama (Molecular Biologist, Institut de Recherche en Sciences de la Santé (IRSS), Groupe de Recherche Action en Santé (GRAS) Burkina Faso) both of whom elaborated on how their work is a tool and opportunity to facilitate the strengthening of staff capacities.

Dr Femi Nzegwu (Assistant professor of Monitoring, Evaluation and Learning LSHTM) summed up what the group acknowledged as fundamental to capacity in the words of a UN report:

"a transformation that is generated and sustained over time from within; transformation of this kind goes beyond performing tasks to changing mindsets and attitudes".1

Following the last panel the group went on a "gallery walk" entering into active engagement and discussions on which recommendations to prioritise. Of the 35 recommendations generated, 20 were adopted as priority areas of work. UK-PHRST management has now provided a management response to the recommendations. This can be found in appendix 2.

The event was wrapped up with a "heartto-heart" half hour conversation on the vision of the future of our work with Dr Ed Newman and Dr Radjabu Bigirimana. The pair responded to the question "looking to the future, where should we focus our efforts, what should we do more of, less of, differently?" and led a lively, insightful and optimistic close of session (and event) conversation that could be summed up as follows - continue doing what we do well, continuing striving to assess how well we are faring, continue and enhance our listening of one another's perspectives, and continue and increase our engagement and transparency with one another.

The programme for this three-day event can be found in appendix 3.

A short video containing highlights and reflections from the event can be found <u>here</u>.

.....

United Nations (no date) Capacity building. Available at:
 www.un.org/en/academic-impact/capacity-building
 (Accessed: 12 May 2023)

Wealth, if you use it, comes to an end, learning if you use it increases.

Swahili proverb



Femi Nzegwu,1 Susan Ismaeel,1 Thom Banks¹ ¹The UK Public Health Rapid Support Team (UK-PHRST)

> Correspondence to Femi Nzegwu femi.nzegwu@lshtm.ac.uk

Aerial view of artificial salt farm. Senegal, West Africa – Curioso Photography

Background

An After Action Review (AAR), also known as a reflection and learning review, is an evaluation approach that looks retrospectively at the actual and intended outcomes of a project or set of activities primarily for learning purposes.

The UK Public Health Rapid Support Team (UK-PHRST) has held three such reviews since its inception in 2016. These AARs have been a key part of continuous learning and improvement of the programme.



▲ lightlounge.co.za

The first review which focused primarily on its deployment pillar was a one-day event held in June 2019. The second review, was held virtually in January 2021, and explored the UK-PHRST's entire triple remit: deployment, research, and capacity strengthening. The third review-to-date was held in September 2022 in Cape Town, South Africa, again addressed the UK-PHRST's triple remit and incorporating key cross-cutting themes such as gender & human rights, and mental health & wellbeing for the first time. Each learning session produced a report of the event and, more importantly, a set of recommendations.

This paper reviews the outcome of those recommendations and the degree to which they have been implemented – that is, incorporated into UK-PHRST's/partners' ways of working following the reviews. The UK-PHRST has reviewed how the AAR events have been conducted and the agenda has been adapted, so the team get different perspectives and scrutiny from external partners perspectives.

Methods

A review was conducted of the three reports to assess the degree to which the recommendations resulting from these events had been implemented.

A comparative analysis was also conducted of the reports to assess the similarities and differences in recommendations across the three events and the degree to which there was carry-over from one event to the next.

Across the three-years, we asked questions such as; what proportion of the recommendations were fully, partially, or not implemented? What proportion do we find to be recurring from one year to the next and why? And, how well does learning appear to occur in the UK-PHRST and its partner organisations?

Review details

All the reviews had similar learning objectives. The main aim of the 2019 London face-to-face review was to assess the strengths and weaknesses, specifically of UK-PHRST deployments undertaken up to the period of the review and identify lessons for future developments. There were three objectives:

- identify the critical needs and gaps in outbreak response globally
- review areas of good practice in operational outbreak deployments, and
- produce an action plan to inform future UK-PHRST deployment.

There were 17 recommendations from this review.

The overall aim of the 2021 (virtual) review was to invite internal and external feedback on UK-PHRST activities across the triple mandate between June 2019 and January 2021. Its objectives were threefold:

- to critically evaluate UK-PHRST activities since June 2019 across the triple mandate
- to share perspectives and feedback on the experience of working with UK-PHRST, or of UK-PHRST's work in outbreaks, and
- to develop recommendations that can be considered in informing the next iteration of UK-PHRST.

Rather than approach the review from the conventional three thematic areas of UK-PHRST's work, the 2021 review considered, innovatively, five underpinning themes that were thought to be enablers of the three pillars of its operations. These were partnership working, strategic, human resources, communications, and teaching & training.

Participants at the event included a wide-range of national and international partners of UK-PHRST including: Nigeria Centre for Disease Control, Africa Centres for Disease Control and Prevention, World Health Organisation (Bangladesh), Karary University (Sudan), UK Department of Health and Social Care, the UK Foreign, Commonwealth and Development Office (FCDO), National Institute of Health Research (NIHR), Itad. Ltd (UK-PHRST external evaluators), London School of Hygiene and Tropical Medicine (LSHTM), UKHSA (then PHE) and the UK-PHRST.

There were 16 recommendations from this event captured under the five thematic areas listed above.

Finally, the most recent 2022 review was a three-day learning session in Cape Town from September 27-29, 2022, designed as a critical review of UK-PHRST's and partners' collective work over the previous 18-months, evaluating strengths and weaknesses and recommending improved ways of working.

Its overall aim was to carry out a structured, interactive and shared reflective learning exercise to understand the nature of our successes, challenges and what we could do to work more effectively. There were two specific objectives:

- review key learning from the last 18-months of UK-PHRST and partners' collaborative working – to include deployment, research and capacity development and underpinning themes such as gender equity and sustainability, and
- agree ways of working that build on our good practice, minimise/ eliminate poor practice and encourage sustainable ways of working.

Participants in the review included staff from UK-PHRST, 10 country partners, two regional bodies, four UK-based universities, a UK charity and the Department of Health and Social Care (DHSC).

Thirty-six people attended the review. The twenty recommendations from the event focus on six theme areas: mental health & wellbeing, gender equity and responsiveness, research (appropriateness, degree of equitable collaboration, uptake), capacity strengthening, deployment (Pre-deployment, Deployment, Post deployment), and working sustainably. There were 20 prioritised recommendations from a total of 35 generated during this review.

Findings

In total, the UK-PHRST has had 53 recommendations over the course of its three learning reviews. The first two generated 33 recommendation. Exactly one-third of these were fully implemented, over half (52%) were partially implemented and recurring and 15% were not implemented. Below we considerdetails of the recommendations by year.

2019

Twenty-nine per cent of the recommendations from the 2019 review were fully implemented, 53% were partially implemented and 18% were not implemented.

Among the recommendations partially implemented, many continue to recur across the three learning years.

They include the following:

- resolving the unclarity around "unclear terms of reference" once and for all; and arriving at a position on how to do this. This recommendation once again surfaced in the 2021 and 2022 learning review
- the need to "bolster existing domains of expertise through the reserve cadre – including considering the need for one health experts."
- providing a more effective and sustainable approach to capacity strengthening fostering linkages with regional bodies and GOARN
- leverage the team's capacity to bring in additional human resources during outbreaks – e.g, undertake training or set up research
- developing in-country links with DFID and FCDO
- raising awareness of the breadth of UK-PHRST expertise targeting a wider range of stakeholders than the current focus

- encouraging repeat deployments as a means of strengthening ongoing partnerships
- expanding the reserve cadre UK-wide and partner organisations oversees, and
- expanding access to pre-deployment briefings to more teams (internally and externally).

Various elements of every one of the recommendations listed above have been implemented to some degree. For example, UK-PHRST's work on capacity strengthening, expanding the expertise on offer etc. are clearly ongoing areas of our work. Some of these activities may have a defined terminal point while others, by their very nature, may continue to be ongoing activities. Some have been undertaken but have not yielded much progress (e.g., developing in-country links with FCDO) but remain on UK-PHRST's management radar.

Three recommendations of the seventeen (18%) were not implemented – some of them are recurring. They include:

- engaging WHO in research during outbreaks
- consider deployments through DFID/FCDO, and
- staff committing to take photos to facilitate communication requirements/blogs.

2021

In the 2021 review, 44% of the 16 generated recommendations were fully implemented. Half were partially implemented and were either recurring from the previous year or were mentioned in 2022.

Among those partially implemented and ongoing were:

 prioritising co-creation in the development of all activities from inception to hand over and exit strategies

- exploring opportunities for joint deployments with partners from countries of low and middle income
- harnessing new opportunities e.g, COVID-19 work in Nepal led to working with SEARO
- in conjunction with partners working to maximise capacities through a programme of remote working as well as in person deployments
- actively engaging to decolonise global health in all aspects of UK-PHRST's work
- exploring additional ways of systematically communicating all relevant outputs through new technologies
- engaging more with the FCDO network, and
- UK-PHRST mentoring other rapid response teams.

Only one recommendation was not done, that is, publishing the experience of delivering rapid response remotely during a pandemic.

2022

So what proportion of the previous year's recommendations surfaced once again in 2022? One quarter (25%) of the 2022 recommendations had been mentioned in at least one of the two earlier learning sessions. These were as follows:

- greater use of existing local expert networks and systems including embedding research opportunities within existing networks of expertise, organisations or systems to strengthen research capacity in country and sustainably
- encourage greater clarity of assignment (ToR)

- actively shifting roles of international support to one of greater levels of capacity strengthening and less of a "doing role". This is in line with the recommendation to "actively leverage local capacity."
- introducing greater flexibility of deployment lengths – shortened or lengthened periods for different types of deployment options, and
- active engagement of local capacity the use of centres of excellence/ expertise locally to deliver capacity strengthening and support activities.



▲ lightlounge.co.za

A recurring theme of the 2022 review was the centrality of capacity strengthening in ensuring effective, context-tailored and sustainable change, notably through the increased use of local expertise. These concepts were not new to that event having been expressed in at least one, sometimes both of the previous learning reviews.

2022 saw the introduction of three new themes as recommendations – first, ensuring equity and gender responsiveness are woven into UK-PHRST's work; second, supporting national (country-level) efforts to promote mental health and wellbeing and third, promoting values-based behaviours such as servant leadership.

We define servant leadership as leadership or the leader who shares power, puts the needs of others first and helps people develop and perform as highly as possible. A servant leader "ensures that staff are growing in all areas – their profession, knowledge, autonomy and even their physical and mental wellbeing."

Conclusions

Overall, UK-PHRST's learning record is fairly good. Only 12% of the recommendations across 2019 and 2021 have not been implemented. That means that elements of some or all (in some cases) of 88% of the recommendations generated across the two years have been implemented. This would suggest that there has been follow-up on the recommendations generated at these events; and that learning is not merely a tick-box exercise at the UK-PHRST.

What is also noteworthy is that the proportion of fully implemented recommendations increased from the first learning event to the next. These findings also suggest that those recommendations not implemented should probably be reviewed to determine whether they remain valid recommendations or whether a rapidly changing public health context has rendered them no longer appropriate or relevant.

Overall, we can be cautiously optimistic about UK-PHRST's learning record.

Brian Tait (2020) Traditional Leadership Vs.
 Servant Leadership. Available at: forbes.com/sites/forbescoachescouncil/2020/03/11/traditional-leadership-vs-servant-leadership/ (Accessed: 24 March 2023)

•••••



▲ lightlounge.co.za

Unless you try to do something beyond what you have already mastered, you will never grow.

Ronald E. Osborn, 1945



Background

The world has experienced numerous infectious disease outbreaks and other events of public health concern that cause suffering and loss of lives and have significant economic and societal impacts. Recent large-scale disease outbreaks include the Ebola Virus Disease (EVD) outbreak in West Africa (2014-2016), in which more than 11,000 lives were lost, and the current Coronavirus (COVID-19) pandemic. The COVID-19 pandemic clearly shows that in our globalised world, new pathogens can emerge anywhere in the world and can spread quickly, jeopardising public health, economic stability and the livelihood of citizens.

Each year, more than 100 health emergencies occur in the African Region, accounting for close to 70% of all health emergencies globally. The Region has made notable progress towards strengthening emergency response capacity at the country level. However, there remain inadequacies in planning, limited trained human resources, lack of agility in response teams, slow and poor decision-making, and challenges with stockpiling supplies. The EVD outbreak in West Africa, 2014-2016, showed how a lack of regional capacity to respond quickly and effectively to public health emergencies results in devastating outcomes that affect health, national security, and social and economic development in the long-term.

Subsequent disease outbreaks (most notably, the COVID-19 pandemic) have reinforced the need for further robust country capacity to prepare for, detect and respond to public health emergencies of international concern in the African Region.



▲ lightlounge.co.za

This paper reflects on the establishment and growth of the African Volunteer Health Corps (AVoHC) over the past five years and outlines a vision for advancing this vital continental asset.

Establishment of the African Volunteer Health Corps (AVoHC)

The International Health Regulations (IHR), 2005, dictate that Member States must establish disease outbreak response capacity and prepare to detect and respond to public health threats and emergencies.1 To mitigate the impact of disease outbreaks on Africans, the African Union Heads of State and Government, in their Assembly Decision / AU/Dec.570 (XXV) of June 2015 requested the African Union Commission, in collaboration with Member States and Development Partners, to establish AVoHC, an African-led and continental emergency Rapid Response Team, to deploy during disease outbreaks and other public health emergencies.

In 2015, in response to the West African EBV outbreak, AVoHC mobilised and deployed 830 volunteers with different expertise across the African continent to support affected member states. In 2017, following the establishment of the Africa Centres for Disease Control and Prevention (Africa CDC), former African Union Support to Ebola in West Africa (ASEOWA) mission volunteers formed the initial AVoHC Roster.

In 2018, Africa CDC trained 56 additional volunteers from across the continent on Emergency Rapid Outbreak Response - these volunteers were added to the ASEOWA pool bringing the AVoHC Roster to a total of 886 experts. The majority were from Nigeria (25,5%), Ethiopia (24,7%), Kenya (20,6%), and The Democratic Republic of the Congo (12,2%), while other countries accounted only for less than 4% each, as shown in Table 1. In addition, only 34 countries (62%) out of 55 African Union (AU) member states are represented on the AVoHC Roster.

AVOHC is purposefully comprised of experts with different backgrounds to enable sufficient support for AU member states during public health emergencies. Its members provide expertise in numerous disciplines, including; public health, epidemiology, clinical practice, laboratory science, Infection Prevention & Control (IPC), communication, and data management. The nature of the public health emergency and the affected country's needs inform the make-up of the AVoHC team deployed.

Among the 369 active AVoHC members, the majority are public health experts (19.8%), epidemiologists (17.9%), clinicians (30.7%), microbiologist/laboratory experts (7.6%), IPC experts (4.9%), and environmental health experts (3.3%) – as shown in Table 2.

Essential expertise poorly represented on the AVoHC Roster includes; logistics, animal health, mental health & psychosocial support, monitoring evaluation and learning (MEL), and safety experts.

Table 3, shows that 79.9% of active AVoHC members are from English speaking countries. However, it is notable that the Africa Union has five working languages: English, French, Arabic, and Portuguese.

To provide rapid and effective support within 72 hours upon request of AU member states, AVoHC operates by leveraging on the local capacity, using the available national AVoHC Rapid Response Team (RRT) members. When there is a scarcity of national capacities, AVoHC mobilises international AVoHC Members and deploys teams to support Member States in need.

African Volunteers Health Corps (AVoHC)

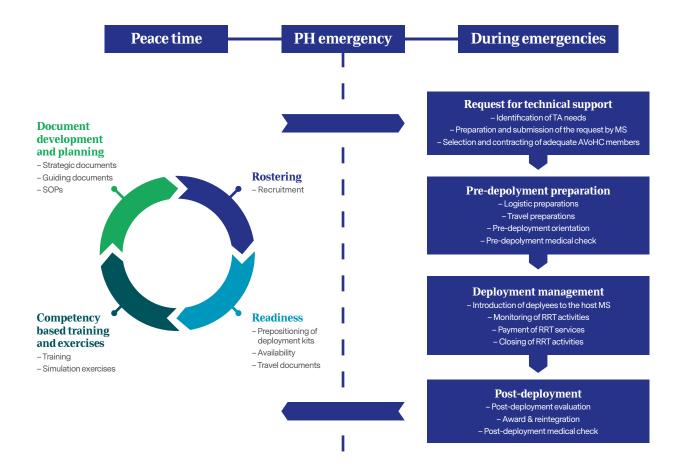
- Regional and continental Roster development/maintenance
- Regional and continental capacity building
- Regional deployment operations and logistics support
 - Access to available diverse set of skills and capabilities
 - Access to surge capacity across the continent

During peacetime, AVoHC focuses on rostering and ensuring strategic documents are in place to guide the programme.

To ensure AVoHC Members have the knowledge required for deployment support, they undergo several competency-based trainings and exercises. During the same period, AVoHC checks on the availability of resources, including the availability of the AVoHC Members and deployment kits, to ensure the readiness of deployment support operations.

When an emergency strikes, AVoHC receives deployment instructions from the incident manager following the request for technical support from the affected country. AVoHC then identifies the deployment needs, starts pre-deployment preparations, and deploys the teams. After the emergency, AVoHC organises post-deployment activities, including a post-deployment evaluation and activation of the Roster maintenance processes. Figure 1 depicts the AVoHC Framework of Operations.

Figure 1: AVoHC Framework of Operations



Deployment support provided by AVoHC over the past five years

Since its inception in 2017, Africa CDC has supported response interventions through AVoHC to over 35 public health emergencies across 25 African countries.

The major public health events supported include; Viral Haemorrhagic fevers in DRC, Uganda, Ghana, and Equatorial Guinea; Meningitis in DRC; Plague in Madagascar; Yellow Fever in multiple countries including Kenya and Cameroon; Leptospirosis in Tanzania; Wild Poliovirus in Mozambique and Malawi; Cholera in multiple countries including Malawi and Cameroon; Monkeypox in DRC; Measles in Zimbabwe and other natural disasters such as cyclones, floods, and tropical storms in Malawi and Mozambique.

During the COVID-19 pandemic, AVoHC actively supported all 55 Member States in their response by deploying 230 Rapid Responders from 21 countries.

The past five years also saw the development of and launching of AVoHC Net – a web-based platform used to achieve the following; objective management of AVoHC members at continental, regional and national levels, the development and validation of AVoHC strategic documents (including AVoHC strategic framework, AVoHC strategic plan, and other guiding documents), and strengthening the capacity of health personnel to manage disease outbreaks.

Conclusion

Despite AVoHC's relative youth as an initiative, its achievements are notable. It has been an essential resource, providing an African solution to African problems. To date, AVoHC has been critical in the responses to multiple disease outbreaks in most member states. It is a rich cohort of skilled professionals able to deploy at short notice and provide ongoing training to ensure staff skills remain at the cutting edge. It has also addressed strategic issues related to organisational development and learning.

 ${\sf Table\,1:}\, {\sf Distribution\,of\,AVoHC\,Roster\,members\,by\,country}, Africa, {\sf 31\,August\,2022}$

Country	AVoHC members	Proportion
Ethiopia	217	24.5%
Nigeria	198	22.3%
Kenya	178	20.1%
RD Congo	94	10.6%
Ghana	32	3.6%
Uganda	26	2.9%
Ivory Coast	18	2.0%
Mali	17	1.9%
Senegal	14	1.6%
South Africa	13	1.5%
Rwanda	11	1.2%
Zimbabwe	9	1.0%
Cameroon	8	0.9%
Tanzania	7	0.8%
Benin	7	0.8%
Gabon	4	0.5%
Botswana	3	0.3%
Burundi	3	0.3%
Mauritania	3	0.3%
Niger	3	0.3%
Liberia	3	0.3%
Burkina Faso	2	0.2%
Mozambique	2	0.2%
Sudan	2	0.2%
Lesotho	2	0.2%
Somalia	2	0.2%
Central African Republic	1	0.1%
Chad	1	0.1%
Western Sahara	1	0.1%
Zambia	1	0.1%
Tunisia	1	0.1%
Egypt	1	0.1%
Gambia	1	0.1%
Malawi	1	0.1%
Total	886	100%

Area of expertise	Number of AVoHC members	Proportion
Public Health	73	19.8%
Nurse	73	19.8%
Epidemiologist	66	17.9%
Medical Doctor	39	10.6%
Medical Laboratory/Microbiologist	28	7.6%
IPC	18	4.9%
Environmental Health Expert	12	3.3%
Communications	7	1.9%
Administration	7	1.9%
Logistician	5	1.4%
Biostatician	4	1.1%
Community Health	4	1.1%
Health Education	3	0.8%
ICT	3	0.8%
Project Management	3	0.8%
M&E	3	0.8%
Nutrition	3	0.8%
Accounting	2	0.5%
Animal Health Expert	2	0.5%
Socio-Anthropologist	1	0.3%
Occupational Health	1	0.3%
Expert in Physics	1	0.3%
Pharmacist	1	0.3%
International Cooperation	1	0.3%
Electric Engineers	1	0.3%
Transport Management	1	0.3%
Psychosocial Support Expert	1	0.3%
Data Manager – GIS	1	0.3%
Human Rights	1	0.3%
International Development and Policy	1	0.3%
Liaison Officer	1	0.3%
Public Relations	1	0.3%
Safety Expert	1	0.3%
Total	369	100%

Table 3: Distribution of active AVoHC Roster member by AU working language, 31 August, 2022

Working language	Number	Proportion
English	295	79.9%
French	73	19.8%
Portuguese	1	0.3%
Arabic	0	0.0%
Total	369	100%

AVoHC's future vision

The number of disease outbreaks across the continent and the variety of support required by each emergency demands a coordinated, robust and responsive network of highly trained Rapid Responders. Looking forward, AVoHC wants to build a roster of over 2500 Rapid Responders with the capacity to support response efforts for at least 10 public health emergencies/events across different countries at any given time. It aims to transform its current operations and build its institutional capacity to deliver results. To achieve this, for the next five years, AVoHC's transformation will be anchored in four strategic pillars:

- Roster development

AVoHC plans to increase the number of well-trained Rapid Responders across different areas of expertise and all regions of Africa. AVoHC will target both experienced and entry-level professionals and offer training, mentoring and capacity building to ensure all Rapid Responders reach AVoHC's expected minimum standard of performance, as defined by AVoHC's professional development framework. This work will have implications beyond the AVoHC programme, as AVoHC will also provide attractive Africa-based exit opportunities for Roster members.

Effective deployment

AVoHC will establish efficient operations to support the timely deployment of Rapid Responders and the delivery of high-quality technical assistance to Member States. AVoHC will adopt best-practice processes and evidence-backed tools for public health emergency response to improve its operations. It will also focus on creating a supportive environment for its members to perform well.

.....

- Decentralised management

To ensure that it delivers the value promised to Member States and Roster members, AVoHC will set up effective management, governance, and accountability systems that are decentralised to Africa CDC's regional coordinating centres. Its MEL framework will lay out measurable targets for each area of AVoHC's expected outcomes and provide a mechanism to monitor progress toward these targets and learn from the implementation of activities.

Strong partnerships

AVoHC will build mutually beneficial and long-lasting partnerships with Member States and technical and financial partners involved in public health emergency response. AVoHC will raise its profile among these different stakeholders, developing partnership frameworks with each stakeholder that ensures effective collaboration and efficient use of resources.

- African Union (2015) Decisions, Declarations and Resolution of the Assembly of the Union Twenty-Fifth Ordinary Session. Available at: <u>au.int/en/decisions-7</u> (Accessed: 01 April 2023)
- African Union (2017) Declaration on accelerating implementation of International Health Regulations in Africa. Available at: africacdc.org/download/declaration-on-accelerating-implementation-of-international-health-regulations-in-africa/(Accessed: 01 April 2023)
- Nkengasong, J., Djoudalbaye, B. and Maiyegun, O. (2017) 'A new public health order for Africa's health security', The Lancet Global Health, 5(11), pp.e1064-e1065. doi.org/10.1016/S2214-109X(17)30363-7
- World Health Organization (2015) Framework for a Public Health Emergency Operations Centre. Available at: who. int/publications/i/item/framework-for-a-public-healthemergency-operations-centre (Accessed: 01 April 2023)
- Pyone, T., Aung, T.T., Endericks, T., Myint, N.W., Inamdar, L., Collins, S., Pwint, K.H., Hein, B.B. and Wilson, A. (2020) 'Health system governance in strengthening International Health Regulations (IHR) compliance in Myanmar', BMJ global health, 5(11), p.e003566. gh.bmj.com/content/bmjgh/5/11/e003566.full.pdf
- 6. Wilson, A. and Cartwright, C., 2020. 'Thinking differently: lessons learned by international public health specialists while supporting the Integrated Disease Surveillance and Response system in Pakistan', BMJ global health, 5(10), p.e003593. gh.bmj.com/content/bmjgh/5/10/e003593.full.pdf

Creative thinking may mean simply the realisation that there's no particular virtue in doing things the way they have always been done.

Rudolph Flesch (1911 - 1986)



Background

Today, more than ever, training, both theoretical and practical, is an important lever in the control and fight against infectious diseases. Obviously, a lack of training represents a major handicap to controlling diseases effectively and to procuring effective care for patients in health facilities. This is especially important in the context of scientific research, which supports health services in making evidence-based decisions.

The development of diagnostic technologies and their use poses a two-pronged issue that divides the world's population. On the one hand, technologies are available as is the skill and overall capacity to use them in the global North. On the other hand, with limited technical capacity and qualified human resources, the global south sees very little deployment of new diagnostic technologies. North-South collaboration is a definite opportunity and an important springboard for reducing the technological gap and facilitating access to the most advanced diagnostic technologies in the South.

In such a context of disparity in the availability and use of innovative diagnostic technologies, what effective and sustainable contributions in training and capacity strengthening can be made to improve both the theory and practice of this pillar of work within the UK-PHRST network?

Context

In the last decade, new aspects have emerged in the field of technology-supported medicine, which have presented a great advancement for health sciences. This is a promising sector in which many start-ups are investing great efforts and resources. Indeed, from digital progress to biotechnology to the development of robotics, science is innovating to bring better treatments to patients. Genome modification techniques have opened up new possibilities for treating serious diseases.

Omic technologies for the analysis of the genome, transcriptome, and proteome of an individual or a tumour (from the mapping, identification, and sequencing of genes, RNA or proteins on the one hand, to the study of their functions and the control of their expression) constitute unprecedented opportunities for research and care in the field of diseases of all origins. This makes omics a priority issue. Recent developments in personalised medicine offer prospects for increased efficacy, reduced side effects, and no wasted time and resources on ineffective treatment.



▲ lightlounge.co.za

The advent of COVID-19 has shown the importance of new technologies in the field of diagnosis and also in prevention through vaccination with the rapid development of diagnostic tests and DNA or RNA vaccines. However, the COVID-19 pandemic has also revealed the significant gap between the countries of the North, which have these new capacities and competent human resources, and the countries of the South, which are struggling to develop minimal diagnostic capacities.

Fortunately, institutional collaborations have made it possible to improve the capacity to respond to diagnostic issues during the pandemic, demonstrating the importance of collaborative efforts to strengthen capacities in African institutions. In this context, how can a project like the UK-PHRST, funded by the UK government and operated by UKHSA and the London School of Hygiene and Tropical Medicine, contribute to sustained and sustainable capacity strengthening to advance theoretical and practical skills in Africa?

The strength of UK-PHRST is an asset that can be expanded

The availability of a network of theoretical and practical training expertise

UK-PHRST's strategic position within the London School of Hygiene and Tropical Medicine, one of the world's leading research and training institutes, provides opportunities to countries where there is a need to access a network of expertise in basic and continuing education, particularly in the biomedical field. This allows UK-PHRST, in collaboration with research institutes in the South, to deliver both face-to-face and distance learning capacity strengthening courses in situ.



▲ lightlounge.co.za



▲ lightlounge.co.za

The advantage of face-to-face training is that it allows the platforms and requirements of the field to be adapted to practical training. Whenever possible, UK-PHRST should use its network of expertise to promote this option. And, depending on the training target and topic, the opportunity to group participants from several countries for example can be an advantageous avenue to explore. This makes it possible to pool resources and to have a cohort of people trained as trainers who can ensure continuity in the respective countries. This can ensure a certain sustainability of capacity strengthening.

In any case, it remains important in the framework of capacity strengthening that UK-PHRST sets up a monitoring system of capacity strengthening projects or activities in collaboration with the beneficiary institutions and actors in order to support them in the sustainability of the achievements without replacing them.

There needs to remain a core resource institutionally, nationally, or regionally with both the skill and resource to deploy past the presence of UK-PHRST or other Northern support.

The capacity of UK-PHRST's partners to mobilise funds as a source of sustainability of capacity building achievements

One of the important aspects in sustaining the achievements of a capacity strengthening process is the mobilisation and availability of resources. Indeed, the achievements, whether they are in terms of trained human resources or strengthening of technical platforms, are difficult to sustain when the financial resources that should accompany them are lacking.

UK-PHRST, through its position within LSHTM and its network of collaboration with technical and financial partners, can support the southern collaboration partners or facilitate their access to financial resources that can ensure a certain sustainability of their achievements. This support can take various forms:

- direct support for the implementation of research or training activities
- support for the drafting of projects following calls for funding
- guidance and support towards support or funding structures, and

 mentoring of institutions or individual mentoring of actors from the South.

Recognising that there are substantial financial resources in many countries of the global south, is there an opportunity to jointly advocate to national and regional governments, private business, etc., to generate additional resources for the planning and skilling up of national human resources and infrastructure? Is there a way to engage greater numbers of experienced national and regional capacity as mentors to support younger researchers? These are important questions for the UK-PHRST to engage with.

In all cases, whatever form of support or mentoring is provided to ensure the sustainability of capacity building activities, it should be framed by a Memorandum of Understanding (MoU) including mutual commitments and a clearly established agenda to set the tempo between UK-PHRST and potential partners.

Conclusion

Capacity strengthening of research platforms but also of human resource skills is a necessity in Africa in a global context where new technologies are expanding rapidly. Perhaps it is utopian to think that we could establish a bridge of collaboration between the North, where the best technologies and human and financial resources are present, and the South, where inadequacy of capacity is more the norm and bitter reality. However, collaboration is clearly possible and safeguards to ensure that is equitable, mutual and sustainable can occur. Such collaboration must be established in a way that facilitates capacity strengthening but above all creates the best conditions for its sustainability. This requires mutual commitment, trust, humility and an agreement between North and South to ensure an objective and effective monitoring of the process. UK-PHRST is well placed to support the sustainability of capacity building in this context by ensuring that the recommendations from the Cape Town Learning Review are implemented in true collaboration with partners.



Background

Disease outbreaks endanger people's health across geographical regions and international boundaries threatening wellbeing and global health security.1 Such epidemics expose and intensify inequalities within and among countries. The poorest and most vulnerable people have a greater risk of becoming infected and bear the brunt of the economic fallout caused by these outbreaks. The COVID-19 pandemic and epidemics including the 2014-2016 Ebola outbreak in West Africa have introduced wide-ranging disruptions across the globe and highlighted weaknesses in outbreak preparedness, readiness, and response.^{2,3} Resource-limited settings in the low- and middle-income countries (LMICs) often with fragile health systems are particularly vulnerable to the adverse impacts of epidemics.4



▲ lightlounge.co.za

Several initiatives have been developed to respond to acute public health events and to strengthen LMICs' capacities to prepare and respond to outbreaks.

International organisations - governmental, non-governmental, academic, technical networks, and research institutes – have long supported countries to respond to public health emergencies through the deployment of rapid response teams. For example, the Global Outbreak and Alert Response Network (GOARN) was established in 2000, as a global network

of technical institutions and networks to contribute resources to international disease outbreak response. This global partnership can deploy personnel with relevant technical and operational skills to support public health emergency response. The UK-PHRST was launched in 2016, as a partnership between UK Health Security Agency – formerly known as the Public Health England (PHE) and the London School of Hygiene & Tropical Medicine (LSHTM), with Oxford University, and King's College London as part of the broader academic consortium.

UK-PHRST has a triple mandate to integrate outbreak response, innovative research to generate evidence on best practices for outbreak control, and capacity building for outbreak response in the LMICs.7 Similarly, the African Health Volunteers Corps (AVoHC), a team of African volunteer medical and public health professionals, was established in 2015, by the African Union, to support emergency response to disease outbreaks in Africa.8 New initiatives such as the pandemic treaty are also being developed.9 Whilst these deployment initiatives are primarily geared towards improving outbreak response, evidence of the impact of these deployments on strengthening national outbreak preparedness and response capacities is limited.

Context

This reflection paper captures the views and experience of the 36 stakeholders who attended the 3-day learning review session organised by the UK-PHRST in Cape Town from September 27-29, 2022. Stakeholders included staff from UK-PHRST, 10 LMIC partner countries, two regional bodies, four UK-based universities, a charity and the UK Department of Health and Social Care (DHSC).

Methods

The review was conducted as a highly participatory thre-day event which occurred mostly as panel and group discussions to capture a rich range of views and practice. This was supplemented with question-and-answer sessions, plenary discussions and gallery walks of workshopped-posters.

Findings

Taking into consideration the unique context of the epidemic response activities undertaken by the UK-PHRST and its partners over the past 18-months, this paper examines stakeholders' collective view on how to improve uptake and sustainability of international efforts for strengthening national outbreak response capacities. For effective uptake and sustainability of capacities offered by international assistance, findings suggest a focus on three key areas: the deployee, the deploying agency, and the recipient nation.

The Deployee – Leveraging the learnings from post-deployment debriefs, surveys and end-of-mission reports

The participants recognised the importance of deployee feedback for improving the impacts of deployments in the countries receiving assistance. Regular post-deployment surveys were regarded as an important tool to gather deployee feedback in addition to post-deployment debriefs and end-of-mission reports.

Lack of clear terms of reference, lack of clear roles within teams, limitations of access to necessary information prior to deployment and the need for a streamlined deployment process were identified as areas of concern.

The need for action driven by deployee feedback was also identified as an area that needed additional considerations. Establishing mechanism for engaging with recipient countries, deployees and deploying agencies at the initial phase was suggested as a way of improving clarity of terms of reference as well as enhancing long-term impacts of deployments.

The Deploying agency/organisation/ country – Bridging the gap between international response and its sustainable uptake for improving national response capacity

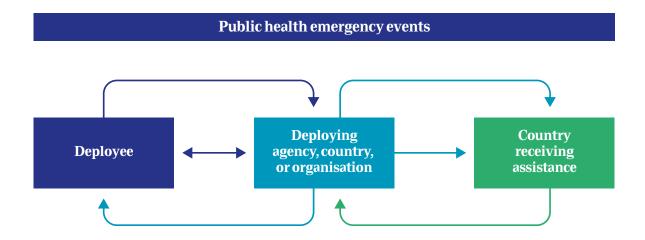
All participants recognised the support provided by the deploying agencies to nations during public health emergencies.

However, the lack of systematic mechanisms to collect data and the absence of the continuity of engagement with the countries receiving support at the end of deployments were identified as impediments to understanding the potential long-term effects of deployments in strengthening countries' capacities to respond to outbreaks.

Countries receiving assistance – Integrating the voice of partners in international assistance for outbreak preparedness and response

Generally, the countries receiving international assistance valued the immediate contributions made by the international community for responding effectively to outbreaks and public health emergency events. However, the extent to which these deployments translated into enhancing local capacities remains less clear.

Figure 2: Focus areas for improving impacts of deployments



While most deploying agencies and countries providing support attempted to collect information from the deployees and organisations at the post-deployment phase, the voice of the recipient nations was often not included in these dialogues. Continued mechanisms to engage with recipient countries post-deployment could provide valuable insights as to the long-term impacts of deployments to nations receiving assistance.

Hybrid deployments (remote support with interim visits to recipient countries) may offer a means to bridge the communication gap to some extent by allowing continued engagement and enabling local capacity strengthening. Lastly, remote deployments were found to be useful and sustainable mechanisms for supporting nations during travel restrictions.

Conclusion

Epidemic and humanitarian responses globally involve the mobilisation of significant resources including deployment of large numbers of staff at substantial financial cost.¹⁰

While the immediate utility of deployments has been frequently captured via end-of-mission reports and post-deployment debriefs, there is a dearth of learning

regarding the national experience and overall long-term impacts of deployments in strengthening countries' capacities for effective response to public health emergency events.¹¹ This learning session provides valuable information to re-think and re-design international assistance for enhancing public health emergency response capacities of nations requesting assistance.

Similar to the findings from the present reflection, past studies, mostly conducted in humanitarian settings have identified issues related to generic terms of reference, lack of clarity of roles within teams, lack of clarity on the deployment process, the need for more information prior to deployment, and the lack of systematic evaluations as major impediments to effective international response. 11,12,13,14



▲ lightlounge.co.za

Although evaluations are critical to improving initiatives to strengthen outbreak preparedness and response capacities, as well as accountability and value for money, 15 conducting robust evaluations in the context of an epidemic or pandemic present methodological, logistical, and financial challenges. 16

Post-deployment periods provide a window for continuing engagement with all stakeholders to identify country needs and devise action to offer meaningful contributions within the highly-pressurised environment of the public health emergency response. As COVID-19 has accelerated digital transformation in every sector of life, the transition to hybrid deployment using technology for supporting nations during public health emergency response would be a welcome addition to support and strengthen local capacities.

Increased utility of remote support from high-income countries to the LMICs would allow continued engagement with national counterparts, reduce carbon footprints linked with travel as well as bring about the necessary reforms to ensure equality and equity in resource, capacity, and power¹⁷ can occur. Such collaboration must be established in a way that facilitates capacity strengthening but above all, creates the best conditions for its sustainability. This requires mutual commitment, trust, humility, and an agreement between North and South to ensure an objective and effective monitoring of the process.

UK-PHRST is well placed to support the sustainability of capacity building in this context by ensuring that the recommendations from the Cape Town Learning Review are implemented in true collaboration with partners.

- Shahpar, C., Lee, C. T., Wilkason, C., Buissonnière, M., McClelland, A., & Frieden, T. R. (2019). Protecting the world from infectious disease threats: now or never. BMJ Global Health, 4(4), e001885. doi.org/10.1136/bmjgh-2019-001885
- Buseh, A. G., Stevens, P. E., Bromberg, M., & Kelber, S. T. (2015). The Ebola epidemic in West Africa: challenges, opportunities, and policy priority areas. Nurs Outlook, 63(1), 30-40. doi.org/10.1016/j.outlook.2014.12.013
- Lal, A., Abdalla, S. M., Chattu, V. K., Erondu, N. A., Lee, T.-L., Singh, S., Abou-Taleb, H., Vega Morales, J., & Phelan, A. (2022). Pandemic preparedness and response: exploring the role of universal health coverage within the global health security architecture. The Lancet Global Health, 10(11), e1675-e1683. doi.org/10.1016/S2214-109X(22)00341-2
- Bhutta, Z. A., Sommerfeld, J., Lassi, Z. S., Salam, R. A., & Das, J. K. (2014). Global burden, distribution, and interventions for infectious diseases of poverty. Infectious Diseases of Poverty, 3(1), 21. doi.org/10.1186/2049-9957-3-21
- Greiner, A. L., Stehling-Ariza, T., Bugli, D., Hoffman, A., Giese, C., Moorhouse, L., Neatherlin, J. C., & Shahpar, C. (2020). Challenges in Public Health Rapid Response Team Management. Health Secur, 18(S1), S8-s13. doi.org/10.1089/hs.2019.0060
- Mackenzie, J. S., Drury, P., Arthur, R. R., Ryan, M. J., Grein, T., Slattery, R., Suri, S., Domingo, C. T., & Bejtullahu, A. (2014). The global outbreak alert and response network. Glob Public Health, 9(9), 1023-1039. doi.org/10.1080/17441692.2014.951870
- Raftery, P., Hossain, M., & Palmer, J. (2021). An innovative and integrated model for global outbreak response and research - a case study of the UK Public Health Rapid Support Team (UK-PHRST). Bmc Public Health, 21(1), 1378. doi.org/10.1186/s12889-021-11433-0
- African Volunteers Health Corps. (2022, 15 November 2022). Africa CDC. Retrieved 16 January 2023 from africacdc.org/programme/emergency-preparedness-response/african-volunteers-health-corps/
- Hannon, E., Hanbali, L., Lehtimaki, S., & Schwalbe, N. (2022). Why we still need a pandemic treaty. The Lancet Global Health, 10(9), e1232-e1233. doi.org/10.1016/S2214-109X(22)00278-9
- Cozzolino, A. (2012). Humanitarian Supply Chain Relationships: Working Together to Meet the Challenge of Preparing for and Responding to Disasters. In S. i. Business (Ed.), Humanitarian Logistics. Springer doi.org/10.1007/978-3-642-30186-5_3
- 11. Blackmore, C., Evers, E. S., Sazed, S. M. A., Baidjoe, A., Vilas, V. D. R., Pesigan, A., & Ofrin, R. (2022). Perspectives on deployment of humanitarian workers through operational partnerships during the acute emergency health response to the Rohingya refugee crisis in Cox's Bazar. BMC Emerg Med, 22(1), 60. doi.org/10.1186/s12873-022-00618-4

- Bjerneld, M., Lindmark, G., Diskett, P., & Garrett, M. J. (2004). Perceptions of work in humanitarian assistance: interviews with returning Swedish health professionals. Disaster Manag Response, 2(4), 101-108. doi.org/10.1016/j.dmr.2004.08.009
- 13. Rubin, G. J., Harper, S., Williams, P. D., Ostrom, S., Bredbere, S., Amlot, R., & Greenberg, N. (2016). How to support staff deploying on overseas humanitarian work: a qualitative analysis of responder views about the 2014/15 West African Ebola outbreak. Eur J Psychotraumatol, 7,30933. doi.org/10.3402/ejptv7.30933
- 14. Salmani, I., Seyedin, H., Ardalan, A., & Farajkhoda, T. (2019). Conceptual model of managing health care volunteers in disasters: a mixed method study. BMC Health Serv Res, 19(1), 241. doi.org/10.1186/s12913-019-4073-6
- 15. Impouma, B., Wolfe, C. M., Mboussou, F., Farham, B., Saturday, T., Pervilhac, C., Bishikwabo, N., Mlanda, T., Muhammad, A. B., Moussana, F., Talisuna, A., Karamagi, H., Keiser, O., Flahault, A., Cabore, J., & Moeti, M. (2021). Monitoring and evaluation of COVID-19 response in the WHO African region: challenges and lessons learned. Epidemiol Infect, 149, e98. doi.org/10.1017/s0950268821000807
- Srivastava, A. (2022). Challenges for evaluation practices and innovative approaches: Lessons during COVID-19 pandemic. Eval Program Plann, 92, 102095. doi.org/10.1016/j.evalprogplan.2022.102095
- 17.The Lancet Global, H. (2022). The future of the International Health Regulations. The Lancet Global Health, 10(7), e927. doi.org/10.1016/S2214-109X(22)00254-6

Let everything you do be done as if it makes a difference.

William James (1842 - 1910)



Long-term sustainable development: Lessons from the TESCEA project

Flora Fabian ^{1,2,3}
Albert Luswata ⁴

¹ Mwanza University, Tanzania,

² University of Dodoma, Tanzania,

³ INASP, ⁴ Uganda Martyrs University, Ugand

Correspondence to Professor Flora Fabian proffabian 29@gmail.com

Cape town before sunset - Zoe Reeve

Background

One of the fastest and most effective ways of gender mainstreaming in public health practice is to provide equitable and inclusive health services targeting practitioners at the grassroots. This approach enables practitioners to influence the health of the family as a unit as well as the wider community.

It is particularly important given that women are at the forefront of public healthcare and services, yet most decision-makers in the same sector are men. In such a context, women's concerns, needs and experiences are hardly attended to during decision-making. Women and girls represent half of the world's population and, therefore, also half of its potential. Gender equality is a fundamental human right and essential to achieving peaceful societies, full human potential, and sustainable development. Moreover, it has been shown that empowering women spurs productivity and economic growth. ¹

Ultimately, the goal of gender mainstreaming is to create equity of opportunities to demonstrate capabilities, equity of access to services and other societal resources, and equity of wellbeing and health for both men and women.

The World Health Organisation (WHO) has stated that for Universal Health Care (UHC) to be truly achieved, gender and other drivers of inequalities within health systems must be considered and actively addressed.

In line with this, the UK Public Health Rapid Support Team (UK-PHRST) and its Partners, in their endeavour to provide equitable and inclusive public health rapid support services, decided to include a theme, "equity and capacity strengthening" in the three-days partners' learning review meeting that took place in cape Town from September 27-29, 2022.



▲ lightlounge.co.za

This paper presents as a learning brief with the primary objective of reviewing and learning from approaches elsewhere, specifically from the Transforming Employability for Social Change (TESCEA) model, which was developed and implemented by a consortium of partners comprised of universities and NGOs from East Africa and the UK.²

TESCEA was developed by testing approaches in partner universities and consolidating their experience into a set of practical tools and online courses, that offer a complete pathway from programme alignment to learning design in order to transform the employability of graduates.²

One of its key goals was to underpin the entire project with the awareness and practice of gender equity. At the start of TESCEA's implementation, we noted that the idea of gender was often erroneously considered only a "women's issue". However, we all know this is not true gender is a complex term that may refer to men and women in some societies but, in a broader context, is based on cultural, historical and social factors. It is always important to be mindful of and to work within the specific community and broader social context, referencing what the gender context looks like within the community we are working in when considering introducing gender mainstreaming.

Moreover, so often, when we talk about gender, we find ourselves referring only to women's issues. This was also experienced during the "equity and capacity strengthening session at the UK-PHRST and Partners learning meeting in Cape Town during presentations and discussions of "prioritising gender" in the rapid health support services. The discussions at this meeting, clearly indicated the need to correct these misconceptions and intentionally mainstream gender using proven models in the activities adopted by the UK-PHRST in interacting with communities.

Learning from the TESCEA Model

The authors' presentation at the learning review and our intention in writing this paper are to identify transferable lessons from TESCEA that may be of value for the UK-PHRST. We present below the top three lessons:

We have already established that gender equity and equality are key to any society's development.3 TESCEA adopted the definition of gender from the Gender Mainstreaming in Higher Education Toolkit 4 developed by INASP in 2018. The toolkit refers to the array of socially constructed roles, responsibilities, relationships, personality traits, attitudes, behaviours, values, expectations, privileges, relative power, and influence that society ascribes to women, men, boys, and girls on a differential basis. They are socially constructed, are learned, change over time, and vary widely within and across cultures. With this in mind, the TESCEA project prioritised Gender Mainstreaming and Gender Responsive Pedagogy (GRP) in its implementation to produce genderresponsive graduates who will enter the community and the job market and be change makers in reducing the gap in gender dispersity.

TESCEA defines Gender Responsive Pedagogy as a teaching and learning process that pays attention to specific learning needs of girls and boys (women and men) as applied to the preparation of curricula, lesson plans, classroom interactions, infrastructural settings, and performance evaluation.

Lesson one

Gender mainstreaming

Gender mainstreaming should be tailored to the specific context, sector, core activities, team, and overall needs of the target audience. At the inception of TESCEA, we noted from desk studies and mini surveys in our partner East African universities varying levels of gender awareness and gender disparity in management positions, academic staff and students' enrollment in various courses, and programmes. Having stated that "gender equity is not a "women's issue", we did observe that the inequity was more evident amongst women and early career researchers.

In pursuing gender equity, we were compelled to actively grow awareness of the implications of this inequity and what an attempt to redress it meant in practical terms. Consequently, we focused on how to remove barriers to the inclusion of women in senior positions, how to empower women and men in early careers, how to ensure that learning in the classroom was an inclusive and empowering experience for men and women, and how to foster a conversation and practice that generated mutual respect and value for each person and thier worth.

Lesson two

Raising awareness of what gender equity means

In practice, gender awareness is crucial to advancing this agenda. This means that all involved – from the most junior, to the most senior ranking member of the project – had to be aware of the "what, why and how" of gender mainstreaming in their context. This awareness preceded many of the key achievements that TESCEA recorded in this arena.

With this objective in mind, TESCEA was implemented with the clarity that it was essential to be culturally sensitive and society-specific in gender mainstreaming and not transfer one society's values onto another. Working in partnership, we used GRP as a tool to raise gender awareness and responsiveness among universities administration staff, academic staff, employers, NGOs, and the communities while using multi-disciplinary, externally facing Joint Advisory Groups (JAGs) to support the effort at the country level.

The journey was not smooth, and while we recorded many measurable achievements, there were also some challenges, specifically in the participants' mindsets at the start of the project. In effect, challenges remain to date. However, there is an awareness that the work must go on to sustain it and scale.

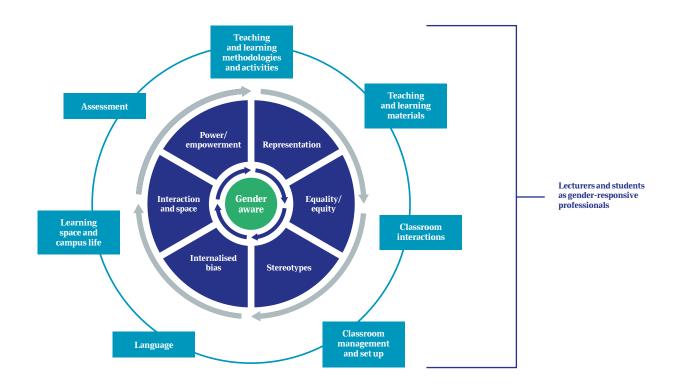
Lesson three

Push on open doors!

Our final lesson involves working first with those who "get it" and are willing to commit to the effort. Our approach was to start with Gender Training of Trainers (ToTs) exercises with teams that included both men and women. Over time, we developed a valuable resource, a hub of staff, and volunteer facilitators (Gender Champions) working together to train and motivate others. We organised Gender Awareness Seminars where we introduced GRP using the TESCEA gender framework - a bespoke framework tailored for East African higher education specifically, defined by six dimensions of gender and the seven gender spaces - depicted in Figure 3.

In the higher education institutions where we worked, we noted that there were no women or a minority of women in decision-making positions. In such a context, women's concerns, experiences and, of particular importance, women's perspectives were hardly attended to or engaged in enriching decision-making in higher education institutions. It will be instructive to identify whose voices are engaged up and down the power ladder in the UK-PHRST's work context - deployees, incident managers, researchers, programme managers, community leaders, etc. Other factors that TESCEA had to contend with (perhaps similar to the UK-PHRST) included cultural stereotyping, unconscious bias and the lack of women role models in senior positions, among others.3

Figure 3: The TESCEA gender framework



Conclusion

Three key transferable lessons emerge from our TESCEA experience. First, tailor any gender-mainstreaming efforts to your specific context. Second, raising the awareness of all involved about why gender mainstreaming is essential. Third, engage with interested people who want to work – start with this group and watch it grow into a critical mass.

Notable challenges in embedding gender were initial resistance in considering the needs of both women and men during training due to mindsets, which took some effort to transform. Stereotype and unconscious bias, a general feeling that some courses are more acceptable and suitable for men (natural sciences, technology, engineering, and mathematics - STEM subjects) and some for women (health courses, humanities and social sciences). We found that GRP helped encourage female students to consider courses initially considered male-dominated and vice versa.

One notable example is that more men enrolled in the nursing programme progressively over the four years of the TESCEA project. The application of GRP greatly improved the confidence of both male and female students in choosing their academic departments and professional development pathways. ⁵

With these lessons from the TESCEA model, we recommend applying gender-responsive pedagogy to UK-PHRST course development. The gender framework was used and tested in more than 100 health sciences, humanities, ICT, and STEM programme courses and has shown positive changes.² Central to the Gender framework is the notion that gender is a cultural/social training where stereotyping and unconscious bias are cross-cutting factors not limited to specific communities and not uniform in all communities.

In addition to the transferable lessons discussed above, we would recommend that the UK-PHRST include deliberate actions to correct the gender imbalances and promote parity by challenging the underlying structural conditions that perpetuate gender inequality through policy change, practices, recruitment, resource allocation, appraisals, and promotion to mention a few.

- United Nations Global Issues (no date) Gender equality: The unfinished business of our time.
 Available at: un.org/en/global-issues/gender-equality (Accessed: 11 May 2023)
- SPHEIR (no date) Transforming Employability for Social Change in East Africa (TESCEA). Available at: spheir.org.uk/partnership-profiles/transformingemployability-social-change-east-africa (Accessed: 11 May 2023)
- World Economic Forum (2022) Global Gender Gap Report. Availabale at: weforum.org/reports/globalgender-gap-report-2022/ (Accessed: 11 May 2023)
- Gollifer, S. and Gorman, S (2018) Gender
 mainstreaming in higher education toolkit. Available
 at: inasp.info/gendertoolkit (Accessed: 11 May 2023)
- Dooley G, Luswata A, Malagala A, Milanzi M,
 Ngowi E, Nzegwu F, Otieno AP (2022) Transforming
 employability for social change in East Africa:
 An evaluation. Available at: researchgate.net/
 publication/357736218_Transforming_Employability_
 for_Social_Change_in_East_Africa_an_Evaluation
 (Accessed: 11 May 2023)



▲ lightlounge.co.za

Ancora Imparo – I am still learning...

Michaelangelo (1475 – 1564)



Gender responsiveness is a concerted, systemic approach to identifying, analysing, and addressing the differing needs and experiences of people according to their gender. These needs and experiences are influenced by the following but not exhaustive factors – a person's access to rights and public/social services, their representation, and enabled participation within society, as well as supportive, respectful interactions with the state and at interpersonal levels. All of this is according to their gender identity and the existing gender norms within any given context.



Much research in recent years¹ has demonstrated that the 'gender-blind' assumptions so prolific within outbreak related work have enabled homogenous, ineffectual responses and measures detrimental to different groups to be implemented.³ A misguided 'one size fits all' approach can exacerbate the escalation, prolongment and impact of an outbreak.

Much progress has been made in the development of gender analysis tools and the integration of gender considerations in outbreak focused resources.⁴ It is evident that establishing substantive gender responsive practice must be an integral component throughout all aspects of outbreak related work if we are to comprehensively understand the social nuance and disparity of impact on communities around outbreaks, strengthening our response and research work.

Overview of discussions on gender responsiveness during the learning review

Early steps to embed this practice effectually requires organisations and institutes to strategically reflect on the current level of in-house knowledge, reviewing internal structures, and current approaches to work with a gendered lens.

The UK-PHRST has committed to undertake this by asking ourselves the following questions: how do we consider and prioritise the gendered aspects of our work currently? What strategies are in place to identify social equity gaps in our work? And, how do we ensure learning and development in this area?

It is essential to engage on these discussions within a wider partnership network, and the gender responsiveness session at the Learning Review offered the opportunity for colleagues to discuss, share and listen to what we perceive as some of the outbreak, gender-related issues in the contexts in which we work, how we should work to determine them more accurately, and what the entry points are to integrating tried and tested solutions in our work effectually.

The result was enthusiastic and nuanced conversations among colleagues – sharing thoughts, questions, and experiences from diverse work disciplines and positionalities.

There was perceptible engagement and commitment to this topic, notable by the willingness to share insights and ask questions of each other. The following

is a collation of the key observations and priorities determined in this area, as articulated by colleagues through group discussion and individual reflections.

Further discussion and suggested priorities from the learning review

It was raised that the recognition of gender as an integral determinant of people's experience of infectious diseases has long been apparent. However, the cross-over from recognition and commitment into action has often been harder to implement. Decisive, proactive action is required.

There was a shared acknowledgement that to consider gender is to consider all identities that exist under this umbrella category. As mentioned in the preceding article of this report by Fabian and Luswata, the term gender equity is frequently misused and made synonymous with issues that strictly address women and girls. We agreed that it is important to recognise and address the disproportionate levels of systemic discrimination and violence that women and girls experience. However, implementing a gender responsive approach to our work should not apply only to these groups.

It was also acknowledged that the patterns of disadvantage and exclusion that influence experiences of an outbreak are not shaped solely by gender but by the interconnected nature of social categorisations (such as, but not limited to; race, class, and gender), creating overlapping and interdependent systems of discrimination and oppression, known as 'intersectionality.'

A person's various identity markers (e.g., "woman" and "refugee") do not exist independently of each other, and it is important to note that each informs the others, creating a complex convergence of oppression. The experience is not just the sum of its parts. ⁵

Establishing effectual gender responsiveness must ensure the recognition and analysis of intersecting identity characteristics.

The compounding effect this brings to the discrimination and inequality experienced, how these factors determine power-dynamics in different social systems and the ability to access information and exercise self-determination within the context of infectious disease outbreaks.

Recommendations:

Institutional/organisational level

- Colleagues articulated the recognition that change comes from both individuals and institutions being proactive.
 Dedicated training opportunities are required:
 - to equip staff with the skills to recognise and consider the potential gender dimensions of outbreaks – building an organisational understanding of gender responsiveness that leads to wider advocacy of it as a practice
 - to enable staff to consider internal institutional/team processes and staff conduct. Do these areas currently demonstrate gender equitable practice? Are they conducive to constructing and carrying out gender responsive research or programmes?
- colleagues cited the necessity
 for targeted strategies to enable
 higher representation and effectual
 participation of women and junior
 staff at institutional levels. This includes
 a focus on inclusive job postings
 and recruitment methods and the
 development and continued effort
 to foster a safe and welcoming
 work environment
- advocacy by staff to our varying institutions to enable a more flexible approach to working and training opportunities – approaches that are conscious of a person's identity-based needs in a context

- senior staff and researchers facilitating the 'opening up of space' in their day-today activities, enabling entry points and leadership experience to more junior staff and women (often both) staff
- create processes to deliver gender briefings for applicable staff, supporting them to access information on the cultural variables and gender norms of a context they will be working in. The application and responsiveness to this also enables us to determine whether we are deploying the right person for the right task.

Work Practice

- Determining appropriate opportunities to interact and consult with community and civil society groups, in particular, women's groups. We must determine non-extractive ways to engage with groups, visit them, and welcome them to work specialisms
- a particular emphasis on women's participation during research community engagement. Those whose lived experiences are addressed in a piece of work should have a voice in designing that piece of research.
 'Nothing about us without us.'
- the requirement to design, implement and take ownership of a Gender & Equity frameworks at an institutional level.
 This would encourage these areas to be considered (in research, response, and programme development) right from the beginningthere is a pressing need to develop and prioritise gender focused research questions within this space
- creating or utilising appropriate existing tools to capture and collate evidence to monitor progression and advocate change in this area

colleagues discussed the deeply embedded gender norms and biases that exist at family and community levels, for example, the gap in education levels between boys and girls in some contexts. How does this impact health outcomes in relation to infectious disease outbreaks? What role can we play in communicating these issues to members of the community?

Conclusion

There was shared acknowledgement that gender norms and biases are far reaching, multi-faceted and deeply embedded.
They strongly influence the behaviours and decision-making of all people, including those that make up the institutions that undertake outbreak research, response, and capacity strengthening. We are not immune to the same gender norms and biases that we seek to scrutinise within our work and must recognise that self-awareness is key to the successful anchoring of this work.

There is a strong commitment amongst colleagues to implement behaviours and activities that enable us to better understand and address root causes of health inequalities, something often lacking in outbreak research and response.

Colleagues offered numerous insights into gendered dimensions of their work, with emphasis that there were frequently complications of progressing commitments into practical and measurable action. The numerous small steps to implementation and behaviour change can seem insurmountable at points.

Consequently, it requires active focus, budget allocation, specialist staff, and feasible targets – all variable amongst institutions and contexts.

Strength and momentum for this work can be derived from our partnerships by securing opportunities to hold complex and sometimes sensitive conversations, sharing techniques, challenges, innovations, and enacting the humility to be held accountable by a collective. This is work we must continue to support one another on.

One of our colleagues closed this learning review session with a thoughtful reflection on our aims for a gender responsive work focus.

"We would like a situation where people don't have to struggle to have what others achieve. People should be able to achieve without having to put too much extra effort."

- Wenham, C., Smith, J., Davies, S.E., Feng, H., Grépin, K.A., Harman, S., Herten-Crabb, A. and Morgan, R. (2020) 'Women are most affected by pandemics—lessons from past outbreaks'. Nature, 583(7815), pp.194-198. Available at: genderhealthhub.org/wp-content/uploads/2021/03/d41586-020-02006-z.pdf (Accessed: 1st May 2023)
- 2. Wenham, C., Arauz-Reyes, N.M., Meneses-Sala, D. and Rueda-Borrero, C. (2022) 'Explicitly sexing health security: analysing the downstream effects of Panama's sex-segregated COVID-19 disease control policy'. Health Policy and Planning, 37(6), pp.728-736. Available at: doi.org/10.1093/heapol/czac006
- The Sex, Gender and COVID-19 Project
 (no date). Global Health 50/50. Available at:
 globalhealth5050.org/the-sex-gender-and-covid-19-project/ (Accessed 1st May 2023)
- Morgan, R., Davies, S.E., Feng, H., Gan, C.C., Grépin, K.A., Harman, S., Herten-Crabb, A., Smith, J. and Wenham, C., 2022. 'Using gender analysis matrixes to integrate a gender lens into infectious diseases outbreaks research'. Health policy and planning, 37(7), pp.935-941. Available at: doi.org/10.1093/ heapol/czab149 (Accessed 1st May 2023)
- Steinmetz, K. (2020) She Coined the Term
 'Intersectionality' Over 30 Years Ago. Here's What It
 Means to Her Today. Available at: time.com/5786710/
 kimberle-crenshaw-intersectionality/(Accessed 1st
 May 2023)



▲ lightlounge.co.za

Do the best you can until you know better. Then when you know better do better.

Maya Angelou (1928 – 2014)



Infection Prevention and Control (IPC) in Banso Baptist Hospital, Cameroon

Nkwan Jacob Gobte ¹
Emilio Hornsey ²

¹Cameroon Baptist Convention Health Services

²UK Public Health Rapid Support Team (UK-PHRST)

Correspondence to Nkwan Jacob Gobte nkwanjacobgobte@gmail.com

Oman desert with trees and plants – Joseph Gribben

Background

Family caregivers are an integral but largely unrecognised part of the health team in Cameroon. It is widely and culturally acceptable in Cameroon for family members to care for relatives in the hospital to show concern and love to their family.¹²

Due to a shortage in the nursing workforce, family members can play critical roles in the care of patients in the hospital. They can subsequently risk transmitting infections because they usually receive no Infection Prevention and Control (IPC) orientation before assuming those functions. Therefore, they can unknowingly facilitate the transmission of health care associated infections.

Engaging family caregivers in effective IPC practices has the potential to reduce the risk of health care associated infections as well as reinforce good hygiene practices during their stay in the hospital.

Supporting caregivers is an additional way to build the relationship between them and the health workers and improve the quality of care. It also strengthens hygiene practices in the wider community as lessons learnt from the health facilities can be implemented at home after discharge.

This article reflects on the preliminary findings of the study described below, key lessons from which were shared at the UK-PHRST and Partners Learning Review in Cape Town in 2022. The study aimed to characterise the roles and functions of family caregivers in a tertiary health setting, develop resources to support IPC engagement and pilot the delivery of a multimodal IPC improvement strategy.



▲ Partial view of Banso Baptist Hospital

Methodology

The study occurred between September 2021 and January 2022 in Banso Baptist Hospital (BBH), a faith-based, tertiary referral hospital run by the Cameroon Baptist Convention Health Services. BBH is located in the Northwest Region of Cameroon. We included all six wards in the study.

We piloted an intervention and ran a process evaluation alongside the intervention. We collected baseline data and used this to design and implement the intervention. We collected data during the pilot intervention to explore the feasibility of this type of programme and the impact of the intervention on key stakeholders. We conducted structured observations of caregiver activities and short interviews and surveys to assess the family caregivers' knowledge of the chain of infection and prevention methods. Research assistants supported the delivery of the intervention and were trained in research ethics and data collection using tablet computers and the KoboToolbox app.

With assistance from Medical Aid Films and Infection Control Africa Network, we developed an orientation package for caregivers. We also developed notes for IPC Monitors to deliver short health talks, an animated film and visual aids.

Included in the video was the chain of infection, when to perform hand hygiene and when to use gloves during the care activities. We translated the animated videos from English to Cameroonian Pidgin, a local language widely spoken in Cameroon and the region. The IPC Monitors gave the lessons regularly, at least twice per week on Wednesdays and Fridays, over a period of six weeks.



▲ Family Caregiver listening to lectures in Men's ward



▲ Family Caregivers and staff listening to lectures in Children's Ward



▲ Lessons developed for the project

Each lesson lasted an average of 27 minutes and included the projection of the animated video on television screens (installed for this purpose), followed by demonstration and return demonstrations of hand washing and glove use, and discussions and questions and answers. Family caregivers were allowed to ask questions wherever they needed clarifications, and the IPC monitors responded. During the time of the pilot, over 42 sessions were delivered with over 500 family caregivers attending. To explore the reach and dose administered, we delivered surveys to health workers and caregivers and observations of caregiver activities. We analysed the quantitative data using descriptive statistics and the qualitative data using thematic analysis.

Findings

Preliminary results from the quantitive element of the surveys show that of the 129 family caregivers surveyed, 98% (n127/129) of the caregivers said they enjoyed the health talks, 90% (116/129) reported learning new things and 98% (127/129) reported they would change the way they provided care.

99% (105/129) of Health workers, 89% (94/129) other caregivers, and 91% (96/129) staff thought the talks were beneficial for caregivers and could reduce infections among patients. 92% (98/129) of staff observed better collaboration between family caregivers and health workers post-delivery of the health talk. One good but unintended consequence was increased demand for examination gloves by family caregivers and subsequent pressure on resources.

Attendees reported knowledge gain and behaviour change, particularly around hand hygiene. Their learning increased their motivation and demonstrated commitment to caregiving.

The health talks were also regarded as evidence that the hospital valued and appreciated caregivers. In addition, some caregivers felt it was unhelpful to teach content that people did not have the resources to implement. Staff reported better communication and teamwork with family caregivers following health talks – the knowledge gained about disease transmission, hand hygiene, and PPE was particularly valued. Caregivers also expressed a wish for the lessons to be translated into other local languages to reach the wider community and other health settings.



▲ Trained Research Assistant

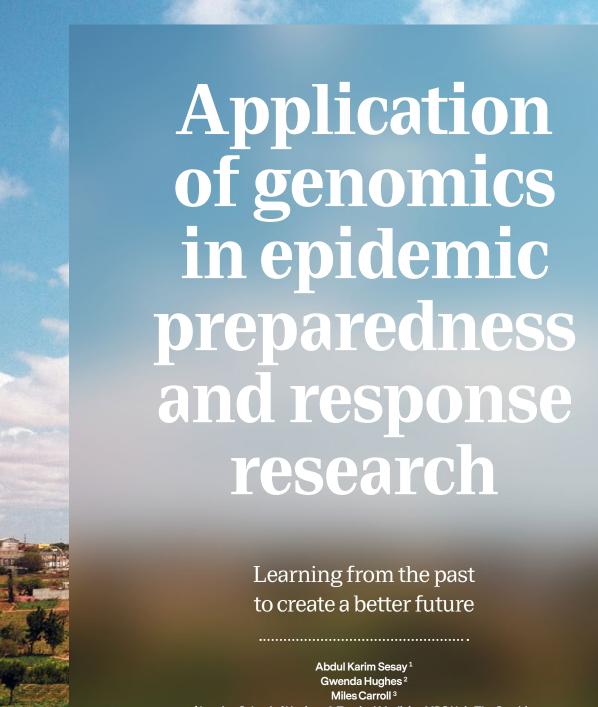
Conclusion

Family caregivers are an integral part of the health care system and play important roles in patient care. They can be implicated in the transmission of health care associated infections, and therefore should be included in IPC interventions. It is feasible and beneficial to engage family caregivers in IPC. Family caregivers and health workers responded positively to the health talks and requested further health talks, especially to include demonstration of practical skills and follow-up with leaflets.

The value of the health talks was recognised by facility leadership, and the health talks have continued since the completion of the pilot. We plan to adapt and scale-up the project and share the materials with others. However, the design and delivery methods should be taken into consideration. Family caregivers appreciate lessons that are visual and delivered in a practical way. Family caregivers should be provided personal protective equipment for the tasks that require them. We will conduct further analysis of the quantitative data and qualitative analysis of the interviews and use the findings to refine the intervention for a broader trial in other settings.

The Cape Town review allowed us to reflect on the critical role of family caregivers in health care settings and why it is imperative not only to anchor them fully into an IPC response but also to resource their effort.

- Bassah, N., Ubenoh, U.S. and Palle, J.N. (2018). An exploratory study of the knowledge and practices of family caregivers in the care of the elderly at home in the Buea Health District, Cameroon. J Gerontol Geriatr Res, 7(473), p.2. dx.doi. org/10.4172/2167-7182.1000473
- 2. Olagundoye, O. and Alugo, M. (2018) Caregiving and the family. London: IntechOpen. doi.org/10.5772/intechopen.72627
- Clavel, N.C., Lavoie-Tremblay, M., Biron, A., Briand, A., Paquette, J., Bernard, L., Fancott, C., Pomey, M.P. and Dumez, V. (2022)
 Patient and family engagement in infection prevention in the context of the COVID-19 pandemic: defining a consensus
 framework using the Q methodology–NOSO-COVID study protocol. BMJ open, 12(7), p.e056172. doi.org/10.1136/
 bmjopen-2021-056172



¹London School of Hygiene & Tropical Medicine MRC Unit, The Gambia ²UK Public Health Rapid Support Team (UK-PHRST), UK ³Wellcome Centre for Human Genetics and Pandemic Sciences Institute, UK

Correspondence to Abdul Sesay abdul.Sesay@lshtm.ac.uk

Green grass field under blue sky during daytime. Urbanização Nova Vida– Eryxson Fonseca



▲ Performing MinION sequencing in Guinea 2015 (copyright EMLab)

The need for pathogen genomics in EPR research in low- and middle-income countries

The COVID-19 pandemic has recently highlighted the vulnerability of the global population to emerging infectious diseases threats.1,2 Timely, relevant research is essential to support and guide development of epidemic preparedness and response (EPR) plans yet the evidence base is generally considered weak.3,4 To respond to this gap, the UK-PHRST commissioned stakeholder interviews, workshops, and an evidence gap analysis to inform development of a multi-disciplinary research programme to meet low- and middle-income country (LMIC) partners' needs; it also addressed important evidence gaps to support and improve outbreak preparedness and response in LMICs.

A consistent finding of this formative work was the need to integrate rapid and inexpensive tools for pathogen genomics into public health surveillance systems so that countries might better address important questions about infectious disease outbreak dynamics in real-time. Used alongside conventional, clinical surveillance systems, pathogen genomics can be used to characterise an outbreak and/or discriminate particular variants of concern leading to faster detection and more appropriate responses.

Furthermore, when integrated with detailed epidemiological and behavioural data, genomics can be used to uncover the characteristics and important risk factors of a pathogen's transmission dynamics within a community, so that interventions can be more relevant, targeted and cost-efficient.

Learning from the past: The response to the Ebola Virus Disease epidemic in Guinea

Reliable diagnostics are an essential capability for outbreak detection and research, and vital in supporting patient management in addition to the broader public health response.

Quantitative PCR (qPCR) was the gold standard molecular diagnostic with impressive sensitivity and reliability. Important research and development into field deployable platforms has enabled their use in resource limited settings. The key role played by molecular diagnostics was perfectly illustrated during all phases of the 2013-2016 West Africa Ebola Virus Disease (EVD) epidemic.5 It is now known that in the absence of appropriate diagnostics and laboratory capabilities, the virus spread among the local community at the epicentre in the village of Meliandou in Gueckedou, located within the forested region of the Republic of Guinea,6 and subsequently to Liberia and Sierra Leone as infected individuals travelled over local borders.

It is estimated that up to 30 fatalities occurred before blood samples were transferred to European laboratories for confirmation of a Zaire EVD outbreak using qPCR.5 This triggered a WHO coordinated response to assist the Guinean authorities in their response to the outbreak. Within a week of confirmatory test results, and at the invitation of the Republic of Guinea Ministry of Health, the European Mobile Laboratory (EMLab) had established a mobile diagnostic capability in support of Médecins Sans Frontières' (MSF) recently opened Ebola Treatment Centre (ETC) in Gueckedou.7 Diagnostics capabilities at the Guinean National Reference Laboratory in Conakry were also strengthened with support from the Bernhard-Nocht-Institute (BNI) and EMLab. Additionally, local expertise from Institute Pasteur Dakar further strengthened diagnostics capabilities in the capital.

The EMLab qPCR services to MSF and the local response leadership provided important information on patient entry to the ETC, supporting clinical management and epidemiology efforts. Similar capabilities were supported by several other international entities deployed in Liberia and Sierra Leone.

However, in 2014 extracted RNA from Ebolavirus (EBOV) positive blood samples were exported to international laboratories with sequencing capabilities. These early sequencing efforts provided important insight into the virus mutation rate, stability of the glycoprotein vaccine target and, through phylogenetic analysis, the transmission chains that could not be deciphered using classical epidemiological approaches alone.

When an early transmission map created by BEAST (Bayesian Evolutionary Analysis Sampling Trees) analysis of sequencing data from over 200 West African positive samples8 was presented to the WHO and Guinean Ebola Response group in Conakry March 2015, they demanded a sequencing capability was brought to Guinea to support a real-time molecular epidemiology service. With support from Oxford Nanopore Technologies (ONT) and expertise from collaborators at Birmingham and Edinburgh Universities, the EMLab was able to provide a real-time sequencing service using small, portable MinION sequencers in Guinea with a turnaround time of less than 24 hours. Local Guinean staff were key components of the EMLab workforce and were trained on all aspects of the diagnostic platforms.

The real-time sequencing service played a major role in unravelling many previously unknown transmission chains including via asymptomatic infection and infected breast milk. It also supported the Phase III EBOV vaccine study that was critical for licensure of an effective vaccine. 10

However, perhaps its most impressive application was in the case of a female EVD fatality in the forested region of Guinea six-months after the area was thought to be disease free. Sequencing of the index case sample showed a high level of similarity to that of a male EVD survivor who was released from an ETC some 500 days previously. Subsequent sequencing of a emen sample from the survivor confirmed the match, highlighting the risk of sexual transmission and resulting in a WHO-led campaign to vaccinate potential contacts of registered male survivors.¹¹

The ONT MinION platform has been significantly improved over the years, considerably reducing the unit cost per sequencing run. However, to maintain an isolated laboratory with relatively expensive time limited consumables and trained staff is challenging. When a subsequent EVD death in Guinea occurred in 2021, the EMLab had to send new equipment, reagents and staff to Conakry to support the local sequencing campaign in collaboration with regional support from Inst Pasteur Senegal.¹²

Creating a better future for pathogen genomics in LMICs: The MRC Gambia genomics platform

It is well known that a scarcity of sequencing infrastructure and basic skills for analysing genomic data to inform public health decisions hindered the management of the COVID-19 outbreak in Africa. Accurate, timely genomic data was impossible to achieve in LMICs during the peak of the pandemic. Laboratories were forced to ship samples elsewhere, preventing a real-time contribution of sequences to monitor virus evolution locally and understand its global spread.

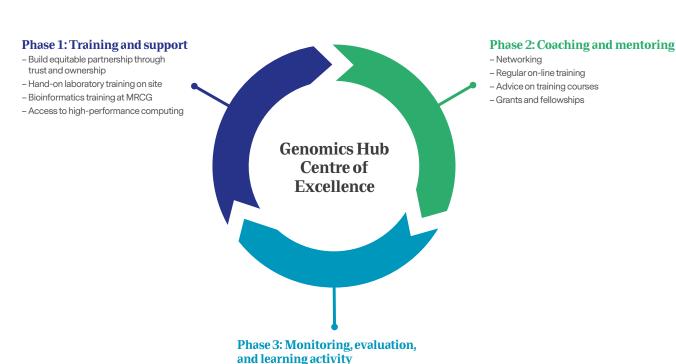
To circumvent this, the MRC Gambia (MRCG) at LSHTM established a genomics platform to strengthen genomics sequencing competency in sub-Saharan Africa by providing MinION sequencers and training on library preparation and bioinformatics analysis (figure 4).14 Across the eight laboratories in six countries (Burkina Faso, Guinea-Bissau, Mali, Nigeria, Senegal, and Sierra Leone) worked with, there was a paucity of basic skills and knowledge in sequencing, regular power outages, poor procurement systems, and slow internet speed; only one had a trained bioinformatician. Within six-months, MRCG trained and supported these eight laboratories and delivered bioinformatics training across West Africa. All these laboratories were thereafter able to perform real-time sequencing of SARS-CoV-2 in country, generating real-time genomic data that helped in understanding virus evolution and informing public health responses and policies in the region.

To enable timely responses to future pandemics in LMICs, pathogen genomics must be sustainable, affordable, rapidly deployable and sufficiently flexible to respond to emerging situations. Funding from funders and governments should be directed towards knowledge transfer and hands-on training in sequencing and bioinformatics.

South-South collaborations such as the MRCG one described here can enable exchange of mutually relevant resources, technology, knowledge, and skills to strengthen genomics capacity in public health laboratories. Effective procurement and Laboratory Information Management Systems networks are also needed at regional level to ensure rapid access, exchange and management of reagents, consumables and/or equipment.

Finally, researchers from high income countries must prioritise genuine co-delivery of research with their LMIC partners, so that pathogen genomics is applied to address questions that are relevant to affected communities and can lead to sustainable improvements in EPR. To achieve this, it will be important to continue to attract funding for genuinely collaborative North-South research programmes that lead to innovations and enable new technologies.

Figure 4: MRCG, LSHTM Genomics Capacity Building Model



- Support / training on accreditation / certification

- Site visitis

External quallity programmeLearning and accountability

- World Health Organization (2021) Health security.
 Available at: who.int/westernpacific/health-topics/health-security (Accessed: 15 June 2023)
- International Organization for Migration (2022)
 Outbreak Preparedness and Response. Available at: iom.int/outbreak-preparedness-and-response
 (Accessed: 15 June 2023)
- Blanchet, K., Ramesh, A., Frison, S., Warren, E., Hossain, M., Smith, J., Knight, A., Post, N., Lewis, C., Woodward, A., Dahab, M. Ruby, A., Sistenich, V., Pantuliano, S. and Roberts, B. 2017. Evidence on public health interventions in humanitarian crises. The Lancet, 390(10109), pp.2287-2296. doi.org/10.1016/S0140-6736(16)30768-1
- Kohrt, B.A., Mistry, A.S., Anand, N., Beecroft, B. and Nuwayhid, I. 2019. Health research in humanitarian crises: an urgent global imperative. BMJ Global Health, 4(6), p.e001870. dx.doi.org/10.1136/bmjgh-2019-001870
- Baize S, Pannetier D, Oestereich L, Rieger T, Koivogui L, Magassouba N, Soropogui B, Sow MS, Keïta S, De Clerck H, Tiffany A, Dominguez G, Loua M, Traoré A, Kolié M, Malano ER, Heleze E, Bocquin A, Mély S, Raoul H, Caro V, Cadar D, Gabriel M, Pahlmann M, Tappe D, Schmidt-Chanasit J, Impouma B, Diallo AK, Formenty P, Van Herp M, Günther S. 2014. Emergence of Zaire Ebola virus disease in Guinea. New England Journal of Medicine, 371(15), pp.1418-1425. doi.org/10.1056/ nejmoa1404505
- Timothy J.W., Hall, Y., Akoi-Boré, J., Diallo, B., Tipton, T.R., Bower, H., Strecker, T., Glynn, J.R. and Carroll, M.W. 2019. Early transmission and case fatality of Ebola virus at the index site of the 2013–16 west African Ebola outbreak: a cross-sectional seroprevalence survey. The Lancet Infectious Diseases, 19(4), pp.429-438. doi.org/10.1016/S1473-3099(18)30791-6
- 7. Kerber, R., Krumkamp, R., Diallo, B., Jaeger, A., Rudolf, M., Lanini, S., Bore, J.A., Koundouno, F.R., Becker-Ziaja, B., Fleischmann, E., Stoecker, K. Meschi, S., Mély, S., Newman, E.N.C., Carletti, F., Portmann, J., Korva, M., Wolff, S., Molkenthin, P., Kis, Z., Kelterbaum, A., Bocquin, A., Strecker, T., Fizet, A., Castilletti, C., Schudt, G., Ottowell, L., Kurth, A., Atkinson, B., Badusche, M., Cannas, A., Pallasch, E., Bosworth, A., Yue, C., Pályi, B., Ellerbrok, H., Kohl, C., Oestereich, L., Logue, C.H., Lüdtke, A., Richter, M., Ngabo, D., Borremans, B., Becker, D. Gryseels. S., Abdellati, S., Vermoesen, T., Kuisma, E., Kraus, A., Liedigk, B., Maes, P., Thom, R., Duraffour, S., Diederich, S., Hinzmann, J., Afrough, B., Repits, J., Mertens, M., Vitoriano, I., Bah, A., Sachse, A., Boettcher, J.P., Wurr, S., Bockholt, S., Nitsche, A., Županc, T.A., Strasser, M., Ippolito, G., Becker, S., Raoul, H., Carroll, M.W., De Clerck, H., Herp, M.V., Sprecher, A., Koivogui, L., Magassouba, N., Keïta, S., Drury, P., Gurry, C., Formenty, P., May, J., Gabriel, M., Wölfel, R., Günther, S. and Di Caro, A. 2016. Analysis of diagnostic findings from the European mobile laboratory in Gueckedou, Guinea, March 2014 through March 2015. The Journal of infectious diseases, 214(suppl_3), pp. S250-S257. doi.org/10.1093/infdis/jiw269

- 8. Gire, S.K., Goba, A., Andersen, K.G., Sealfon, R.S., Park, D.J., Kanneh, L., Jalloh, S., Momoh, M., Fullah, M., Dudas, G. and Wohl, S., Moses, L.M., Yozwiak, N.L., Winnicki, S., Matranga, C.B., Malboeuf, C.M., Qu, J., Gladden, A.D., Schaffner, S.F., Yang, X., Jiang, P-P., Nekoui, M., Colubri, A., Coomber, M.R., Fonnie, M., Moigboi, A., Gbakie, M., Kamara, F.K., Tucker, V., Konuwa, E., Saffa, S., Sellu, J., Jalloh, A.A., Kovoma, A., Koninga, J., Mustapha, I., Kargbo, K., Foday, M., Yillah, M., Kanneh, F., Robert, W., Massally, J.L.B., Chapman, S.B., Bochicchio, J., Murphy, C., Nusbaum, C., Young, S., Birren, B.W., Grant, D.S., Scheiffelin, J.S., Lander, E.S., Happi, C., Gevao, S.M., Gnirke, A., Rambaut, A., Garry, R.F., Khan, H. AND Sabeti, P.C. 2014. Genomic surveillance elucidates Ebola virus origin and transmission during the 2014 outbreak. Science, 345(6202), pp.1369-1372. doi.org/10.1126/science.1259657
- Sissoko, D., Keïta, M., Diallo, B., Aliabadi, N., Fitter, D.L., Dahl, B.A., Akoi Bore, J., Raymond Koundouno, F., Singethan, K., Meisel, S., Enkirch, T., Mazzarelli, A., Amburgey, V., Faye, O, Sall, A.A., Magassouba, N., Carroll, M.W., Anglaret, X., Malvy, D., Formenty, P., A ylward, R.B., Keïta, S., Djingarey, M.H., Loman, N.J., Günther, S. and Duraffour, S. 2017. Ebola virus persistence in breast milk after no reported illness: a likely source of virus transmission from mother to child. Clinical Infectious Diseases, 64(4), pp.513-516. doi.org/10.1093/cid/ciw793
- 10. Henao-Restrepo, A.M., Camacho, A., Longini, I.M., Watson, C.H., Edmunds, W.J., Egger, M., Carroll, M.W., Dean, N.E., Diatta, I., Doumbia, M., Draguez, B., Duraffour, S., Enwere, G., Grais, R., Gunther, S., Gsell, P.S., Hossmann. S., Watle, S.V., Kondé, M.K., Kéita, S., Kone, S., Kuisma, E., Levine, M.M., Mandal, S., Mauget, T., Norheim, G., Riveros, X., Soumah, A., Trelle, S., Vicari. A.S., Røttingen, J-A. and Kieny, M-A. 2017. Efficacy and effectiveness of an rVSV-vectored vaccine in preventing Ebola virus disease: final results from the Guinea ring vaccination, open-label, cluster-randomised trial (Ebola Ça Suffit!). The Lancet, 389(10068), pp.505-518. doi.org/10.1016/S0140-6736(16)32621-6
- 11. Diallo, B., Sissoko, D., Loman, N.J., Bah, H.A., Bah, H., Worrell, M.C., Conde, L.S., Sacko, R., Mesfin, S., Loua, A. and Kalonda, J.K., Erondu, N.A., Dahl, B.A., Handrick, S., Goodfellow, I., Meredith, L.W., Cotten, M., Jah, U., Wadoum, R.E.G., Rollin, P., Magassouba, N., Malvy, D., Anglaret, X., Carroll, M.W., Aylward, R.B., Djingarey, M.H., Diarra, A., Formenty, P., Keita, S., Günther, S., Rambaut, A. and Duraffour, S. 2016. Resurgence of Ebola virus disease in Guinea linked to a survivor with virus persistence in seminal fluid for more than 500 days. Clinical infectious diseases, 63(10), pp.1353-1356. doi.org/10.1093/cid/ciw601

- 12. Keita, A.K., Koundouno, F.R., Fave, M., Düx, A., Hinzmann, J., Diallo, H., Ayouba, A., Le Marcis, F., Soropogui, B., Ifono, K. and Diagne, M.M., Sow, M.S., Bore, J.A., Calvignac-Spencer, S., Vidal, N., Camara, J., Keita, M.B., Renevey, A., Diallo, A., Soumah, A.K., Millimono, S.L., Mari-Saez, A., Diop, M., Doré, A., Soumah, F.Y., Kourouma, K., Vielle, N.J., Loucoubar, C., Camara, I., Kourouma, K., Annibaldis, G., Bah, A., Thielebein, A., Pahlmann, M., Pullan, S.T., Carroll, M.W., Quick, J., Formenty, P., Legand, A., Pietro, K., Wiley, M.R., Tordo, N., Pevrefitte, C., McCrone, J.T., Rambaut, A., Sidibé, Y., Barry, M.D., Kourouma, M., Saouromou, C.D., Condé, M, Baldé, M., Povogui, M., Keita, S., Diakite, M., Bah, M.S., Sidibe, A., Diakite, D., Sako, F.B., Traore, F.A., Ki-Zerbo, G.A., Lemey, P., Günther, S., Kafetzopoulou, L.E., Sall, A.A., Delaporte, E., Duraffour, S., Faye, O Leendertz, F.H., Peeters, M, Toure, A. and Magassouba, F. 2021. Resurgence of Ebola virus in 2021 in Guinea suggests a new paradigm for outbreaks. Nature, 597(7877), pp.539-543.doi.org/10.1038/s41586-021-03901-9
- 13. Helmy, M., Awad, M. and Mosa, K.A. 2016. Limited resources of genome sequencing in developing countries: challenges and solutions. Applied & translational genomics, 9, pp.15-19. doi.org/10.1016/j.atg.2016.03.003
- 14. Kanteh, A., Manneh, J., Sanyang, B., Kujabi, M.A., Jallow, H.S., Ndure, S.L. and Sesay, A.K. 2022. Simple and structured model to build sequencing capacity in west Africa. The Lancet Global Health, 10(9), pp.e1240-e1241. doi.org/10.1016/S2214-109X(22)00319-9

Learn from yesterday,
live for today,
hope for tomorrow.
The important thing
is not to stop questioning.

Albert Einstein (1879 - 1955)



Background

The COVID-19 pandemic was a unique challenge and many working in the public health sector found themselves in a context and working environment unlike any they had experienced before. Normal ways of working were disrupted at every level, from not being able to travel overseas for deployment and research to not being able to leave home to meet with colleagues at one's normal place of work.

For those managing programmes in the area of global health, infectious disease research response and preparedness, the impact was further heightened. This short reflective piece looks at some of the challenges and lessons learnt, and shares considerations for managing a programme in this context.

Note, while this is piece on and reflects the UK-PHRST heavily (given the authors' roles as UK-PHRST Programme Managers) this is a personal reflection piece that aims to look more generally at managing a programme during a time of change and the key challenges and opportunities that can occur.

Clear and frequent communication is key (But, recognise meeting fatigue and information overload)

The experience of many within the Global Health sector of working with partners from numerous countries and with colleagues overseas meant they were well placed to adapt to remote working, virtual calls, and Zoom & Teams becoming the new normal.

There were many challenges as well, particularly for organisations such as the UK-PHRST working across multiple organisations. Many of these were IT focused with different favoured systems for meetings and team catch ups slowing down communication at a time when working rapidly but also in a cohesive manner was so vital.

As with many similar organisations, the UK-PHRST looked at its operating model and an interim Operating Model was developed, which included principles and practical steps for remote working. This included setting up weekly team catch-ups to ensure we were communicating what the changing situation meant for the UK-PHRST as a programme as well as for individuals and being mindful that the situation had different impacts on individual's health and wellbeing.

These were supplemented by informal and formal remote team meetings and one-to-ones throughout the programme, particularly at the start of the pandemic as team members were forced to make a rapid adjustment to work remotely with adjusted workplans.

However, as the pandemic (and remote working) continued, meeting fatigue was apparent in the programme and it was vital to strike the correct balance between ensuring the team felt supported, included, and communicated with, but did not suffer from meeting fatigue (and vitally that time was protected for the team to work on output focused activities).

There were a number of different approaches to addressing the issue of meeting fatigue. Some colleagues tried to block out certain dedicated "non-meeting days" while others suggested meetings of no more than 50-minutes to ensure some sort of break between calls. Others adjusted their working patterns to have some physical activity and meet family needs, but this sometimes resulted in work and home life boundaries becoming blurred.

The most effective approach for the authors was to have a rule of only having meetings when there was an agreed purpose behind the meeting. While there is some risk of vagueness to this approach this broadly meant, only meet if:

- you are exchanging new information vital to your own role or the role of those you are meeting with (e.g, an update on how a research project is progressing that may inform resourcing or budget considerations)
- you are meeting to make a decision (e.g, Senior Management Team (SMT) meeting to review and approve a new policy)
- it is a working meeting (e.g, to work as a group on a particular task), or
- you are meeting to check on the physical and mental health of your team or colleague (vital during the pandemic and as we adapt back to a hybrid model moving forward). It is also vital to be aware of one's own wellbeing.

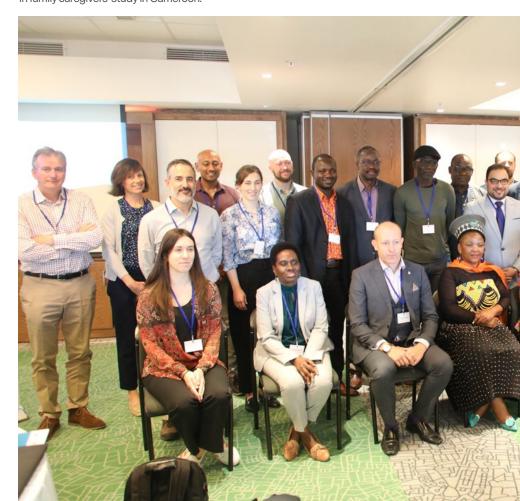
In summary, we met when we had a clear and agreed agenda, well thought through meeting participant lists and meetings of the correct length to address the issues to be covered. That practice continues to be of value today as we transition back into more face-to-face and hybrid meetings.

Additionally, programme managers and others in leadership and core management play a key role here in protecting technical/deployable/front line colleagues from information overexposure. By considering, managing and ensuring issues such as Monitoring Evaluation and Learning (MEL), finance, resourcing, governance, and reporting are in place and well managed, programme managers can reduce the burden on core deployable staff and enable a smoother, more efficient and effective deployment experience and outcome

Seizing opportunities to re-think our deployment approach

The COVID-19 pandemic impacted UK-PHRST research delivery and deployments (through travel restrictions, lack of availability of partners, remote working etc.) and delayed fieldwork and/or hampered logistics. For example, staff diversion delayed the acquisition of rumour tracking data for a study on COVID-19 rumours in Sierra Leone and Tanzania. Additionally, travel restrictions and, in-turn, disruption to sample collection, shipment, and testing contributed to delays to a Lassa fever prospective cohort study in Nigeria and a Viral Haemorrhagic Fever exposure investigation in Uganda, while the shipment of android tablets was delayed in the Infection Prevention and Control (IPC) in family caregivers' study in Cameroon.

The impact of the COVID-19 pandemic to research delivery lessened throughout the pandemic, through mitigating measures that were put in place early in the planning process and through the ability of the team to be adaptable at both the programme and project level, this included remote supervision of partners in country, communications and training of in-country research teams, all of which facilitated continued delivery of research projects.



▲ Western Cape Ministry of Health and Wellness

Lessons learnt during the height of the COVID-19 pandemic were used to promote a more flexible way of "deploying". The UK-PHRST was able to offer remote support to WHO and other Partners such as the Africa CDC, alongside a number of in-person deployments returning to pre-pandemic normal levels. There is also an opportunity for the programme (and others like it) to continue with a hybrid model for both deployments and research, with some in-country support and delivery supplemented by remote training and technical advice.

These remote ways of working, while presenting new opportunities, also highlighted the importance of face-to-face interactions and relationship building, especially when faced with cultural, language and IT barriers.



Ensure strong governance and adaptable and impact focused monitoring evaluation and learning

Governance structures such as the UK-PHRST technical steering committees, regular Senior Manager Meetings and advisory groups can be vital in ensuring the quality of work even within a changing context. These need to have flexibility within their structure, particularly when working in a changing or rapid environment, but key principles and terms of reference for these groups should always be upheld. For SMT, this would mean ensuring meetings are held regularly and to a fixed structure or agenda - ensuring that key information is shared at senior level and strategic decisions (even when made rapidly) are made in an informed manner. For technical or scientific advisory groups while these may need to review proposals in a different way (e.g, over email rather than through formal face-to-face meetings) the reviewer (and those coordinating these groups) should still ensure scientific rigour and clear feedback in their review.

It has been vital to continue to strengthen our MEL infrastructure for the programme, particularly with the increased challenge of capturing evidence in a changing and challenging context. As programme managers, it has been crucial to act as a link between the areas of strong governance and monitoring within the UK-PHRST's work at the project level. Ensuring the MEL model is appropriate to the programme and captures success without becoming a burden to project teams has been an important outcome. The nature of our MEL programme's work has allowed this to happen with quick tools such as partner surveys, monitoring of outputs, and reflective learning sessions all contributing to a growing culture of capturing impact and best practice.

Into the future, MEL should also continue to be undertaken on a timely and regular basis, to capture real-time progress and learning while ensuring that the process is as light touch and integrated into "normal" programme activity as possible.

This can be a particular challenge when in a rapidly changing environment and those managing the programme should ensure continued communication with MEL teams/ leads to consider how this can best take place. This may be through identifying and focusing on three or four key MEL indicators for an agreed cycle (quarterly, monthly, or fortnightly), planning sessions to agree new indicators suitable to the changing environments, and re-focusing on the programmes key objectives and high-level frameworks such as, Theories of Change, so ensure the programme team's focus is not lost during a time of rapid and significant change.

Conclusions

Looking back over the UK-PHRST's lifespan, the four key lessons captured below have continued to serve the programme's interest:

- ensuring clear, frequent but non-time intensive communication mechanisms has been fundamental
- seizing opportunities where they first present as a problem, to adapt, innovate and emerge more resilient
- learning how best to deal with uncertainty whilst maintaining delivery of core activities, and
- ensuring the continuation of strong governance and impact creation.



Background

In September 2022, the UK-PHRST held a learning review with its partners to reflect on their collective work over the preceding 18-months. As director of planning, research, and statistics, I was invited to represent the Nigeria Centre for Disease Control and Prevention (NCDC) at the event but was unable to attend due to an urgent national commitment. One of the key themes of interest to this writer was the issue of equitable partnerships. This paper is a reflection on the topic as it concerns research implementation in Nigeria as a whole, but more broadly in low-to middle-income countries (LMIC).

Equitable partnerships in health research are based on the moral principles of justice, fairness, and respect for human dignity. This concept entails equal attribution of value to similar levels of effort and intellectual engagement without geographical, socioeconomic, gender, racial, or ethnic bias. Structured disparities are common in research partnerships in different parts of the world. This is evident in the erroneous designation of the North-South divide. Science and innovation emanating from the so-called south are often not acknowledged or adjudged of equal value to those from the global north, even when they have demonstrated equivalent rigor.

The deplorable situation where researchers and research institutions in Africa are approached for collaboration by those in the developed world with the mentality of the superior seeking to provide help to the inferior is colonial, and must be abhorred by all for such partnerships to be considered equitable. This disjointed partnership model has led to what is described as 'safari research' in literature, recruiting expert scientists from LMIC while minimally engaging them in the research projects or in authorship.^{1,2}

Often times, such tokenistic recruitment is for the purpose of meeting the requirements of large research grantors; requirements perceived as moral obligations to pacify the conscience of funders who prioritise funding academic institutions in highincome countries above those in LMIC, even when the studies are conducted in the latter.

The North - South semantic is flawed with this colonial mentality, assuming one to be on the top of the knowledge hemisphere and the other under. Equitable research partnerships should be characterised by a transverse intellectual spatial ideology with every sense of collegiality, and not by vertical science colonialism. A similar disparate relationship has been observed in the United States among scientists across racial categories. A survey of research partnerships practice in federally funded community-based research projects in the United States found that the majority of the projects focused on African American communities, they had predominantly white principal investigators.3

Knowledge generation through transverse research partnerships has been described as "cooperative inquiry". Such partnerships should be characterised by the engagement of researchers from locations with the problems that the research seeks to address, alongside the end users who are considered core beneficiaries of the science, in defining research priorities, developing research protocols, conducting research, and disseminating findings. Equitable partnerships should transcend the entire research and development (R&D) pathway, from discovery to development to clinical trials to manufacturing and distribution.

Community engagement in research partnerships

Partnering with local communities in health research acknowledges the relevance of local knowledge and experience without assuming the superiority of 'expert' ideologies over indigenous cognition.

Engaging local players in the generation of scientific knowledge is more likely to lead to the local domestication of such knowledge. This could tilt back towards a steadier balance, the 'fulcrum' that holds the current disparity in expert-lay knowledge. Empowering communities through participatory engagement in research is a more sustainable approach to addressing public health challenges. Scientists should adopt strategies that integrate community and stakeholder engagement at all stages of the R&D pathway, especially in defining research priorities and preferred outcomes.

Seeking inputs from target populations in delineating target product profiles and preferred product characteristics for candidate therapeutics and vaccines, will ensure that research products address the core needs of end-users and improve uptake. This is a major way to improve access to health products and medical countermeasures.

The UK-PHRST engagement approach

Though the UK-PHRST-NCDC collaboration is still in an early phase, the power dynamics that support co-leadership of the two organisations on research projects in Nigeria is commendable. Although, there was an initial subtle inclination towards top-down expression of research priorities, this was immediately resolved following a slight nudge from the NCDC.

There has been an extensive and progressive engagement of the NCDC in the prioritisation and development of a research agenda for Mpox, and subsequent planning for the implementation of priority projects in the agenda.

Capacity building as an integral component of this collaboration is also positive. It is hoped that this equitable approach will extend to the funding of identified priority projects by the UK-PHRST, research implementation, and dissemination of research findings. Furthermore, since most research overseen by the UK-PHRST are conducted in African countries, there is still an under-representation of African scientists in the UK-PHRST technical steering committee. Having Africa well represented in this decision-making body on the health research approved for implementation in the continent could be considered an equitable approach.

Structured power disparities in health research

Structured power disparities are significant determinants of health outcome.5 Addressing such disparities in research partnerships, according to Koehle et al, is based on the "foundational values of democracy, inclusion, equity, human rights, and solidarity".5 Poor research grants for institutions in LMIC, lack of adequate infrastructure for high-impact studies, low awareness of fee waivers for publication in high-impact journals, and fundamental disparity in capacity building opportunities for researchers in LMIC compared to their counterparts in the developed world, are identified as factors that drive science colonialism.1 Tackling structured inequities would require deliberate and purposeful partnerships with researchers in LMIC across the R&D spectrum.

Inequitable access to research capacities and capacity building

Research capacities are inequitably distributed across the globe. While this may be blamed on inadequate investment by decision makers in Africa on R&D, it does not obscure the inequity in access to such capacity building opportunities in different parts of the world.

Research collaborations that could lead to capacity and capability enhancement tend to favour nations on the higher economic category than those in LMIC economies. Large grant opportunities have historically been accessed more by researchers in high-income countries or by consortia led by them than by their African colleagues. It is also a known fact that even when the studies are conducted in Africa with African researchers doing most of the work, western colleagues and their institutions get the best chunk of the funds while participating remotely.

Remuneration for researchers in Africa have suffered from the age-long neglect by national governments. The global community has also leveraged the low economic status of most African countries and the poor salaries of African scientists, to institutionalise this unfair downgrading of their wages, even when they are seen to have put in equivalent or more efforts than their western counterparts.

This has led to most funders having differing rates for remuneration of scientists from both sides of the divide, hiding under the unconvincing excuse of differing costs of living. If personnel cost for scientists are assessed based on levels of intellectual effort and time commitment, why should this differ for same categories based on their geographical location? This attitude has kept most African researchers in perpetual financial constraint that limits their ability to exploit their full potentials in advanced fields of research and innovations.

A concrete action must therefore be taken by the global science community to address these disparities for health research partnerships to be considered equitable.

Inequity in research publications

The under-representation of the developing world in scientific publications has been a subject of discussion for several decades. Whereas over 90% of all preventable diseases and deaths occur in developing countries, only minimal research funding target health problems in these countries.^{2,6}



▲ lightlounge.co.za

This is also reflected in the number of scientific publications that emanate from the developing world. Data from countries in this part of the globe are often published by authors from high-income countries with little or no involvement of authors from the sites where the data were generated. More so, many high impact journals have article publication charges (APC) that are beyond the reach of many scientists from LMIC, even with the statutory discounts. While some journals have graciously adopted the APC waiver scheme for LMIC, many are yet to do so. This has contributed to the widening of the scientific publications gap between developing and developed countries.

More reasons for this disparity include poor technical capabilities, limited technological capacity, inadequate training, and poor publication culture. Interestingly, a recent review of 67 publications from 18 countries shows improved statistics with up to 96% first authorship from LMIC, but this was for operational studies utilising mostly qualitative methodologies. Sixty-seven publications are also a gross underrepresentation of the numerous research projects in LMIC. Equitable partnerships in scientific publications are important in addressing critical health challenges in LMIC.

Gender disparity in health research partnerships

Decades of gender equity activism has led to several gains, including improvement in gender parity in research and authorship.

A study that tracked publications in American surgery for gender equity for over 20 years, demonstrated progressive increase in lead and senior authorship roles of female researchers with about 37% increase in 2017 compared to 1997.8 Nevertheless, this was not true for basic sciences where female lead authors and senior authors constituted 17.4% and 8.8% of all publications respectively.8 Similar studies on editorial board membership and leadership showed even less figures for females.910

An equitable partnership in research should consider and seek to address structured gender-based inequalities that keep women disadvantaged in accessing leadership positions in health research and scientific publications. Such actions to address gender inequity in research and editorial partnerships must be deliberate, systematic, and not ad hoc.

Conclusion

Equitable research partnerships should be characterised by mutual trust, respect, and reciprocity. A call for equity is a call for fairness and justice. This transcends every aspect of human life and relationships. It is hinged on the right of every human to be respected, heard, treated with dignity, and valued.

Equitable research partnerships will narrow power asymmetries, engender public trust, and improve the uptake of research products. Though the growing interest in strengthening partnerships with African researchers is commendable, a lot remains to be done. There should be deliberate investments in research capacity building in LMIC. A matrix for tracking key equity issues in health research partnerships and a roadmap for achieving key targets are required.

Narrowing the equity gap in health research partnerships requires identifying the structural and societal disparities that drive inequity and tackling them head-on. National governments must also take ownership of health research in their countries by allocating a significant percentage of health budget to health research. Co-funding mechanisms promote equitable practices in health research and partnerships. The UK-PHRST, and indeed the global health community, must be deliberate in upholding the principles of equity in research partnerships. This is a call for action.

Disclaimer: The author is the Director of Planning, Research and Statistics at the Nigeria Centre for Disease Control and Prevention (NCDC). However, views expressed in this paper are exclusively the author's and should not be considered the views of NCDC. The author takes full responsibility for the content. All correspondences pertaining to this article should be addressed to the author.

- Iyer, A.R., 2018. Authorship trends in the Lancet global health. The Lancet Global Health, 6(2), p.e142. doi.org/10.1016/S2214-109X(17)30497-7
- Sumathipala, A., Siribaddana, S. and Patel, V., 2004. Under-representation of developing countries in the research literature: ethical issues arising from a survey of five leading medical journals. BMC medical ethics, 5(1), pp.1-6. doi.org/10.1186/1472-6939-5-5
- Dickson, E., Magarati, M., Boursaw, B., Oetzel, J., Devia, C., Ortiz, K. and Wallerstein, N., 2020. Characteristics and practices within research partnerships for health and social equity. Nursing research, 69(1), pp.51-61. doi.org/10.1097/nnr.000000000000399
- Kumar, M. 2019. Championing equity, empowerment, and transformational leadership in (mental health) research partnerships: aligning collaborative work with the global development agenda. Frontiers in Psychiatry, 10, p.99. doi.org/10.3389/fpsyt.2019.00099
- Iyer, A.R., 2018. Authorship trends in the Lancet global health. The Lancet Global Health, 6(2), p.e142. doi.org/10.1016/S2214-109X(17)30497-7
- Sumathipala, A., Siribaddana, S. and Patel, V., 2004.
 Under-representation of developing countries in the research literature: ethical issues arising from a survey of five leading medical journals. BMC medical ethics, 5(1), pp.1-6. doi.org/10.1186/1472-6939-5-5
- Koehle, H., Kronk, C. and Lee, Y.J. 2022. Digital Health Equity: Addressing Power, Usability, and Trust to Strengthen Health Systems. Yearbook of Medical Informatics, 31(01), pp.020-032. dx.doi.org/10.1055/s-0042-1742512
- Bhutta, Z.A., Sommerfeld, J., Lassi, Z.S., Salam, R.A. and Das, J.K., 2014. Global burden, distribution, and interventions for infectious diseases of poverty. Infectious diseases of poverty, 3(1), pp.1-7. doi.org/10.1186/2049-9957-3-21

- Zachariah, R., Abrahamyan, A., Rust, S., Thekkur, P., Khogali, M., Kumar, A.M., Davtyan, H., Satyanarayana, S., Shewade, H.D., Delamou, A. and Zolfo, M. 2022. Quality, Equity and Partnerships in Mixed Methods and Qualitative Research during Seven Years of Implementing the Structured Operational Research and Training Initiative in 18 Countries. Tropical Medicine and Infectious Disease, 7(10), p.305. doi.org/10.3390/tropicalmed7100305
- 8. Jordan, S. and Emamaullee, J. 2022. Gender equity in surgical literature authorship: Are we there yet?. The American Journal of Surgery. doi.org/10.1016/j.amjsurg.2022.06.008
- Bevilacqua, L.A., Siena, N.M., Gardner, C.A., Tatarian, T., Madani, A. and Altieri, M.S. 2022. Gender disparities among leadership in academic surgical publishing over the past decade. The American Journal of Surgery, 223(1), pp.47-52. doi.org/10.1016/j.amjsurg.2021.07.038
- 10. Ehrlich, H., Nguyen, J., Sutherland, M., Ali, A., Gill, S., McKenney, M. and Elkbuli, A. 2021. Gender distribution among surgical journals' editorial boards: empowering women surgeon scientists. Surgery, 169(6), pp.1346-1351. doi.org/10.1016/j.surg.2020.12.026

For one thing we know beyond all doubt: Nothing has ever been achieved by the person who says, It can't be done.

Eleanor Roosevelt (1884 - 1962)



Appendix 1 – Recommendations generated from the Cape Town Learning Review

Below are the 35 recommendations generated during the learning in review in Cape Town, 2022. They are divided into the 20 priority recommendations and the remainder.

Theme area	Recommendation	Action/owner
Mental health and wellbeing	Promote national and context specific action in mental health: Create at country-level mechanisms to address mental health and wellbeing pre, during, and post deployment; including working to develop these at organisational level	Country/regional level partners
	Provide training for leaders/managers: Establish training for managers on embedding and actively addressing issues of mental health and wellbeing	Country/regional level partners/ UK-PHRST
	Stakeholder representation: Ensure both men and women stakeholders' full engagement during development stage of research studies	UK-PHRST/Partners
Gender equity and responsiveness	Greater use of evidence: Enable evidence-based change by developing a rapid gender analysis tool and by developing research studies which have gender-focused questions	UK-PHRST
December annualistance	Expand scope of research activities: Expand research fund to include research/impact studies that focus on the post-deployment period, specifically on how to expand and strengthen our partnerships	UK-PHRST
Research appropriateness	Establish guidelines for undertaking research: Co-develop and publish equitable partnership principles and guidance on partnering with UK-PHRST	UK-PHRST/Partners
	Greater use of existing local expert networks and systems: Identify and embed research opportunities within existing networks of expertise, organisations, or systems to support the strengthening/growth of research systems in countries	Partners/UK-PHRST
Research equitable collaboration	Inject research capacity into existing systems: Identify alternative ways to strengthen research systems' human resource capacity working in collaboration with local academic partners to fund and second MSc, PhD students and post docs	UK-PHRST/Partners

Theme area	Recommendation	Action/owner
	Equity of outputs: Ensure equitable co-authorship to facilitate ownership and use of findings	Partners/UK-PHRST
Research uptake	Budget for research uptake activities at policy/programme level: Budget for actioning research findings within the overall research budget	UK-PHRST/Partners
	Post-activity focus: Aim to develop post-capacity strengthening activities/projects to ensure that new capabilities are applied in partners' activities and sustained	UK-PHRST/Partners
Capacity strengthening	Actively engage local capacity: Utilise centres of excellence/ expertise locally (in Africa) to deliver capacity strengthening and support activities – leveraging local resources	UK-PHRST/Partners
Pre-deployment	Lay the groundwork for effective deployment: Engagement with countries pre-deployment at country level to build relationships, identify existing local capacities/other assets that could be deployed and broader country outbreak management needs and opportunities	Partners/UK-PHRST
	Encourage greater clarity of assignment: Engage deploying agency/country for clarity of assignment (via ToR) before deployment, allow for modification during deployment, and apply active review processes for learning post deployment	Partners
	Shift roles of deploying agency/deployee: Actively shift international support to a capacity strengthening role – less of a doing role for "global north"	Partners/UK-PHRST
Deployment	Create greater flexibility of deployment length: Review deployment lengths and value of shortened/lengthened periods for both differing types of deployment and for both international and national staff; ensuring engagement with national staff for continuity and sustainability	Partners/UK-PHRST
	Assess deployment impact: Develop a framework to assess impact of deployments	UK-PHRST/Partners
Post deployment	Active engagement and facilitation of learning: Build in more learning opportunities in engaging with countries post-deployment and facilitate greater regional and south-to-south learning engagement to promote greater application and sustainability of capacities	Partners/UK-PHRST
Working sustainably	Adopt a capacity strengthening systems approach to enable sustainability: Undertake a capacity strengthening approach in developing projects/activities (across the three remits) that considers not just staff but also structures, systems, materials/infrastructure, etc. to define levels of sustainability that are feasible and achievable	UK-PHRST/Partners
	Promote servant leadership approaches in all areas of work: In the development of capacity strengthening activities, need to consider and embed the application of this type of leadership thought and application	UK-PHRST/Partners

Additional recommendations generated

Theme area	Recommendation
	Expand deployment offers: Explore having a greater range of deployment offers. Understand and document the dynamics and the value of remote, in-person and hybrid deployments
Deployments	Enter the deployment cycle at a different phase: Review the opportunity to deploy during preparedness/readiness phase to engage seamlessly into the response phase for UK-PHRST to be more involved in preparedness and prevention, where appropriate
	Expand the range of voices required to clarify the deployment ask: Broaden who is engaged in clarifying assignments to support country-level articulated needs
Capacity strengthening	Identifying capacity needs: Define, more accurately, the capacity strengthening needs/existing gaps before undertaking projects – what capacity is really required on both sides of the partnership and for whom? Do both partners have the capacity needed to deliver the ask? This exercise should be part of all projects
	Identify ways of creating greater gender parity across staff involved in all activities: Fund virtual post graduate courses where there is greater flexibility in undertaking the course
	Expand areas of equity under consideration: In addition to gender address issues of socioeconomic, disability and ethnicity inequities
Gender	Expand opportunity to address gender responsiveness systematically: Address gender issues in all ToRs (deployment) and proposals (research and capacity strengthening) to enable meaningful co-creation
	Expand mechanism to address issues of gender equity systematically: Develop a gender and cultural framework in research and deployment, as appropriate
	Expand local/national/regional engagement in issues of gender equity: Engage with relevant gender associations/bodies nationally and regionally – e.g, women in global health, women's medical associations, etc.
	Embed capacity strengthening: Develop a capacity strengthening element to all research proposals
	Expand access to financial resources locally: Undertake joint local mobilisation of funds
Research	Partner with a community to understand how to better impact community needs during deployment: Pilot a community-linked/owned project involving a full range of partners locally and nationally as appropriate to understand how best to support community needs during deployment
	Promote research uptake: Define mechanism for identifying with whom/how to enable research uptake at start of the study and monitor its implementation
Mental health	Raise awareness at organisational level: Actively raise mental health wellbeing awareness at organisational level
	Target population: Target support at family care givers and health workers, as a priority

Appendix 2 – The UK-PHRST response to the recommendations from the Cape Town Learning Review

Below is the UK-PHRST's management response to the priority recommendations generated during the learning in review in Cape Town, 2022. It includes proposed actions and evidence of where and how these actions are being advanced or implemented.

Mental health			
Recommendations	Proposed Actions	Evidence of actions	
Promote national and context specific action in mental health: Create at country-level mechanisms to address mental health and wellbeing pre, during, and post deployment; including working to develop these at organisational level.	Ongoing activity. Co-developed research is underway to identify these mechanisms. The team will ensure that research findings are shared broadly across a wide network of stakeholders through MHPSS workshops.	This action is captured in the UK-PHRST 2023 implementation plan.	
Provide training for leaders/managers: establish training for managers on embedding and actively addressing issues of mental health and wellbeing.	Co-develop MHPSS training/resources to address identified gaps.	Captured in the implementation plan. Work is underway with Africa CDC on this subject. It is also addressed in the 2023 Field Deployment Training.	

Gender equity and responsiveness		
Recommendations	Proposed Actions	Evidence of actions
Stakeholder representation: Ensure both men and women stakeholders' full engagement during development & implementation stages of research studies.	Explore vehicles to facilitate Early Career Researcher training and mentorship e.g, AuthorAid. Broaden the recommendation to include women in leadership in all aspects of outbreaks and across the professional spectrum.	UK-PHRST can support participation in existing networks to provide training two-three times year to partners wishing to take advantage of these opportunities. UK-PHRST will explore this opportunity and communicate to partners. Examples of such training/mentor/mentee platforms are found at: www.authoraid.info/en/ www.inasp.info/MOOCsponsorship The co-development and implementation of projects on women in leadership (in outbreaks) is captured in the UK-PHRST 2023 Implementation and Capacity Strengthening plan.
Greater use of evidence: Enable evidence-based change by developing a rapid gender analysis tool (this already exists – we can look to see how to adapt; working with a partner. Question is how to apply/create opportunity to do so is a CS exercise).	Review existing tools, especially regarding what can be built on/adapted in collaboration with partners and to suit cultural/organisational context. Develop standard questions on social equity to apply across all our work, including in the Field Deployment course.	Work is currently underway by UK-PHRST's Equity and Human Rights advisor on both accounts.

Gender equity and responsiveness cont.		
Recommendations	Proposed Actions	Evidence of actions
Generate research studies which have gender-focused questions.	Co-develop research studies on social equity as standalone pieces of work.	Co-development of research underway. Currently at design stage. Yet to go to the Technical Steering Committee for approval.

Generate research studies which have gender-focused questions.	Co-develop research studies on social equity as standalone pieces of work.	Co-development of research underway. Currently at design stage. Yet to go to the Technical Steering Committee for approval.
Capacity strengthening		
Recommendations	Proposed Actions	Evidence of actions
Post-activity focus: Aim to develop post-capacity strengthening activities/ projects to ensure that new capabilities are applied in partners' activities and sustained.	Already being addressed - Governance has already resulted in the Capacity Strengthening proposal template having a component about post course engagement. Capacity strengthening activities are co-developed. In the co-development of these proposals, UK-PHRST will continue to strive to be:	The Capacity Strengthening proposal template contains a post action review/ sustainability requirement. This is now a standard requirement for the approval of all capacity strengthening activities.
	- Flexible and agile in our engagement	

with partners to understand needs

- Be responsive to the evolving needs of our partners
- Be transparent in our approach with funders and partners
- Work long-term and authentically with all our partners

This is an important area of UK-PHRST's ongoing work and for the foreseeable future – proactive engagement and the commitment to work with regional, national and subnational organisations. This is captured in the 2023 Implementation plan.

Actively engage more local (national, regional) capacity:

Utilise centres of excellence/expertise locally (e.g, in Africa) to deliver capacity strengthening and support activities – leveraging local resources.

In the development of capacity strengthening proposals, UK-PHRST requires collaborative working with partners to ensure local ownership.

UK-PHRST continues to strive to leverage local expertise through the development of strong interpersonal relationships and understanding partners' contexts and needs.

Appendix

Appendix 2

Working sustainably		
Recommendations	Proposed Actions	Evidence of actions
Adopt a capacity strengthening systems approach to enable sustainability: undertake a capacity strengthening approach in developing projects/activities (across the three remits) that considers not just staff but also structures, systems, materials/infrastructure, etc. to define levels of sustainability that are feasible and achievable.	Encourage the use of Rainbow Arch tool to support systems approach with planning and discussing Capacity Strengthening proposals.	Tools are available for use by the UK-PHRST team to ensure we co-develop projects in a way that addresses sustainability. The Capacity Strengthening team needs to ensure that this issue is recognised and addressed appropriately in the proposals it considers.
Promote excellence, power-sharing and staff empowering leadership approaches in all areas of work: In the development of capacity strengthening activities, need to consider and embed the application of this type of leadership thought and application.	Ensure that all UK-PHRST members remain apprised of our values, culture and behaviours in all of our activities. Encourage UK-PHRST members in the co-development of proposals to be reflective of whether needs are clearly identified by the partners and whether those specific needs are being addressed.	This is the UK-PHRST's preferred approach. The exploration of a co-delivered leadership course with Africa CDC is underway.

Deployment		
Recommendations	Proposed Actions	Evidence of actions
Lay the groundwork for effective deployment: engagement with countries pre-deployment at country level to build relationships, identify existing local capacities/other assets that could be deployed and broader country outbreak management needs and opportunities.	Standardise pre-deployment calls/meetings between deployers and requesting country/office	This approach is currently used. Where possible UK-PHRST will encourage input into formalising ToRs.
Encourage greater clarity of assignment: Engage deploying agency/country for clarity of assignment (via ToR) before deployment, allow for modification during deployment, and apply active review processes for learning post deployment.	Focus on refinement of TORs upon arrival in-country Standardise pre-deployment calls/ meetings between deployers and requesting country/office Training during onboarding on how to manage a TOR – build in flexibility and how to adapt/refine in-country Manage deployess own expectations when deploying – to focus on how we adapt and manage uncertainty and stress	These approaches are advocated in current deployees briefings prior to deployment.

Deployment cont.			
Recommendations	Proposed Actions	Evidence of actions	
Shift roles of deploying agency/deployee: Actively shift international support to a capacity strengthening role – less of a doing role for "global north".	Include Capacity Strengthening components within TOR where feasible. Incorporate under Capacity Strengthening workstream to support strengthening regional/local surge capacity to over time decrease need for global surge capacity. - Continue work with Africa CDC/AVHOC - Expand to others Explore scope to provide financial support to enable more "global south-south" deployments.	UK-PHRST's strategy and the 2023 implementation plan support this approach in principle and in practice. This is to be included under the Capacity Strengthening workstream. The implementation plan actively seeks opportunities for the co-identification of capacity strengthening opportunities during deployments.	
Create greater flexibility of deployment length: review deployment lengths and value of shortened/lengthened periods for both differing types of deployment and for both international and national staff; ensuring engagement with national staff for continuity and sustainability.	This is ongoing exploratory work but deployment length is largely driven by context/partners' request and needs, and is considered on a case by case and resource availability basis.	This is exploratory work – no current definitive policy exists, but flexibility is an inherent component of UK-PHRST's approach.	
Assess deployment impact: Develop a framework to assess impact of deployments.	UK-PHRST Monitoring Evaluation and Learning team is currently leading activity to assess impact	MEL and Implementation science team currently implementing a study on Impacts of deployment Impact of international public health deployments on national outbreak preparedness and response in ODA-eligible countries.	
Active engagement and facilitation of learning: Build in more learning opportunities in engaging with countries post-deployment and facilitate greater regional and south-to-south learning engagement to promote greater application and sustainability of capacities.	Support and invest in regional/ south-south learning events/ conferences. Continue to identify opportunities and build relationships for on-going collaboration during deployments	Ongoing activity and our preferred approach. We will continue to work in this way.	

strengthen research systems' human

resource capacity working in collaboration

second MSc, PhD students and post docs.

with local academic partners to fund and

Research Recommendations **Proposed Actions Evidence of actions** Research plan has addressed many Expand scope of research activities: We have expanded the research Expand research fund to include fund and are working on expanding issues in the way we identified research projects. research/impact studies that focus the scope of research, including a couple on the post-deployment period, of studies on the impact of deployments. specifically on how to expand We currently have 17 studies over five Flexibility to continue to expand and strengthen our partnerships. thematic areas, including impact and is somewhat limited due to funder evaluation. requirements. The Implementation science team is also looking at how to improve researchpost-deployment nexus in terms of development partnerships/research collaboration at this stage in terms of development partnerships/research collaboration at this stage. Establish guidelines for undertaking There are existing institutional Institutional guidelines exist. research: Co-develop and publish guidelines for doing research. Research plan captures these equitable partnership principles and Additionally, our research plan and approaches. Equity in research guidance on partnering with UK-PHRST. further documents outline collaborative principles being finalised and and equitable partnership principles. will be shared online. Develop better reflexivity, think about how to manage conflicts between different institutions' guidelines. Continue to use advocacy to push back against some of the institutional constraints. UK-PHRST works in this way and Greater use of existing local expert Currently working with platforms that networks and systems: Identify bring together expertise from across encouraging this approach in our work. UK-PHRST will continue to and embed research opportunities the world, including local experts, within existing networks of expertise, e.g. SSHAP, IPC network, Integrated expand this approach in all areas of organisations or systems to support Outbreak Analytics; Genomics platform. its research and other areas of work. the strengthening/growth of research Developing hubs - e.g, Southern Africa, systems in countries. Eastern Africa, platform for meeting and ideas creation. Need to promote greater recognition among teams at design stage that working networks and systems includes local, national regional and international levels. Ongoing work. Specific training/capacity This is captured in UK-PHRST's Inject research capacity into existing systems: Identify alternative ways to strengthening in certain research studies implementation and research

is already occurring multiple studies

Need to involve ECRs in-country.

(e.g, lab, sequencing training in micro)

plans and existing protocols. It is a

requirement in proposal development.

Research cont.		
Recommendations	Proposed Actions	Evidence of actions
Equity of outputs: Ensure equitable co-authorship to facilitate ownership and use of findings	Develop and share a succinct summary of expectations regarding authorship.	Ongoing activity. The need for equitable authorship is captured in UK-PHRST's logframe and is a monitored indicator. All current research studies have this requirement built in. Greater equity in authorship will become apparent in the next couple of years as studies with this requirement conclude.
Budget for research uptake activities at policy/programme level: Budget for actioning research findings within the overall research budget.	UK-PHRST research budget is now structured in this manner.	Budget is now structured in this manner.

Day 1 – September 27, 2022		
Time	Agondo Itom	Who?
1 me	Agenda Item	
09.00 – 09.10	Welcome & Purpose of the day	Dr Edmund Newman
09.10 – 10.00	Opening address and welcome by the Western Cape Minister of Health and Wellness.	Dr Nomafrench Mbombo
10.00 - 10.15	Tea break	All
10.15 – 10.30	Icebreaker	Dr Femi Nzegwu
10.30 - 10.45	Setting the scene: our collective work over the last 18-months	Mr Thom Banks
10.45 - 11.45	Panel (20 minutes)	Panellists:
	Panel 1: Preparing for deployment: did we get it right? Panellist presentations reflect on the following questions.	Dr Ram Vadi Ms Cristina Leggio Dr Nafiisah Chotun
	Reflecting on our work over the past 18-months, please describe up to two major areas of learning related to the panel topic that have emerged for you and your team; and which have influenced how you deliver your activities.	
	In what ways have these areas of learning helped advance your practice and that of your team? How sustainable do you think it is?	
	Looking back on these areas of learning what, if anything, would you/could you and/or the UK-PHRST have done differently/better and why?	
	Group work (20 minutes)	All
	Each group discusses: Do the key areas of learning discussed by the panel resonate with the group? Are there identifiable gaps?	
	Give two recommendations on how this area of work could be made more effective/impactful and sustainable?	
	Plenary discussion (20 minutes)	All

Time	Agenda Item	Who?
11.45 - 12.45	Panel (20 minutes) Panel 2: The deployment phase: Achievements and challenges? What do we attribute these to? Panellist presentations reflect on the same questions as in panel 1	Panellists: Dr. Wessam Mankoula Dr. Ram Vadi Dr Stacey Mearns
	Group work (20 minutes) Each group discusses: Do the key areas of learning discussed by the panel resonate with the group? Are there identifiable gaps? Give two recommendations on how this area of work could be made more effective/impactful and sustainable	All
	Plenary discussion (20 minutes)	All
12.45 – 13.45	Lunch	All
14.00 – 15.00	Panel (20 minutes) Panel 3: Post deployment: do we learn enough? Is there evidence that we incorporate our learning into subsequent deployments? Do we know what happens post-deployment in the countries in which deployments occur? Are we working in a sustainable way? Panellist presentations reflect on the same questions in panel 1.	Panellists: Dr Radjabu Bigirimana Dr Farhana Haque
	Group work (20 minutes) Each group discusses: Do the key areas of learning discussed by the panel resonate with the group? Are there gaps to be added? Give two recommendations on how this area of work could be made more effective/impactful and sustainable?	All
	Plenary discussion (20 minutes)	All

Cape Town 2022

Day 1 – September 27, 2022		
Time	Agenda Item	Who?
1500 – 16.00	Personal perspectives (20 Minutes) The importance of embedding mental health & wellbeing in	Discussants: Dr Namoudou Keita Dr Otrida Kapona
	public health emergency responses: Personal perspectives.	
	Group work (20 minutes)	All
	Each group discusses: Do the perspectives presented resonate with the group? Are there identifiable gaps?	
	Give two recommendations on how this area of work could be better embedded and made more effective/impactful and sustainable?	
	Tea Break (15 Minutes)	
	Plenary discussion (20 minutes)	All
16.15 - 16.30	Wrap up day 1	All
18.30 – 20:00	Dinner	All

Day 2 – September 28, 2022		
Time	Agenda Item	Who?
09.00 - 09.15	Morning reflections on the learning from Day 1. Any light bulb moments?	All
09.15 - 09.45	Knowledge creation, uptake and impact: engaging in research.	Professor Gwenda Hughes
09.45 - 11.30	Panel (30 minutes) Panel 4: Our research: how appropriate? Did we get the areas of research investigation right? Were the relevant parties fully involved? Were the right voices heard about the types of research that are most beneficial/impactful? Panellist presentations reflect on the following questions: Reflecting on our work over the past 18-months, please describe up to two major areas of learning related to the panel topic that have emerged for you and your team; and which have influenced how you deliver your activities. In what ways have these areas of learning helped advance your practice and that of your team? How sustainable do you think it is? Looking back on these areas of learning what, if anything, would you/could you and/or the UK-PHRST have done differently/better and why?	Panellists: Mr Jacob Nkwan Professor Miles Carroll Dr Stella Atim
	Tea Break (15 Minutes)	
	Group work (20 minutes) Each group discusses: Do the perspectives presented resonate with the group? Are there identifiable gaps? Give two recommendations on how this area of work could be made more effective/impactful?	All
	Plenary discussion (30 minutes)	All

Appendix

Appendix 3

Day 2 – September 28, 2022		
Time	Agenda Item	Who?
11.30 – 12.30	Panel (20 Minutes) Panel 5: Collaborating equitably on research: myth or reality? What does an equal partnership in research look like? What has been our experience of jointly working on research projects? How well are we addressing any inequities within our collaborations? Panellist presentations reflect on the same questions in panel 4.	Panellists: Dr Abdul Sesay Dr Tom Edwards
	Group work (20 minutes) Each group discusses: Do the perspectives presented resonate with the group? Are there identifiable gaps? Give two recommendations on how this area of work could be better embedded and made more effective/impactful and sustainable?	All
	Plenary discussion (30 minutes)	All
12.40 – 13.40	Lunch	All
13.40 – 14.50		
13.40 - 14.50	Panel (20 Minutes) Panel 6: Impacting practice and policy with our research: how well has this been achieved? Do we have evidence of impact? What has been our experience in enabling the uptake of our research (as opposed to its dissemination)? How successful have we been? What are our challenges? How do we better enable this uptake? Panellist presentations reflect on the same questions in panel 4.	Panellists: Mr Jacob Nkwan Dr Abdul Sesay
13.40 - 14.50	Panel 6: Impacting practice and policy with our research: how well has this been achieved? Do we have evidence of impact? What has been our experience in enabling the uptake of our research (as opposed to its dissemination)? How successful have we been? What are our challenges? How do we better enable this uptake? Panellist presentations reflect on the	Mr Jacob Nkwan

Day 2 – September 28, 2022		
Time	Agenda Item	Who?
15.00 – 17.00	Pulling it all together: Group work (45 Minutes)	All
	From our discussions and reflection over the 2 days, what are our recommendations on improved practice for: deployment and research?	All
	Provide two recommendations per theme area per group	
	Tea Break (15 Minutes)	
	Plenary discussion (45 minutes)	All
17.00 – 17.15	Wrap up day 2	All

Appendix

Appendix 3

Cape Town 2022

Day 3 – September 29, 2022		
Time	Agenda Item	Who?
09.00 - 09.15	Morning reflections on the learning from Day 2. Any light bulb moments?	All
09.15 - 10.30	Panel (20 minutes) Panel 7: How do we embed gender equity and responsiveness across our work remit in a sustainable manner? Gender inequality negatively impacts everyone. In public health, it continues to imbalance the structure and norms of institutions, determines career pathways and narrows workplace opportunity. It is a major driver of poverty and poor health outcomes for all populations. It will not be possible to address health inequities and long-term sustainable development if gender remains unexamined within our work. How do we improve our skills and technical processes to address this issue in each mandate area? Panellist presentations reflect on the following questions: - Reflecting on our work over the past 18-months, please describe up to two major areas of learning related to the panel topic that have emerged for you and your team that has influenced how you deliver your activities. - In what ways have these areas of learning helped advance your practice and that of your team? How sustainable do you think it is? - Looking back on these areas of learning what, if anything, would you/could you and/or the UK-PHRST have done differently/better and why?	Panellists: Ms Annie-May Gibb Professor Flora Fabian Dr Albert Luswata
	Group work (20 minutes)	All
	Each group discusses: Do the perspectives presented resonate with the group? Are there identifiable gaps?	
	Give two recommendations on how this area of work could be better embedded and made more effective/impactful and sustainable?	
	Tea Break (15 Minutes)	
	Plenary discussion (30 minutes)	All

Day 3 – September 29, 2022		
Time	Agenda Item	Who?
10.45 – 12.45	Panel (40 minutes) Panel 8: Developing our capacity at the individual (e.g. training/mentoring), organisational (e.g. workshops) and enabling environment levels (e.g. communities of practice). How do we identify what capacities & levels of capacity are to be developed? What is our approach and how successful has our approach been in developing our collective capacities? How do we create a systemic and proactive sustainable response to capacity development across our work remit? Panellist presentations reflect on the same questions in panel 7.	Panellists: Dr Abdul Sesay Dr Issiaka Soulama Dr Femi Nzegwu
	Group work (20 minutes) Each group discusses: Do the perspectives presented resonate with the group? Are there identifiable gaps? Give two recommendations on how this area of work could be better embedded and made more effective/impactful and sustainable?	All
	Plenary discussion (40 minutes)	All
12.40 - 13.40	Lunch	All
13.45 - 14.15	Group work (20 minutes) Priority areas/recommendations to advance. Each group discusses: Given the recommendations from the preceding sessions what are the top ten key priority areas of our learning/recommendations for the next 18-months that we should work to advance our practice across these five areas of work (deployment, research, capacity development, gender equity & responsiveness and sustainability) Give two recommendations per theme area.	All
	Plenary discussion (40 minutes)	All

Day 3 – September 29, 2022		
Time	Agenda Item	Who?
14.15 - 14.45	In conversation about the future of our work (30 minutes) "Looking to the future, where should we focus our efforts, what should we do differently?"	Discussants: Dr Radjabu Bigirimana Dr Ed Newman
14.45 – 15.15	 Final plenary discussion (40 minutes) Sign off on the recommendations Discuss how we agree to implement them 	All
15.15 - 15.30	Close of the event	Dr Ed Newman

Appendix 4 – Attendees at the Cape Town Learning Review

Below are the 35 recommendations generated during the learning in review in Cape Town, 2022. They are divided into the 20 priority recommendations and the remainder.

Attendee	Position
Ms Stella Atim	Head of division of Veterinary Diagnostics and Epidemiology, Ministry of Agriculture, Animal Industry and Fisheries, Entebbe, Uganda.
Dr April Baller	Head, Infection Prevention and Control Country Readiness Strengthening; WHO Health Emergencies Programme (WHE)
Mr Thomas Banks	Programme Manager (UK-PHRST)
Dr Radjabu Bigirimana	Technical Officer-Africa Volunteer Health Corps (AVoHC) Lead/Emergency Preparedness and Response Division at Africa CDC.
Dr Joseph Akoi Bore	Research scientist at Nuffield Department of Clinical Medicine, Oxford University & Director of the Centre de Recherche et d'Analyse Biomédicale (CRAM)
Professor Jonas Brant	Professor of Public Health, University of Brasilia
Professor Miles Carroll	Principal Investigator at the Wellcome Centre for Human Genetics and Pandemic Sciences Institute, UK
Dr Nafisah Chotun	Technical officer Africa Centres for Disease Control and Prevention (Africa CDC),
Ms Tanya Davids	Adviser, Office of the Minister of Health & Wellness, Western Cape department of Health and Wellness
Professor Mary Ann Davis	Director, Professor, and Public Health Medicine Specialist, Centre for Infectious Disease Epidemiology and Research, University of Cape Town
Dr Thomas Edwards	Lecturer in infectious disease diagnostics at the Liverpool School of Tropical Medicine, UK.
Professsor Flora Fabian	Professor of Biomedical Science and Vice Chancellor, Mwanza University, Tanzania and gender responsive pedagogy expert.
Ms Annie-May Gibb	Equity & Human Rights Adviser for the UK-PHRST
Mr Nkwan Jacob Gobte	Infection Prevention & Control/WASH Nurse, Cameroon Baptist Convention Health Services
Ms Katie Gotham	Global Health Security Policy lead for the UK's Department of Health and Social Care (DHSC).
Dr Farhana Haque	Medical epidemiologist UK-PHRST & Assistant professor LSHTM
Dr Jenny Hughes	Research doctor at the Desmond Tutu TB Centre (DTTC), Department of Paediatrics and Child Health at Stellenbosch University
Professor Gwenda Hughes	Professor of epidemiology and public health; Deputy Director for Research with the UK-Public Health Rapid Support Team (UK-PHRST)

Attendee	Position
Professor Pontiano Kaleebu	Director of the Uganda Virus Research Institute (UVRI) and director of MRC/UVRI and LSHTM Uganda Research Unit
Dr Otrida Kapona	Head, Zambia National Public Health Reference Laboratory Public Health Laboratory Scientist-Infectious Diseases Antimicrobial Resistance Fleming Fund Policy Fellow Laboratory Systems & Networks)
Dr Namoudou Keita	Program Officer for Primary Health Care, Health Systems Strengthening and Non-Communicable Diseases at West Africa Health Organisation (WAHO)
Ms Cristina Leggio	Senior microbiologist/micro lead at the UK-PHRST
Dr Albert Luswata	Senior Lecturer and Director of the Institute of Ethics at Uganda Martyrs University, Uganda
Dr Wessam Mankoula	Lead of the Africa CDC Emergency Operations Centre.
Dr Nomafrench Mbombo	Minister of Health & Wellness, Western Cape
Dr Stacey Mearns	Senior Infection Prevention and Control Specialist
Mrs Carol Mufana	Workforce Development Advisor – IHR Strengthening Project (Zambia)
Dr Edmund Newman	Director of the UK Public Health Rapid Support Team (UK-PHRST)
Mr William Nicholas	Project Coordinator with the UK Public Health Rapid Support Team (UK-PHRST)
Dr Femi Nzegwu	MEL lead UK-PHRST & Assistant professor LSHTM.
Dr Ramonde Patientia	University of Cape Town, South Africa
Dr Abdul Sessay	Assistant Professor and Head of the Genomics Strategic Core platform at the MRC Unit, The Gambia at the London School of Hygiene and Tropical Medicine.
Dr Lunda Shibemba	Consultant Anatomical Pathologist with special interest in HIV- related pathology as well as infectious pathology. I am the National Coordinator for Pathology and Laboratory Services (PLS) in the Directorate of Clinical Care and Diagnostic Services at the Ministry of Health, Zambia.
Dr Issiaka Soulama	Molecular biologist, Institut de Recherche en Sciences de la Santé (IRSS)/Centre National Recherche Scientifique Technologique (CNRST), at Malaria Research and Training Center (CNRFP), at Groupe de Recherche Action en Santé (GRAS)
Dr Ram Vadi	Health director, UK-MED



The UK-PHRST and Partners Learning Review

Post Review Reflections & Actions Cape Town 2022

Editors

Maryirene Ibeto and Femi Nzegwu June 2023

www.lshtm.ac.uk ukphrst@ukhsa.gov.uk



UKgovGHS



UKHSA









