# UNPACKING CAPACITY DEVELOPMENT: A SYSTEMS EXPLORATION OF A PARTNERSHIP OF AFRICAN UNIVERSITIES TO DEVELOP CAPACITY IN HEALTH WORKFORCE DEVELOPMENT

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**A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in the School of Public Health, Faculty of Health Sciences, University of the Western Cape.**

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**KEY WORDS**

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**ABSTRACT**

Health systems in sub-Saharan Africa face multifaceted capacity challenges to fulfil their mandates of service provision and governance of their resources. Wide-ranging capacity development interventions exist to address these limitations. However, failure to take into account complexity in planning and implementation in the practice and research of these capacity development interventions predominate, hindering understanding and learning, and resulting in poor implementation or lack of sustainability of the capacity gains.

Using a case study approach located in the constructionist paradigm and informed by a systems-thinking and complexity perspective, the thesis presents an exploration of an African partnership to develop capacity in health workforce development, a WHO funded partnership of four African universities in sub-Saharan Africa geared towards strengthening national leadership and training capacity in health workforce development.

Through four inter-related case studies, the thesis unpacks the contextual and relational factors that mediate process and outcomes of the various intervention strategies of the African partnership to develop capacity in health workforce development (i.e. partnership/south-south cooperation, training, and curriculum and programme development and integration). The thesis also looks into multiple job holding in public health training institutions, which is an emergent theme closely linked to capacity development initiatives in the institutions. It was evident that the intervention plan evolved through negotiation and represents a composite of the assumptions held by



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those involved. It emerged from the research that the intervention plan continued to evolve upon implementation in response to relational and contextual issues pertaining to institutional processes and incentive arrangements in target institutions; power, motivation and long-term engagement of key actors (programme champions and trained staff); and tensions in priorities of institutions and key individuals (programme champions and trained staff).

Drawing on the case studies, the thesis concludes that capacity development is a systems and political process, embedded in a complex set of contextual and relational factors that lead to the dynamic experience of the intervention (both process and outcome). Understanding the relevant contextual and relational factors through a systems and complexity lens, and ongoing analysis of power and context, is critical to navigate the complexity and make necessary adjustments/alignments towards achieving the desired objectives. The study illuminates the need for concerted attention to and investment in public health training institutions to address the range of challenges they face to fulfil their mandate. South-south cooperation, as demonstrated in the study, has the potential to contribute to addressing these challenges if it can be sustained. These results warrant further investigation of experiences and challenges facing south-south partnerships of academic institutions, and explore innovative ways of sustaining such partnerships.

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**DECLARATION**

I declare that *Unpacking capacity development: a systems exploration of a partnership of African Universities to develop capacity in health workforce development* is my own work. I declare that this work has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name: Woldekidan Kifle Amde

Signed: …WK Amde…….

Date: March 2020






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**DEDICATION**

To my wife Tigist and daughter Emanda, for all their love and inspiration.

To my parents, Kifle Amde and Tsehay Benti, for the sacrifices, prayers and blessings.

To Emeritus Professor David Sanders, in memorarium.

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**ACRONYMS**

| | |
|---|---|
| AAU | Addis Ababa University |
| CAS | Complex Adaptive Systems |
| CDC | Centres for Disease Control |
| ECDPM | European Centre for Development Policy Management |
| EOI | Expression of Interest |
| HR | Human Resource |
| HRH | Human Resources for Health |
| HRM | Human Resource Management |
| HWD | Health Workforce Development |
| MDGs | Millennium Development Goals |
| MOH | Ministry of Health |
| MPH | Master of Public Health |
| NGO | Non-governmental Organisations |
| SDGs | Sustainable Development Goals |
| SSC | South-South Cooperation |
| TC | Triangular Cooperation |
| UEM | Eduardo Mondlane University |
| UNDP | United Nations Development Programme |
| UR | University of Rwanda |
| UWC | University of the Western Cape |
| WHO | World Health Organisation |

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**TABLE OF CONTENTS**





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http://etd.uwc.ac.za/

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**LIST OF TABLES**



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**LIST OF FIGURES**



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# CHAPTER 1: INTRODUCTION

This chapter presents a brief background that locates the research in the broader picture; introduces the intervention which is the focus of the research; and presents the problem statement, research question, aim and objectives. It also provides an overview of the different sections of the thesis.

## Background

Deficits and imbalances in human resources for health (HRH) are particularly pronounced in sub-Saharan Africa. Weaknesses in planning for HRH needs contribute to this situation. The lack of leadership capacity for HRH and the absence of local leadership development programmes in the region partly underlie this crisis.[1–4] An African partnership to develop capacity in health workforce development was launched in 2009 with a threefold purpose: to build an African platform for teaching human resource for health (HRH); to strengthen the academic capacity of partner academic institutions in HRH; and to strengthen the leadership capacity of health ministries to develop HRH. The initiative originated from the recognition by the World Health Organisation (WHO) of the health workforce crisis and the multi-faceted repercussions this has on efforts to attain a range of critical health targets in sub-Saharan Africa. The initiative brought together and was implemented by a consortium of academic institutions representing four countries in the region (i.e. the University of the Western Cape-South Africa, Eduardo Mondlane University– Mozambique, the University of Rwanda, and Addis Ababa University–Ethiopia). The initiative sought to foster exchange of experience and expertise by drawing primarily from one of the partner universities, University of the Western Cape, which is a WHO Collaborative Centre for research and training in Human Resources for Health, through a set of interrelated strategies of south-south cooperation, development and embedding of training programmes, and training for organisational capacity development.

Overall, the partnership has distinct features of south-south cooperation (SSC) which is considered a viable mechanism to facilitate capacity development in in low-to-middle-income countries (LMICs) [5,6] by enabling an exchange of knowledge,



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experience, and resources among southern partners.[7,8] The African partnership to develop capacity in health workforce development formally ended in June 2015.

An overview of the literature reveals consensus among researchers and practitioners (including governments, donors, and development agencies) about the pronounced and pervasive nature of the shortage of capacity across sectors in sub-Saharan Africa, and how it continues to undermine progress and the realisation of development goals outlined in national and international documents.[9–13] Conceptual clarity on what constitutes capacity and how it can best be developed is nevertheless wanting. As Brinckerhoff and Morgan[14] lament in a recent study,

> Exploring capacity can have an Alice-in-Wonderland feel: different definitions and models inhabit disjunctive realities where underlying assumptions are neither obvious nor transferrable. … Given the breadth and vagueness of the analytic territory, it is not surprising that, as a topic for study and an intervention strategy, the literature on capacity and CD [Capacity Development] is voluminous and disparate, and mixes empirical and normative perspectives.[14]

This confusion notwithstanding, prominent contemporary scholars in the field[14,15,16] have made strides towards greater conceptual clarity of the capacity development concept by placing it in context and adopting systems perspectives, and thus giving it greater meaning against the background of a social change agenda in complex environments.

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This thesis examines the African capacity development partnership in health workforce development, with a focus on better understanding the complex contextual and relational factors that mediate the process and outcomes of the intervention across different settings. It also hopes to inform policy, academic and research practice in the arena of capacity development in general, and health workforce development, in particular in sub-Saharan Africa.

**Problem statement**

Health systems in sub-Saharan Africa face multifaceted capacity challenges to fulfil their mandates of service provision and management of their resources. Wide-ranging capacity development interventions exist to address these limitations. However, a



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failure to take into account complexity in planning and implementation of these capacity development interventions results in poor implementation or lack of sustainability of the capacity gains.

The African partnership to develop capacity in health workforce development, as this thesis will argue, is a complex undertaking, straddling multiple and changing contexts, and actors and agendas. It is embedded in institutional and country contexts, competing and changing individual or institutional priorities, which mediate its process and outcome.

An examination of the often implicit assumptions, tacit knowledge and experience of all parties taking part in the capacity development initiative[17–20] through closer engagement is critical to appreciate the complex and dynamic nature of such interventions. Furthermore, it also helps in an understanding of the underlying programme design or implementation issues that mediate the process and outcome of the intervention.[14,19,21,22] This is particularly true for capacity development processes which are often considered the proverbial 'black box'.[14,23]

The study draws on and contributes to literature and the theories about capacity development as a systems phenomenon. Research on capacity development continues to have great relevance in the field due to the context-dependent and ever-evolving nature of the process[13] and gaps in research remain huge in LMICs.[24] There is generally a lack of literature on south-south partnerships.[5,25]

**Purpose**

The thesis explores the African partnership designed to develop capacity in health workforce development to advance an understanding of the contextual and relational factors that mediate process and outcomes of its linked capacity development strategies, namely, south-south cooperation, development and embedding of training programmes, and training for organisational capacity development. Embedded case studies that examine these issues are compiled as journal manuscripts (two published, two under review) and contribute to the evidence base on the meaning and practice of capacity development.



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**Research question, aim and objectives**

The overarching guiding study question covered by this thesis is:
What are the contextual and relational factors that influence the design and implementation (process and outcomes) of the African partnership to develop capacity in health workforce development?

The study aimed to explore how and why the design and implementation of African partnership to develop capacity in health workforce development is enabled or constrained by complex contextual and relational factors.

The following specific objectives were developed or emerged to guide different aspects of the inquiry.

1. To document the emergence of the African partnership to develop capacity in health workforce development.
2. To understand the challenges faced during early implementation
3. To analyse the factors that influence the contribution of training to organisational capacity development.
4. To analyse factors that influence the introduction and sustainability of training programmes in training institutions.
5. To identify the drivers, impact, and regulation of multiple job holding practices of academics in public health training institutions.

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**Papers embedded in the thesis**

The above objectives are addressed in four papers integrated into the thesis as part of the results chapter.

Paper 1: Amde WK, Sanders D, and Lehmann U. Building capacity to develop an African teaching platform on health workforce development: a collaborative initiative of universities from four sub-Saharan countries. Published on *Human Resources for Health*, vol. 12, no.1, pp.1–11, 2014.



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Paper 2: Amde WK, Marchal B, Sanders D, Lehmann U. Determinants of effective organizational capacity training: lessons from a training programme on health workforce development with participants from three African Countries. 2019. Submitted to *BMC Public Health Journal* on 16 July 2019.

Paper 3: Amde WK, Sanders D, Sidat M, Manasse N, Hailemariam D, Lehmann U. The politics and practice of initiating a public health postgraduate programme in three universities in sub-Saharan Africa: the challenges of alignment and coherence. 2019. Accepted for publication on *International Journal* for *Equity* in *Health* on 12 March 2020.

Paper 4: Amde WK, Sanders D, Chilundo B, Rugigana E, Haile-Mariam D, and Lehmann U. Exploring multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries: drivers, impact, and regulation. *Glob. Health Action*, vol. 11, no. 1, 2018.

Excerpts from the above papers feature across the different chapters of the thesis with the approval of the supervisors.

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**Organisation of the thesis**

The thesis is organised into five chapters. The thesis opens with a brief introductory chapter that provides an overview of it. Chapter 2 presents a review of the literature and conceptual framework, which inform subsequent sections of the thesis. Chapter 3 focuses on describing and providing a rationale for the research design, methods and procedures applied in the collection and analysis of data, with a focus on case study research and a system thinking and complexity approach. The four case studies, written as manuscripts, make up chapter 4, 'Results'. This chapter draws on data gathered from multiple sources and methods and is framed in such a way as to address aspects of the overarching research question and objectives. Chapter 5 of the thesis pulls together insights from the preceding chapters, highlights the implications of the research, and proposes directions for future research.



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## CHAPTER 2: LITERATURE REVIEW

A review of literature was conducted with the purpose of pulling together what is known about the issues of interest in order to locate the research and identify a conceptual framework that advances understanding and informs subsequent analysis and interpretation.[26–30] A deductive and inductive approach to reviewing literature has been used to suit the broad-ranging topics that are considered relevant in this research and its iterative and unfolding nature, all of which require the review to be adaptable in its logic and eclectic in its coverage.[31,32]

The review encompasses diverse peer reviewed journal articles, books, and grey literature such as reports or papers originating from across various disciplines/fields, namely, public health, education, management, sociology, psychology, and implementation research. The identification of literature was iteratively done through using key terms (capacity development, leadership development, complexity, systems thinking, multiple job holding, programme champion, public health training, partnership working, and south-south cooperation). Search strategies include (1) searching electronic databases (PUBMED/MEDLINE and SAGE) with a primary focus on empirical and conceptual publications on capacity development and evaluation; (2) searching the internet to retrieve particularly relevant grey literature; and (3) checking reference lists of relevant literature found through the above strategies.

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The grey literature emanated mostly from educational, government and development agencies and proved to be a useful source of insight as to how various actors perceive and assess capacity challenges and interventions. Adams et al. (2016) explain the value of considering grey literature for review,

> Information on applied public health research questions relating to the nature and range of public health interventions, as well as many evaluations of these interventions, may be predominantly, or only, held in grey literature and grey information. Evidence syntheses on these topics need, therefore, to embrace grey literature and information.[33]

International development agencies and NGOs account for the lion's share of knowledge that is generated and published about capacity development, as opposed to



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research and academic institutions that are traditional hubs of knowledge. This contributes to the key role these external actors still play in facilitating capacity development.[34]

All these searches did not have any time limit and the inclusion of literature for review was primarily driven by the degree of relevance to the inquiry. The review has been conducted over the course of the entire research process (from design to synthesis). The initial review prior to data collection focused broadly on literature related to: the meaning and practice of capacity development, perspectives that could guide the focus and nature of the inquiry into capacity development, methodological approaches that could help unpack mechanisms underlying interventions, and the state of capacity for health workforce management in sub-Saharan countries, and interventions related to this.

A further review was conducted at the later stages of the research (data analysis and synthesis) to better understand significant themes emerging from the data, which were not adequately covered in the initial review. This covered issues, which became prominent in understanding developments in the intervention such as introducing or adapting innovations, the role of programme champions, and any context related issue of multiple job holding in higher education institutions.

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A significant portion of the review of literature on the aforementioned thematic areas is selectively integrated into the four journal manuscripts that make up the finding section of the thesis. Accordingly, paper 1 covers literature about the dual capacity challenges facing public health institutions in sub-Saharan countries: expectation for the institutions to produce the next generation of health workforce while facing capacity challenges of their own.[35] Paper 2 integrates literature dealing with training as a capacity development strategy, and factors influencing application of learning during and post training. Paper 3 draws on literature about interventions that seek to introduce new training programmes, partnership working, and programme champions. Paper 4 engages with evidence in the body of literature about the phenomenon of multiple job holding.[36] A review of literature pertaining to researching capacity development and qualitative case study - was integrated into the different papers and the methodology chapter.



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In this chapter, efforts are made to avoid duplication by focusing on two broad themes running through the thesis. First, the review initially engaged with emerging narratives and evolving notions of capacity and capacity development, capacity development as a systems phenomenon, levels and dimensions of capacity, and centrality of power in capacity development drawing on literature on interventions to improve human and institutional capacity in general, and with a particular focus on the health sector. Secondly, the review covered a system-thinking and complexity perspective and its contribution to capacity development practice and research.

The review of literature culminated in the introduction of the conceptual framework to guide the exploration of the African partnership to develop capacity in health workforce development as a complex systems phenomenon, and understanding of the contextual and relational factors that influence its processes and outcomes.

**Growing popularity and weak conceptual clarity**

Capacity and capacity development are subjects of interest across different disciplines. In the development arena, the actual use of the term capacity development is traced to the 1980s, but gaining popularity in the 1990s as an overarching goal of technical cooperation.[11,37,38]

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Capacity development has been the hallmark of development cooperation, and efforts to characterise development cooperation both in its purpose and its attributes have prominently featured in the multiple aid-effectiveness focused global deliberations, including the High Level Fora held in Rome (2003), Paris (2005), Accra (2008), and Busan (2011).[38]

The realisation of development goals like the Millennium Development Goals (MDGs), as outlined in national and international documents, is, amongst other things, determined by the level of capacity prevailing at different levels, including those of individual, organisational and the surrounding context. A perceived lack of capacity and, therefore, the need for capacity development has been a central concern of



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governments, donors, and development agencies.[10–12,39] Cases in point are the UN Millennium Project, the Commission for Africa, and the New Partnership for Africa's Economic Development (NEPAD), which all asserted that sustainable development can be guaranteed only through strengthening capacity across different levels.[12,39] Development strategies of several countries have also underlined the centrality of capacity development, and the imperative of securing assistance for capacity development strategies.[12]

Recommendations included in the MDGs made the case for developing capacity in resource-poor settings if they were going to stand any chance of accomplishing these pre-set goals. This was particularly true with respect to recommendations 2 and 5. These called for the mobilisation of resources, increasing investment and scaling up the production of skilled human resources.[24] In the post-MDGs era – and with the advent of the Sustainable Development Goals (SDGs) – capacity development is considered even more critical for the realisation of the goals.[34]

Capacity development is considered central to improving health systems performance and health outcomes. The capacity development process that often encompasses financial, technical, managerial or political dimensions has been suggested to underlie all relationships with external partners. This has made the concept favoured among professionals involved in the design and implementation of interventions.[40]

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While there is a great deal of agreement regarding the lack of capacity and the need for capacity development, there is, however, very little conceptual clarity on what constitutes capacity and how it can best be developed.[38,41,42]

Definitions abound as to what capacity development means, and this probably has to do with earlier development concepts that date back to the 1950s, which are akin to capacity development.[11,13,37,43] The concept also resonates with subsequent notions in the field of development, including 'institutional building, HRD [Human Resource Development], institutional development, development management/administration and institutional strengthening.'[38]

Morgan (2005) points out the ambivalence surrounding the use of the concept:



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> The subject of capacity, as a body of knowledge subject, has a weak intellectual standing in the wider development world. It comes with no accepted and tested body of theory that people can use with any confidence. It lacks a language or set of terms that can aid communication and shared understanding.[15]

On the same note, the World Bank underscores the need for further empirical and conceptual work around the concept to reflect its multiple nuances. 'Capacity building has not developed as a well-defined area of development practice with an established body of knowledge about what works in meeting different needs under different country and sector conditions.'[44]

Despite the all-encompassing notion of the term and its seemingly harmonising effect on development discourse,[38] many scholars reiterate the need to be aware of the multiplicity of notions attributed to the term capacity development, which may render it lose any meaning.[37,38,45] On that account, Hope (2009) enumerates the different meanings attributed to capacity and capacity development, for example, 'an instrument, a process, an objective, an approach to development, a framework for change, and transformation'.[42]

The widespread application of the term also suggests that it is used to communicate unproblematised notions of positive results and transformation. Such uses often come across as being devoid of any political consideration and appreciation of local context. Taylor and Clarke (2008), in their paper that emerged out of a workshop organised to discuss capacity issues and attended by participants drawn from academic, research and donor institutions, highlighted the conflated and apolitical application of the concept of capacity development:

> Capacity development, at least in terms of language used, seems to have become a catch-all…, [and] appears to be a rather neutral, value free form of engagement between different development actors. …CD [Capacity Development] approaches are frequently decontextualized and apolitical. It is often assumed that if the approach is 'right', the outcome will be positive, but evidence suggests that a more nuanced perspective of the context is needed, which includes an awareness of the relationship between knowledge and power.[41]

Researchers also noted the lack of an explicit articulation of theories driving capacity



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development practice and research.[18,41,46] The limited application of theory in capacity development research has been described as wasteful and an impediment to learning.

> Poor theoretical underpinning makes it difficult to understand and explain how and why implementation succeeds or fails, thus restraining opportunities to identify factors that predict the likelihood of implementation success and develop better strategies to achieve more successful implementation.[18]

Brown et al. (2001) reiterated the tentative nature of the choice of indicators in assessing capacity development in the context of research about health system strengthening due to the impossible task of disentangling the varying influences of the dynamic interaction of the system with contextual factors.[46]

> Methodological challenges to measuring capacity relate to the inherent nature and role of capacity and capacity building interventions in the health sector. Capacity and capacity building are never static and therefore difficult to capture. Capacity is multidimensional, and capacity development occurs in stages.[46]

On the same note, Taylor and Clarke (2008) recognised the lack of theory in research about capacity development which they attribute to lack of evidence as to how capacity development takes shape across different contexts.[41]

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In a nutshell, the lack of theory or inadequate evidence to build theories has been mentioned as contributing to the prominence of a slew of unfounded assumptions made in the field. These include the unproblematised positive alignment among capacity at different levels and the change process in capacity development.

> An increase in individual capacities often fails to translate into increased project or organizational capacity. We need to understand the circumstances under which individual and organisational interests are likely to converge and when they are likely to be in conflict. Moreover, capacity outcomes during a project do not necessarily lead to transformative changes or development impacts once the project is completed, especially when obstacles to change are not tackled by other interventions.[41]

The recent growing realisation of the need to articulate the underlying assumptions of implementations and mechanisms of change has led to the increasing use of models, frameworks and theories to this end.[18]



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Despite the multiplicity of meanings, two prominent streams of definitions are discerned. The first category of definitions highlights capacity development as a process or approach towards broader development targets, such as the eradication of poverty. The second category emphasises capacity development as an objective in its own right, be it an improvement in capacity of individuals or organisations.[41,47]

Preference for the notions of capacity either as a process or outcome, or contention regarding which of the two notions represent capacity development, has received criticism from some corners, which consider this line of conversation unproductive and potentially further distorting our understanding.[41]

> Since process and results [outcome] are constructs, seeing them as opposite ends of an artificial spectrum may blinker our thinking about the meanings and practice of capacity development.[41]

This notwithstanding, prominent contemporary scholars in the field[14,15,48,49] have made strides towards greater conceptual clarity of the capacity development concept by placing it within the context in which it happens and adopting holistic perspectives, giving it greater meaning against the background of a social change agenda in complex environments.

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There is agreement in the recent literature that capacity development constitutes a process involving sustained improvement in the capability of individuals, organisations, or societies to set and achieve desired objectives, execute essential functions, and address problems in their path to development.[10,24,38]

Lessons drawn from decades of experience in capacity development underline the need to move away from one-size-fits-all approaches to it. Evidence highlights the importance of having specific objectives, and adapting approaches that best suit the scenario. Capacity development challenges have continued to inform and shift practices of development cooperation and development aid. Notions of capacity and capacity development are transient and difficult for practitioners to pin down, and thus require stating from the outset where the focus of capacity really lies or for what purpose



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capacity is needed. When there is a clear idea of what is desired to be achieved, then the task becomes what strategies are best suited for accomplishing this.[12,13,41,47,50,51]

## Capacity development: a systems phenomenon

### The multi-layer notion of capacity

The term capacity is increasingly understood to mean more than individuals' experience and know-how. It has aspects that pertain to organisations in which individuals operate and the broader environment in which these organisations are located. Capacity is conceptualised as residing at different but intertwined levels, and the issue should be approached with this fact in mind.[10,15,37,38,40,41,46,48]

Very influential frameworks, both in health sciences and beyond, that capture the multilayered notion of capacity, have been developed over the years. Notable mentions include the conceptual frameworks of UNDP and LaFond et al. of the World Bank. These frameworks identified three interacting layers of capacity: the enabling environment, the organisation, and the individual.[12,40]

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Table 1– Representations of capacity as residing across a set of hierarchical layers[12,40,45]

| | LaFond et al. 2002 | Potter and Brough 2004 | UNDP 2008 |
|---|---|---|---|
| Capacity levels | • External context<br>• Individual/community<br>• Health system<br>• Organisational<br>• Health personnel | • Structures, systems, roles<br>• Staff and infrastructure<br>• Skills<br>• Tools | • Enabling environment<br>• Organisational<br>• Individual |

In the context of the health sector, LaFond et al. (2002) depicted four levels of capacity, which are critical for health system performance. These are individual/community, health professional, organisational, and health system. They also recognised context as influencing capacity at all levels.[40]



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Potter and Brough's capacity pyramid is distinct from the other two models in the ways it characterises the capacity layers which appears more specific.[45] However, the layers identified can be transposed into the capacity layers identified by the other two models, where the skills layer is akin to the individual level; tools, staff and structure pertain to the organisational level; and structures, systems and roles level relates to the system/enabling environment levels identified by the other models.

There are many parallels between the three frameworks. The main distinction between the LaFond et al. and UNDP models lies in how they conceptualised capacity beyond the organisational level. The UNDP framework identifies 'enabling environment' as an all-encompassing level for all aspects of capacity existing outside the organisation.[12] LaFond et al. distinguish the health system as a level on its own encompassing all the elements within it, and regard external context as an outside entity not integral to health system performance, but with the influence on all the different levels of capacity. LaFond et al. also found it fitting to acknowledge targets/beneficiaries (which they refer as individual/community) as a distinct level of capacity.[40]

An understanding of capacity or implementing capacity development should be cognisant of the multilevel nature of capacity, since it can influence and be influenced by capacity at other levels. The organisational level has been interchangeably cited as the institutional level, and the context has been referred as institutional, societal, systems, or enabling environment.[12,13,15,24,38,41,48]

The multi-layer notion of capacity has also been taken up in empirical work. A background paper for the Health System Research Symposium in Montreux (2010) highlighted the lack of individual and organisational capacity in the area of health systems research and called for, inter alia, strengthening capacity through interventions that are '(i) multi-faceted, responding to capacity needs at different levels (individual, organizational, and environment or network) and (ii) tailored to the context where they are being implemented'.[52]



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There have been further discussions in the literature[40,45,46,53,54] about the nature and essence of capacity being envisioned across the levels, and this has prompted many scholars to unpack the different elements of capacity.

**The multi-dimensional notion of capacity**

Consensus has emerged that capacity has varied dimensions that prevail at the different interacting levels Capacity dimensions at individual and organisational level have received greater attention,[40,46] perhaps due to the relative ease of conceptualising and measuring aspects of capacity prevailing in these levels, compared to ones at the context or broader environment level. The table below depicts three representations of capacity into a set of hierarchical capacity features/needs/capabilities.

Table 2– Representations of capacity into a set of hierarchical features[45,53,54]

| Features of capacity (Kaplan 1999) | Hierarchy of capacity needs (Potter and Brough 2004) | Core capabilities (Fowler and Ubels 2010) |
|---|---|---|
| • Context and conceptual framework<br>• Vision<br>• Strategy<br>• Culture<br>• Structure<br>• Skills<br>• Material Resources | • System, structural and role capacity<br>• Workload, supervisory, facility and support service capacity<br>• Personal capacity<br>• Performance capacity | • Capability to act<br>• Capability to generate development results<br>• Capability to relate<br>• Capability to adapt<br>• Capability to integrate |

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The above table depicts different dimensions of capacity, tangible and intangible, which the authors reckon are critical for the functioning and performance of systems. Kaplan had non-governmental organisations in mind when he came up with the set of visible and invisible features of capacity.[53,54]

Potter and Brough (2004) similarly identify nine integral tangible and intangible dimensions of systemic capacity across the four layers of the capacity pyramid. Tools and performance capacity make up the first layer and relate to whether resources (financial and material) can be accessed to accomplish the task. Skills and personal capacity comprise the second layer and pertain to whether staff members have the



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necessary expertise and experience to carry out their responsibilities. Staff and infrastructure refer to workload, supervisory and support capacity. The last capacity layer (structures, systems, and roles) includes systems capacity, and refers to aspects linked to flow of information, resources, and decisions; structural capacity, which includes intersectoral relationships and accountability; and role capacity which refers to issues of autonomy or power structures found in committees or departments.[45]

Fowler and Ubels, drawing on an analysis of 16 case studies, put forward core capabilities that need to prevail in the event of optimum capacity. The authors point out that the capacity dimensions are pertinent for any system, be it an individual or an organisation, although they seem applicable exclusively to organisations.[54]

Scholars in the field differentiate the different sets of capacity dimensions in terms of ease of understanding, developing, and measuring.[12,45,53,54] For Kaplan, the intangible elements are by far harder to grasp and measure.

> The elements at the top of the hierarchy [culture, strategy, vision, conceptual framework] … are ephemeral, transitory, not easily assessed or weighed. They are to a large degree observable only through the effects they have. … [and] are of a nature which make them more or less impervious to conventional approaches to capacity building.[54]

Potter and Brough also make a similar observation about the nature of the different capacity dimensions, and identified dimensions like tools, skills, staff and infrastructures as more technical and easy, as opposed to capacity elements that are considered intangible and difficult to grasp, intervene, or measure.[45]



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**Dynamic interactions across levels and dimensions of capacity**

Aragon et al. (2010) emphasise the need to look at capacity development as a systems phenomenon: 'Capacity as a state or condition is inherently a systems phenomenon. … It comes out of the dynamics involving a complex combination of attitudes, resources, strategies and skills, both tangible and intangible'.[49] They thus called for a change in the way systems are researched and understood. The authors stressed the need to study systems as part of a broader context as opposed to being viewed in isolation: 'Due to their inherently networked and layered configurations, systems need to be studied in relation to their environment if their emergent properties are to be understood'.[49]

Brown et al. (2001) envisaged capacity prevailing at different levels of the health system, and contend that interventions to improve health systems performance should focus on the specific elements pertaining to the different levels as well as the system in its entirety. They identify four levels: health system, organisational, personnel, and individual/community level.[46] LaFond et al. (2002) map out the inputs, processes, outputs and impact that are considered essential to have the required capacity for sustainable and effective health system performance at various levels. The table below depicts the capacity processes linked to the different levels of the system.

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Table 3– Capacity processes across levels[40]

| System level | Organisational level | Programme personnel level |
|---|---|---|
| • Health policy making<br>• Enforcement of health-related laws and regulations<br>• Health sector strategic planning<br>• Resource allocation<br>• Resource generation<br>• Financial and human resource management<br>• Donor coordination<br>• Multisectoral collaboration<br>• Information coordination and dissemination | • Strategic and operational planning<br>• Human resource management/development<br>• Financial management<br>• Logistics/supplies management<br>• Quality assurance<br>• Research and evaluation<br>• Coordination with other units<br>• Resource mobilisation<br>• IEC, advocacy, community mobilisation | • Pre-service and in-service training events (training of trainers and trainees)<br>• Training events for managers<br>• Staff performance evaluations<br>• Experiential learning<br>• Professional networking |

Despite efforts to unpack capacity into its integral components, the overlap and interdependence among the different layers have been well established. Brown et



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al. point out the intersections of actors across the different levels, for example, the health workforce with organisational, or health system with the organisational. The capacity at system level to execute certain processes and functions happen to be part of the mandate of the ministry of health:[46]

> The capacity of the system to carry out certain functions may depend directly on the capacity of the MOH to play its organizational role effectively. The MOH is … a significant actor at both the system and the organizational levels.[46]

Other authors also made the case for considering this complex reality. Taylor and Clarke (2008), for example, noted, 'a critical dimension of successful CD [capacity development] is the systemic integration of the levels of individual, organisational and wider society'.[41]

In practice, the various capacity levels or dimensions have received different levels of attention when it comes to interventions to strengthen capacity, or developments in research methods and tools to examine the process. The individual or human resource level has enjoyed the most focus, followed by the organisational level. The system level has received the least attention in terms of an investment to understand it or intervene in it.[46] Consequently, training is widely adopted as the most popular capacity development strategy,[41,46] and training to build the human resource capacity in the technical/clinical or managerial realms is a common intervention in the context of the health sector.[46]

This has led many to criticise the notion of 'capacity as skills' or the propensity to equate capacity development with training, in favour of building the system.[34,42,45,48] Some of the pointed criticisms against the prominent adoption of training as a capacity development intervention are related to the fact that the link between the individual and organisational level capacity development is not well problematised.[41] A 2008 World Bank evaluation that explored whether training results in organisational capacity development identified the elements that need to be in place for training to effect the desired transformations.[55]

> Making the leap from individual learning to workplace performance outcomes and, subsequently, to development capacity impact requires both



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> good training design and an appropriate organizational and institutional context in which to apply the learning from training.[55]

Other criticism laid against the skills-oriented notion of capacity points to the fact that it is not training but rather the transformation of learning into practice that guarantees change. Furthermore, many short-term training programmes fail to adequately bridge the gap between learning and practice and the lack of uptake of training contents and spending to practice.[34]

However, even when organisational capacity is the focus of capacity development, training often continues to be employed as a strategy for accomplishing this. 'The organisational level seems to be the most widely utilised as a site for intervention, although the majority of actual 'inputs' relate to training at the individual level.'[41] Similar sentiments were voiced in an exploratory study in four eastern African countries focusing on competency gaps in health workforce management. The authors underscored the gaps in capacity at the organisational and system levels which risk undermining capacity development efforts made at individual level such as training.[56]

Furthermore, strengthening the capacity of organisations may not lead to transformations of the system if there is no alignment with the broader contextual issues. This was highlighted in a report which presents an evaluation of the support the World Bank provided for public sector capacity development in sub-Saharan Africa between 1995 and 2004.

> The traditional focus on creating or reorganizing government units and building individual skills cannot — by itself — foster improved public sector performance. The institutional context in which organizations and individuals operate is critical to ensuring the necessary incentives and rewards for improved public sector performance.[44]

However, the health system focus seems to have improved significantly in recent times.[57–62] As a case in point, the WHO's leadership and development framework locates the human resource management system as an integral part of the broader health system and identifies four critical and intertwined dimensions that need to prevail in order to have a functional system. The four key elements relate to dimensions of the different capacity levels discussed in previous sections. While competency can be



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reckoned as an individual level condition, the number of competent professionals available, the support at their disposal, and the enabling work setting can be mapped as part of the organisational level and – to some extent – of the broader context. The framework stresses the dynamic and context specific interaction across these conditions and the importance of establishing a balance across them.[63]

**Centrality of power in capacity development**

Power pervades all social interactions.[64–68] According to VeneKlasen and Miller (2002) 'power is both dynamic and multidimensional, changing according to context, circumstance, and interest. Its expressions and forms can range from domination and resistance to collaboration and transformation'.[67]

Gaventa contends that despite a growing recognition of power among development actors across various fields, discerning and understanding power has become more difficult in the context of discourses that obscure the traditional notions of it.[66,69]

> Changing governance arrangements, which call for 'co-governance' and 'participatory governance' challenge our traditional categories of the rulers and the ruled, the policymakers and the public. The use of terms such as 'partnership' and 'shared ownership' by large, powerful actors …. invite engagement on a 'level playing field' but obscures inequalities of resources and power.[66]

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VeneKlasen and Miller (2002) offer four constructs that help unpack distinct ways in which power is enacted or experienced. The first and most relatable notion of power is power 'over' which describes a situation wherein an actor has superior power over others and determines their choices and actions. Power 'with' is the second type of power, and refers to power that is embedded in and is predicated by networking, collaboration with other actors. The third type of power is power 'to', and this pertains to the agency and discretion actors have to effect change in accordance with their interests. When power 'to' is reciprocated and is beneficial to all parties concerned, it could lead to the other form of power, that is power 'with'. The final power construct is power 'within' and that pertains to the actors' state of mind, and their perception of their capability.[67,68]



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John Gaventa in his Power Cube Framework (see Figure 1 below) unpacks multiple constructs of power:

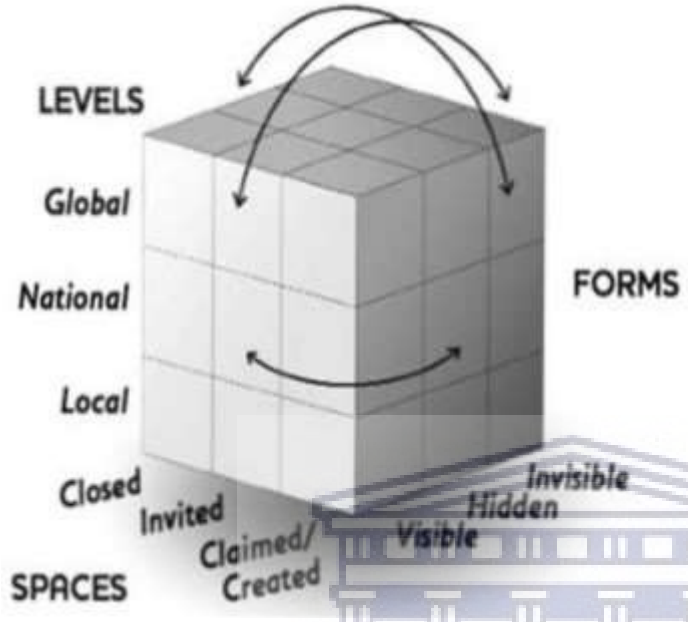


Figure 1– The 'power cube'.[66,69]

The power cube illustrates power residing in multiple levels (global, national, local), operating in multiple spaces (closed, invited, claimed/created) and taking multiple forms (visible, hidden, invisible). Gaventa envisages the different levels, spaces and forms of power interfacing with each other.[66,69]

The relevant literature alludes to a power relation being inherent in and generating capacity development. Development actors draw on various forms of power in the course of implementing an intervention or to ensure its sustainability. A relevant body of literature emphasises the importance of backing boundary spanners, '[individuals] who have significant social ties both inside and outside the organization',(70) if they are to make progress in fulfilling their roles of championing new initiatives. These individuals, it is stressed, also need to have qualities associated with the role like seniority, credibility, personality, and leadership.[70–72]

> An organization is more likely to adopt an innovation if those people who have significant social ties both inside and outside the organization are able



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> and willing to link the organization to the outside world in relation to this particular innovation.[70]

Overall, in capacity development research power is one of the least explored topics despite its role in mediating participation of actors in capacity development.[41,48]

> [M]any capacity development activities … are intertwined with issues of power, politics and vested interests. Such activities may shift authority and influence from some groups and individuals to others. Ideas and identities may be in conflict. Individual, groups and organisational interests are usually at risk.[48]

Existing studies on capacity development often emphasise the importance of power without unpacking how this works. The lack of empirical work on power in capacity development research is partly attributed to the contested nature of power, and the repercussions this may have in relationship between providers and recipients of technical cooperation.[41,48]

Two related debates pertaining to power in capacity development are presented in the following sections: internal and external dimensions of capacity development and types of capacity development partnership.

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**Internal and external dimensions of the capacity development process**

Many scholars and practitioners in the field stress that capacity development is fundamentally an endogenous process, with external actors and interventions playing more of an enabling role.[12,41,46,48]

Brown et al. (2001) make a distinction about the internal and external dimensions of capacity development, with the latter being more time bound and deliberate as opposed to the former that tends to be continuous – and a mix of intended and unintended activities.[46]

> While internal capacity building is on-going, in that learning can occur through a wide variety of planned and unplanned experiences and activities (e.g. networking, training, and creative responses to new challenges),



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> external assistance (to build capacity) generally occurs through more discrete and planned interventions. These interventions often focus on achieving specific improvements in a particular context in a particular time period.[46]

Core emerging features of capacity development are that it is a demand or locally driven change process that mainly emanates from and reflects national priorities. The concept is increasingly conceived as a process with outcomes that may take a long time to materialise, and not necessarily in a one-dimensional or predictable manner.[10,12,13,38,41,46,48]

The series of High Level Fora (Rome 2003, Paris 2005, Accra 2008, and Busan 2011) deliberating on aid effectiveness culminated in the development of global commitments and principles for development practice.[34] The 2005 Paris Declaration on Aid Effectiveness underlines the need to tailor approaches that best address capacity development challenges, and highlights the importance of supporting locally driven capacity development processes. External development partners should thus ideally coordinate their support and confine themselves, as much as possible (although this is bound to vary across nations) to playing an enabling or facilitating role as opposed to an interventionist role.[12,13,38,44,51] However, organisational interests and power relations often countermand this ideal scenario.[73]

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Despite the wide recognition of capacity development as an endogenous process to be driven by local actors, the lack of long-term engagement and the heavy reliance on support from external actors continue to jeopardise sustainability and undo prior capacity gains.[34,44]

> In practice (in many cases), not only do the external partners move out, but also the local counterparts move on to other local projects (as participation in CD [capacity development] projects is an important budget component for both local participants and the local organizations). Therefore, without a budget allocated to follow-up and without proper ownership and integration of the learning goals by the local counterpart, there are no resources to be allocated to continuity.[34]



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**Development partnership: north-south vs south-south cooperation**

Partnership, through its multiple variants, is recognised as one of the mechanisms to bring about development. The literature on partnership maintains that a host of factors pertaining to environment, membership, process and structure, communication, purpose, and resources determine success of partnerships.[74,75]

This south-south partnership is one variant of development partnership, which involves fostering the exchange of knowledge, experience, and resources among a range of actors located in LMICs. The south-south partnership is increasingly recognised as being able to facilitate capacity development in LMICs.[5,6] It is considered more suitable to north-south partnerships, whose success is undermined by 'fundamentally unequal resource endowments and incentive structures' in favour of northern partners.[25] Conversely, the south-south partnership is acknowledged as being rooted in southern knowledge and experience, adaptability across partners, demand-and capacity-development orientation, and an equal or horizontal relationship.[76,77] The inherent values of the south-south partnership include 'developing solidarity and consciousness of kind; addressing common problems and interests; exploiting the complementarity of assets; learning and sharing together; and … increasing collective self-reliance and voice'.[6]

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A south-south partnership is also in line with decades of experience in capacity development which underlines the importance of demand-driven capacity development processes that are aligned to local priorities, foster local ownership, and mutual accountability.[51] However, south-south partnerships' reliance on funding from the north, and capacity gaps in the south to run and maintain working partnerships render them fragile or unsustainable.[6]

The potentiality of power imbalance even in seemingly horizontal relationships such as south-south cooperation is also noted in the literature. Oni et al. (2019) pointed out how notions such as 'global north' or 'global south' give distorted impressions about homogeneity of actors that fall under these categories. The authors noted, '[T]erms "global north" and "global south" are an oversimplification



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of the global distribution of power and resources that do not comprehensively capture the heterogeneity of the global south.'[78]

## Theoretical and conceptual framework

### Systems-thinking and complexity approach

The systems thinking and complexity approach is one of two broad approaches widely applied to monitor and evaluate capacity development interventions, with the other being the results-based approach. Both approaches have pros and cons associated with their use, and the choice of approach is informed by the purpose to be served, and the assumptions made at the inception of the capacity development intervention. The results-based approach has a technical and a result focus, and often involves the use of logical frameworks. The approach is quite popular as an accountability mechanism among international donors.[34,79]

There has been a shift to systems thinking and complexity approach as a response to the much-criticised results-based approaches[15,80] which are too bounded in their focus,[60,80,81] and have simplistic and linear conception of reality, where a given system is assessed with little recognition of its interaction with its context.[15,80] Despite criticism the results-based approach is still widely applied with all its limitations mainly due to the nature of accountability practices promoted by external development partners.[41] Watson points out how dwelling on measuring and intended outcomes could prove costly, as they may result in missed opportunities for learning and adaptation, and thus effectiveness.[79]

The systems-thinking and complexity approach is considered to be more useful than the results-based approach, and is embraced more as a way to sustain capacity development through learning and adaptation.[34,79] The application of a systems-thinking and complexity lens transcends disciplinary boundaries. Disciplines like medicine and epidemiology have for long promoted a reductionist understanding of capacity issues in health. This has led to a growing number of scholars in the field



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advocating for the recognition of systems thinking to capture the complexity of interactions and interdependence of different parts of the health system.[60,82–85]

The use of systems thinking and complexity perspectives have gained increased support as a way to understand and investigate complex phenomena – such as capacity development[12,13,15,24,41,86] which are often ill-defined, non-linear processes that bring into interaction multiple actors with diverse vested interests.[38,41,42] As it is the case with complex problems, the '[p]articipation [of actors] is often ill structured and system limits seem arbitrary. … Issues cannot be well understood by thinking about it beforehand, but only by addressing them along the way. This dynamic precludes linear change approaches.'[87]

The systems-thinking and complexity approach has an emphasis on documenting complex practice and relational transformation, intended or unintended, and has a system focus.[34,79] What is more, the approach recognises and allows capturing interaction with, and influence over, the research or participants. '[A]s evaluators we become part of the complex adaptive systems we evaluate and our individual human proclivities and patterns also become part of those system dynamics.'[88]

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The term Complex Adaptive Systems (CAS) refers to the interrelated, but independent, set of diverse agents that are endowed with the ability to learn and adapt to respond to the changing demands in their surroundings.[85,89–91]

> In health care, a doctor is a CAS and also an agent in the department, which is a CAS and an agent in the hospital which is a CAS and an agent in health care which is a CAS and an agent in society. The agents co-evolve with the CAS of which they are a part. The cause and effect is mutual rather than one-way.[90]

Interrelationships of agents, structures and ideas are considered to undergird the operation of systems, influencing behaviours, events and outcomes.[48] CAS are non-linear systems and are thus unpredictable in the way they respond to interventions. It is possible that small inputs to the system may lead to a major transformation in the system, or inversely, a large-scale intervention may end up being inconsequential on



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the system[85,88,90] Another characteristic of CAS is that they are rooted in a history that mediates their current and future states.[90]

The notion of emergence features as critical in discourses about change in complex systems.[48,90] Capacity is considered as an emergent phenomenon. 'Complex systems evolve on the basis of countless interactions amongst a huge number of elements. Emerging out of these interactions are system 'properties' such as capacity that have characteristics not found in any of the elements.'[48]

**Conceptual framework**

In line with the topical and theoretical review of literature, a conceptual framework is deduced to both demarcate the boundaries of research and subsequently inform various processes in the research. While qualitative inquiry is inductive, the process does not rest in a vacuum, as the researcher's perception and worldview, and familiarity with the knowledge in the field come into play in shaping the researcher's approaches.[92]

> The framework … will draw upon the concepts, terms, definitions, models, and theories of a particular literature base and disciplinary orientation. This framework in turn will generate the "problem" of the study, specific research questions, data collection and analysis techniques, and how you will interpret your findings.[92]

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The framework of this thesis particularly draws from Baser and Morgan's[48] framework for analysing complex systems.



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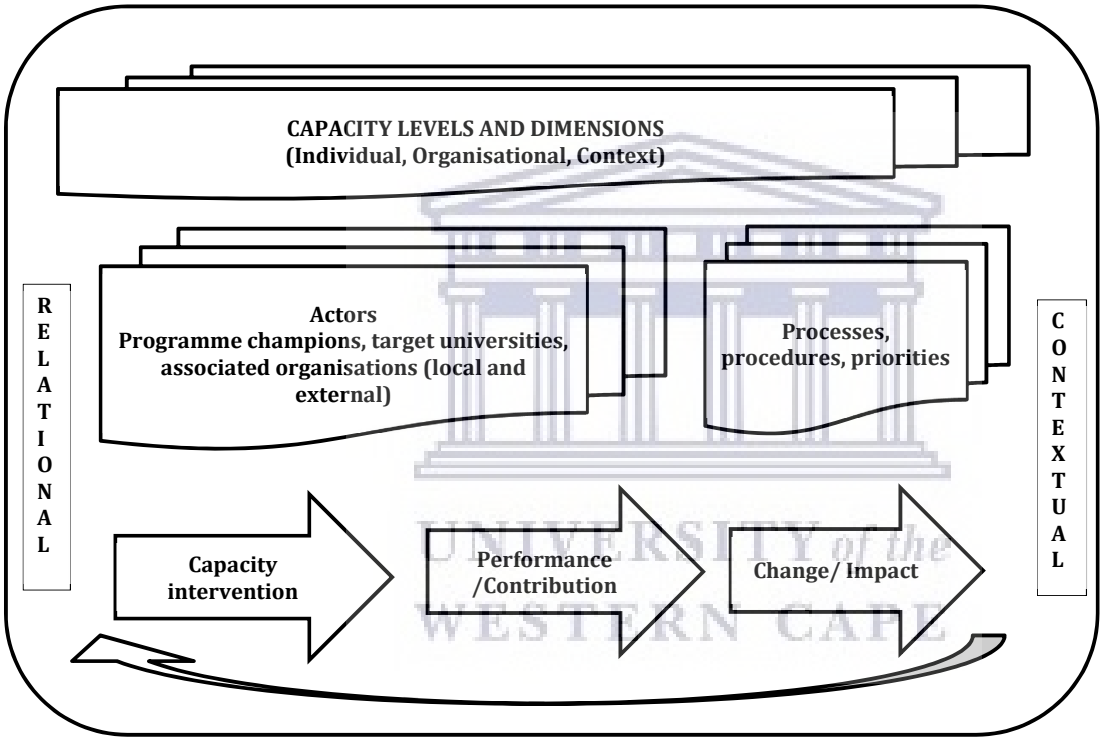


Figure 2 – Conceptual framework for analysing an African partnership to develop capacity in health workforce development.



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The framework is adapted to explore the multiple contextual and relational factors impacting and shaping process and outcomes of the African partnership to develop capacity in health workforce development through a multi-layered and iterative interrogation.

The framework seeks to understand and track the generation and contribution of capacity in the African partnership to develop capacity in health workforce development. This can be achieved by foregrounding this dynamic process in the web of actors and processes operating at multiple levels (individual, organisational, and environment), and surfacing the underlying mediating contextual and relational factors. The framework assumes capacity development as a dynamic systems phenomenon comprised of multiple and interacting actors, processes and levels.

The framework identifies three iterative phases of the changes process: capacity generation, application of capacity, and effecting change. This transition is not guaranteed as capacity generated may remain untapped and may not lead to improved performance or change.[47]

In the context of the African partnership to develop capacity in health workforce development, the first phase, capacity generation, refers to the collaborative partnership encompassing training, and programme/curriculum development strategies. The second phase, contribution/performance pertains to application of newfound capacity namely, be it competencies by those who underwent training; and curriculum integration and training roll out by target universities. The third phase, change/impact includes development of critical mass of leaders, and improved national leadership and training capacity.

The table below presents key specific and broad concepts embedded in the framework and how they are conceptualised in the research:[48]



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Table 4– Key concepts and definitions[48]

| Key concepts | Definitions |
|---|---|
| Capacity intervention | The collaborative capacity development partnership encompassing a set of programme activities/strategies specifically training and programme/curriculum development. |
| Contribution/performance | The anticipated short and medium term effects of the capacity development intervention, and includes application of competencies by trainees, curriculum integration and training rollout |
| Change /impact | The anticipated long term effect of the capacity development intervention, and includes development of critical mass of leaders, and improved national leadership and training capacity in health workforce development A capacity-neutral term and refers to a shift in the configuration and behaviour of a system. |
| Contextual factors | Determinants of capacity development pertaining to relevant issues in the immediate or broader environment (institutional, national or broader environment) within which actors operate |
| Relational factors | Determinants of capacity development pertaining to values, interests and dynamic power relationships of various actors (at micro, meso or macro level) in the context of the capacity development intervention |
| Actors | Individuals or institutions (at micro, meso or macro level) that influence the capacity development process, includes programme champions, target universities, and associated organisations, both local and external |
| Procedures and processes | Formal or informal norms and practices (institutional or national) that inform actors' courses of action |
| Programme champions | Individuals tasked with the responsibility of spearheading implementation of the capacity development intervention. |
| Capacity levels | Layer in which capacity resides, e.g. individual, organisation, environment |
| Capacity dimension | Features of capacity with respect to its nature, tangible vs intangible, or goals/functions it enables |
| Capacity | Emergent combination of individual competencies, collective capabilities, assets and relationships that enables a human system to create value.48 |
| Capacity development | The process of enhancing, improving and unleashing capacity; it is a form of change which focuses on improvements[48] |
| Context | The political, social and institutional landscape within which actors operate |
| Emergence | An unplanned and uncontrollable process whereby properties such as capacity emerge out of the complex interactions among all actors in the system and produce characteristics not found in any of the elements of the system in isolation. [48] |
| System | An entity that maintains its existence and functions as a whole through the interrelationships of its parts or elements.[48] |
| Systems thinking | Way of mentally framing the world, focusing on processes more than structures or outcomes, and with systems functioning on the basis of relationships among people, groups, structures and ideas.[48] |
| Complex adaptive systems (CAS) | Systems that are made up of a diverse set of actors whose multiple interactions produce behaviours in the whole system not found in any of the actors. They generate adaptation by changing, both intentionally and indirectly, in the face of new circumstances in order to sustain themselves.[48] |



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## CHAPTER 3: METHODOLOGY

The methodology chapter contains sections that articulate the research design, strategies and methods used in this research to collect and analyse data, and the rationale informing these choices. The chapter also includes a discussion about the rigour and trustworthiness of research, ethical considerations and the limitations of the study.

### Constructivist research paradigm

Underlying any research is a series of implicit or explicit preconceptions about the nature of knowledge and how it comes about. Many scholars emphasise the significance of researchers articulating their standing and rationale with respect to the paradigm of knowledge they subscribe to, as well as the reasoning behind their choice of a specific methodology and methods. Such reflexivity by researchers is expected to help ensure coherence across various aspects of the research.[92–96]

Against this backdrop, the researcher adopted a qualitative research approach rooted in the constructivist paradigm, which is one of the main perspectives about the nature of reality, knowledge and methods (see Table 5 below).

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Table 5 - Epistemological perspectives[92]

| | Positivist/ postpositivist | Interpretive/ constructivist | Critical | Postmodern/ poststructural |
|---|---|---|---|---|
| Purpose | Predict, control, generalize | Describe, understand, interpret | Change, emancipate, empower | Deconstruct, problematise, question, interrupt |
| Types | Experimental, survey, quasi - experimental | Phenomenology, ethnography, hermeneutic, grounded theory, naturalistic/ qualitative | Neo - Marxist, feminist, participatory action research (PAR), critical race theory, critical ethnography | Postcolonial, poststructural, postmodern, queer theory |
| Reality | Objective, external, out there | Multiple realities, context – bound | Multiple realities, situated in political, social, cultural contexts (one reality is privileged) | Questions assumption that there is a place where reality resides; "Is there a there there? " |



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The table above summarises the four principal positions and assumptions about the nature of reality and their implications for research purpose and strategies. The constructivist perspective holds that 'knowledge, and therefore all meaningful reality as such is contingent upon human practices, being constructed in and out of interaction between human being and their world, and developed and transmitted within an essentially social context.'[93]

Patton (2002) outlines the implications of embracing a constructivist worldview for researchers undertaking an assessment of interventions. He emphasises the importance of acknowledging the diversity in the beliefs and lived experiences of actors. In his view, the researcher ought to further examine the implications of this disparity across actors, without attaching any hierarchic importance to the perceptions harboured by the various groups. He further, holds that such inquiry has to be done in a natural and non-experimental setting/fashion, with an openness to change and engage with any unanticipated issues.[28] Endorsing a constructivist paradigm also implies that '[r]esearchers recognize that their own backgrounds shape their interpretation'.(95)

In addition to the choice of a constructivist position, the researcher also found it relevant to locate the research in another on-going contestation between 'mechanistic/linear constructions of the world versus organic/systems constructions';[95] and how this affects the way we understand or research programmes, institutions, or society.[95]

The above systems construction of the world has gained prominence for investigating complex realities. Systems thinking has received growing recognition as the appropriate approach to capture the complexity of interactions and interdependence of different parts of the health system.[60,82–84] A qualitative inquiry is central to certain systems-oriented research approaches, and a systems and complexity perspective also informs conceptualisation and implementation of qualitative research.[92] Merriam (2009) holds that qualitative inquiry rests on the assumption that 'reality is holistic, multidimensional, and ever-changing; it is not a single, fixed, objective phenomenon waiting to be discovered, observed, and measured as in quantitative research'.[92]



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## Case study methodology

The case study (which is defined as an 'in-depth description and analysis of a bounded system'[92]) has been chosen as the overarching design for the research. A number of reasons informed the selection of the case study research design. One of the rationales is its suitability to investigating complex phenomena, which have features in which 'the cause-effect relationships may be mutual, multidirectional and multilateral'.[91] Emergence is another and it relates to the fact that 'the specific outcomes, and the means to achieve them'[91] appear in the course of implementation.[91]

The case study is considered highly appropriate for tackling less-researched and less-theorised problem areas, or complex practice-oriented issues whereby actors and context are considered paramount.[92,97]

Innovative projects make up typical case study topics, and the case study can also be adapted for exploratory, descriptive or explanatory purposes.[92,98–102] Moreover, a case study enables an 'investigation of contextual realities and the differences between what was planned and what actually occurred'.[103] This makes it suitable for inductively uncovering actors' preconceptions about the intervention during planning, and tracking to what extent this aligns with implementation.

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Case studies generate extensive information and thick description, which makes them an appropriate design for in-depth investigation. They are also highly appreciative of context dependent experiences.[92,94,101,102,104,105] R.E. Stake further elucidates the rationale for looking at cases situated in their contexts. 'The situation is expected to shape the activity, as well as the experiencing and the interpretation of the activity. In choosing a case, we almost always choose to study its situation'.[106]

Case studies can be devised so that multiple aspects or layers of analysis can be integrated into the analysis.[92,94,101,102,104,105,107] These features were of use in exploring different layers of capacity. The approach is also suited to an investigation of how transformations come about in a given context and the experiences of those participating in such change.[92,104]



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The researcher specifically adopted an embedded single-case exploratory research design. According to Miles and Huberman (1994), a case represents 'a phenomenon of some sort occurring in a bounded context'.[102] A case often has a clear focus, its external boundaries are often fuzzy.[102,106]

The case explored in this thesis is the African partnership to develop capacity in health workforce development, the main unit of analysis, implemented collaboratively by the four universities. This case exhibits complex contextual and relational attributes as it involves multiple actors operating in different contexts, and seeks to effect capacity change at multiple levels – micro (individual), meso (institutional), and macro (national). Embedded in this case, and making up the study's sub-units of analysis, are specific components of the collaborative programme that target partner organisations and their staff (i.e. training for organisational capacity development, development and embedding of training programmes, and south-south partnership). Care was taken to balance the focus on the main and sub-units of analysis and not lose sight of one over the other.[108]

## Study participants

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The selection of research participants was done purposively. Purposive sampling is one of the most popular sampling methods in qualitative research designs. It involves the inclusion of study participants that can best illuminate the case, the matter under study.[92,106,109] Accordingly, individuals who were directly involved in the design or implementation of the African capacity development partnership, who are mostly people situated in the collaborating institutions and involved in the planning and implementation of the capacity development initiative in the countries (Mozambique, Rwanda, Ethiopia, and South Africa), were invited.

The participants in the study included:

1. Designers/drivers of the project based in the partner institutions (six in total), including the development partner (donor agency), and four public health training



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institutions in South Africa, Rwanda, Ethiopia and Mozambique. Members of this group were responsible to varying degrees for the design and implementation of the intervention. They comprised mostly heads of departments or schools in the respective partner universities. They were also responsible for overseeing the implementation of the project in each institution. Their experience of implementing the programme, challenges and opportunities and conditions (external and internal) that were most relevant in supporting or constraining the initiative were also explored.

2. Trainees (18 in total) were from Ethiopia, Rwanda, and Mozambique. They were enrolled in a training programme for organisational capacity development, an MPH (Master's in Public Health) that focused on Health Workforce Development, offered at UWC, South Africa. This group included academics and practitioners who were based either at the universities or health ministries. Their understanding and experience of the programme and its implementation process, how the goal of the programme aligned with their career plan and development, and the conditions, including organisational processes and systems that were most relevant in supporting or constraining application of their newly acquired capacity was explored.
3. Mentors (six in total) from Ethiopia, Rwanda, and Mozambique (2 from each country) who had been responsible for providing guidance and support to students over the course of the training programme. This group includes senior academicians and practitioners, who are based either at the universities or at health ministries.
4. Members of the target institutions (17 in total), local universities and health ministries across the three countries (Mozambique, Rwanda and Ethiopia). This group of key informants were engaged to understand capacity gaps and assets, internal processes and features of the organisations; and to explore perceptions about the intervention, and assess to what extent the programme was aligned to local realities in the different countries.

Some of the participants wore multiple professional hats simultaneously: they were trainees and trainers, or students and practitioners. The informants were instrumental in gaining insight in the contextual and relational factors that support or constrain the African partnership to develop capacity in health workforce development.



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## Study setting

The study was conducted in the context of a partnership of four public health training institutions that are based in universities in four sub-Saharan countries, namely South Africa, Ethiopia, Mozambique and Rwanda.

The public health training institutions under examination represent the oldest and most prominent public health training centres in the respective countries (namely Ethiopia, Mozambique, and Rwanda). The institutions have relatively small staff complements considering the growing number of undergraduate and postgraduate students.[35]

Table 6 – Profile of public health training institutions[35]

| Institutional profiles | | UEM | UR | AAU |
|---|---|---|---|---|
| Year department established | | 1962 | 2001 | 1964 |
| Academic staff number 2017 | Permanent staff | 14 | 48 | 41 |
| | Contract staff | 8 | 2 | 2 |
| Gross salary 2017* | Full Professor | 1078 USD (32360,00 MZN) | 2240 USD (1.870.731 RWF) | 880 USD (20,245 ETB) |
| | Assistant Professor | 674 USD (20240,00 MZN) | 1847 USD (1.542.447 RWF) | 583 USD (13,420 ETB) |
| | Lecturer 1115 USD | | (931.500 RWF) | 455 USD (10,470 ETB) |
| Student numbers 2017 | Undergraduate | 268 | 222 | 4000** |
| | Masters | 88 | 83 | 283 |
| | PhD | 0 | 12 | 45 |

*Does not include allowances, Exchange rate: 1USD = 835 RWF/ 23 ETB / 30 Meticais

**No undergraduate public health programme but courses taught to medical and other health sciences students across all programmes and years.

The countries mentioned above all have a history of civil war, and have a poor ranking in the Human Development Index (HDI): Mozambique (180), Rwanda (163), and



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Ethiopia (174).[110] The countries have indeed undergone great upheaval in their recent history. The countries pursue decentralisation as a key strategy to achieve their multifaceted development goals.

Table 7– Profile of countries targeted by the intervention (UNDP 2018)[110]

| | Mozambique | Rwanda | Ethiopia |
|---|---|---|---|
| Human Development Index | 180 | 163 | 174 |
| Population, total (millions) | 26.5 | 12.1 | 96.5 |
| Population, urban (%) | 32 | 20 | 17.8 |
| Internet users (% of population) | 5.9 | 10.6 | 2.9 |
| Employment in agriculture (% of total employment) | 80.5 | 78.8 | 79.3 |
| Public expenditure on education (% of GDP) | 5 | 5.1 | 4.7 |
| Public health expenditure (% of GDP) | 6.8 | 11.1 | 5.1 |

The states of the countries' health systems are a reflection of the aforementioned long-standing challenges and post-conflict transformations. With respect to their health professional to population ratio, the three countries are considered as among the countries in Africa experiencing an acute health workforce shortage.[3,111]

Despite making substantial progress in increasing the production of health workers, the countries still lag below the minimum health worker density (i.e. 23 doctors, nurses and midwives per 1,000 population).[112–115] In Rwanda this is 0.6 physicians/10000, Mozambique 0.4 physicians/10000, and Ethiopia 0.3 physicians/10000.[111]

There was a general lack of health workforce leadership and management capacity at national and sub-national levels across all the target countries. There were few training programmes on health human resource management in the countries, despite the health workforce challenges facing them and the recognition of the central role that weak human resources management has in play.



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## Data collection methods

To generate rich data to address the research questions and objectives, three data collection methods (which are in the tradition of case study research) were employed. These include interviews, document reviews, and observation.[92]

### Interviews

Semi-structured interviews were a useful source of information in the research, and allowed for an in-depth understanding of perceptions and experiences of actors over a range of matters related to the collaborative capacity development initiative.[92,95,116] Berg (2001) highlights the benefit of semi-structured interviews in understanding participants' meanings; 'through unscheduled probes … that arise from the interview process itself.'[116] Patton adds, '[o]pen-ended questions and probes yield in-depth responses about people's experiences, perceptions, opinions, feelings, and knowledge'.[95] Accordingly, the method was useful in uncovering participants' assumptions and the meanings attributed to issues pertinent to the capacity development initiative, and thus helped uncover context-related influences in this regard.

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To ensure trustworthiness and credibility of the research, interview guides were developed once the researcher had established a clear view of the assumptions underlying the intervention, and attained awareness of the nuances of the institutions in their respective contexts. The guides were refined as the research progressed. Prominent scholars of qualitative research, like Lincoln and Guba,[117] have underlined the value of engagement with participants and the context prior to the actual data collection. The researcher was able to accomplish this through interaction and consultation with participants, visits to the institutions, and reviewing relevant documents.

In-depth interviews were held with key informants (KIs), including relevant members of the external development and training partner institutions, trainees and mentors, and representatives of associated institutions, namely, health ministries. Forty-seven key



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informants were interviewed: six members of the collaborating institutions that were central in the design and implementation of the African partnership to develop capacity in health workforce development; 18 participants undergoing a blended Master's in Public Health training programme with a focus on Health Workforce Development; six mentors that accompanied training participants in the course of the training programme; and 17 members of the target universities and health ministries in the three countries (Rwanda, Ethiopia, Mozambique) that were either aware of or involved in different activities of the programme (i.e. training for organisational capacity development, development and embedding of training programmes, and south-south partnership) across the three countries. The in-depth interviews with key informants were held in their respective contexts between June 2014 and March 2015.

The researcher conducted the interviews face-to-face, except in two instances when telephone interviews (Skype, landline) were used to interview informants who were difficult to reach. Telephone interviews in qualitative research, despite their shortcomings of lacking insight about body language and dynamics of interaction, can be useful when it comes to overcoming barriers of reaching remote participants.[116]

The interviews primarily explored perceptions and experiences of actors over a range of contextual and relational factors that mediate the process and outcome of the African partnership to develop capacity in health workforce development (i.e. training for organisational capacity development, development and embedding of training programmes, and south-south partnership). The semi-structured interviews explored the following broad issues:

- State of capacity for health workforce development at individual or institutional level;
- Internal conditions including programme implementers and targets, institutional context and processes;
- External conditions or factors in the broader context that have bearing on the African partnership to develop capacity in health workforce development;
- Stakeholders, partnership, programmes and resources related to the intervention;



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- Process of implementation of various components of the African partnership to develop capacity in health workforce development; and
- Mechanisms that enable or constrain the intervention.

**Document reviews**

Document reviews make up another source of data.[95] Document review were used to generate information regarding conceptions of capacity assets and gaps, organisational structures and processes, stakeholders' perception and experience, and the influence of external context. The documents reviewed span the project life and cover the period from inception of the intervention in 2008, marked by the call for proposals issued by the World Health Organisation, until 2015, which date marked the end of the intervention. The reviewed documents, which were instrumental in supplementing evidence from other sources, include:

- donor's call for application; and Expression of Interest and proposal by collaborating institutions;
- periodic institution-specific progress reports from the collaborating institutions
- email correspondence, and minutes of meetings of representatives of the collaborating institutions related to design and implementation of the programme;
- memoranda of understanding; agreements and addendums;
- periodic monitoring reports focusing on trainees' learning experiences and challenges; and
- relevant institutional and national policies.

**Observation**

Participant observation is another source of information in qualitative inquiry.[95] As a member of the programme implementation team, the researcher took part in the implementation process, attended meetings and workshops, and carried out field visits in the collaborating institutions across the three countries. Hence, observational



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information, own reflections and analytical memoranda regarding activities, processes, and interactions were used in corroborating evidence through triangulation.

## Data analysis and synthesis

Data analysis is an integral component of the research process. It was informed primarily by the purpose and research question that the research set out to address, and the conceptual framework and research design adopted to guide the process. These, in a way, served to define also the scope of inquiry, the information to be generated, and the analytic view.[92,118]

The convergence between data collection and data analysis is one of the distinct features of qualitative inquiry.[119] This was also the case for this research in which a great deal of purposeful engagement took place comparing and relating different aspects of the information about the subject under investigation, and further exploring emerging issues. Data analysis in qualitative research is described as 'a complex process that involves moving back and forth between concrete bits of data and abstract concepts, between inductive and deductive reasoning, between description and interpretation towards responding to the research questions'.[92] In line with this, Crowe emphasises the importance of employing a non-rigid approach to data collection in case studies to solicit rich data and understanding.[101]

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The data gathered from multiple sources using multiple methods was analysed thematically.[98,120] Thematic analysis was considered appropriate due to its adaptability.[120] It supports synthesis of data from multiple sources and methods by thoroughly seeking convergence.[98] Consequently, themes were generated deductively from the broader conceptual framework and research questions, and inductively from the data.[92,95,98,118,120] According to Guest et al. (2012),'[e]xplanatory or conceptual qualitative research uses a combination of deductive and inductive methods and is an increasingly important approach within applied qualitative research'.[118]

All the interviews were transcribed verbatim. Through an iterative process, the researcher open coded the transcripts manually with a focus on describing the different



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data segments. The induced codes were then grouped into more analytical categories/themes that spoke to the research question and the conceptual framework.[92]

The next steps in the analysis process include a description of and comparison across associated themes.[121,122] Despite the focus of the analysis being exploratory and explanatory, it is also descriptive, for the former rely on having detailed description. According to Miles and Huberman (1994):

> Naturally there is no clear or clean boundary between describing and explaining; the researcher typically moves through a series of analysis episodes that condense more and more data into a more and more coherent understanding of what, how, and what.[102]

Informed by the system and complexity perspective and based on the conceptual framework, case descriptions of various aspects of the African partnership to develop capacity in health workforce development were developed capturing complex contextual and relational patterns of implementation.[108]

Comparisons were made at two levels with a focus on understanding factors mediating capacity development. First was a comparison of what had been planned and implemented 'to allow for the unique patterns of each case to emerge'.[119] Secondly, there was a comparison across cases to discern trends that 'go beyond initial impressions, especially through the use of structured and diverse lenses on the data'.[119]

Causal loop diagrams, one of the tools emerging from the system dynamics field, were employed to visualise and communicate complex system interactions.[87,123,124] A key benefit of this tool is that it takes into account feedback mechanisms, both enablers and constraints, and helps highlight 'the most important dynamics amidst the multitude of information and relationships.[124]

## Rigour and trustworthiness

Many proponents of qualitative inquiry[117,125,126] advocate rigour and trustworthiness as the primary quality criteria of qualitative research and propose a range of interventions



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by the researcher to this effect. In the current literature on the topic and for the purposes of this study, trustworthiness was ensured through engagement with the participants and context prior to data collection; voluntary participation of respondents; counter checking responses; and soliciting peer feedback; generating rich description of context and the capacity development phenomena; and providing detailed accounts of research design, process of data collection, analysis, and interpretation, and how they evolved through the course of the study.[83,92,117,126]

As the purpose of the study was to unravel contextual and relational factors, open-ended semi-structured questions were used. Probing was an important strategy to establish adequate understanding. Field notes were prepared and shared with supervisors (UL, DS) for insight while on the field and were included in the analysis. The researcher conducted all the interviews. The researcher used English to interview participants from Rwanda and Mozambique. The researcher needed to use a translator (in Mozambique) in only one case. In Ethiopia, the researcher used English and Amharic, the country's official language, depending on the participants' preference. Interviews were audio recorded with the permission of participants. The researcher did most of the verbatim transcriptions and the translation of all interviews. A postgraduate student assisted the researcher by transcribing and translating to English two interviews that were done in Amharic. Overall, rapport with participants was amicable and trusting over the course of the programme, and that came across in the way participants disclosed aspects of local dynamics, conflicts and relationships.

Respondent validation or member checking was also applied, whereby key informants were contacted to give feedback on the case study report and their feedback was later integrated into the report.[83,108,117] Most importantly, triangulation and reflexivity were applied to ensure rigour and trustworthiness of research.[92,95,126]

Merriam (2009) underscores the importance of triangulation in constructivist research as 'a principal strategy to ensure for validity and reliability'.[92] Denzin (1978) outlines four categories of triangulation in the context of research, namely, using multiple sources of data, involving multiple researchers, considering different worldviews, and applying a variety of methods.[95] Accordingly, the researcher incorporated these different dimensions across the research process. The researcher gathered data from



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multiple sources using multiple methods, and collaborated with other researchers across different contexts during data analysis and interpretation, and considered or applied different perspectives to guide different phases of the research. The researcher also sought the convergence of data from the different sources and methods, and documented and analysed divergence within the data.[83,92,98,127]

Reflexivity was adopted as an integral tool in this research. Reflexivity, the process of critical self-examination, has a long history, stretching over a century, in qualitative research and it seems to be enjoying more visibility of late.[128] By engaging in this process researchers 'acknowledge the situated nature of their research and … demonstrate the trustworthiness of their findings'.[128] Underlying the notion is the recognition that 'subjectivity in research can be transformed from problem to opportunity'.[128]

Reflexivity was applied to examine personal responses and interpersonal dynamics, research approach, method and outcomes[95,129] which is presented in subsequent sections. The decision on how much of the reflexive commentary should be featured in the actual report depended on the significance of the commentary in establishing trustworthiness and would inform an understanding of the research process and findings.[130,131]

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**Navigating insider-outsider positionality**

The researcher, his PhD supervisors (UL, DS), and the co-authors of the manuscripts were part of the African partnership to develop capacity in health workforce development, either in its design, implementation, monitoring or documentation. The researcher acknowledges drawing on and incorporating the experiences of all the parties, and care was taken to be transparent about decisions and orientations, "to become more explicit about the link between knowledge claims, personal experiences of both participant and researcher, and the social context."[128]

The researcher was part of the programme team in South Africa (UWC) from 2009 to 2015, assuming a programme manager role, This involved engaging with the different



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partners of the programme located in South Africa (UWC), Rwanda (the University of Rwanda – UR), Mozambique (the University of Eduardo Mondlane – UEM), and Ethiopia (Addis Ababa University – AAU), and the donor institution (WHO). Documenting and learning from the intervention became an important goal to the partners, and that represented a significant part of this researcher's responsibility as a programme manager. The researcher worked on the project for two years before deciding to take it up as his doctoral research in 2011. The researcher was drawn to the intervention as a subject of his doctoral research partly due to its proximity to his training background in development management/administration. Encouragement and support from a senior colleague and potential PhD supervisor was also instrumental.

Initially the researcher found the fact that he would be researching a project that he had been part of daunting. A review of literature on qualitative inquiry was reassuring that embracing subjectivity, and sharing as much insight about positionality and its implications, perceived or actual, were quite appropriate in undertaking this research.

The researcher adopted a qualitative research approach rooted in a constructivist paradigm. This was motivated by the complexity of the problem under investigation – a multi-actor, multi-layer, multi-site capacity development initiative - and the purpose of the inquiry. This does not focus on passing judgment on whether or not the intervention was effective, but rather on understanding the process and outcomes of the intervention. Another fundamental reason was the need to acknowledge the situated and constructed nature of knowledge and meaning generated in this research. Constructivism also largely aligns with the researcher's own worldview and previous predominantly interdisciplinary training background.

The researcher had to be mindful of his layered identity (insider/outsider, programme manager/researcher, participant/learner) while engaging with participants. Broadly speaking, from the perspective of the participants, his role for most part of the intervention (2009 to 2013) was more of a participant/programme manager. These periods were thus dedicated to descriptive documentation of the intervention based on interaction, observation and document review. His role as a researcher came to prominence for the participants towards the later part of the intervention (2014 to 2015).



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The researcher conducted most of the in-depth interviews with participants between July 2014 and March 2015.

His being part of the project allowed the researcher to acquire deeper insights because he had the benefit of closely engaging with participants over a long period, and had developed a good rapport with them. The researcher was thus relatively more in touch with some of the subtle issues that may not have been easily picked up by an outsider.

There were instances when the researcher felt some participants were keen to understand his assessment on what was happening locally. This was particularly the case in institutions where there had been turnover or reshuffling of key staff members, and people were keen to avoid any blame for any lack of implementation there might be. One participant stressed:

> I don't know what you think of me. It is possible that people may have spoken ill of me. … I was wondering why you have not done the field visit earlier. Maybe they [other rival colleagues in the institution] smeared my name …. I am not sure if you are aware of what is going on here [on-going tension among staff in the institution at the time].

The researcher strove to reassure participants that he did not have any prior ideas or prejudices, and that he was keen to learn from them how things were. It made him wonder at the time how, in the event of institutional upheaval (turnover, contested succession), partnerships could stall and outside partners could be caught in the contestation for (actual/perceived) preference of one group or individual over another. Furthermore, the momentum of implementation or even worse institutional memory (about intervention) could be lost during such transitions.

Participants gradually warmed to his researcher role, and engaged in mutual exploration and learning. However, there were multiple instances where participants were interviewing the researcher as much as the researcher was interviewing them. 'What is next [for the African capacity development partnership]? What is expected from us [to fulfil expectations]? Does this project continue or not?'



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The field visits were more than data collection missions. They were also meant to follow up the implementation of the project. A first focus was to establish where implementation of the project was at and where it was moving to, which was a primary responsibility of the researcher's role as a programme manager; and then to ask pointed questions to allow participants to reflect on their and other stakeholders' action/inaction in relation to the project. Secondly, there was a focus on shedding light on the process and outcomes of the intervention, a primary quest of the research. The data gathered for accountability and learning were intricately interrelated and useful for the project follow up and research, respectively. However, learning and accountability are often deemed contradictory and impossible to undertake simultaneously.[132]

> There is often an inherent tension when trying to work with both accountability and learning in M&E [Monitoring and Evaluation] processes at the same time. Most notable is that the accountability focus on measurement of results can make implementers risk averse and unwilling to admit to problems, whereas a learning focus holds problems as a rich source of invaluable learning that can help to improve future implementation and practice.[132]

Efforts were made to clarify that the learning aspect would take precedence, and that it was the main goal of the engagement. If participants would have liked the researcher to keep certain things off the record during the interview, they were completely at liberty to do so and their wishes would be respected. There were instances when a participant would ask to discuss certain sensitive issues and would ask the researcher to switch off the audio recorder. There were also situations when participants would wait until the interview ended to raise some issues during informal conversations.

The researcher was impressed and fascinated by the friendship and trust shown by the participants towards him during the field visits, revealing some of the internal organisational squabbles, tensions, and personal feelings. Of course, the researcher was not under any illusion that they would completely disclose their perceptions towards his institution or him. Overall, the researcher felt that they were open enough to discuss issues related to progress in implementation and outcomes.

The researcher felt that he was more equipped to do the research or understand the context in Ethiopia than in Rwanda or Mozambique. The researcher interviewed more



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people in Ethiopia compared to the other two countries. This perhaps has to do with the fact that this was the first field visit and relatively more exploratory than subsequent field visits in other countries.

In addition to the interviews, the researcher considered all data regarding the project as relevant including emails, minutes of meetings, progress reports, in all of which the researcher was a participant. Overall, the researcher sought to understand the intervention as a complex phenomenon in which understanding its process and outcome lies in the characteristics of and interactions among various actors and conditions across different levels.

## Ethical considerations

The Senate Research Committee of the University of the Western Cape granted permission to undertake the study (Ref 12/10/19). All participants were briefed about the nature of research and their participation. Participation in the study was voluntary and participants were free to withdraw from the study at any time. All participants provided consent expressing their voluntary participation. Participants were assured of respect, confidentiality and anonymity. The researcher strove to ensure confidentiality and the anonymity of participants by removing any identifying information, and using systematic codes to refer to respondents.[92,101,116]

Participants' consent was also sought prior to the recording of the interview. There were instances when participants would ask to discuss certain issues off the record or they would wait until the interview ended to raise issues they consider sensitive. Their wish for privacy and confidentiality was respected. Due to the small number of the participants, the anonymity of all cannot be completely guaranteed in this study. However, the researcher took the utmost care not to use any information that can be traceable to any participant and that may negatively affect their wellbeing in any way. All participants were informed about possible research reports and publications that would emanate from this project.



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## Assumptions and Limitations

### Assumptions

This research is rooted in the constructionist tradition (see Table 5 – Epistemological perspectives), which is reflected in the multiple methodological, theoretical and topical assumptions the researcher has made in this research.[92] The researcher acknowledges the existence of multiple realities, as opposed to a single truth. A qualitative approach is thus chosen over quantitative one with purpose to understand the different takes and experiences of research participants. The researcher does not assume to have any sense of independence or value-free engagement during the research process, and rather acknowledges the potentiality of influencing and being influenced by research participants. The researcher moves away from linear causality, and acknowledges multiple and mutual causality thereby embracing the complexity of reality. A predominantly inductive logic is followed in the research, which is supplemented by a deductive logic, wherein different elements of the research such as problem, purpose and framework are deduced from literature, and professional or academic orientation. Theoretically the research draws from a systems-thinking and complexity lens that aligns well with the assumptions made above. Importantly, capacity and capacity development are considered emergent and dynamic and these assumptions are further pursued when it comes to the specific topics of health workforce development and strategies integral to the African partnership, namely, the contribution of training to organisational capacity development, the introduction and sustainability of training programmes, multiple job holding, and partnership.

### Limitations

The study adopted an ex-post perspective, which posed some challenges during data collection. Specifically, the programme did not develop a monitoring and evaluation framework at its outset, and did not gather baseline information about capacity assets and gaps of partner institutions, perceptions and roles of actors, and local contexts. The study therefore collected data retrospectively on these issues to gauge the changes and the contribution of the programme, aiming to reconstruct assumptions and expectations of the programme's actors. Recall bias may thus have been a problem.[126,133] These



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challenges are common in the field of health intervention research since designing interventions is not necessarily a transparent or clearly delineated process.[134]

Social desirability bias is a possible limitation for studies such as this one that relies on self-reporting. The researcher strove to address such bias through long-term engagement, building trust and confidence to enable opportunities for open reflection and learning.[126]

Furthermore, dealing with issues related to impact and sustainability, which are key but long-term aspects of capacity development, was not feasible within the limited period of this research. As a result, the focus of the research was limited to investigating processes, and short and medium-term outcomes of capacity development.

The ever-present tensions between accountability and learning are another potential limitation stifling the disclosure of failures by research participants. Researching capacity development poses the challenge of balancing accountability and learning.[132] Implementers may tend to present their effort and progress in implementation in a positive light, transferring responsibility from themselves to contextual barriers. Such focus on outcomes and ensuring accountability, thus, might inhibit transparency and disclosure of failures, personal or institutional by research participants. The researcher acknowledges the issue and strove to address them through long-term engagement, building trust and confidence with research participants to enable opportunities for open reflection and learning.

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## CHAPTER 4: RESULTS

This section comprises four journal articles (two published, two under review) drawing on data gathered from multiple sources and methods, and framed to address the overarching research question: what are the contextual and relational factors that influence the design and implementation (process and outcomes) of the African partnership to develop capacity in health workforce development?

This researcher collected and analysed data, conceptualised and wrote the papers, with input from the co-authors in their conceptualisation, the interpretation of findings, or writing the articles. The table below presents brief summaries of the four papers.

Table 8 – Mapping intervention strategies, thematic foci, research questions, and academic papers that make up the thesis

| Intervention* strategies | Thematic foci/capacity levels | Research questions | Papers embedded in this thesis |
|---|---|---|---|
| Partnership | Environment/context (design and implementation of capacity development) | How does the African partnership to develop capacity in health workforce development come about? What were the early implementation challenges? | Paper 1: Building capacity to develop an African teaching platform on health workforce development: a collaborative initiative of universities from four sub-Saharan Africa countries. |
| Training | Individual (What is the link between individual and organisational capacity?) | What are the factors that mediate contribution of training to organisational capacity development? | Paper 2: Mediators of effective organizational capacity training: lessons from a training programme on health workforce development with participants from three African Countries. |
| Programme and curriculum development in local universities. | Institutional/organisational (What enables organisational capacity development?) | How and under what circumstances is a new training programme introduced and sustained in universities? | Paper 3: The politics and practice of initiating a public health postgraduate programme in three universities in sub-Saharan Africa: the challenges of alignment and coherence |
| Intervention Context | Contextual (How does context mediate capacity at individual and organisational level?) | What are the drivers, impact and regulation pertaining to multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries? | Paper 4: Exploring multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries: drivers, impact, and regulation. |



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**Paper 1:** Amde WK, Sanders D, and Lehmann U. Building capacity to develop an African teaching platform on health workforce development: a collaborative initiative of universities from four sub Saharan countries. *Hum. Resour. Health*, vol. 12, no. 1, pp.1–11,2014.

**Overview**

This paper, published in the *Human Resources for Health Journal* in 2014, has a partnership focus and presents a broader assessment of the early stages. It sets the stage for the empirical material located in the subsequent papers. The paper particularly highlights the dual challenge facing public health training institutions of mitigating the human resources capacity deficits of their countries while simultaneously battling with the limits and continuing depletion of their own capacity.

**Contribution**

The paper attends to the first objective of the thesis, which is to describe the emergence of the African partnership to develop capacity in health workforce development, and examine the early implementation challenges. In a context where research and publications on capacity development interventions including south-south cooperation are few, it contributes to advancing understanding and discussion on the topic.

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**Paper 2:** Amde WK, Marchal B, Sanders D, Lehmann U. Mediators of effective organizational capacity training: lessons from a training programme on health workforce development with participants from three African Countries. BMC Public Health 19, 1557 (2019).

**Overview**

The paper, submitted for publication in *BMC Public Health Journal*, focuses on 18 training participants of the 'MPH focusing on health workforce development', who are embedded in public health training institutions and ministries of health across the three countries. The study seeks to understand the factors that influenced participants' application of their newly acquired expertise towards improving the leadership and training capability of their respective organisations.



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**Contribution**

The paper addresses the second objective of the thesis, that is an examination of the complex contextual and relational factors that affect the contribution of training to organisational development. The results show diversity in graduates' ability, capacity and opportunity to apply newly developed skills and expertise. The paper argues that training, even if relevant and applicable, makes a 'latent' contribution, which is activated and realised (or not) through the interaction of multilevel and interacting contextual and relational factors. The study clearly shows how a divergence in individual and organisational goals and expectations (related to financial incentives, work conditions or career path) leads to internal or external migration of trained personnel, which drains an institution of its capacity.

**Paper 3: Amde WK**, Sanders D, Sidat M, Manasse N, Hailemariam D, Lehmann U. The politics and practice of initiating a public health postgraduate programme in three universities in sub-Saharan Africa: the challenges of alignment and coherence. Accepted for publication on *International Journal* for *Equity* in *Health* on 12 March 2020.

**Overview**

This paper is submitted for publication in the *International Journal for Equity in Health*. It examines the process through which training programmes are introduced and sustained in three public health training institutions in three sub- Saharan countries- Mozambique, Rwanda, Ethiopia. Public health training institutions in public universities in sub-Saharan Africa assume a prominent role in training the next generation of health professionals and addressing the myriad health challenges facing countries. These institutions, however, face multifaceted challenges in fulfilling their mandates. They particularly experience critical personnel and organisational capacity shortages, and efforts to strengthen capacity are mediated by a range of factors. The study seeks to contextualise the process and outcomes of the initiative to introduce a postgraduate training programme in public health training institutions by locating them in the web of contextual and relational processes. The manuscript further problematises partnership, the broader relational structures with multiple actors involved in such initiatives; and the role of individuals tasked with the responsibility of driving this organisation level change.



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**Contribution**

The paper addresses the third objective of the thesis, that of examining the process of initiating and sustaining training programmes in health workforce development in local public health training institutions, with a focus on the challenges of alignment and coherence. The research found varying experiences and outcomes with respect to integrating programmes across the three institutions. The institution in Mozambique effectively integrated the curriculum, enrolling over 70 trainees of multiple cohorts across the country. The two other institutions scaled down their initial plan and settled on embedding the curriculum in existing programmes. The contrasting developments in the institutions was due to the nature of the relationship between training institutions and health ministries; the alignment of priorities and agendas of different actors; the role, motivation and power of programme champions; and the perception and support available for south-south cooperation.

**Paper 4: Amde WK**, Sanders D, Chilundo B, Rugigana E, Haile-Mariam D, and Lehmann U. Exploring multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries: drivers , impact , and regulation. *Glob. Health Action*, vol. 11, no. 1, 2018.

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**Overview**

This paper, published in the *Global Health Action Journal* in 2018, explores the phenomenon of multiple job–holding practices among faculty in public health departments/schools in three sub-Saharan countries. This study seeks to gain insight into perceptions, practices and regulatory mechanisms across contexts, and its impact on capacity development interventions that target academic institutions.

**Contribution**

The paper responds to the fourth objective of this study, namely, of exploring drivers, impact, and the regulation of multiple job holding practices of academics in public health training institutions. The research found that multiple job-holding practices among public health academicians generate mixed reactions about their implications among various groups. While it augments faculty income and contributes to retention, it undermines the availability of academics to university-related activities, such as



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teaching, research, publication, and the mentoring/supervision of students. The research also found a lack of effective regulation of the practice in the three institutions.






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## CHAPTER 5: DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

### Discussion

This chapter focuses on pulling together insights from the different chapters; highlights the implications of the study to knowledge and practice in this area; and proposes directions for future research and practice.

> A lot of prescription – the 'should' and 'must' and 'how to' stuff – appears at the front end of most capacity development efforts. And a great deal of attention is paid to the back end, i.e. results in the form of tracking outputs and outcomes. But the space in between, the dynamics of change in complex systems, remains poorly understood.[48]

This case study research has set out to explore and analyse the contextual and relational factors that mediate the design and implementation of an African partnership to develop capacity in health workforce development. The study focuses on uncovering assumptions, perceptions and experiences of actors about the process and outcomes of various integral intervention strategies of the intervention, both intended and unintended, and presents a holistic narrative of the initiative. Guided by a broad and specific set of questions (Figure 3), the thesis explores how and why capacity development strategies of the African capacity development partnership are mediated by contextual and relational factors residing in that capacity layer or beyond.

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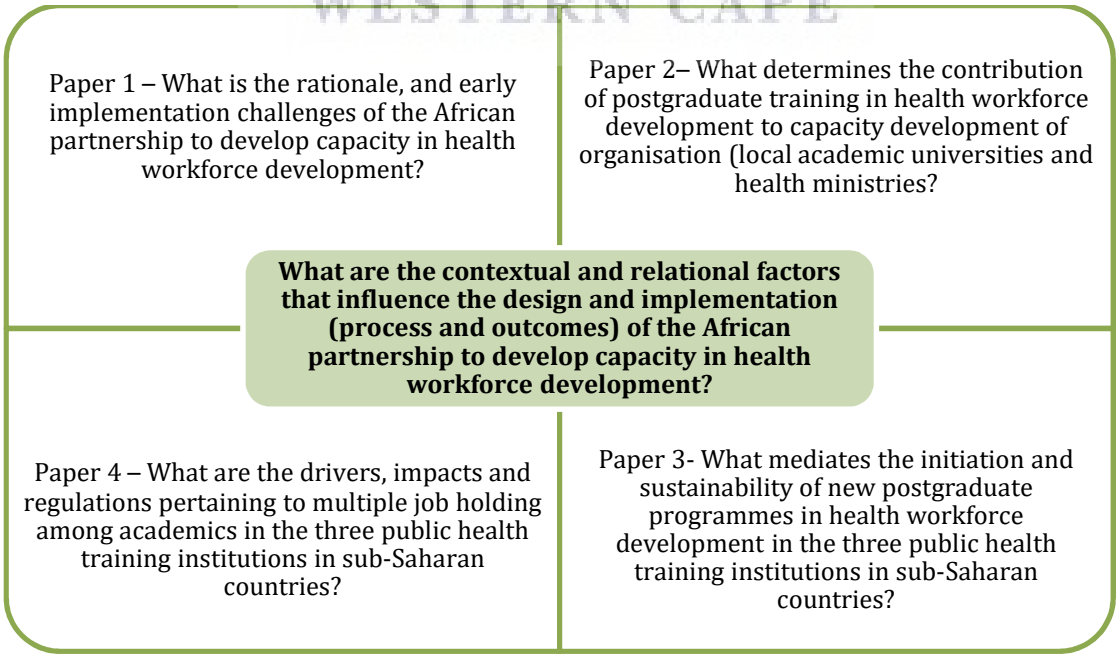


Figure 3 – Research questions guiding the research



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This study's contribution lies in illuminating the complex systems and political nature of capacity development in the context of developing capacity in public health training universities and health ministries in the field of health workforce development.

Taken together, the findings and insights from the research contribute to the body of evidence about how and why contextual and relational factors mediate capacity development, and advance an understanding of the complexity of implementing similar public health interventions (for or with public health training higher education institutions and health ministries in particular). The factors identified included local institutions' recognition, ownership and support; institutional processes and incentive arrangements in target institutions; power, motivation and long-term engagement of key actors (programme champions and trained staff); and tensions in the priorities of institutions and key individuals (programme champions and trained staff). The sections below address the research questions and discuss key insights from the research in more detail.

**The intervention as a complex systems process**

Baser and Morgan (2008), drawing on analysis of 16 capacity development cases, underscore the importance of recognising the fact that development actors are rooted in systems, local and external which in turn mediate their capacity. [48]

> One of the most obvious characteristics of the case actors from a capacity perspective concerned their relationships, i.e. their embeddedness in a wider system or systems. … In practice, part of their 'capacity' could be located in these larger webs of other actors whose capacity was affected by and affected each other.[48]

What has been evident in the analysis (papers 1, 2, 3 and 4) is the differential and dynamic experience of implementing the initiative. This owes much to the unpredictable contextual and relational factors that influence the actors embedded in contestations over varying priorities, interests, and agendas. The contextual factors include national and institutional regulations, norms, and processes, for example, with respect to curriculum development and training programme integration (paper 3) or



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multiple job holding practice (paper 4), and incentive arrangements in institutions (papers 1, 2, 3, and 4). The relational factors pertain to attributes of power and motivation of programme champions or trained personnel (paper 1, 2, and 3), tensions between the interests of institutions and individuals (paper 2 and 4), and lack of coherence in the priorities and expectations of public health training universities and health ministries (papers 2 and 4).

The above contextual and relational factors influence process and outcome of the African capacity development partnership. The degree of coherence and alignment determine whether or to what extent the capacity/capability generated at an individual or institutional level (be it training, new curriculum/programme, partnership) contribute to/are translated into organisational capacity development, or remain untapped/latent, or lost altogether. Accordingly, no isolated intervention (training, curriculum/programme development, partnership) is enough to bring about desired transformations (the contribution of trained staff, integration of curriculum/programme and, in the long term, improved capacity and practice in health workforce development) unless complemented by a whole set of interacting contextual and relational factors at various levels (see Figure 4 below).

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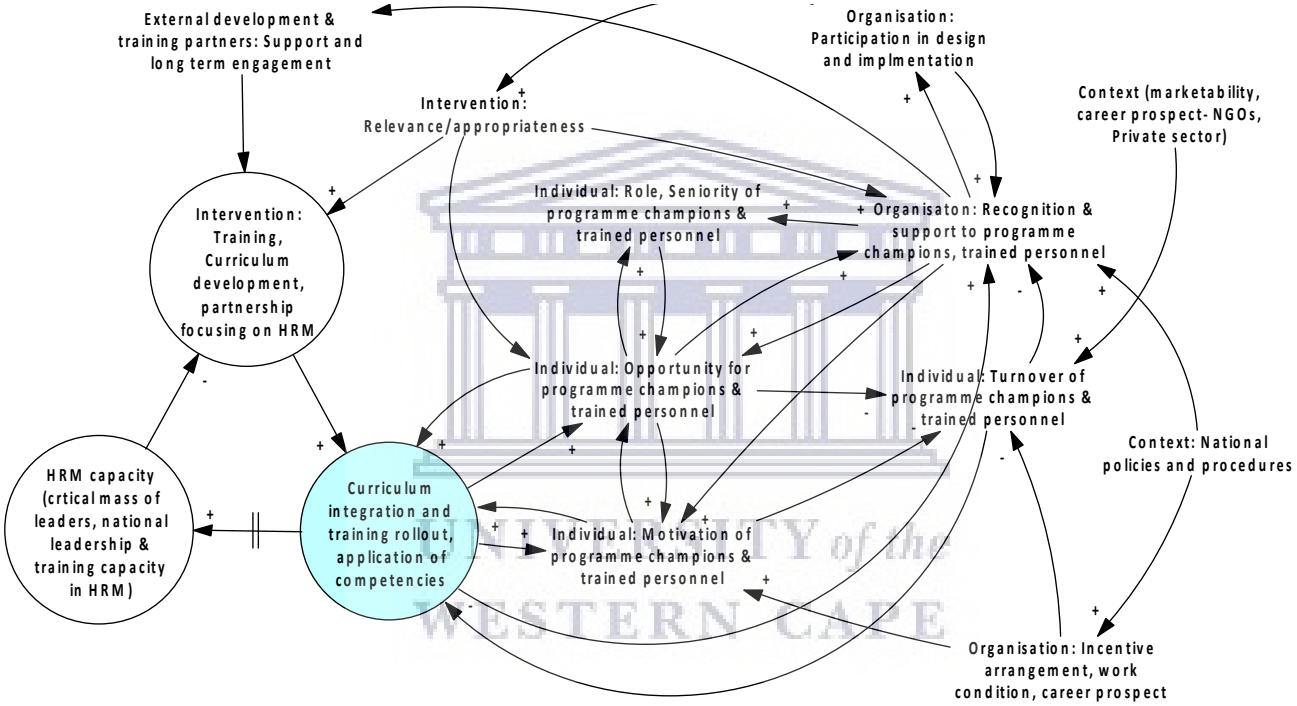


Figure 4 – Capacity development process, and contextual and relational factors influencing the African partnership to develop capacity in health workforce development



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The causal loop diagram above illustrates that capacity gaps in Human Resources Management (HRM) lead to capacity development interventions (training, curriculum development, partnerships) which set out to equip and target individuals and institutions with relevant capacity. The contribution of capacity generated through these interventions or the resulting improvement in individual and organisational performance is expected to lead to gradual improvement in the organisational capacity in HRM. This balancing loop is subject to the influence of other intersecting factors across multiple levels that particularly mediate the contribution of capacity by training participants and the integration of capacity by target institutions. Specifically, contribution/integration of capacity is a function of motivation and the opportunities for key actors (trained personnel or programme champions). The more motivated they are – or the more opportunities they have – the more likely they can spearhead change in their context. The figure also illustrates the various factors related to the employing organisation (recognition and support, institutional incentive arrangements) influencing motivation and opportunities of programme champions. These individual and organisational level factors are also subject to the influence of contextual factors (such as labour market forces or public sector policies). Depending on the degree of alignment, these interactions enable or constrain the success of the capacity development intervention (ranging from non-application, application, or loss of capacity). Turnover of key actors undermine their contribution to or integration in the institution, and further aggravate capacity shortages.

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These results are broadly consistent with the trends in the body of literature that establish the complexity inherent in many capacity development interventions, and the significance of having coherence and harmony across the multiple interrelated contextual and relational factors in order to achieve the desired capacity process and outcomes. This was emphasised both in the broader capacity development discourse[12,13,41,47,50,51] as well as in the capacity development discussion pertaining to health systems.[60,82–84]



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**The intervention as a relational process infused with power**

Rutledge (2009) noted

> Complexity is great and uncertainty high… when a group operates in a political arena, when members come from different organizations, … when members see the focal problem as intractable, and when external factors like government regulations and restricted use of funding constrain the group.[135]

The research has clearly shown that a capacity development initiative is a political as much as a technical undertaking influenced by multiple actors and agendas. The research shows the differential and dynamic experience of implementing the initiative across contexts, owing much to the unpredictable interaction among multiple actors that are embedded in contestations over varying contextual and relational issues such as national regulations (e.g. with respect to curriculum development or multiple job holding), institutional processes and incentive arrangements in academic institutions, individual attributes of power and motivation (of programme champions or trained personnel), and tensions in institutional and individual priorities (retention and turnover).

The pervasive nature of power evident in this research confirms claims in the literature about its inevitable influence over processes and outcomes.[64–66,68] Actors' notions of power in relation to each other informed the way they interacted in different spaces. Cases in point include how the African capacity development partnership created the space for African universities to collaborate with each other (paper 1 and 3).

It was evident in the study (paper 1, 2 and 3) that the intervention plan evolved through negotiation and represented a composite of the assumptions held by the partnering academic institutions, development partner (WHO) and their associate organisations (ministries of health) with respect to what they considered to be appropriate or feasible. The final set of strategies emerging out of negotiation and collectively articulated in the initial programme plan, is depicted in the figure below.



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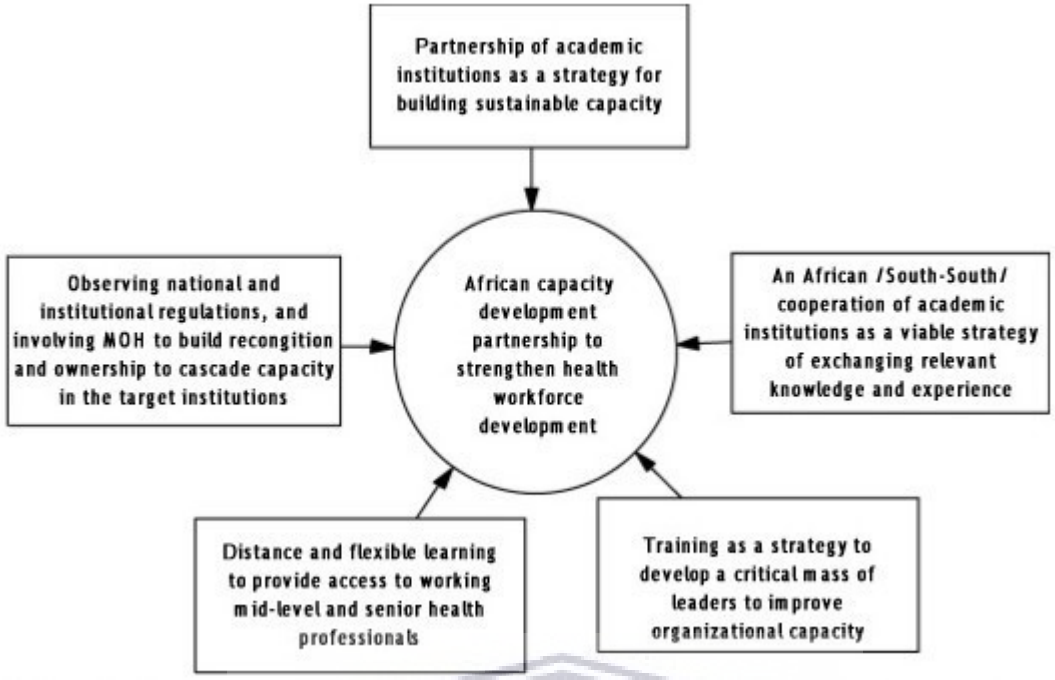


Figure 5 – Key strategies/assumptions of the African partnership to develop capacity in health workforce development

The above intervention plan continued to evolve in response to a complex set of contextual and relational factors. Public health training institutions interact and collaborate with a range of external development and training partners, as well as local actors who influence the nature, scope, and success of their engagement in their own countries and beyond, all in the course of implementing their mandate which encompasses teaching and learning, research, and extension/community outreach service.

Ministries of health had the power to legitimise the relevance of training programmes, mobilise resources, and/or send trainees (paper 3). Hence, development actors (local training institutions, programme champions, and external training and development partners), as this study suggests particularly in the case of Ethiopia and Rwanda, could maximise the integration of new training programmes in local universities by working with or through the MOH.

Cancedda et al. (2015, 2018) reached similar conclusions drawing from their work focusing on four major initiatives in LMICs[136] and in their work in Rwanda.[137] They



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called for the health ministry to play a much greater role to improve the impact of training initiatives in the country.[136,137] Such a proposition mirrors the predominant practice in the case of the institutions in Ethiopia and Rwanda considered for this study, where health ministries have power to decide what programmes are offered, and play a mediator role between training institutions and external partners.

Gilson argues that with all the various norms and values structuring and influencing our interactions, context is another space where power is manifested.

> Power has many dimensions…power is embedded in the prevailing norms, beliefs, or values that shape actors' behaviours. In complex adaptive systems, this invisible power can be seen as the (often unrecognized) mind-sets that shape agent behaviour.[64]

In the context of the African partnership to develop capacity in health workforce development, consideration of contextual nuances was an important factor in the selection of students, where local actors found it relevant to observe local norms of distributing opportunity for further study through a combination of criteria of the representation of sub-national groups and seniority (papers 1 and 2).

Academics in public universities exercised their agency to engage in multiple job holding (papers 2 and 4), and used the state of poor salary and work conditions, and high risk of attrition to leverage tacit acceptance of practice by the academic institution (paper 4). Multiple job holding, therefore, is an important factor to reckon with in the context of new initiatives in the universities, because new programmes may mean an additional workload for academics, and less time for engagements in multiple job holding. They are bound to exercise their discretionary power, and thus either support or resist the introduction of a new programme, depending on the actual/imagined opportunity cost of having a new programme and taking part in it. It was evident that multiple job holding is integral to the professional identity and livelihood of academics, and with respect to regulation, focus should be on putting in place mechanisms to manage it to avoid its negative implications, and not to ban it altogether which would likely lead to further loss of academics.[36]



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The choice of local project coordinators or local champions to spearhead the development and integration of training programme in local institutions was informed by local notions of power of the candidates: seniority and close working relationship with the ministries of health. Power, positional by association or through alliance, was acknowledged as an influential factor in bringing about transformation/change wherein programme champions with more power (direct or proxy) were able to get things done, if they were motivated (papers 2 and 3). On the same note, in addition to the previously mentioned formal/visible influence that ministries of health, as the custodian of the health sector, have over public health training institutions, the research also revealed the invisible/hidden influence ministries had in informing action or inaction on the part of academics or academic institutions. Programme champions and academic institutions were stifled in rolling out new training programmes in Ethiopia and Rwanda, despite the recognition of their relevance, in the absence of explicit endorsement from their ministries (paper 3).

Power was also a critical element in what happened within local public health training institutions, with contestation over the distribution of resources, workloads, incentives and opportunities among different units or academics. These contestations played out in multiple spaces including curriculum development and approval (paper 3). The results suggest that competition for resources or recognition and collaboration co-exist quite commonly among the different entities in an organisation. If there happens to be opposition or resentment towards an initiative among actors within the organisation, the intervention might falter. On the same note, Fowler and Ubels (2010) warn against the inclination to speak of organisations in the abstract and with little reference to the people that are the reason for its existence.[54] Woodland and Hutton (2012) also state that the notion of an organisation or institution as a homogeneous whole may not hold.[138]

> Achieving coherence is one of the keys to forming capacity. Individual competencies have to be combined into collective capabilities, which, in turn, have to be balanced to produce a capable system or organisation. Coherence is thus both a means to and an end of capacity development…, as development interventions have become more complex and diverse.[48]



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Alignment determines the relevance of newly acquired capacity, whether it materialises on the ground (enacted) or remains untapped, and ownership and sustained engagement by stakeholders. Contextual factors, such as multiple job holding, facilitate or hinder the process and outcomes of capacity interventions. Baser and Morgan (2008) emphasise the significance of having alignment across capacity levels in the context of complex interventions.[48]

Thus, an important consideration for development actors is to engage in regular power analysis and appreciate the power relations inherent in and permeating capacity development, and to keep track of opportunities and shifts in relationships over time, such as turnover of programme champions, or the loss of allies in associate institutions that impact the change process. Evidence from the study strongly suggests that ministries of health and academic institutions should work together in designing and implementing capacity development initiatives, and coordinate their engagement with external training and development partners to achieve the best possible alignments between various mediating factors.

**The intervention as a predominantly endogenous process**

The notion of capacity development as an endogenous process is widely covered in the capacity development literature.[12,41,46,48] This resonates strongly with evidence from this research, specifically the wide range of experiences related to the contribution of trained personnel to local organisational capacity development (paper 2), and the role of programme champions and local institutions in integration of training programme in the training institutions (paper 3). It is safe to suggest that for all the contribution external actors made, ultimately it was local actors (be it trained personnel, programme champions, academic institutions, or health ministries) who were central in the translation of capacity (generated through training, experience and resource sharing around curriculum/programme development, and partnership) to improve organisational development, or sustainability of capacity gains.

One example here is the agency and transformative precedent set by some of the participants of the programme, who went on to spearhead large scale changes and



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programmes related to HRH in their respective institutions (paper 2). Another example is the experience of one of the partnering public health training institutions, led by its programme champions, that was able to roll out a nationwide training programme on health workforce development on the back of the African capacity development partnership (paper 3).

On the same note, the lack of the contribution of capacity to organisational capacity development can be attributed to the contextual and relational constraints facing local actors (paper 2 and 3). Individual actors, based in the various interacting institutions, engage in sense making and apply their discretionary power in responding to these challenges.

The absence or turnover of the few individuals driving implementation weakens the impact of interventions or jeopardises their continuity. In relation to this, lack of proper communication and hand over in the event of the departure of key staff is another factor that undermines implementation and the sustainability of programmes. It was found in some instances in the study that only a few individuals driving implementation knew about critical elements of the initiative, and other members of the institution were not privy to that information. This is despite the initiative seeking to effect or explicitly promote organisational level change.

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The research strongly suggests the need for increased attention to and investment in public health training institutions and south-south cooperation. Public health training universities are mandated to take on numerous responsibilities to improve the capacity of the health system (training, research, community engagement), and are considered strategic allies or entry points to leverage health system strengthening. Notwithstanding this, institutions experience a range of capacity challenges to fulfil their mandate, as the support in capacity they receive (be it technical, human and material resources) is often meagre. More concerted attention and investment is thus critical to strengthen their ability to execute their mandates.

The research has showcased the application of south-south cooperation of academic institutions shown to work under certain conditions. The partnership the four public health training institutions has afforded target institutions with opportunities to share



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knowledge and experience on issues related to curriculum and materials development. Participants found the engagements relevant, with varying degrees of contribution and integration into their plans or practices in the respective institutions. Despite its huge promise, this south-south cooperation has yet to fulfil its potential while operating under conditions of resource constraint, weakened institutional memory, and a lack of clarity of roles and responsibilities in partnerships.

Perceptions about partnerships, south-south or north-south cooperation, are all practices infused with notions of power. The African capacity development partnership is a deliberate effort to embrace south-south cooperation as a more viable development strategy, and is less hierarchical and one-sided than the north-south approach (paper 1), a position echoed in the literature as well.[5–8]

Existing partnership arrangements with external training or development partners do not often fit the need for sustained engagement, learning and adaptation, mainly due to funding constraints.

> In practice (in many cases), not only do the external partners move out, but also the local counterparts move on to other local projects (as participation in CD [capacity development] projects is an important budget component for both local participants and the local organizations).[34]

Target institutions and external partners grappled with and tried to address the need for longer or sustained engagement in capacity development by requesting or making provision for longer engagement (2009–2015) than was initially anticipated (2009–2010). This allowed for the collaboration to mature and bear fruit in the case of the institution in Mozambique. This may not have been possible if operating under the initially tighter time frame, as the institution launched the new curriculum in 2014/15. Funding for the partnership ended before the other two institutions were able to fully integrate a stand-alone new programme on health workforce development.



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## Conclusions and recommendations

The study aims to understand the contextual and relational factors that mediate the process and outcomes of the African partnership to develop capacity in health workforce development across different settings. Based on the analysis of the African partnership to develop capacity in health workforce development, the research argues that capacity development is a systems and political process embedded in a complex set of contextual and relational factors that lead to the differential and dynamic experience of process and outcome of the capacity development intervention. An important implication here is the significance of understanding the relevant contextual and relational factors to navigate the complex process and to make necessary adjustments/alignments towards achieving the desired development goals. The research, thus, strongly suggests engaging in context and power analysis in the planning and implementation of interventions. This assists in the appreciation of the power relations inherent in and permeating capacity development across multiple levels and keeps track of opportunities and shifts in relationships over time (e.g. changes in priorities, turnover of programme champions, or the loss of allies in associate institutions) that could affect the process and outcomes of the intervention. Evidence from the study strongly suggests the benefits of ministries of health and academic institutions working together in designing and implementing capacity development initiatives, and coordinating their engagement with external training and development partners to achieve the best possible alignments between various mediating factors.

Future research should also look into the role that ministries of health (in Ethiopia, Rwanda and Mozambique) have to decide whether a programme meets a national priority. This naturally also depends on the engagement with external partners, international priorities and interests. Future research should examine more closely the global or local orientation of existing public health training programmes, and the practice of priority setting within the health ministries with respect to core competencies or training programmes. Future research should consider the potential effects of the academic institutions' reliance on the health ministries' direction and guidance when it comes to programme introduction, and how this affects the academic



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institutions' agency and contribution to develop innovative initiatives to respond to local challenges.

The study highlights the need for concerted attention and investment to public health training institutions to address the range of challenges they face to fulfil their mandate (training, research, community engagement). The research documents successful application of south-south cooperation, which has shown to work under certain conditions (namely ownership, recognition and support of key local institutions such as health ministries and universities; strong programme champions; and the long-term engagement of key actors). Operating under conditions of resource constraint, high turnover of staff and the resulting weakened institutional memory, and lack of clarity of roles and responsibilities in partnerships, the south-south approach pursued in the African capacity development partnership has yet to fulfil its potential of developing a regional hub in the field of health workforce development. These results warrant further investigation of experiences and challenges facing south-south partnerships of academic institutions, and explore innovative ways of sustaining such partnerships.

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**ANNEX**

**Paper 1 - Building capacity to develop an African teaching platform on health workforce development: a collaborative initiative of universities from four sub-Saharan Africa countries.**




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HUMAN RESOURCES FOR HEALTH

CASE STUDY Open Access

# Building capacity to develop an African teaching platform on health workforce development: a collaborative initiative of universities from four sub Saharan countries

Woldekidan Kifle Amde*†, David Sanders† and Uta Lehmann†

## Abstract

**Introduction:** Health systems in many low-income countries remain fragile, and the record of human resource planning and management in Ministries of Health very uneven. Public health training institutions face the dual challenge of building human resources capacity in ministries and health services while alleviating and improving their own capacity constraints. This paper reports on an initiative aimed at addressing this dual challenge through the development and implementation of a joint Masters in Public Health (MPH) programme with a focus on health workforce development by four academic institutions from East and Southern Africa and the building of a joint teaching platform.

**Methods:** Data were obtained through interviews and group discussions with stakeholders, direct and participant observations, and reviews of publications and project documents. Data were analysed using thematic analysis.

**Case description:** The institutions developed and collaboratively implemented a 'Masters Degree programme with a focus on health workforce development'. It was geared towards strengthening the leadership capacity of Health ministries to develop expertise in health human resources (HRH) planning and management, and simultaneously build capacity of faculty in curriculum development and innovative educational practices to teach health workforce development. The initiative was configured to facilitate sharing of experience and resources.

**Discussion:** The implementation of this initiative has been complex, straddling multiple and changing contexts, actors and agendas. Some of these are common to postgraduate programmes with working learners, while others are unique to this particular partnership, such as weak institutional capacity to champion and embed new programmes and approaches to teaching.

**Conclusions:** The partnership, despite significant inherent challenges, has potential for providing real opportunities for building the field and community of practice, and strengthening the staff and organizational capacity of participant institutions. Key learning points of the paper are:

- the need for long-term strategies and engagement;
- the need for more investment and attention to developing the capacity of academic institutions;
- the need to invest specifically in educational/teaching expertise for innovative approaches to teaching and capacity development more broadly; and
- the importance of increasing access and support for students who are working adults in public health institutions throughout Africa.

**Keywords:** African teaching platform, Institutional capacity development, Health workforce development, Partnership, Sustainability, Flexible delivery, South-South cooperation

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## Background

The central place of human resources for health (HRH) in providing universal and equitable health care coverage has been acknowledged. It is uncontested that no progress will be possible without strong health systems, and that strong health systems require adequate, well-distributed, appropriately trained, motivated and well supported and managed human resources (HR) [1-3]. Yet health systems in many low-income countries remain fragile, the human resource situations precarious, and the record of human resource planning and management of resources and capacity in Ministries of Health very uneven at best.

Causes of the continuing crisis include multiple contextual factors: a growing, and increasingly complex, disease burden; high levels of brain drain; demotivating working environments; rapid population growth; economic deprivation; poor health infrastructure; and civil and political unrest [3-7].

These factors are accompanied by a lack of multifaceted and comprehensive HR strategies in countries. While the focus on HR leadership in the early 2000s has led to the development of national plans and policies for HRH in many countries, there has been a poor record of implementing these [3,8,9]. According to a study in 2009, 78% of the 57 countries, which are experiencing acute shortages of HRH, had HR policies and plans, and only a little over half (55%) of these countries had put these guidelines into practice [8].

Underlying HRH shortages and weak leadership capacity for HRH is another crisis: the poor capacity of most academic institutions in Africa. The 2005 Commission for Africa Report emphasized the dire state of African universities [10], many of which are ill equipped to train the next generation of health workers and leaders required in these countries.

Public health training is no exception: Ijsselmuiden et al. have reported [11] the dramatic inadequacy of graduate public health training in Africa. At the time of their report, in 2007, 29 countries had no advanced public health training programme locally, and 11 countries had only one programme/institution. Furthermore, in 2005, there were only 854 public health academics on the continent, only 493 of whom were full-time staff. Juxtaposing this with the capacity of countries in the North highlights a massive disparity: the author of Afrihealth quotes a colleague who stated that "the total academic public health workforce in Africa could fit into the department of epidemiology at Johns Hopkins" [11].

A brain drain of academic staff into well-paying non-governmental organizations (NGOs) and 'moonlighting' through extensive consultancy work further aggravate the situation, taking time away from academic work and resulting in competing priorities and interests and misuse of resources [12-15].

Hence, public health training institutions face the dual challenge of mitigating the HR capacity deficits of their country while simultaneously battling the limits and continuing depletion of their own capacity [16].

In this paper, we report on one initiative aimed at addressing this dual capacity challenge through the development and implementation of a joint MPH programme with a focus on health workforce development. Four academic institutions from East and Southern Africa have begun to pool and collectively strengthen resources and build a joint teaching platform.

While capacity development is a long term and complex endeavour, some early lessons are worth sharing. In this case study we report on the history and rationale of the project and discuss achievements and challenges of building institutional and individual capacity to develop and deliver new forms of training for health workforce development.

## Methods

This paper presents data obtained through interviews and group discussions with the 18 trainees enrolled in the Masters in Public Health (MPH) programme at the University of the Western Cape as well as representatives of partner institutions. The paper draws on data from bi-annual anonymous surveys with students when they attended classes in Cape Town, focusing on their experience and perceptions of the training, academic support, and challenges encountered. The paper also draws on information from direct and participant observations of project meetings as well as reviews of publications and project documents, including evaluations, project proposals, agreements, progress reports, memos, minutes, and internal records. Questions guiding data collection were constructed by the project team as part of an on-going monitoring and evaluation activity and a doctoral research project, which are integral to the overall programme. Data obtained from the multiple sources were analysed using thematic analysis.

Ethical clearance to undertake the study was secured from the University of the Western Cape.

## Case description

### The consortium's origin and configuration

In 2008, the World Health Organization (WHO) initiated and funded a consortium of academic institutions from four countries in East and Southern Africa to implement a co-operative intervention "to develop a sustainable masters-level educational programme with a focus on Health Workforce Development" [17]. It considered this part of the broader effort to "contribute directly to the rapid response that is required in order to address the critical [health workforce] situation", and "generate leaders

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who will spearhead the production and management of the health workforce for years to come" in sub-Saharan Africa.

Departing from conventional North–South cooperation, and drawing inspiration from Latin American and particularly Brazilian initiatives to strengthen public health and HRH capacity [18-20], the consortium is intentionally all-African, expressing the desire that institutions in the South should engage "in collaborative learning models to share innovative, adaptable and cost-efficient solutions to address their development challenges" [21]. It came about as a result of past institutional and faculty collaboration and the requirement for the educational programme to be delivered in English, French and Portuguese. The consortium, therefore, includes institutions from Anglophone, Lusophone, and Francophone Africa, namely:

- School of Public Health, University of the Western Cape (UWC), South Africa
- School of Public Health, Addis Ababa University (AAU), Ethiopia
- Department of Community Health, University of Eduardo Mondlane (UEM), Mozambique
- School of Public Health, National University of Rwanda (NUR).

All partner institutions have long histories in public health research and training in their respective countries (see Table 1). Despite their longevity and the significant contributions they are making to tackling health problems in their countries, they all have a very small staff complement that focuses on health systems development and HRH, in common with most academic institutions in Africa [22,23]. Furthermore, they all display the fragility of academic institutions discussed in the introduction, e.g. difficulties in attracting and retaining young academics.

The consortium developed and implemented a 'Masters Degree programme with a focus on health workforce development' geared towards meeting the following two interrelated specific objectives:

- To strengthen the leadership capacity of Health ministries to develop expertise in HRH planning and management.
- To strengthen faculty capacity to teach about health workforce development through sharing and developing teaching resources, collaborative teaching and supervision, and developing an African platform for teaching policy, planning and the development of human resources for health.

The initiative was configured to facilitate sharing of experience and resources, and recognized the relative strength and assets of partner institutions in the area of HRH specifically and public health education in general. It built on the experience and practices of the School of Public Health (SoPH) at the University of the Western Cape, which has a long history of postgraduate training and distance learning on the continent [24,25] and has been serving as a WHO Collaborating Centre for Training and Research on Human Resources for Health since the early 2000s. The development of the new MPH programme was, thus, directly rooted in the development of postgraduate education at the school over the past two decades. The roles of the four partner institutions are detailed in Figure 1.

### Building on existing foundations

UWC started offering an MPH in 1994 as a structured part-time programme, and since 2000 as a distance learning programme, in response to the growing demand and public health challenges as identified by Ijsselmuident et al. [11]. From the start it was oriented towards meeting the needs of health professionals working in a context of growing decentralization and an increased focus on a primary health care (PHC) approach [24] - consistent with many African countries where the role of managing and coordinating the health system has continuously devolved from national and regional levels to the districts.

But "with long histories of centralized governance and underdevelopment of formal local governing" [26], capacity

**Table 1 MPH focusing on health workforce development – profile of partner institutions**

| Collaborating institution | Year established | Mode of postgraduate teaching | Language | Permanent staff complement | No of MPH, PhD students 2012 |
|---|---|---|---|---|---|
| School of Public Health, University of the Western Cape (UWC), South Africa | 1993, MPH in 1994 | Distance learning, short face-to-face courses | Anglophone | 11 | 284 MPH 44 PhD |
| Department of Community Health, University of Eduardo Mondlane (UEM), Mozambique | 1962 MPH in 2001 | Face-to-face | Lusophone | 12 | 37 |
| School of Public Health, National University of Rwanda (NUR) | 2001 | Face-to-face | Francophone | 18 | 176 |
| School of Public Health, Addis Ababa University (AAU), Ethiopia | 1964- community health department MPH initiated in 1984 | Face-to-face, resource based | Anglophone | 25 | 110 MPH 10 PhD |

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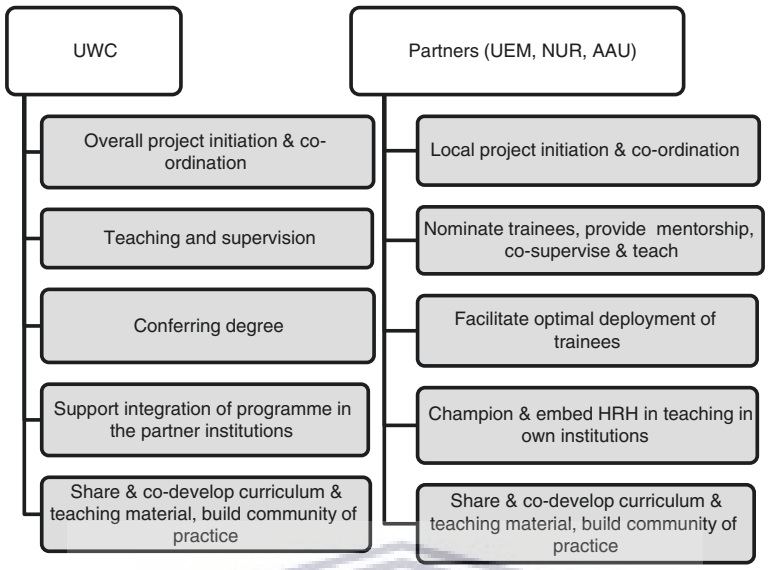


**Figure 1 Role of partner institutions in the implementation of the programme.**

needs are not only great, but also complex and multi-faceted, having to address individual, organizational and systems capacity, as well as anything from technical skills to established mindsets and organizational 'cultures' [27].

Hence, the emphasis on improving capacity for HRH leadership and governance which are central to this initiative, have been the hallmark of UWC SoPH's many years of engagement:

> It is our own experience that public health education is most effective when it is problem-orientated, worksite-based and preferably organised around real challenges facing learners in their work situation…. Success and sustainability are further enhanced if care is taken to root capacity development skills at local level. This may be facilitated by starting the training process with managers and supervisors who then act as change agents and are able to motivate others [25].

The UWC MPH programme is structured to consist of a series of core modules, to be followed by several electives in one of six specializations or streams (see Figures 2 and 3 below[a]). The programme is delivered in mixed and open mode, with most modules available as distance courses, which consist of working through learning guides, submitting assignments, participating in Google discussion groups and e-mail engagements with lecturers. In addition, many courses also have an optional face-to-face component during the SOPH's Summer and Winter Schools. Thesis supervision takes place by e-mail and participation in a face-to-face thesis week when students develop their research question and objectives and deepen their research skills.

The School's learning approach has always been geared towards working practitioners [25], and the move to an open and distance mode in the early 2000s has provided access to many practitioners who otherwise would not be able to pursue postgraduate studies. Gains in access, however, do not come without cost: isolation of learners, lack of support, and grappling with how to teach and supervise application of skills have remained challenges for this programme [24], as they are for distance learning programmes internationally [28-30].

With UWC's experiences and programme structures providing the foundations for collaboratively building regional institutional capacity, this project presented an opportunity to address some of the enduring challenges of offering a professional training programme through open learning and to experiment with new forms of student support. In particular, the project aimed to introduce local mentoring support, to work with cohorts of learners, and to ensure internet connectivity of all students, while building joint teaching capacity.

### Student enrolment and support

The project intended to enrol small teams of students from each country's ministry of health to facilitate peer learning and reduce isolation, a central success factor in distance learning [28,31] and to create a small "critical mass" in their organizations to initiate change and innovation. An unanticipated challenge, however, was the intervention of ministries of health in the selection of students. In all three countries ministries insisted that routine public service protocols be followed in advertising the study opportunity and selecting students. While this improved awareness of the programme, it undermined a central aim

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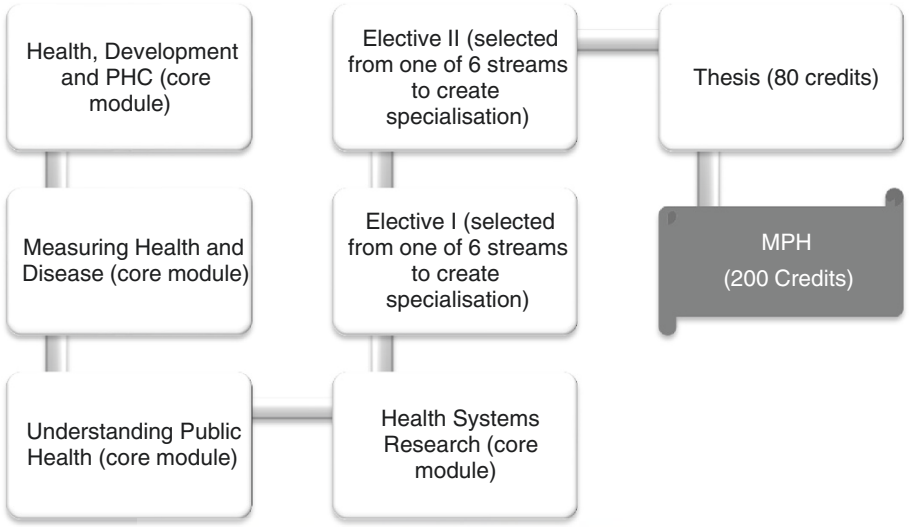


**Figure 2 UWC Masters in Public Health (6 × 20 credit modules + 80 credit thesis).**

of the project: students studied as individuals, rather than in teams, and they could not easily apply and practice newly developed skills in their work places.

Altogether eighteen students (six each from Ethiopia, Mozambique and Rwanda) were enrolled in two consecutive intakes of the UWC MPH in 2010 and 2011. Thirteen students occupied high-level positions in ministries of health or their substructures while five were from training and research institutions. They all had medical or social science backgrounds. Students completed their course work within the structure of the UWC MPH programme (see above), taking three HRH electives and preparing a mini-thesis with an explicit focus on a HRH topic in their country (see Table 2).

After the first intake and a review of early lessons of implementation, the experiences with student selection, and challenges to find local capacity to champion and embed the project, an important shift was made. Recognizing the very limited capacity of academic institutions in offering public health training in the field of HRH, it was decided that a second intake would focus on training young academics in teaching, curriculum development and academic leadership in HRH; thus, five students were selected from training and research institutions. In this

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**Figure 3 Streams/Specializations in UWC MPH Programme.**

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**Table 2 Mini-thesis titles of graduates of the MPH on health workforce development**

| | |
|---|---|
| Mozambique | The perceptions and experiences of medical technicians on the decentralization of the ART programme in Mozambique |
| | Brain drain of medical doctors in public health sector in Maputo city, Mozambique |
| | Perceptions and experiences of motivation among nurses in Maputo Central Hospital |
| | Impact of GHI in Human Resources for Health in terms of sustainability and performance |
| Rwanda | Factors that influence intent to stay among health workers in Kabaya, Rwanda |
| | Effectiveness and challenges of ART scale up through task shifting in art services delivery: case of primary health centres under supervision of Kibagabaga District Hospital |
| | Factors affecting performance of maternal health care providers in Kibagabaga District Hospital, Rwanda |
| | Job satisfaction of Health workers in Kigali University Teaching Hospital |
| | Predictors of burnout among nurses in paediatric and maternity wards of district hospitals of Kigali city in Rwanda |
| Ethiopia | Utilization of the Health Extension Programme services in Akaki District, Ethiopia |
| | Determinants of nurses' motivation in Butajira Zone Hospital, Ethiopia |
| | Challenges that face health extension workers in their work in Bahirdar District, Ethiopia |
| | Assessment of job satisfaction among physicians working in hospitals, Addis Ababa, Ethiopia |
| | Assessment of the effect of place of selection on performance of health posts and turnover of health extension workers in Jimma Zone, Ethiopia |
| | Factors affecting career intentions of medical students in two medical schools in Addis Ababa, Ethiopia |

way, building the capacity of academic institutions later gained prominence over the building of capacity in Ministries of Health.

> The other … aspect of sustainability, which came more to the fore after the inception of the programme is our recognition that we need to build capacity in training institutions in those countries in order that, after the end of this project, they could, if they wish, replicate what we do - not necessarily exactly but at least be able to offer some components of the MPH which we have developed (Interview with senior staff member 1, UWC SOPH, 2012).

In addition to access to UWCs' MPH programme, students received extensive additional support, including funding for travel to attend face-to-face sessions, for laptops and internet support, and local mentorship support (discussed below).

We conducted regular anonymous surveys with students when they attended classes in Cape Town to gauge satisfaction, but more importantly as a learning and continuous improvement measure. They explored students' satisfaction about the face-to-face and distance training, relevance of knowledge acquired to their own work/context, feedback on academic support and particularly mentorship, as well as challenges encountered. We found that students were particularly appreciative of the relevance and applicability of the curriculum, filling a distinct skills gap in their career trajectory into management or academic positions. A trainee recounted the relevance of the training to his work as follows,

> … Most people in my opinion get their managements skills either by experience …. You know with working in the bureaucracy for some time. But me with the readings that I have had, … I think it has given me a lot of insight and a lot of help in terms of how to manage … not only insights to the problems, but also insights to the solutions as well.
>
> We [members of an intersectoral task team led by MOH/HRH unit] are planning to conduct supportive supervision to … medical schools … So … we have put a detail plan to do this supportive supervision. And readings [from one of the HRH modules] … have been very helpful for me because I was the one who was planning the detail strategic planning … It helped me. The readings helped a lot in understanding what is expected from me and what possible challenges could come…. And what possible solutions should I look for (Interview with trainee, MoH-Ethiopia, 2012).

However, students also identified numerous challenges during the programme, including lack of time to focus on their studies due to employers' reluctance to allow time off work, lack of mentor support, language barriers (as the MPH is offered in English), and weak academic writing skills. Many of these challenges are common to mature and working students [32,33]. While some of these could be addressed immediately, such as substantially increasing language and writing support, others require long-term planning and are part of an ongoing endeavour to improve educational delivery for professional continuing education.

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To date, fifteen students have graduated with this MPH and there is evidence they are applying what they learnt in their work context - a case in point being the initiation and development of a national HRH development unit in the MoH in Ethiopia under the leadership of graduates of this programme.

### Sharing and local adaptation of curriculum and teaching materials

Over the years, the UWC SoPH has developed detailed learning guides and readers for the majority of the more than 20 modules which form its distance teaching programme. The teaching materials constitute module guides, which use scaffolding and a 'guided didactic conversation' approach [24,30,34,35]. The guides are complemented by a reader, which is a compilation of important course readings. The module guides are characterized by questions that guide students through the learning process, and by tasks that require students to "integrate and apply new concepts, models, strategies and approaches to common practical problems frequently encountered by managers and practitioners in the health services … which facilitates the immediate application of theoretical concepts and models to their situations in the work arena" [24]. These materials undergo revisions on average every three years, and learners' experiences and needs, as well as the regular research the institution conducts, provide the all-important feedback in this regard.

> The research we do in this field, and also all the research we do at the School, is also very, very applied because we are working closely with facilities, with sub-district managers, with district managers. We have a pretty good feel what the issues are, and I think that is probably what students appreciate when they talk about relevance; the cases we use, the questions we raise, resonate with the questions and the challenges they face in their work. And obviously we also then continuously learn from students writing their thesis, the inputs they give in courses and so on; constantly rework and develop our own thinking. … I think generally our courses try to be very close to practice, [and] we use as our learning principle the respect and understanding that people are experienced professionals (Interview with senior staff member 2, UWC SOPH, 2013).

As part of this project, some of the general MPH and specialist HRH modules were adapted for the other local national contexts for use in the partner countries, while others were translated from English to Portuguese. Presently, four modules are under development and/or revision in English, while seven have been translated from English into Portuguese and are being used in a distance learning MPH programme on Health Workforce Development launched in June 2013 by the Department of Community Health, Eduardo Mondlane University in Mozambique.

The programme's initial plan to make available teaching material in French was cancelled as Rwanda joined the Commonwealth [36] and adopted English as the official language of instruction in 2008 in a bid to harmonize its curriculum with its English-speaking East African Community [37]. Instead, WHO initiated a similar HRH curriculum and training initiative focusing on Francophone Africa, which is led by the University of Geneva.

All materials, as well as other modules of UWC's MPH programme are presently being made available to a wider audience as 'share-alike' free courseware to encourage their use by other academic institutions in the target countries and beyond that seek to strengthen their programmes[b].

To support partners as they began to explore delivery modes for their institutions, UWC organized a workshop on open and distance learning (ODL) focusing on course and curriculum development generally and the pedagogical, administrative and financial aspects of distance learning more specifically. Participants were 'champions' in their own institutions, identified to lead the sensitization of colleagues to distance learning and its relevance, to advocate for its adoption in the institution and to play a part in its implementation. In the course of the workshops they had the opportunity to design strategies for materials development and support that suit their contexts and institutions' needs. The importance and the complexity of building curriculum and teaching expertise constitute one of the key lessons from the programme, which will be discussed further below.

Despite the numerous benefits, there were multiple challenges in the process of developing and implementing distance learning education, ranging from policy and organizational challenges to issues related to financial and student support. UWC's experience is instructive in this regard:

> There have been the well-documented organisational challenges to the delivery of a distance learning programme …in a university originally structured around contact and residential training. … It is often difficult to align administrative systems, and … teaching and learning activities … [24].

Representatives of partner institutions who attended the ODL workshop expressed similar sentiments. They foresaw a range of challenges in implementing distance education in their respective institutions including the policy environment, a lack of capacity and reluctance among staff to embrace distance learning, a lack of capacity

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for materials development and student support, and issues of funding and financial management. One example of the range of challenges to be expected is the Ethiopian Federal Education Ministry's decision in August 2010 to ban distance learning offered by both public and private universities due to "quality concerns" [38]. While it lifted this ban again in October of the same year, the intervention created uncertainty in planning a distance learning programme. Developments such as these are indicative of the unpredictable and dynamic nature of the policy environment and the constant tension between education coverage and quality.

However, such challenges run alongside steady progress: one institution (UEM) has already started implementing distance learning, supplemented by face-to-face contact sessions, with an initial intake of 27 students. Two institutions (NUR and AAU) are in the process of developing alternative 'local fits', such as HRH certificate programmes, as a start.

### The centrality of information and communication technology to access and communication

Academic institutions are under increasing pressure to adapt to a range of global transformations, including decline in the global economy accompanied by rises in the cost of education, growing global integration, constant advances in technology, and the need for greater flexibility in educational delivery [39]. Despite the growing use of information and communication technologies (ICTs) as a platform for teaching and learning, the lack of ICT infrastructure in African countries and limited e-skills of learners continues to undermine the benefits of these technologies. This poses a dilemma for academic institutions wanting to improve access to their programmes through distance and e-learning as dispersed and remote students continue to have the least access to ICT infrastructure and skills.

The gap in access to, and quality of, internet connectivity in Africa was highlighted in a recent study about the state of HRH units in MOHs at a national level, which found that individual staff has access to a personal computer in only 27% of the countries surveyed. While units in 84% of the countries have access to the internet, individuals have reliable access in only half of the countries [8]. It is safe to conclude that the situation of such units at sub-national levels is far worse.

Poor connectivity and low bandwidth have also been main challenges in this programme, impeding regular use of even routine e-mail exchanges and internet-based calls. While students in the programme have varying levels of e-skills, the fact remains that access is a challenge for many and that those based outside capital cities fare worse in this regard. The project's intentions to alleviate isolation and nurture communication through the enrolment of small groups of students in geographical and institutional proximity with each other was undone by countries' needs to employ standard public service regulations to advertise the programme and enrol students. Instead, it opted for well-tested avenues of communication with students, combining the face-to-face contact sessions and the use of digital and print media with e-mails and phone calls [35] and an effort to establish a mentorship programme.

This blended approach has mitigated some of the impact of the lack of ICT infrastructure and expertise, which has been particularly hard for students based outside the capital cities, as is the case in many such programmes [40]. But balancing improvements in access with appropriate delivery remains one of our key challenges.

### Mentorships

Since "not all competencies can be developed without some interaction with trainers or peers", and aware of the "loneliness" of studying at a distance and the challenges of translating theory into practice [24,25,41], UWC SoPH had for several years explored mechanisms to support students in their studies and in the application of new knowledge and skills in their professional contexts. Previous attempts to recruit alumni as volunteer mentors had not succeeded as mentor commitments invariably clashed with work commitments of these busy managers. This programme provided the opportunity to revive the mentorship idea by providing funding for training and stipends of two mentors, who were chosen by the institution in each country to support local students. All were senior professionals, with three being based at academic institutions, one in the ministry of health and two being independent consultants linked to partner institutions.

These local mentors were expected to play a central role in the programme: to accompany students from the time they enrolled by tracking their progress, assisting them with study material, helping with assignments and theses, and discussing with them how to apply newly acquired knowledge and skills in their work places. Each mentor was expected to support three students on average, and each student was expected to receive an hour's support every week from the mentor. Mentors were, thus, expected to spend around three hours per week with their students. Each partner institution received a small fund for mentor stipends, meant to provide a modest salary top-up rather than a salary. However, the disbursement of funds was left to partner institutions and handled differently in each case. All mentors received one week of orientation and training at the University of the Western Cape.

In practice, the recruitment of mentors and retention of their commitment and support proved one of the greatest challenges of the project. Difficulties experienced

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by mentors included establishing regular contact, organizing meetings and providing support to students, especially to those located outside the capital city, and those with little or no internet connectivity.

From the students' point of view, one of the challenges was failure of the mentors to provide adequate and timely guidance on all six modules, as they were HRH specialists rather than generic public health teachers. The partner institutions tried to deal with this challenge by involving other staff in the institution or organizing special sessions for students.

Most importantly, it proved difficult to find mentors with both the expertise and the time to dedicate to students. Most mentors who were appointed were extremely busy academics or professionals with multiple competing commitments and priorities. Against this background, and despite training and the availability of stipends, active mentorship was mostly a low priority, bringing into stark relief the conundrum of having to build capacity with very limited capacity [12,42].

## Discussion

The implementation of this collaborative initiative has been complex, straddling multiple and changing contexts, actors and agendas. Some of these are common to post-graduate programmes enrolling working students from different countries, such as weak language and academic literacy skills and lack of time for study, lack of capacity to provide sufficient support to students and the variable provision of reliable ICTs. Others are unique to this particular partnership programme, such as weak institutional capacity in the partner institutions to champion and embed the programme; competing and changing institutional priorities; and the need to navigate institutional and country contexts, such as new policies and decision-making processes.

### Building capacity of academic institutions

The initiative set out to build capacity in, and a joint teaching platform for, training in health workforce development by collaboratively training small cohorts of learners located in MoHs, while simultaneously developing capacity in academic institutions. This approach underestimated the challenge of building sustainable institutional capacity. While all partners had in-principle institutional support for the initiative, only a small number of staff found the time to dedicate to the project and to build wider institutional commitment to develop new forms of training through flexible delivery and open learning approaches. Furthermore, it became evident that expertise in curriculum development and innovative educational practices was a major capacity gap. Both insights led to a shift in the project's focus from building capacity in MoHs, while also building capacity in academic institutions, to focusing predominantly on the latter. The project re-allocated funding to pay for full-time champions in each partner institution, with the brief to guide curriculum and course development and build staff capacity. Furthermore, attention and resources were focused specifically on building capacity in curriculum and materials development, as well as administrative expertise for the implementation of open and distance learning programmes in public health and specifically health workforce development. Relevant short courses and manuals are presently being developed as the project moves into its final phase of implementation.

### A key challenge: mentorship support

Support for working adults studying at a distance has been one of the central and most challenging goals and ambitions of UWC's MPH programme generally, and this is reflected also in the MPH in Health Workforce Development. Given the shallow pool of senior academics and practitioners on the continent who are both able and available to provide supervision, mentoring and coaching support, building robust networks of mentors remains a significant constraint to capacity building generally and has proved to be the case here. Incentives, such as training and salary top-ups, proved insufficient to attract and retain mentorship support, indicating a need to rethink and improve both. However, it also suggests a lack of understanding and appreciation of the importance of curricular and learning processes in open and distance learning [28,29,31,34]. This gap is now being addressed through the development of dedicated courses and concerted efforts to build and nurture an alumni network in the region, which can become a skilled pool of mentors in the future.

All efforts to build individual and institutional capacity continue to take place in the context of severe resource constraints and competition for scarce human resources. Academic institutions constantly struggle to secure funding [43] to support their research, teaching endeavours, or sustain programmes of this type, while simultaneously battling to build the next generations of researchers and teachers [15]. The systematic strengthening of the academy is rarely a priority. As the 2010 Commission for Africa testified, there is not only a lack of national investment in African universities, but external funding also continues to be extremely low [44].

The greatest challenge, however, lies in increasing access (numbers of students) and ensuring student support and success without jeopardizing quality through premature and unsupported massification of programmes, as has become a recent tendency with some online training programmes [39]. Building capacity is an iterative and painstaking process and long-term endeavour, requiring both sustained institutional commitments and substantial resources. It is the explicit intention and ambition of this

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partnership to establish a platform for this endeavour beyond the lifetime of the project. The aim is to develop mechanisms that embed capacities to plan, develop and manage HRH and to train for such capacity in both ministries of health and academic institutions.

## Conclusions

A solution to the health systems crisis in many African countries requires multiple responses. Key among these is strong leadership in planning for and managing human resources and dramatically improved capacity of academic institutions to train health workers and health systems leaders.

This situation poses a challenge, which four African universities, with support from WHO, are trying to address in a partnership aimed at strengthening collective capacity to train leaders in HRH.

While there are significant inherent challenges, the programme has potential for providing real opportunities for building the field and community of practice, and strengthening the staff and organizational capacity of participant institutions. The aim is that it will ultimately have impact in the region.

It is too early to judge the likely sustainability of this initiative. Apart from availability of funding, this will depend on the intensity and nature of cooperation among the institutions, the commitment of the leadership, and the degree to which key stakeholders and staff are enrolled in nurturing and building the partnership [16]. It has become apparent that more time is required to embed aspects of the programme in some of the partner institutions, due to complex institutional processes and stakeholder relations, a difficult policy environment, and weak institutional capacity to champion it.

The initial decision to conceptualize the initiative as an African endeavour has proven to be both a challenge and an opportunity. It is ultimately crucial to developing sustainable capacity in the region. The nature of cooperation and the focus on institutional capacity has been one of the project's greatest achievements. This cooperation was configured to be led by southern partners, and has involved the transfer and exchange of knowledge and experience among institutions facing similar problems. Such initiatives remain in the minority [45], but are on the ascendency [21].

This paper emphasizes the need for long-term strategies and engagement, more investment and attention to developing the capacity of academic institutions, the need to invest specifically in educational/teaching expertise for innovative approaches to teaching and capacity development more broadly, and the importance of increasing access and support for students who are working adults in public health institutions throughout Africa. In 2007 Paulo Buss reported on Brazil's success in strengthening public health education and HRH leadership through proliferating schools of public health in the country [18]. Africa should aim for similar success stories.

## Endnotes

[a]The course structure has been slightly changed since then, with students now taking altogether eight modules which each are shorter and carry fewer (fifteen) credits (four core modules, two research modules, and two elective modules). The thesis component remains the same.

[b]These materials already are, or will soon be, available on the website of the UWC School of Public Health (http://www.uwc.ac.za/Faculties/CHS/soph), the Open Education Resources website (http://www.oercommons.org/) and the website of the Consortium for Health Policy and Systems Analysis in Africa (http://www.hpsa-africa.org/).

### Abbreviations

AAU: Addis Ababa University; ICT: information and communication technologies; HRH: human resources for health; MoH: Ministry of Health; NUR: National University of Rwanda; ODL: open and distance learning; SoPH: School of Public Health; UEM: Eduardo Mondlane University; UWC: University of the Western Cape; WHO: World Health Organization.

### Competing interests

The authors declare that they have no competing interests.

### Authors' contributions

All authors jointly conceived of the article. WKA and UL had primary responsibility for the draft of the manuscript. WKA, DS and UL all contributed substantially to the intellectual content, writing and finalization of the manuscript. All authors read and approved the final manuscript.

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**Paper 2 - Determinants of effective organizational capacity training: lessons from a training programme on health workforce development with participants from three African Countries.**




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# Determinants of effective organisational capacity training: lessons from a training programme on health workforce development with participants from three African countries

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## Abstract

**Background:** Health systems in sub-Saharan Africa face multifaceted capacity challenges to fulfil their mandates of service provision and governance of their resources. Four academic institutions in Africa implemented a World Health Organisation-funded collaborative project encompassing training, curriculum development, and partnership to strengthen national leadership and training capacity for health workforce development. This paper looks into the training component of the project, a blended Masters programme in public health that sought to improve the capacity of personnel involved in teaching or management/development of human resources for health. The paper aims to explore factors influencing contribution of training to organisational capacity development.

**Methods:** We chose a case study design. Semi-structured interviews were held with 18 trainees that were enrolled in the training programme, and who were affiliated to health ministries or public health training institutions. We gathered additional data through document reviews, observation, and interviews with 14 key informants associated with the programme and/or working in the collaborating institutions. The evidence gathered were analysed thematically.

**Results:** Thirteen of the 18 training participants stayed in the target institutions and contributed to improved capacity of their institutions in the fields of management, policy, planning, research, training, or curriculum development. Five left for private and international agencies due to dissatisfaction with payment, work conditions, or career prospect.
Factors that were associated with the training, trainees, and the institutional and broader context, determine contribution of training to organisational capacity development. These include relevance of newly acquired knowledge and skills set of trainees to the role/position they assume in the organisation; recognition of trainees by employing organisations in terms of promotion or assignment of challenging tasks; and motivation and retention of trained staff.

**Conclusion:** Training, even if relevant and applicable, makes no more than a 'latent' contribution, one which is activated and realised through alignment of clusters of interacting contextual and relational factors related to the target institutions and trained personnel. While not predictable, implementers need to focus more deliberately on the likely interaction and best possible alignments between training relevance, student selection for potential to contribute, recognition and career advancement potential.

**Keywords:** Alignment, Capacity development, Context, Blended learning, Health workforce development, Motivation, Organisational capacity development, Retention, South-south cooperation, Training

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## Background

Health systems in sub-Saharan Africa face multifaceted capacity challenges to fulfil their mandates of service provision and governance of their resources. Wide-ranging capacity development interventions exist to address these limitations. Many countries in Africa experience acute staff shortages and poor performance of the health workforce. This is related to inadequate attention given to workforce development from institutions, which either train or employ human resource managers [1]. The lack of leadership and management across different levels of the health sector is often manifested in the practice of appointing clinical staff to human resource management (HRM) roles [2–4] without the required training to execute HRM functions across policy, leadership, education, partnership and finance spectrums [5, 6].

A number of human resource management interventions in low-and middle-income countries have focused on training as a principal strategy for improving health workers' performance and boosting capacity, mostly among frontline providers [7, 8]. Similar trends also prevail in other capacity development initiatives in the health sector. A study mapping a wide range of interventions to improve national and institutional capacity in health research in Africa found that 'many efforts are geared towards individual capacity building, with indirect benefit to institutions' [8].

Scholars have noted and criticised the disproportionate focus on building individual level capacity as a primary strategy to the neglect of other systems level issues [9–12]. The criticisms highlight the links between individual and organisational level capacity development, which are often taken for granted [13]. A World Bank evaluation (2008) that explored whether training results in organisational capacity development identified the elements that need to be in place for training to effect the desired transformations: quality training, and an enabling work environment [14]. Other authors point out the importance of the attributes of trainees and of having an appropriate curriculum [15, 16]. All these dimensions are captured in the WHO's leadership and development framework (Fig. 1) which emphasises the dynamic interaction between numbers, competencies, support systems and working environments [17].

The capacity development literature, too, emphasises the need for a systems perspective that looks into interactions between the different capacity levels (individual, organisational, or environmental), and investigates the issues that nurture or undermine capacity development at each level [9, 18–24]. As Hongoro and Normand point out: 'Organizational and system arrangements define the incentive context for health workers and influence both organizational and individual performance' [25]. Similar calls for a systems approach have also been made in the context of interventions and research to develop public health and research capacity [7, 8, 25–29]. According to Bennet, "Human resource management systems affect workers' capability and their perception of that capability, through such mechanisms as training, supervision, and more concrete incentives such as remuneration, promotion, and performance review processes" [29].

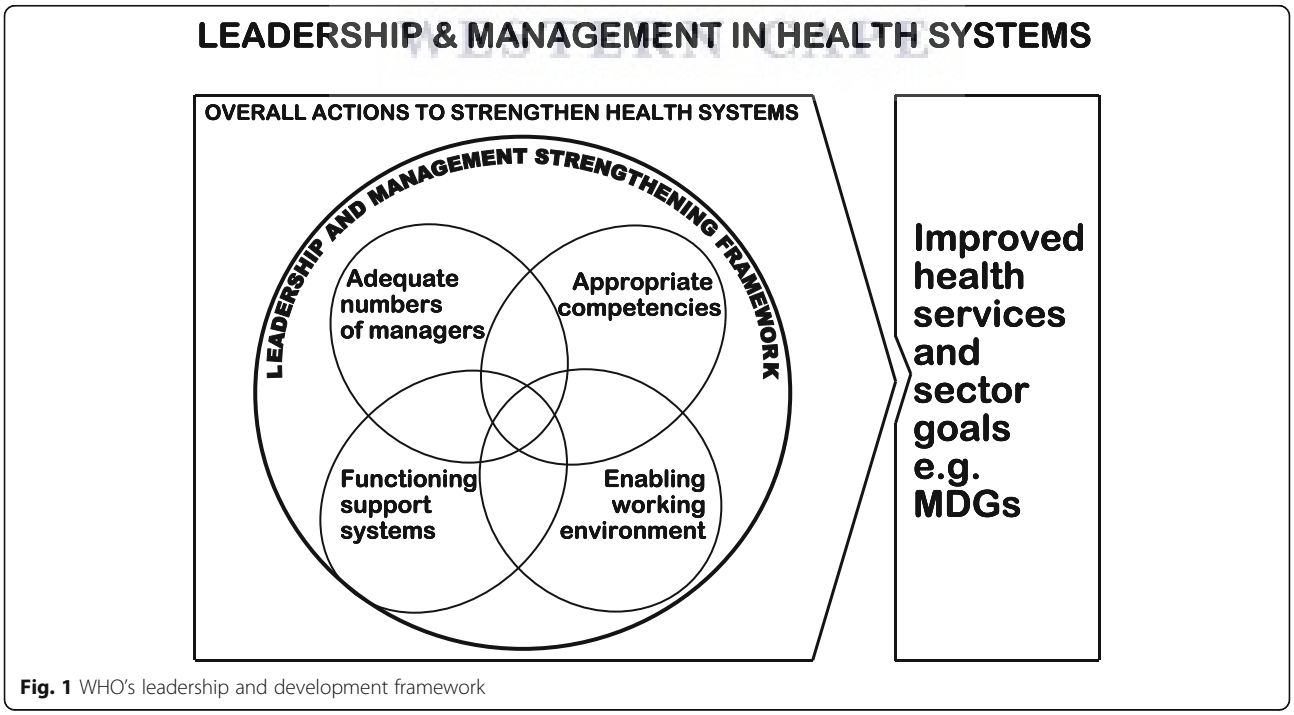


**Fig. 1** WHO's leadership and development framework

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With respect to engagement post training, literature further establishes the importance of recognising and supporting individuals that are tasked with the responsibility of spearheading change, and identifies seniority as one of the attributes these individuals need to possess [30–32], hence imperative to put great care in the selection of these individuals.

With a focus on the use of training on health workforce development as a strategy to leverage organisational capacity development, both in health ministries and public health training universities, this paper explored the factors that influence contribution of training to organisational capacity development.

The paper is part of a broader research project that focuses on examining a collaboration among four academic institutions in Africa (year 2009–2015), to strengthen leadership and training capacity for health workforce development at both national and regional levels. The collaboration arose in response to a call by – and financial support from – the World Health Organisation [33]. The collaboration has three dimensions: building a regional network, curriculum/programme development in partner institutions, and training of critical mass of experts in the field of health workforce development. The paper looks at one component of the collaboration, a blended Masters in Public Health programme with a focus on Health Workforce Development. The programme was offered in the University of the Western Cape, South Africa, through a blended approach, a combination of distance learning and short face-to-face contact. The programme consists of six HRM-focused and public health modules, and a thesis on an issue focused on human resources for health (HRH) in their country.

## Methods

We adopted a qualitative case study research design due to its suitability for investigating 'why' and 'how' questions [34–36]. Training participants enrolled in the training programme and affiliated to target institutions across the three countries are the focus of the paper. Eighteen participants (6 each from Mozambique, Rwanda, and Ethiopia) underwent the training after being nominated to take part in the programme by their home institutions: health ministries or universities. Sixteen trainees were located, and assumed leadership or trainer roles where human resource management was one of the central foci. This proximity to HRM-focused roles/functions had been a criterion for their nomination to the training programme. Additional criteria used in the selection of trainees include academic qualifications, and local considerations of service duration and representation of sub-national groups [33].

Semi-structured in-depth interviews [37–39] were held with all the 18 training participants. We gathered additional data through review of documents (project proposals, project agreements, progress reports and correspondence) and observation. Additional interviews were conducted with 14 key informants that were selected purposively on the basis of their proximity to the training programme or participants [38, 40, 41]. They include trainers, mentors, coordinators affiliated with public health training institutions- University of Rwanda, Addis Ababa University in Ethiopia and Mozambique's Eduardo Mondlane University; and representatives of project implementation partners- University of the Western Cape, South Africa, and the World Health Organisation.

The interviews were held between June 2014 and March 2015. All the trainees had completed the programme during the time of the interview, and all but three had graduated. The interviews were audio recorded with the permission of participants.

Information about prior training and professional background of participants and demographic details were also gathered. The interviews explored perceptions and experiences of actors over a range of matters related to the training programme, their work settings and responsibilities, and factors that enabled or constrained learning or application of acquired competencies in the programme. Probing was an important strategy used to establish adequate understanding [37, 39].

Good rapport with participants was established over the course of the training programme. This was evident in the way participants were willing to be part of the research and the openness they exhibited during the interviews. Field notes [38] were prepared while on the field.

The collected data were analysed thematically [42, 43]. All interviews were transcribed word for word. The transcription was open coded manually with a focus on describing the diversity in the data. The codes were then grouped into more analytical categories. Themes were generated both inductively from the data and deductively from the research question and the literature on capacity development and the systems and complexity approach [38]. Causal loop diagram was used to visualise and communicate complex system interactions [44–46] taking into consideration feedback mechanisms, both enablers and constraints.

Rigour and trustworthiness of the research was ensured through triangulation by seeking convergence of data from multiple data sources and methods [38, 39, 43, 47, 48]. Strategies used to improve rigour and trustworthiness include engagement with participants and context prior to data collection; voluntary participation of respondents; counter checking responses; and soliciting peer feedback [38, 48–50].

Reflexivity was an important tool in this research. Three of the authors were part of the programme intervention either in the design, implementation, monitoring or documentation of the programme. Hence, we acknowledge drawing on and incorporating our experiences.

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## Results

### Profile of training participants

Thirteen of the training participants were male and five were female. The median age of participants was 37, and their ages range between 25 and 56 years. With respect to institutional affiliations, 13 were based in health ministries, and five were located in public health training institutions. Looking at the educational background of the participants, half had clinical background and the other half had social science background (Psychology, Education, Sociology, and Administration). At the time of the study, of the 18 training participants, five left their home institutions to private or international agencies due to dissatisfaction about remuneration, work condition and career prospect. Detail information on career progression and capacity application experiences of training participants are presented in Table 1.

Most graduates reported that they were able to apply their learning in the fields of management, research, training/teaching, policy development, and training material development. There was, however, diversity in the graduates' ability, capacity and opportunity to apply newly developed skills and expertise. Clusters of factors across multiple levels emerged in the narratives of participants as influencing the contribution of training to organisational capacity development: relevance of newly acquired knowledge and skills set to role/position, and employer recognition in terms of being promoted to senior posts or being assigned challenging tasks; and motivation and retention of trained staff.

The sections to follow highlight patterns in the data under three interrelated themes of alignment of core competencies and role/position, employer recognition, and retention and turnover.

### Alignment of core competencies and role/position

Fifteen trainees were located in departments at the health ministries or university where human resource management was one of the central foci. Three participants were enrolled in the programme with the understanding that they would transition to a more relevant position during or after the training. They were contract staff working in research projects affiliated with target departments in the universities. Two of them were later integrated into the departments as permanent academic staff with opportunities to teach HR-related courses. However, the other participant because of changes in leadership of the institution, he did not have the same support to enable the transition to a more appropriate position. For the majority of the participants, therefore, their role closely matched their acquired competencies and because they were located in institutions mandated to govern or train health professionals, they could make direct links between competencies and workplace demands.

One of the trainees, P3, took on a series of progressively senior posts in a health ministry, aligned to the competencies acquired in the programme, and this is what he has to say about his experience of applying the competencies.

> *[During training] I was working on HR [at the HR department in the health ministry] so whatever we learned … we would practice it. … [We] changed the administration and with the belief that the HR programme is important not just for the Ministry [at national level] but also for every region [sub-national level], we started developing a curriculum and started … the programme [a postgraduate programme in HRM in two local universities]. [P3]*

Another trainee, P35, a lecturer at the university, has integrated his learning from the programme into his teaching and consultancy

> *I use all of them [training module materials] because [they] are related to the [subjects] I teach … . The [health workforce development module] … has very good examples of things that we can use simply in our context … . [Explaining further what enabled application of learning] I think it is especially because I am in an environment that I not only have to teach but I have to research, I end up using all the modules. I am also part of the [national] human resources observatory. Surely, I have been invited to be part of this because I am studying human resources development. [P35]*

### Employer recognition

In addition to the relevance of the roles, recognition by the employer in the form of promotion or allocation of challenging assignments were found to enable capacity application.

Seniority was found to afford participants the opportunity to take on more challenging responsibilities, and space to implement their learning. A few of the participants held senior HR-related posts prior to being enrolled in the programme. One of these trainees, P14, was the head of HR in the health department at sub-national level. Informed by his learning and enabled by his senior position and associated network, he accomplished significant changes by decentralising HR departments, creating posts for HR managers at district level, ensuring qualified managers are recruited, and existing staff undergo training in newly initiated HR programmes in a local university.

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**Table 1** Career progression and capacity application experiences of training participants

| Code | Background | Institutional affiliation | Positions – before training | Position – during/ after training | Opportunities to apply | Reason for leaving/staying |
|---|---|---|---|---|---|---|
| P2 | Social Science | Locally based training institute | Coordinator of the university's research project site | Coordinator of the university's research project site | Had few opportunities to apply capacity in current role | Stayed despite lack of recognition by employer and lack of opportunities due to lack of better alternatives, has a non-medical background |
| P8 | Medical Science | Locally based training institute | MD and lecturer | Head of national human resources department | Multiple opportunity to apply capacity within the institution and represent institution in partnership with other institutions | Left despite high recognition by employer, seniority and multiple opportunity to apply capacity, due to career change, lack of commitment to organisation and family commitments |
| P3 | Medical Science | MOH | Hospital director | Head of national human resources department, and later head of the national health department | Multiple opportunity to apply capacity within the institution and represent institution in partnership with other institutions | Stayed despite poor wages due to high recognition by employer, promotion, challenging assignments, and commitment to organisation and service |
| P14 | Medical Science | MOH | Head of human resource at provincial health department | Works for an international agency, advisor to the provincial health department | Former role offers multiple opportunity to practice, current role also offers opportunities for application | Left despite recognition, and challenging responsibilities, due to low salary, possibility to continue working with MOH as a member of external development partner |
| P15 | Social Science | MOH | Human resource officer at provincial health department | Head of human resource at provincial health department | Multiple opportunities to apply capacity within the institution and represent institution in partnership with other institutions | Stayed due to (albeit delayed) recognition by employer, promotion, challenging assignments |
| P16 | Management | MOH | Training officer at MOH | Head of HR of a public hospital | Had opportunity to apply capacity in current and former role | Stayed due to recognition by employer, promotion, challenging assignments |
| P35 | Medical Science | Locally based training institute | Lecturer | Lecturer, teaching HRH–related modules | Multiple opportunities to apply capacity within the institution and represent institution in partnership with other institutions | Stayed due to high recognition by employer, challenging assignments, career advancement, additional income |
| P36 | Social Science | MOH | Procurement manager of a hospital | Head of HR development for a private company | Former role offers little opportunities to practice, multiple opportunity for practice in current role | Left due to low-salary, poor rec ognition and career prospects |
| P37 | Social Science | MOH | Trainer at national human resource Directorate | Head of HR planning, National HRH Directorate, MOH | Multiple opportunities to apply capacity within the institution and represent institution in partnership with other institutions | Stayed due to recognition, promotion, job satisfaction |
| P38 | Social Science | MOH | Financial Manager, sub-national structure, MOH | Head of HR, public hospital | Had an opportunity to apply capacity in current and former role | Stayed due to recognition, and relevant assignments |
| P39 | Medical Science | Locally based training institute | Researcher and lecturer | Works for an international agency | Former role offers little opportunity to practice, multiple opportunity for practice in current role | Left due to low salary, low career prospects |
| P40 | Social Science | MOH | Director of Health Training Centre in district | Permanent secretary of government in a district, Director General of a district | Had opportunity to apply capacity in current and former role | Stayed due to recognition, promotion |
| P54 | Social Science | Locally based training institute | University research project staff | Lecturer, teaches HR-related courses. Co ordinator of academic programmes, project manager | Multiple opportunities to apply within the institution and represent institution in partnership with other institutions | Stayed due to employer recognition, promotion, job security, advanced from project to permanent academic staff |

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**Table 1** Career progression and capacity application experiences of training participants *(Continued)*

| Code | Background | Institutional affiliation | Positions – before training | Position – during/ after training | Opportunities to apply | Reason for leaving/staying |
|---|---|---|---|---|---|---|
| P55 | Medical Science | Local-based training institute | University project staff | Lecturer of HRH-related modules, co ordinator of HRH-related postgraduate programme | Multiple within the institution and represent institution in partnership with other institutions | Stayed due to recognition; promotion, job security, transitioned from project to permanent academic staff |
| P56 | Medical Science | MOH | District hospital director | Director General for Planning, Health Financing & Information System, MOH | Had multiple opportunities to practice in current role | Stayed due to recognition, promotion, challenging assignments, job satisfaction |
| P57 | Medical Science | MOH | District hospital director | Clinical practice, and management of private health facilities | Had multiple opportunities to apply capacity in former and current role | Left due to family issues, lack of administrative support, career change |
| P58 | Medical Science | MOH | Officer | Director of a unit, MOH | Had opportunity to apply capacity in current and former role | Stayed due to recognition, promotion, challenging assignments |
| P59 | Medical Science | MOH | Researcher and programme manager | Director of programme, MOH | Had multiple opportunities to practice in current role | Stayed due to recognition by employer, promotion |

*[The] experience [from the programme] has increased my capacity a great deal. The project [restructuring] coincided with [my participation in] the HRD MPH. I have used my knowledge [from the programme] to make the most of this [restructuring] project. … You need vision to do anything. … While studying in the programme, I was able to realise all the gaps and weaknesses in the way we are doing things. HRH [department] is full of people who are transferred because of disciplinary reasons [and] who don't understand the work. It was [considered as] a way of punishment. Until recently HR was not a place for professionals. … [The restructuring] is one of the success stories of HRH programme in [the country]. [P14]*

*The division within which I was … it was somehow new. … I was the first person to get an opportunity to study. … [The training] programme equipped me with knowledge on how I can train health workers, [how] I can support them … . [Preparing] the strategic plan … I had to plan activities related to training, supervision, mentorship … all that. … [The modules] related to HRH development, planning and so on contributed to making me confident in my position [as a Director]. … I was like a pillar in my division. Because others were not [skilled enough] … I contributed a lot. I think that is why I was appointed as a Director. [P58]*

The narratives show that the majority of participants advanced to progressively more senior positions upon joining the programme, either during the course of the programme or after its completion. This ranged from being officers (human resource/medical/research) to becoming senior leaders at sub-national or national levels in health ministries (cases in point are P3, P8, P15, P58, P59, P56, P37).

Training participants' promotions to senior posts were reported to be recognition of their qualifications, core competencies, or improved contribution to their departments. One of the trainees, P58, was working as a health officer when she joined the programme. Her response shows that she was promoted to senior leadership position due to her improved contribution to the institution, which in turn opened further opportunities to contribute.

P56 was a medical officer in a rural district hospital when he joined the programme. He then became director of the district hospital, and later he was promoted to a senior post at the health ministry. His response illuminates the mutually reinforcing relationship between recognition and application of competencies.

*[W] hen I took [the directorship] position at the rural hospital … my predecessor was not very present … . I started establishing some mechanism of meeting people [regularly] … and involving them to propose solution … . I saw some changes in the way they manage. … I do have materials [from the training programme] on my computer and some books. … It helped me a lot … . I am doing [preparing] some procedure manual [focusing on integrating supportive supervision for the ministry] … I am leading development of [HR] policy for the whole [health] sector … I have been … engaging in leading the process of determining the staffing in health … . [and] leading the process of the HR*

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*sustainability … [and] the national health sector research agenda. [P56]*

While such timeous recognition and creation of opportunities generated motivation, delayed employer recognition or lack of communication to this end reportedly led to frustration and lack of motivation in other cases. One of the trainees, P15, was an HR officer in a health department at sub-national level, and he was left frustrated by the absence of mobility to a more senior post or better financial package upon graduation. He expressed his annoyance:

*… . That [lack of recognition or promotion] is disappointing. … . You can build their [staff] capacity, but after building capacity [if] you don't give them anything ... that is ... inexplicable. [P15]*

It took a while before this trainee got promoted to a position of head of HR in the provincial health department. Protracted administrative processes and poor communication led to turnover in the case of another participant, P57.

### Retention and turnover

Thirteen of the participants stayed in their respective institution after graduation. However, five graduates across the countries left their institution to join international agencies, the private sector, or change career paths. An examination of the motives of participants reveals that a diverse set of intrinsic and extrinsic push and pull factors contributed to their decision to stay or leave: financial incentive, employer recognition (promotion or assignment of challenging responsibilities), career prospect, job security, family circumstances, external job holding opportunities, and change in career path.

Four of the five participants (P8, P14, P39, and P57) who left their home institution had a clinical background. Two of them pursued clinical practice/study; the other two occupied management positions in international agencies.

The narratives of two of the training participants, P35 and P36, one based in university and another in a health ministry, illustrate the diversity of experiences and decisions regarding retention. The university-based trainee, P35, who was a junior lecturer, took on HR-focused teaching and consultancy responsibilities related to his core competency in HRH after enrolment in the training programme. He expressed disappointment at his inadequate salary, but he stated his resolve to stay in the institution.

*I have to do consultancy to have [more] money … to take care of the family. It [consultancy] ends up [being a] big burden because I have to work, work, work. … I am still not thinking of leaving this public sector even though I am not satisfied with the salary because I still want to improve my academic career. [P35]*

The trainee based in a health ministry, P36, was working as a junior manager in a public hospital when he joined the programme. He soon left the health ministry to join an international agency and, later, a private company. He cited dissatisfaction with his salary and career prospects as the main reasons for leaving.

*I [left] to work for [an international agency] as a national HR manager [overseeing] administration and HR issues of 500 employees. After a year, I left the [international agency] to join a private company [as a head of the HR department] because I like to grow and get better opportunity to practice HR. I moved from ministry of health [to international agency] because of money. The pay [at MOH] was very, very low. My net pay at the NGO was double what I earned at ministry of health. When I moved [to the private company], it was almost double what I earned at the [international agency]. [P36]*

The present analysis shows that while role relevance and seniority were enablers of capacity application, a closer look at the differences between the groups who left and those who stayed reveals no clear pattern based on role/position, or recognition (be it seniority or assignment of interesting tasks). There were also no country-specific patterns.

## Discussion

The programme discussed in this paper set out to strengthen leadership and training capacity for health workforce development in a regional (African) initiative, working with a small group of locally chosen students who, it was hoped and assumed, would act as capacity catalysts in their organisations. The findings show how different factors related to training (relevance and appropriateness), trainees (role, seniority, motivation) and organisation (employer recognition, incentive arrangements), and broader context (marketability, and other pull factors) interacted in different ways to generate very diverse outcomes of training to organisational capacity development.

The literature also emphasises the dynamic and context dependent nature of capacity development and that it operates not just at individual level but also within the organisations in which individuals operate and the broader environment in which the organisations are located [9, 18–24]. Baser and Morgan (2008) speak about capacity emerging out of 'a complex interplay of attitudes, assets, resources, strategies and skills, both

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tangible and intangible (9). Similar views about complexity of capacity development interventions are echoed in the literature in the context of human resources for health (HRH) [7, 25, 27, 28].

All participants spoke about the relevance of learning and the appropriateness of the curriculum and 17 participants found ways to apply the knowledge and skills acquired in their home institutions. While eight participants pursued new opportunities within their ministries, within and beyond HR directorates, three participants based in academic institutions began to incorporate teaching about HRH into the curriculum. For five participants, however, the programme became a catalyst to pursue their careers elsewhere, two in the private sector, two others in similar fields within international agencies. Four of the five who left their home institutions had a prior clinical background. The findings suggest greater turnover propensity and labour market demand for graduates with a prior clinical background. Financial incentives and opportunities presented in private and international agencies played an important role in their decision.

The diversity of capacity application experiences among participants ranges from ones where contribution is optimal to those where contribution remains latent or minimal. It was evident that the translation of learning into organisational contributions was enabled by the alignment between the core competencies of the training and the profile of recruited candidates who either had HR-related responsibilities (training or leadership) or were expected to move into such positions post training. Target institutions (health ministries and local universities) involvement in student selection undoubtedly assisted the alignment of potential to apply new competencies with existing or future roles and functions. The body of literature on training initiatives in general – and leadership development in particular – underscores the importance of ensuring that trainees have the opportunity to utilise newly developed skills and expertise in their local contexts [21, 51, 52], and that this be already taken into account when selecting candidates for training [21, 53].

Beyond competency, the findings suggest that capacity application is influenced by seniority, recognition and support from an employing institution, or application and motivation of participants. The relational aspect of capacity application is further highlighted in the literature as one of the factors facilitating the success of change agents in integrating innovations in their context [32], which most of these graduates demonstrate as they took on the responsibility of spearheading changes in HRH practice in their context. The more senior they were, the more support/resources they had at their disposal and the better positioned they were to consolidate the changes. The above findings also reinforce the significant influence the employing organisation has in determining application by either availing opportunities or support to embed learning in practice.

Motivation (through either intrinsic or extrinsic incentives) seems to influence the likelihood of trainees identifying and capitalising on opportunities to apply learning in their home institutions. As depicted in the experiences of five of the cases, participants may choose to leave the home institution for private or international agencies to advance their career or for better remuneration. In contrast, most participants stayed in the institution, mainly because of job satisfaction or opportunities to advance their career, despite being unhappy with their salary. In the case of academic institutions, the holding of multiple jobs ameliorated the tension around salaries.

Retention represents one of the issues that accounts for the complexity of the link between individual capacity development through training and the improved capacity of organisations in terms of improved performance. A systematic review of the motivation and retention of health workers in developing countries [54] emphasised the importance of recognition in health worker motivation, and identified a set of influential factors, namely, 'financial incentives, career development and management issues' [54]. The study showed that trainees exercise their agency to resolve dissonance or reinforce alignment between their best interests and that of the institution. This was evident in this study through the decisions of trainees. Individuals in comparable situations/positions/background, end up making varying decisions as to whether they stay or leave, due to the multiple intersecting factors. In three cases participants had the opportunity to augment their income through their engagement in external multiple job holding practices, thus keeping them in their posts but creating other consequences impacting on organisational capacity [25, 55, 56].

The narratives further show that while participation in the training was reported to improve staff contribution in most instances, the study suggests that training also has the unintended consequence of increasing turnover due to the marketability of newly acquired competencies and leads to capacity loss, as identified in several studies [55, 57, 58]. An exploratory study in four eastern African countries focusing on competency gaps in health workforce management found, for example, that the health ministries of these countries fared poorly compared to the private and non-profit sectors in putting retention strategies in place [59]. These studies have resonance with our findings that the target institutions, which happen to be part of the public sector, stand to lose their trained professionals as they continue to fare unfavourably with private and international agencies.

Another influential individual level factor was seniority, relevant both as an incentive for retention and advantage for the application of learning. It was evident in

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the accounts of some of the cases that participants in senior positions had better opportunities to take on challenging assignments, with much wider implications, such as the development of HR units, the structuring of HR departments, the training and staffing of these departments, and representing their institutions in specialised networks and partnerships. It is safe to suggest that their seniority gave them the edge (power, decision space, or opportunity) to apply their learning on a national or regional level, or the incentive to remain in the institution despite their relatively low salary. In contrast, three training participants who retained relatively junior positions reported that they were frustrated with the lack of recognition/promotion or opportunity.

Albert Hirschman's Exit, Voice and Loyalty Framework [60, 61] helps shed light in understanding trained staff's decisions, as it recognises the heterogeneous ways individuals respond to unfavourable circumstances in an organisation: exit (leave the organisation), voice (express their dissatisfaction and seek change), or remain loyal (quietly put up with the situation). According to this perspective, "exit and voice are the two main responses to dissatisfaction, with voice being more effective and desirable. … a lack of exit opportunities increases voice, and loyalty reduces exit" [60]. In the context of this study, all trainees were based in public institutions, which are generally characterised by low wages and poor working conditions. Our analysis shows that while five chose to leave the institutions (exit), 13 remained (voice/loyal). Our study suggests that, in addition to wages and working conditions, factors related to employer recognition of trained staff (promotion/opportunities) and career prospect inform the choice of trained staff to exit or not. While the situation of those who exit the group is relatively clear, with the limited data we have it is difficult to differentiate between the voice and loyal responses. Hence, a full application of Hirschman's framework with additional data may generate more nuanced insight about responses of trained staff.

Figure 2 illustrates the influence that the above discussed contextual and relational factors across multiple levels have on the contribution of training to organisational capacity development – a conclusion, which is supported by the literature [7, 27, 28]. Capacity gaps in HRM lead to training interventions, which equip participants with relevant skills and knowledge. Application of acquired competencies or the resulting improvement in quality and performance leads to gradual reduction of the organisational capacity gap in HRM. This balancing loop is subject to influence by other intersecting factors that particularly influence application of competencies by training participants. Specifically, application/contribution is a function of trainees' motivation and opportunities to apply learning. The more motivated they are, or the more opportunities at their disposal, the more likely they can contribute. Figure 2 also highlights the various factors related to the employing organisation (recognition via promotion/assignment of relevant tasks, institutional incentive arrangements) influencing motivation and opportunities. Contextual factors (such as labour market or public sector policies) influence the aforementioned organisational level determinants. Each training participant experience unique intersections of these factors and depending on perception of their circumstances, training participants decide to stay and contribute to varying degrees, or leave the institution altogether. In the event of turnover of trained personnel, the HRM capacity shortages in the organisation persist.

Recall and social desirability bias are possible limitations of the study. We strove to address such bias

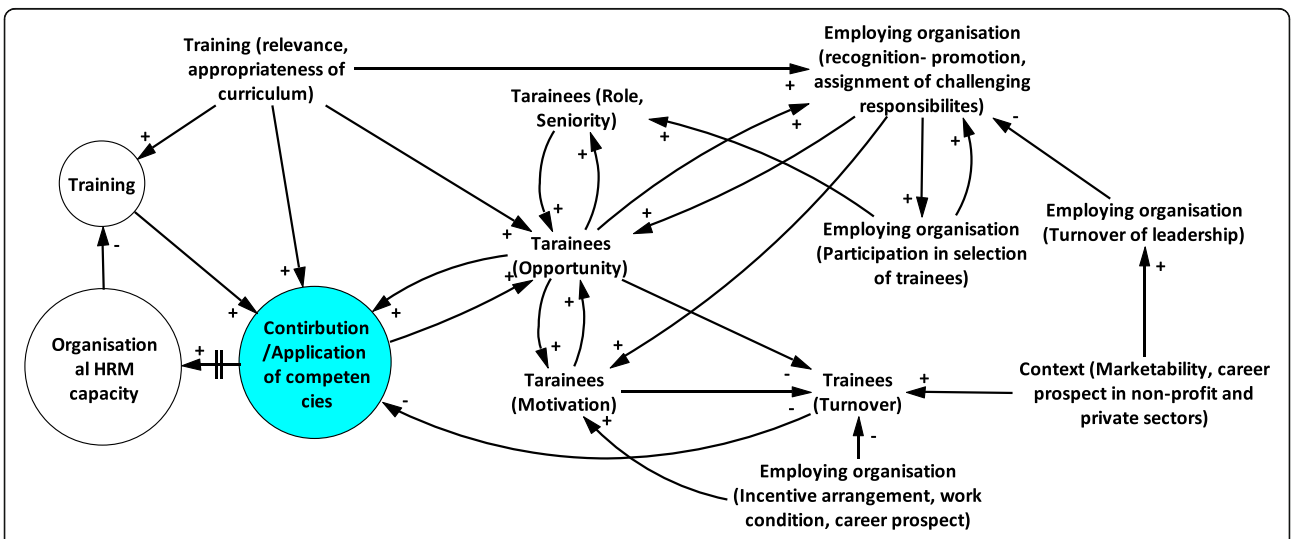


**Fig. 2** Causal loop diagram of factors mediating contribution of training to organisational capacity development

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through long-term engagement, building trust and confidence to enable opportunities for open reflection and learning [50]. Another limitation of the study pertains to the fact that dealing with issues related to impact and sustainability, which are key but long-term aspects of capacity development, was not feasible within the limited period of this research. Hence, the research was limited to investigating processes, and short and medium-term outcomes of capacity development.

The findings of the study are not generalizable to participants of other training programmes due to the qualitative research design and the use of purposive sampling and small sample size. A future comparative research examining similar in-service trainings and their relative contribution can help advance understanding and inform policy and practice.

## Conclusion

The present case study highlights the complex contextual and relational factors that affect the contribution of training to organisational development. The results show diversity in graduates' ability, capacity and opportunity to apply newly developed skills and expertise. The paper argues that training, even if relevant and applicable, makes a 'latent' contribution which is activated and realised (or not) through the interaction of multilevel and interacting contextual and relational factors. The study clearly shows how a divergence in individual and organisational goals and expectations (related to financial incentives, work conditions or career path) leads to internal or external migration of trained personnel, which drains an institution of its capacity. Dissatisfaction with payment coupled with lack of opportunity to advance career and marketability of new qualification have led to turnover of trained personnel. The study further implies that implementers need to focus more deliberately on the likely interaction and best possible alignments between training relevance, student selection for potential to contribute, recognition and career advancement potential.

### Abbreviations

HR: Human Resource; HRH: Human Resources for Health; HRM: Human Resource Management; MOH: Ministry of Health; NGO: Non-governmental Organisations; UWC: University of the Western Cape; WHO: World Health Organisation

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### Authors' contributions

The manuscript is part of a PhD project. WA collected and analysed data, conceptualised and wrote the manuscript. UL, DS, and BM are PhD supervisors and provided substantive input to the conceptualisation of the paper, the interpretation of the findings, and writing the manuscript. All authors except DS have read and approved the final manuscript. We lost Emeritus Professor David Sanders on 31st August 2019. May his legacy live on.

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### Availability of data and materials

The data that support the findings of this study are available on request from the corresponding author. Due to the small number of research participants, public availability of the data could compromise research participant privacy and consent.

### Ethics approval and consent to participate

Permission to undertake the research was secured from the Senate Research Committee of the University of the Western Cape, South Africa (Ref 12/10/19). Participants were provided with information sheet outlining the nature of research and their participation. Participation in the study was voluntary and participants were free to withdraw from the study at any time. All participants were provided with a consent form to sign as an expression of their voluntary participation, and written informed consent was obtained from all, prior to study participation. They were assured of respect, confidentiality and anonymity by removing any identifying information, and using systematic codes to refer to respondents [37, 38, 62]. There were instances when participants would ask to discuss certain issues off the record or they would wait until the interview ended to raise issues they consider sensitive. We respected their wish for privacy and confidentiality.

### Consent for publication

Not applicable.
All our data are anonymised. We have removed any specific contextual identifiers, and used systematic codes.

### Competing interests

The authors declare that they have no competing interests.

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# The politics and practice of initiating a public health postgraduate programme in three universities in sub-Saharan Africa: the challenges of alignment and coherence

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**Abstract:**

**Background:** In-country postgraduate training programme in low and middle income countries are widely considered to strengthen institutional and national capacity. There exists dearth of research about how new training initiatives in public health training institutions come about. This paper examines a south-south collaborative initiative wherein three universities based in Ethiopia, Rwanda and Mozambique set out to develop a local based postgraduate programme on health workforce development/management through partnership with a university in South Africa.

**Methods:** We used a qualitative case study design. We conducted semi-structured interviews with 36 key informants, who were purposively recruited based on their association or proximity to the programme, and their involvement in the development, review, approval and implementation of the programme. We gathered supplementary data through document reviews and observation. Thematic analysis was used and themes were generated inductively from the data and deductively from literature on capacity development.

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**Results**: University A successfully initiated a postgraduate training programme in health workforce development/management. University B and C faced multiple challenges to embed the programme. It was evident that multiple actors underpin programme introduction across institutions, characterized by contestations over issues of programme feasibility, relevance, or need. A daunting challenge in this regard is establishing coherence between health ministries' expectation to roll out training programmes that meet national health priorities and ensure sustainability, and universities and academics' expectations for investment or financial incentive.



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Programme champions, located in the universities, can be key actors in building such coherence, if they are committed and received sustained support. The south-south initiative also suffers from lack of long term and adequate support.

**Conclusions**: Against the background of very limited human capacity and competition for this capacity, initiating the postgraduate programme on health workforce development/management proved to be a political as much as a technical undertaking influenced by multiple actors vying for recognition or benefits, and influence over issues of programme feasibility, relevance or need. Critical in the success of the initiative was alignment and coherence among actors, health ministries and universities in particular, and how well programme champions are able to garner support for and ownership of programme locally. The paper argues that coherence and alignment are crucial to embed programmes, yet hard to achieve when capacity and resources are limited and contested.

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**Keywords:** Capacity Development, Complexity, Internationalization, Programme Champion, Public Health Training, South-South Cooperation



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## Background

This paper is part of broader study that explores a multi-faceted south-south collaboration among four academic institutions in sub-Saharan Africa, to strengthen national capacity towards generating much-needed leaders to spearhead workforce development/management (1–3). The paper examines one component of the collaboration, the initiative to introduce and embed a postgraduate level training programme focusing on health workforce development/management in three universities in sub-Saharan Africa (Ethiopia, Rwanda, and Mozambique) by drawing from the experience and expertise in the field from another university in South Africa. This paper seeks to generate insight into the complexity of this process, which navigated contestation of priorities and alignment among different stakeholders.

Shortages of human resources for health (HRH) are particularly pronounced in sub-Saharan Africa. Weaknesses in planning for HRH needs contribute to this situation. The lack of leadership capacity for HRH and the absence of local leadership development programmes in the region partly underlie this crisis (4–7). Literature depicts the importance of having in-country postgraduate training programmes in Low and Middle Income Countries (LMICs) as a critical intervention to strengthen institutional and national capacity to address health system challenges. Such initiatives are credited to reduce cost of training, improve access, enhance curriculum relevance, curb brain drain, and promote sustainability of programmes (6,8,9).

Neufeld and Johnson (2004) in their review of supply side studies noted the lack of leadership development training programmes in the Global South, and the dominance



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of institutions in the Global North in the few leadership development programmes in/for LMICs. The authors further highlighted the disproportionate emphasis given to developing individual capacity as opposed to institutional capacity such as infrastructure, curriculum and teaching capacity development, and incentives for staff retention and motivation (4). In line with this, health training institutions in the Global South are fraught with challenges related to shortages of funding, academic and support staff, teaching space, and capacity to develop training materials and curriculum (10–13).

Operating under such circumstances, training institutions have become contested spaces in the globalization (and marketization) of health professions education since programme development in the South becomes commercially interesting for higher education institutions in the North, with large sums of money available. Such contestation around programme priorities, and the competition for financial and very scarce human resources plays out in different ways, and in complex relations between northern and southern academic institutions in this regard (14).

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A growing body of literature on capacity development emphasizes its complexity, as it often involves ill-defined non-linear processes that bring into interaction multiple actors with diverse interests and priorities (15–22). It is now well established in the literature that sustainable capacity development requires close attention to these complexities in planning, implementation and research, and exploring the factors that nurture or undermine capacity development within and across the different and interacting levels (15,17,23–30). In other words, it is imperative to pay heed not only to the technical



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aspects, but also the politics of capacity development and its institutional sustainability (20).

**Emergence of the south-south collaborative initiative**

Partnership, through its multiple variants, is recognised as one of the mechanisms to bring about development. South-south cooperation is one form of development partnership among a wide range of actors located in LMICs (31,32).

In year 2009 three of the universities (from Ethiopia, Rwanda and Mozambique) set out to develop a postgraduate programme focusing on health workforce development/management with technical support from the South African university. The support included providing educators from these universities a masters level training in health workforce development/management, development and adaptation of teaching resources, and sharing experience through workshops on delivery of open and distance teaching modalities. Funded by the World Health Organization (WHO) the initiative sought to respond to the twin challenges facing public health training universities of 'building human resources capacity in ministries and health services while alleviating and improving their own capacity constraints'(2). The financial support from WHO sought to enable the implementation of the aforementioned activities led by local programme champions who oversee the development and integration of programme in the three universities (2). This meant 'fitting' the programme into the landscape of programme offerings in each of the universities. The programme had support from the health ministry in each country (Rwanda,



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Mozambique and Ethiopia) and leadership of the implementing universities. The collaborative project ran from 2009 to 2015.

Overall, the initiative has distinct features of south-south cooperation, which is considered a viable mechanism to facilitate capacity development in developing countries (33,34) by enabling exchange of knowledge, experience, and resources among Southern partners (35,36). This initiative presented an opportunity to explore factors that influence process and outcome of a capacity development initiative across multiple institutional and national contexts, and to explore how contextual or relational factors assisted or undermined coherence and alignment.

## Methods

We used a qualitative case study design (37–40). This research design suits the complex nature of the phenomenon under investigation and helps explore the context and the discrepancy between what was envisaged and what materialized (38,39). Purposive sampling was used to recruit study participants (n = 36) including 17 academics located at the three public health training universities; 13 staff of health ministries in Mozambique, Rwanda and Ethiopia; and six representatives of external development or training partner institutions. The selected participants were directly or indirectly involved in the design or implementation of the collaborative partnership to introduce postgraduate programme in health workforce development in the three universities. Programme champions, who were academics located in universities were tasked with the responsibility of championing programme. The rest of the participants were directly or indirectly involved in the design or implementation of the collaborative partnership



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to introduce postgraduate programme in health workforce development in the three universities. Their participation includes taking part in collaborative curriculum development workshops and exchange of experience, participating in the periodic general partnership meetings, or be part of a university or health ministry structure that developed, reviewed, approved, or implemented the programme. Table 1 presents distribution of participants by institutional location and gender.

Table 1 – Characteristics of participants

| Institutional affiliation | |
|---|---|
| University A | 4 |
| University B | 6 |
| University C | 7 |
| External development/training partners | 6 |
| Health ministries | 13 |
| Gender | |
| Men | 28 |
| Women | 8 |

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Semi-structured interviews were held with the participants between June 2014 and March 2015 in their respective contexts. The first author held 34 interviews in person, and two interviews telephonically. The interviews primarily explored perceptions and experiences of actors over a range of contextual and relational factors that mediate the process and outcome of the partnership to initiate a public health postgraduate



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programme in health workforce development. The semi-structured interviews explored the following broad issues:

- State of capacity for health workforce development at individual or institutional level;
- Internal conditions including programme implementers and targets, institutional context and processes;
- External conditions or factors in the broader context that have bearing on the process and outcome of the intervention;
- Stakeholders, partnership, programmes and resources related to the intervention;
- Process of implementation of various components of the partnership to develop capacity in health workforce development; and
- Mechanisms that enable or constrain the intervention.

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The interviews were mostly conducted in English with participants from Rwanda and Mozambique, who completed tertiary education and had good command of English. The interviews with participants from Ethiopia was done using Amharic, the country's official language. All interviews were audio recorded, with the permission of participants, which were then transcribed verbatim. The first author transcribed all the English interviews and translated the Amharic interviews.

We gathered supplementary data through review of project documents including proposals, agreements, reports and email correspondence. Unstructured observation



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was another source of data. First author took part in the implementation process, attended meetings and workshops, and carried out field visits in the collaborating universities across the three countries. Hence, observational information, own reflections and analytical memoranda regarding activities, processes, and interactions were very integral to the analysis process.

Triangulation and reflexivity were applied to ensure rigor and trustworthiness of the research findings (40,43,44). We analyzed the data thematically. Through an iterative process, the researcher open coded the transcripts manually with a focus on describing the different data segments. The induced codes were then grouped into more analytical categories/themes (programme introduction modalities- regular and special, various roles and characteristics of actors in programme introduction) that spoke to the conceptual framework drawn from the literature that presents capacity development as a complex systems phenomenon embedded in interactions across multiple domains – individual, institutional, and context (15,26,29,30).

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Figure 1 – Conceptual framework for analysing capacity development interventions

The framework seeks to map the change process inherent in capacity development such as this and the multiple mediating processes and actors. It identifies three iterative phases of the changes process: capacity intervention (collaborative partnership and associated resources and expertise), contribution/performance of capacity (curriculum integration and training roll out), and effecting change/impact (development of critical mass, and improved national leadership and training capacity in the field). This



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transition is not guaranteed as capacity generated may remain untapped and may not lead to improved performance or change (41).

According to the framework, the process and outcome of the collaborative intervention to integrate curriculum and roll out training should be understood by foregrounding this dynamic process in the web of capacity levels and dimensions encompassing actors and processes operating at multiple levels (individual, organisational, and environmental), and surfacing the underlying mediating contextual and relational factors.

Permission to conduct the research was obtained from the Senate Research Committee of the University of the Western Cape, South Africa, which is the IRB/ethics committee responsible for development and monitoring of all university ethics policies and procedures. Confidentiality and anonymity of participants were ensured by removing any identifying information, and using systematic codes to refer to institutions and respondents (45). The three implementing institutions are referred from hereon as University A, University B, and University C.

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**Results**

This section presents findings of the research under two broad categories that focus on actors and processes. Emerging patterns and themes with respect to initiating a postgraduate public health programme in the three universities are presented as they relate to the prominent actors (roles and characteristics) and pertinent processes of programme introduction (regular and special programmes, and process of curriculum approval).



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## Mapping practices and processes of programme introduction

The three universities have a wide variety of programmes, with distinct organizational processes regarding how such programmes are initiated, implemented, and sustained. Two broad models of programme introduction prevail in these public health training institutions, i.e. regular and special (See Table 2 below)

Table 2- Modalities of postgraduate programme initiation

| Features | Special | Regular |
|---|---|---|
| Admission criteria | Accommodative / flexible | Strict/stringent* |
| Selection | Done by training institution with health ministry | Selection done by University, as per rules of education ministry |
| Incentives to staff | Additional payment | No additional incentive |
| Period | Weekends, after hours/evening | Day, regular |
| Staff | Existing or guest staff | Existing or additional staff needed |
| Sustainability | Not guaranteed, some evolve to regular with additional staff | Sustainable |

Both routes of programme introduction require collaboration with multiple actors within and outside the training institution to fulfil requirements related to feasibility, relevance and quality of curriculum. Regular programmes are fully embedded in the institutional structures and enjoy health ministry's approval and support, and have a longer life span. Special programmes are introduced through temporary technical and



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financial arrangements (with respect to funding, level of entry and selection of trainees), with the expectation of gradually transitioning into regular programmes and thus by definition have a temporary life span. Table 3 below summarizes the varying practices in the universities with respect to introducing and sustaining postgraduate programmes.

Table 3 – Modalities of postgraduate programme introduction across universities

| Institutions | Special programme | Regular programme |
|---|---|---|
| University A | All postgraduate programmes | |
| | Generates additional incentive for staff | |
| | Initiated by training institution with/without support from MOH or external development or training partners | |
| University B | | All postgraduate programmes |
| | | Initiated by MOH or training institution with/without support from external development or training partners |
| | | May require hiring additional staff, if institution operating at capacity, but no additional incentive for staff |
| University C | Some Postgraduate programmes | Most postgraduate programmes |
| | Initiated by MOH with external development or training partners | Initiated by MOH, training institution |
| | Involves incentives for staffs | May require hiring additional staff, if institution operating at capacity, but no additional incentive for staff |

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In the case of University C both regular and special models are common ways of introducing postgraduate programmes. In University B the regular model is the most common, and the special arrangement happens often for certificate or short courses. In University A all postgraduate programmes have a special status.

> Ministry of Health is insisting that we start [a new programme] right away. But we responded that we wouldn't start in a rush, before clarifying how it is going to be operationalized. Is it a regular programme, or what? If it is regular, the registration is done through the university. If it is to be done as special… then you organize special classes, Saturdays, Sundays, or evening. If it is going to be special, then we need to make provision for staff, you can't just ask them to teach. Time is precious.
>
> [P17, University C]

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Prior to introducing a programme, training institutions have to fulfil curriculum requirements, which vary across institutions, with some more protracted than others. With the growing number of programmes and in the context of shortage of capacity in the institutions, stringent curriculum approval processes are put in place to ensure introduction of only priority programmes, e.g. Generic MPH and Field Epidemiology. With respect to the new training programme on health workforce development/management, none of the three universities had such a programme, which is also distinct from the generic MPH running in all the universities at the time (See Table 4- Inventory of programmes being offered in the universities at the time of the intervention).



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University A effectively integrated the new curriculum in 2014, translating curriculum and teaching resources, and mobilizing resources from external partners to this end. The institution publicized the programme among staff and leadership of the health ministry, which sponsors trainees. At the time of data collection, over 70 trainees of multiple cohorts have been enrolled in the programme.

In University B and C, the envisaged programme did not materialize. The institutions needed an explicit expression of interest, memorandum of understanding, to support integration of programme from the health ministry either through providing funding for the special programme, or making necessary investment on personnel and infrastructure for it to become a regular programme. The south-south partnership did not have funds for these required investments. Trained staff in the short term used the teaching materials designed for the programme to strengthen existing programmes.

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In the sections that follow, we unpack these varying developments across universities and explain the contrasting success in implementation of the programme between University A, and the two other universities (B and C).

**Mapping actors, agendas and interactions**

The three public health training universities interact and collaborate with a range of external development and training partners, as well as local actors who influence the nature, scope, and success of their own engagement in the countries and beyond, all in the course of implementing their mandate, which encompasses teaching and learning,



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research, and extension/community outreach service. Table 5 illustrates the various prominent stakeholders in the process of introducing training programme in academic institutions.

Table 5 – Stakeholders and roles in the process of introducing postgraduate programmes

| Stakeholders | Characteristics/role in programmes |
|---|---|
| Development partners (e.g. USAID, CDC, UNFPA, WHO) | Primary donors |
| External training partners (e.g. JEPIEGO, TULANE, MSH, YALE, RENNES) | Technical cooperation/ Implementers |
| Public Health training institutions | Implementers |
| Ministry of Health | Current/future employer of trainees |
| Ministry of Education | Regulator / Owner of training programmes |
| Staff/faculty at local training institution | Implementers |
| University/college/faculty | Parent institution, regulator |
| Programme champions | Boundary spanners/gate keepers/Change agents |

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These actors that exert distinct influence to enable or constrain the process (either through support, opposition, or inaction) include academics who assume the role of championing the programme, the training institution, relevant government institutions namely health ministry, and external development or training partners.

Any of the aforementioned actors can initiate programme introduction, but the success of the initiative and its sustainability require support from all or most of these actors, which depends on alignment of their respective agendas. The following part of this



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section describes these actors and their roles and relationships in the context of introducing postgraduate programmes.

**Health ministry:** The health ministry is a custodian of the health sector and prescribes strategic direction and programmes to public health training universities. The health ministry defines which training programmes are relevant to address national health priority, and outlines core competencies. Even though universities are under the governance of the education ministry, the health ministry assumes the above roles due to its superior expertise of the needs and resources in the sector.

The health ministry often leads the role of initiating new public health postgraduate programmes in the institutions, by working with/through the three institutions, academics, or external partners. The ministry also initiates programmes particularly when those programmes are considered basic in the context of national health priorities such as Masters in Public Health, or Masters in Field Epidemiology.

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While in theory academics, training institution, or external partners could initiate a training programme in the three universities, key informants made it clear that successful introduction or sustainability relies on the buy-in and ownership from the health ministry. One senior academic staff explained,

> … Our [University B's] training should contribute to resolve a given problem in [the country] or in the region…. We are free when we identify the need, we can also suggest the introduction of a given



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> programme. But … we are [not] able to start a programme without the approval of the Ministry [of Health].
>
> [P52, University B]

The role of the health ministry in initiating the curriculum varied across the countries, with the ministry playing a more active role in University B and University C than in University A. In the case of University B and University C, it was reported that the ministry is the main stakeholder in training needs assessment and providing a required list of competencies.

In the course of introducing the training programme on health workforce development/management, health ministries in each country endorsed the proposed programme as relevant and expressed support in the early stage of the collaboration in 2009. However, none of the universities received any tangible support from the ministries during the course of the collaboration (2009-2015), which undermined programme introduction particularly in the University B and University C. University A had somewhat better leverage of introducing programme, possibly due to the relative autonomy the university has in its relation to the health ministry.

The lack of support from ministry of health in University B and University C can be attributed to multiple factors. One of the factors is turnover of programme champions based in the universities or turnover of leadership at ministry of health, which resulted in the loss of implementation momentum or loss in institutional memory.



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> … It [health ministry] did have enough information [about programme]. … We [the local project team] have tried to communicate this with the ministry of health. But since the first communication …there has been a turnover of three ministers.
>
> [P50, University B]

This was further complicated by the advent of parallel processes in the two universities to introduce similar programmes by the health ministries with the backing of other external partners from the North.

**Public health training universities:** Like other academic institutions, the three universities have the mandate to train the next generation of public health professionals to meet national health priorities, but rely on ministries of health for strategic guidance and support when it comes to the programmes they offer.

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While all the three universities had complex relationship with the health ministry, these complexities presented differently and impacted on project outcomes in different ways. University A has a relatively high level of autonomy from ministry of health when it comes to introduction of new postgraduate programmes. The programmes are open to private applicants and students working in non-government organizations while staff of the health ministry remain the main clients.

> [The postgraduate programmes] emerged in a decentralized [fashion]. Faculties came up with the proposal, waited for approval and started the



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> programme. Neither administrative nor academic management [of the programme] is centralized.
>
> [P31, University A]

In University B the health ministry exerts a great deal of influence when it comes to programme introduction, and sends most of the trainees.

> When we started this school [in 2001], it was with the objective … to produce the health professionals for Ministry of Health [which] pays their tuition fees. … [Currently] Most of our students are from Ministry of Health.
>
> [P52, University B]

University C has very close relation with MOH. Students mainly comprise ministry staff and academics from other universities. Lack of alignment in the interests of the health ministry on one hand, and the university and academics on the other hand (over issues of funding or selection of trainees) put a strain on their relationship. This was evident with two prominent but parallel processes of programme introduction prevailing in the university, regular and special. Key informants in University C reported that lately MOH is pushing for regular programmes, as it considers special programmes as unsustainable, as special programmes require additional financial incentives, on top of salaries, for those academics involved in teaching or coordinating the programme. The opportunity cost for academics who participate in new programmes without additional remuneration, as described in a related publication, is time away from engagement in external multiple job holding practice, which offers



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financial and professional benefits (1). The training institution on its part claim to operate at full capacity and resist hosting new programmes without the necessary investment in personnel and infrastructure. A senior academic drew attention to the mismatch between MOH expectations and investment towards building capacity of training institutions,

> [I] can't really say the support from MOH to university is high or strategic. Because it changes when there is turnover. It also gives you the programme, and does not give you anything [else]. Except for [giving us the] go ahead. No financing.
> [P20, University C]

Conversely, MOH representatives contend that the training institution is performing below capacity and should accommodate new programmes that would meet the health workforce need of the sector. One government official described the practice of running special programmes or providing incentives to staff associated with the programme as perverse:

> … If it [training programme] is project based [special], … it turns teachers into rent seekers [and] … it won't have sustainability. It should be part of the [regular] system and integrated, and necessary capacity building, equipment, books should be fulfilled like offering training to teachers. That is when capacity building becomes sustainable.
> [P5, University C]



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**Programme champions:** The initiative to introduce the new programme on health workforce development/management had designated programme champions, who were senior academics in the training institutions. In University A the programme champion, a senior academic of the training institution, engaged with MOH about the programme, and was committed to spearhead the implementation of the programme in the university. The university initiated the health workforce development/management programme, with the programme champion ensuring that curriculum approval within and outside the institution was accomplished. Curriculum approval went through various processes at multiple levels (see Table 6 – Process of curriculum approval).

Table 6 - Curriculum approval process across universities

| Process of curriculum approval | | |
|---|---|---|
| University A | University B | University C |
| Department | Department | Department |
| Postgraduate Council, Faculty | School council | School |
| Scientific Council, University | Academic senate | College |
| Postgraduate committee, Scientific Directorate, university | Board of directors of university | External reviewers |
| Academic Council, university | Ministry of Education | Graduate Councils/Senate |
| University council | Ministerial cabinet | |
| Ministry of Education | | |

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In University C the programme champion, a senior academic staff, faced challenges to advance the programme integration. The implementation process stalled for long periods in the absence of explicit expression of interest to support the programme from the MOH [either provide funding if special programme, or make necessary investment on personnel and infrastructure if regular], and the lack of adequate funding in the existing partnership with external partners to support investment in infrastructure or teaching personnel. This also coincides with the turnover of the programme champion and initiation of a parallel process to introduce a similar programme in the institution with support from the health ministry and external partners. Despite being able to initiate the curriculum approval process, the programme still needed to get approval from the college, external reviewers, and graduate council/senate.

In University B, two senior academic staffs were tasked to champion the introduction of the programme in the institution. They initiated the curriculum development process, but they stopped short of taking the curriculum through all the required levels of approval. This coincided with a change in leadership at MOH, lack of explicit interest and support from MOH, turnover of one of the programme champions, and end of project funding.

A notable difference with respect to programme champions across the three universities is that the designated programme champions in University B and University C vacated their senior leadership positions in the university during the course of the intervention. With the departure of the senior programme champions, institutional memory about the programme, and the momentum and potentiality of securing MOH buy-in were



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undermined. The programme champion in University A was actively engaged throughout the course of the intervention.

**External development and training partners:** External partners work through or with local actors namely academics, training institutions, or government institutions to initiate programmes to address institutional and national capacity needs in certain areas, by offering financial or technical support. Some of the external development partners (e.g. United States Agency for International Development, Centers for Disease Control, United Nations Population Fund, WHO) and external training partners (e.g. Johns Hopkins Programme for International Education in Gynecology and Obstetrics, Tulane University, Management Sciences for Health, Yale University, University of Rennes) were influential in one or more of the universities.

Engagement of the three universities with external partners can generally be characterized as fragmented. The lack of coordination has led to competition, duplication, and loss of capacity gains, whereby academic institutions or the health ministry choose one initiative over another, or allow both to co-exist, instead of seeking synergy or harnessing partnerships and support around similar initiatives.

Northern training partners dominate the partnership space in the three universities and with MOH (in terms of resource or influence) compared to Southern training partners. In the case of University B and University C, there were reports of parallel processes to introduce a similar programme in human resources management in the institutions in collaboration with Northern external collaborates and led by different academic programme champions within the universities. In the two countries, there were



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inclinations towards collaborating with Northern external training partners, which are well resourced.

A key informant expressed exasperation about proliferation of similar initiatives often led by Northern external training partners as a case of, "…. the funder tail wagging the capacity development dog." [P22] Recounting the ambivalence surrounding the scenario in University C in relation to decision about the choice of partners or programmes, a key informant stated,

> … I can see that [this south-south] programme is the first [to be initiated]. … How do we go about it? Do we merge [it with a similar programme initiated with northern partners]? … were we supposed to accept [just this programme] … or did we do the right thing [to choose the programme supported by northern partners]?
>
> [P17, University C]

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The figure below summarizes the aforementioned analysis, and highlights the prominent actors, processes and mechanisms that influenced the introduction of the postgraduate programme in public health in the three universities.

Figure 2 – Multilevel factors mediating curriculum integration and training roll out

The above figure shows the link between intervention, and associated resources and expertise, towards introduction of a postgraduate programme, and state of curriculum integration and training rollout in the target universities, and future changes in terms of



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development of critical mass of leaders, and improved national leadership and training capacity. It is evident in the above analysis that this transition is mediated by dynamic set of factors associated with multiple actors (external development and training partners, universities, programme champions, health ministries) and contextual factors within the university and beyond. Hence, curriculum integration or training roll out is contingent on seniority, role and motivation of programme champions, and opportunities and support at their disposal. Factors associated with the target universities and health ministries including recognition and support of programme or its champions, and incentive arrangements impact on motivation and opportunities of programme champions to spearhead integration of programme. Contextual factors such as national policies and procedures have a bearing on successful implementation of intervention. Interaction across these individual, institutional and context level factors further determine retention of programme champions in the target universities. Overall, the degree of alignment across these multiple actors and processes enable or constrain the success of the capacity development intervention resulting in the short-term outcomes of partial or non- integration in two universities (B and C), and full integration in University A.

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**Discussion**

Baser and Morgan (2008) in their report entitled "Capacity, Change and Performance" emphasized the need for coherence in the context of complex capacity development initiatives that are characterized by multiple interrelated causes and potentiality of unintended outcomes(15). The authors further commented, "Capacity development was not just a technical exercise in achieving better development performance. It was, in



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practice, a process that allocated authority, opportunity, resources and security to some and not others"(15).

Evident in our analysis and discussed further in the sections below is the differential and dynamic experience of implementing the initiative across contexts owing much to the unpredictable interaction among multiple actors that is embedded in contestations over issues of programme relevance, feasibility, and actors' roles.

**Confluence of power relations, and need for coherence**

When it comes to programme introduction, the study established that success of initiatives depends on the degree of alignment achieved among the agendas and expectations of the various actors within and outside the institutions, who have varying influence on availability of resources for programmes, their legitimacy, implementation, and sustainability. The process is embedded in contestations over issues of programme feasibility, relevance, and need. The financial feasibility of programmes is contested between institutions and MOHs, institution and external partners, or institution and academics. The issues include academics' workload and financial incentives, the training institution's capacity to rollout the programme, or resources at the MOH's disposal to support the initiative in the institutions.

With respect to programme relevance and need, in all the three countries MOH has the discretion in deciding whether a programme meets a national priority, which is also influenced by the national and international priorities and interests, through the roles played by external partners. Future research needs to examine more closely the



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perception about global or local orientation of existing programmes, and practice of priority setting within the health ministries with respect to core competencies or training programmes.

Cancedda et al. (2015), based on assessment of training initiatives originating through North-South collaboration in sub-Saharan Africa, recognized the confluence of factors influencing such initiatives and underlined the importance of, among others, adaptability, local ownership and funding, coherence between training and country health priorities, long term engagement, and integration and continuity of programmes (10). Our analysis of the experience of the three universities resonates with these lessons, even though in the very different context of a south-south collaboration. The successful integration of programme in University A is down to convergence of the aforementioned issues, while University B and University C fell short of embedding programme due to lack of the crucial elements namely, inadequate ownership or funding, and short-lived engagement of key actors like programme champions and MOH.

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**Duplication of efforts, need for harmonization**

One of the challenges observed, in the case of University B and University C, which undermine programme introduction or sustainability was the lack of coordination of efforts, and the resulting presence of parallel initiatives. There were reported instances of local and external partners of public health training institutions working in silos in their respective collaborations with the in the case of University B and C, which pose challenges of competition, duplication, and resource wastage. On the same note, a study



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drawing from four major initiatives in LMICs, highlighted the barriers in on-going practices of training initiatives for health professionals. In the face of poor coordination and communication about these training initiatives among stakeholders, including MOH and regulatory bodies, 'low-income countries have been on the receiving end of a disorderly patchwork of small-scale, insufficient quality, short-term, and unsustainable health professional training initiatives … created unnecessary gaps or overlaps in resources, and failed to help meet long-term national health workforce needs'(10). The authors argue for a more prominent role by health ministries to coordinate these efforts (10). However, a concern with such an arrangement, which represents the position of health ministries, is the widely prevalent practice of choosing and supporting Northern partnership over Southern ones, and crowding out of some programmes that are not considered high priority by MOH.

The exclusive focus of universities on so called basic programmes, a common pattern in MOH's programme selection, can be detrimental to the needed mix in the range of public health professionals, in the context wherein only a few public health programmes and training institutions exist in the countries. This can also undermine internationalization of academic institutions with respect to the diversity of global programmes in public health. What is evident in this study is that universities or academics lack autonomy in this regard.

Contestation between health ministries and universities over issues of quality, relevance or alignment of training programmes with national priorities can be located in the debate about internationalization of higher education in Africa, wherein institutions engage in exchange of global knowledge and know-how towards executing their



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academic and research mandates (14,46). Academic institutions partnership with external partners can be characterized as having an internationalization agenda, whether it is training of academics abroad or adapting a new programme. Internationalization, which has an outward approach and emphasizes quality and standard, may not be aligned well with an inward focus of meeting local priorities. Jowi (2009) noted that the internationalization of higher education in Africa is motivated mainly by the need to revamp the academic and management capacity of the institutions, in the face of inadequate support from government. This explains predominance of well-resourced northern partners in internationalization initiatives in Africa compared to partners from south or the African region in particular despite a growing interest in the later types of cooperation (14). Finding coherence in the internationalization agendas is thus a daunting challenge that higher education institutions and governments in Africa grapple with in the context of lack of clarity regarding roles that the various actors play in the implementation of internationalization (47).

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**Need for strategic investment to support south-south cooperation of universities**

Despite the increasing demands put on universities to meet national health workforce needs, it was apparent in this research that there was not enough input to strengthen capacity of the public health training universities regarding personnel and infrastructure. The institutions are often expected to seek and get by with short-term solutions.

The findings of this investigation complement those of earlier studies that attributed the lack of diversity in training programmes in LMICs to the multifaceted shortage of



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resources facing training institutions including faculty and support staff, funding, capacity to develop teaching material and curriculum, and teaching spaces (10,11,13,48,49). This has been evident particularly in the context of University A, where the institution has fewer programmes than University B or University C due to lack of resources and support.

The successful introduction of the postgraduate programme on human resource management in University A suggests the important contribution that a south-south partnership can make. Literature on south-south cooperation reports on the fragile nature of such partnerships due to overreliance on funding from the North and capacity challenges to sustain partnership (34) despite their potential benefits in promoting Southern knowledge and experience, adaptability across partners, and non-hierarchical relationship (14,50,51) compared to north-south partnerships, whose success is undermined by "fundamentally unequal resource endowments and incentive structures" (52). The literature on partnership further maintains that a host of factors pertaining to environment, membership, process and structure, communication, purpose, and resources determine success of partnerships. (31,32)

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**Need for support and sustained engagement of programme champions**

Literature emphasizes the value of backing programme champions if they are to make progress in fulfilling their roles, and that they need to have qualities like seniority, credibility, personality, and leadership (53–55). Literature further highlights the significance of selecting the right personnel to execute the role of champion and support at their disposal (53,56). Our analysis also showed that programme champions' success



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in enabling introduction of programme and building coherence across the different actors depends on seniority, sustained engagement, or availability of resource and institutional backing.

Programme champion's role is as much political as technical. Their responsibility requires more than meeting curriculum approval standards, as they need to work towards securing endorsement from health ministries and other stakeholders to give the new programme legitimacy and required resources.

Taken together, the experiences of the three public health training universities resonate with other studies that recognize partnership and collaboration as key strategies for tackling complex challenges such as fostering innovation or improving performance (54,55,57). Our analysis further shows that partnerships to introduce postgraduate programmes in public health training universities are fraught with contested interests and priorities around what is feasible or relevant; and potentiality of success in embedding and sustaining programme depends on alignment, coherence and harmonization of differences among the various players.

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The findings from this study cannot be extrapolated to all public health training universities within the countries or the sub-Saharan region. The limited evidence suggests that universities within countries and in the region work with different set of actors, and have quite distinct experiences and relationships.

The study has two main limitations. First, determining impact and sustainability of new programmes, which are key but long-term aspects of capacity development, was not



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feasible within the limited period of this research. The focus of the research was thus limited to investigating processes, and short and medium-term outcomes of the intervention. Second, due to social desirability bias (58), and tensions between accountability and learning(59), participants may have been inhibited from fully disclosing failures that might reflect badly on themselves or their institution. We acknowledge the issue and strove to address it through long-term engagement, building trust and confidence with research participants to enable opportunities for open reflection and learning.

## Conclusions

Against the background of very limited human capacity and competition for this capacity, the process of introducing postgraduate programme in the three universities is a political as much as a technical undertaking influenced by multiple actors and agendas. The research shows that public health training universities are contested grounds among multiple actors (health ministry, education ministry, university, academics, and external development or training partners) vying for recognition or benefits, and influence over issues of programme feasibility, relevance or need. A successful introduction and further sustainability depend on alignment of interests and coherence in contribution of most of the actors, health ministries and universities in particular. Critical in the success of this south-south cooperation is support available to such initiatives; and how well programme champions are able to garner support for and ownership of programme locally. The paper argues that coherence and alignment are crucial to embed programmes, yet hard to achieve when capacity and resources are limited and contested.



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Table 4- Inventory of programmes running at the institutions at the time of the intervention

| University A | | University B | | University C | |
|---|---|---|---|---|---|
| Postgraduate Programmes | Mode of delivery | Postgraduate Programmes | Mode of delivery | Postgraduate Programmes | Mode of delivery |
| Health systems | Speciality track, special programme | Public Health | Face to face, regular, evening | Public Health | Face to face, regular Evening, Special programme |
| Human Resource development | Speciality track, special programme | Epidemiology | Face to face, regular, evening | Reproductive Health track | Speciality tracks, regular |
| Disease prevention | Speciality track, special programme | Field Epidemiology and Laboratory Management | Blended, regular | Health Service Management track | Speciality tracks, regular |
| Public Health and Bioscience | Special programme | International Health Management | Special | Epidemiology | Speciality tracks, regular |
| | | Health and Hospital Management | Blended, Regular | Environmental Health | Speciality tracks, regular |
| | | | Regular | Field Epidemiology | Special programme |
| | | | | Public Health Nutrition | Regular programme |
| | | | | Hospital Administration | Special programme |
| | | | | Health Informatics | Special programme |



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| | | | | | |
|---|---|---|---|---|---|
| | | | | Hospital and Health Care Administration | Special programme |
| | | | | Health Economics | Special programme |

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**Paper 4 - Exploring multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries: drivers, impact, and regulation**




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Woldekidan Kifle Amde, David Sanders, Baltazar Chilundo, Etienne Rugigana, Damen Haile Mariam & Uta Lehmann

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# Exploring multiple job holding practices of academics in public health training institutions from three sub-Saharan Africa countries: drivers, impact, and regulation

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**ABSTRACT**

**Background**: The paper examines external multiple job holding practices in public health training institutions based in prominent public universities in three sub-Saharan Africa countries (Rwanda, Ethiopia, Mozambique).

**Objective**: The study aims to contribute to broadening understanding about multiple job holding (nature and scale, drivers and reasons, impact, and efforts to regulate) in public health training schools in public universities.

**Methods**: A qualitative multiple case study approach was used. Data were collected through document reviews and in-depth interviews with 18 key informants. Data were then triangulated and analyzed thematically.

**Results**: External multiple job holding practices among faculty of the three public health training institutions were widely prevalent. Different factors at individual, institutional, and national levels were reported to underlie and mediate the practice. While it evidently contributes to increasing income of academics, which many described as enabling their continuing employment in the public sector, many pointed to the negative effects as well. Similarities were found regarding the nature and drivers of the practice across the institutions, but differences exist with respect to mechanisms for and extent of regulation. Regulatory mechanisms were often not clear or enforced, and academics are often left to self-regulate their engagement. Lack of regulation has been cited as allowing excessive engagement in multiple job holding practice among academics at the expense of their core institutional responsibility. This could further weaken institutional capacity and performance, and quality of training and support to students.

**Conclusion**: The research describes the complexity of external multiple job holding practice, which is characterized by a cluster of drivers, multiple processes and actors, and lack of consensus about its implication for individual and institutional capacity. In the absence of a strong accountability mechanism, the practice could perpetuate and aggravate the fledgling capacity of public health training institutions.

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## Background

It is evident from the literature that multiple job holding is a pervasive phenomenon in the public sector and in higher education institutions (HEIs) in many countries [1–5]. The practice is known by different names, such as dual practice, dual job holding, moonlighting, multiple job holding, dual employment, multiple employment, dual working, double work, and plural employment [5].

In multiple job holding, staff augment basic salaries by engaging in a wide range of academic and nonacademic activities within and outside their home institutions [6,7]. How the practice is viewed and judged varies. Many [6–8] recognize and understand the underlying reasons. A World Bank report points out, 'With wages so low, it is difficult to condemn such behavior' [8]. Altbach recognizes the significance of multiple job holding beyond the additional income, and mentions its contribution in expanding the scope of experience and expertise of educators [6,7].

At the same time, others [8,9] have argued that external multiple job holding is detrimental to the academic quality in HEIs, suggesting that 'Faculty moonlighting is . . . one of the more serious problems faced by higher education in developing countries' [8]. It is argued that the practice further undermines the already weak capacity of health professional training [10].

It is widely recognized that HEIs in sub-Saharan Africa lack critical inputs to fulfill their mandates of developing the next generation of professionals [11]. This holds true for public health training as well [12].

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The region has one of the lowest numbers of public health academics globally, with one study suggesting that the continent has a similar total number of public health academics as a major public health school in the North [13]. Amde et al. (2014) argue that underlying the lack of national leadership and capacity for health workforce development is weak capacity in public health training institutions [12].

Brain drain and predatory practices of Non Gorvernmental Organizations (NGOs) in the health sector have received attention and criticism, for example in the context of Global Health Initiatives [14]. However, it appears that the phenomenon of brain drain in general, and multiple job holding in particular, in public health training institutions has received relatively little national and international attention.

This study investigates the phenomenon of multiple job holding in three HEIs in the context of debates about capacity for public health education in Africa. It explores drivers and reasons, impact, and efforts at regulating practices. It seeks to illustrate the complex balancing act HEIs perform in having to attract or retain staff against competition for expertise from international NGOs, meeting their academic mandates, and working within the constraints of public service regulations. The study aims to contribute to broadening our understanding generally about what perpetuates weak capacity at Public Health training institutions in Africa, and specifically about the practice of multiple job holding in public health training departments in prominent public universities in three sub-Saharan Africa countries, namely University of Rwanda (UR), University of Eduardo Mondlane (UEM, Mozambique), and Addis Ababa University (AAU, Ethiopia). The institutions represent the oldest and most prominent training centers in the respective countries.

This research is part of a larger project assessing mechanisms that influence the design and implementation of an African capacity development partnership of universities to strengthen national leadership and training capacity in health workforce development in sub-Saharan Africa [12].

## Methods

This paper uses a qualitative multiple case study approach, which facilitates understanding of multiple instances of a phenomenon across varying contexts [15–19]. The research seeks to examine external multiple job holding in public health training institutions across three countries towards a broader understanding of the phenomenon in sub-Saharan Africa.

Eighteen participants were selected purposively from the three institutions (UR, UEM, AAU) based on their affiliation to the African capacity development partnership for health workforce development. The informants were involved in teaching or management and included mainly academic staff [17], with a few holding senior management roles in the institutions, and one administrative staff [1]. Semi-structured interviews were conducted with key informants, exploring a range of matters related to the partnership for health workforce development in general, and external multiple job holding in particular. The first author conducted face-to-face interviews with key informants (eight in Ethiopia, five in Rwanda, and five in Mozambique) between June 2014 and March 2015.

Documents pertaining to multiple job holding were also reviewed, including institutional reports, senate legislation, institutional strategic documents, consultancy guidelines, and news reports. The review served to generate data that respond to the research question, specifically about efforts to regulate the practice.

The data gathered from multiple sources using multiple methods was analyzed thematically, with themes generated deductively from the research question and inductively from data [19–21]. Broad analytical themes that pertain to various aspects of the phenomenon were drawn from the research question: What are the practices and perception about external multiple job holding and regulatory mechanisms? Categories that relate to the aforementioned themes were induced from the data. Three of the authors (ER, BC, and DHM) are members of the three public health training institutions, and hence acknowledge drawing on and incorporating their experiences.

Ethical clearance to undertake the research was obtained from the Senate Research Committee of the University of Western Cape, South Africa. The researchers strove to ensure confidentiality and anonymity of participants by removing any identifying information, and using systematic codes to refer to respondents [22,23].

## Results

### *Scale and nature of practice*

External multiple job holding was a prevalent practice among the public health training institutions in all three study countries. The practice was common among both senior and junior staff. Academic staff in the public health training institutions sought additional academic or nonacademic employment outside the home institution in the form of consultancies, clinical practice, provision of on-the-job training, teaching in other HEIs, commissioned research, etc., which happened with or without the knowledge/approval of the training institution.

One of the most commonly reported external multiple job holding opportunities was accepting

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teaching positions in the booming private HEIs. While this was widely practiced and popular in all three countries, according to one of the reviewed resources [24], Mozambique recently introduced a ban against academics in public HEIs teaching in other HEIs – a ban that met with substantial criticism: '… many higher education institutions and lecturers are unhappy [with the ban]…. Critics said the movement of teachers was helping to address the problem of shortages of quality academic staff and was augmenting low academic salaries' [24].

One key informant suggested that the ban was not only criticized but also rarely observed, and the practice persisted. In Ethiopia, faculty also taught in the new public universities, which did not have adequate teaching staff of their own.

With respect to acting as consultants, key informants in Ethiopia and Mozambique suggested that staff were at liberty to seek and engage in consultancy without the knowledge/approval of the institution.

Clinical practice was also cited as one of the external engagements among academics. The institutional reports showed that the majority of academic staff had clinical backgrounds (66 and 97 percent in the Ethiopian and Mozambican cases, respectively).

## Drivers and reasons

Different factors at individual, institutional, and national levels, such as low salary, poor working conditions, and poor incentive structures, were reported to underlie and mediate the practice. These factors are discussed below.

### Poor working conditions

Many key informants from the public health training institutions characterized their experience as educators in their respective public institutions as increasingly demanding and alienating. The institutions have relatively small staff complements considering the growing number of undergraduate and postgraduate students. As depicted in Table 1, in 2017 the permanent staff numbers in the Ethiopian and Rwandan cases seem comparable (42 and 48, respectively). The institution in Mozambique had only 14 permanent staff, and was found to rely more on contract staff than the other institutions (eight in Mozambique, and two each in Ethiopia and Rwanda). The number of students enrolled in both undergraduate and postgraduate programs in Ethiopia was the highest of the three institutions, perhaps due to the 'flooding strategy' the country has been pursuing recently.

It was evident that many experienced ever-growing workloads, as a result of a proliferation of programs and increasing enrollment targets (See Table 1).

> *… When we try to calculate workload according to the Excel sheet they [the university] provide us, you see that for a lecturer for example, you must not go beyond 900 hours. When I try to fill this I find 1800 … or 2500 [hours]. You find that it is a bit crazy. That is evidence that we are not* enough. (Senior academic staff member, Rwanda)

> *This is the oldest school in public health. … But today from 21 medical departments, you will only find eight or nine professors. They may not have four assistant professors. But you look at the student number; it is massive at all levels including PhD. If we don't find solutions [in a timely manner], it breeds further and complicated problems.* (Senior academic staff member, Ethiopia)

### Poor incentive structure

Key informants reported that the demands imposed on educators were not commensurate with the salaries they earned, which compared unfavorably with salaries paid in NGOs, state-owned enterprises, or the private sector. They asserted that their salaries covered only a portion of their living expenses. A key informant from Rwanda described the situation as being grossly unsatisfactory:

> *In our country [the] academic sector is not attractive. … I could [earn] two times, three times my salary if I [went] to [the] Ministry of Health or [an] NGO.* (Senior academic staff member, Rwanda)

**Table 1.** Profile of public health training institutions.

| Institutional profiles | | UEM | UR | AAU |
|---|---|---|---|---|
| Year department established | | 1962 | 2001 | 1964 |
| Number of academic staff in 2017 | Permanent staff | 14 | 48 | 41 |
| | Contract staff | 8 | 2 | 2 |
| Gross salary per month for different staff levels in 2017[1] | Full Professor | 1078 USD (32,360,00 MZN) | 2240 USD (1.870.731 RWF) | 880 USD (20,245 ETB) |
| | Assistant Professor | 674 USD (20,240,00 MZN) | 1847 USD (1.542.447 RWF) | 583 USD (13,420 ETB) |
| | Lecturer | | 1115 USD (931.500 RWF) | 455 USD (10,470 ETB) |
| Number of students in 2017 | Undergraduate | 268 | 222 | 4000[2] |
| | Master's | 88 | 83 | 283 |
| | PhD | 0 | 12 | 45 |

[1]Does not include allowances, Exchange rate: 1USD = 835 RWF/ 23 ETB / 30 Meticais.[2]No undergraduate public health program but courses taught to medical and other health sciences students.

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Grievances concerning their salaries on the part of educators were described as longstanding and substantially unchanged, despite many pledges by their respective governments. Academics expressed their pessimism about the willingness and ability of government to introduce significant increases in their salaries.

> *I don't think the state/government is ready to pay for staff to be full time here at the university. I don't think they are ready for that. They [would] have to make it [salary] four [times] what it is now.* (Senior academic staff member, Mozambique)

> *Government claims it is going to fix this, and has taken ownership of the problem. We don't see anything.* (Senior academic staff member, Ethiopia)

> *The problem is massive. It is also related to [the country's] development. Everything has been tried to reform the civil service system.* (Senior academic staff member, Ethiopia)

A closer look reveals that academics earn comparable base salaries to their peers in pubic sector/civil services, but some participants emphasized that benefits in the public sector are bigger than in HEIs. The grievance, however, seems to be triggered in comparison to salaries in state-owned enterprises, or NGOs or international agencies, to which HEI staff members' salaries are inferior.

> *University remuneration used to be comparable to all the prestigious profession[s] such as airlines and telecommunications. This declined over time. University lecturers have to do consultancy.* (Senior academic staff member, Ethiopia)

> *For the same level of [degree [master's]) the salary of [the] public sector is almost the same, but for the public sector, they have additional advantages: transport, communication … so [in] the end, the public sector officer earns almost twice the academic.* (Senior academic staff member, Rwanda)

With the current salary levels and working conditions, attracting qualified staff was reported to be daunting. Many institutions struggle to fill vacancies in the context of high turnover rates. It was evident from the responses that faculty members often left their posts to join international agencies at home or abroad:

> *It [the salary] is not something [that attracts] people. We have lost different qualified staff in [recent] years. Many colleagues went to Europe… some are in Brazzaville, Geneva, US. This is why we are suffering from [a] shortage of qualified staff'* (Senior academic staff member, Rwanda)

Most of the turnover was characterized as causing dysfunction, with the most senior and most qualified, who are hard to replace, being the most highly sought after, especially by international agencies/external development or training partners. Unable to attract senior staff, institutions thus resort to hiring junior staff to replace the departing seniors:

> *As if it is a resignation letter, the moment they [academics] get their professorship they leave the institute for a local or international post. They can get a better salary nationally. [If] they join [international agencies] … there [are] lots of them… Most of them are staffed with former university staff. … We have [now mostly] fresh graduates, who could not teach [as educators]. We all started that way. The difference is that we had mentors…. In most universities [currently], we don't have that [mentorship].* (Senior academic staff member, Ethiopia)

Key informants from universities suggested that staff found it hard to turn down opportunities that come their way due to associated financial benefits and the unpredictable nature of opportunities for multiple job holding. As a result, they were inclined to take up as many external jobs as possible:

> *I have to run after money, unfortunately, to survive. My salary is definitely not enough. It does not pay half of my bills. I have to find [additional income]. … Generally it [my salary] pays for my house rent, and maybe one of my kids' school [fees]. No more than that.* (Senior academic staff member, Mozambique)

## Impact

### Benefits to academics

Key informants emphasized that training institutions were able to attract and retain staff not for the salary, but because of the opportunities they afford for generating additional income, through involvement in training, research, and outreach programs. Although a few mentioned intrinsic benefits like recognition and reputation as major attractions, the possibility of being able to engage in multiple job holding seemed to be regarded as inherent to, and the principal advantage of, working in the university, compared to working in the private sector or an NGO:

> *I like the [university] employment because it is flexible. I can do something else. Even without any authorization here.* (Senior academic staff member, Mozambique)

> *One of the advantages of working [in public higher education] is that you have the freedom. … As long as I keep [the] class schedule, and secure my responsibility, no one is bothered where I am. … That is the biggest incentive. The freedom. If that was not there, no one [would want] to stay.* (Senior academic staff member, Ethiopia)

### Risks to academic institutions

Despite the above claims that multiple job holding was beneficial and had little negative impact on the core responsibilities of faculty and institution, some key informants argued otherwise. They suggested that the discretion faculty have, and the

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marketability of their expertise (in the booming NGO sector, private HEIs, and private hospitals) is a major distraction from their teaching and research responsibilities.

> *The low payment spur[s] staff to chase consultancy service[s], which is detrimental to their teaching practice … Some staff [are] said to only show up a few times [in] the whole year, and [try] to fit a semester course [into] three days.* (Senior academic staff member, Ethiopia)

According to participants in this study, research and publications particularly suffer due to external multiple job holding, and there is little incentive for academic staff to publish. Some staff even dedicated their sabbaticals to taking up short-term employment in the private or NGO sectors.

This seems to be further aggravated by poor motivation, which was reportedly related partly to the lack of support faculty receive for engagement in research and publication in the training institutions. The universities did not appear to have any specific time-bound expectations regarding research publications, and no associated incentives either. When asked if the heavy involvement of academics in consultancy work interfered with responsibilities such as teaching and publication, one key informant replied:

> *As teaching is well planned [it doesn't affect it so much], [but] it is undermining publishing … We have a lot of data, sometime[s] some people don't have time to go through [the data and publish].* (Senior academic staff member, Rwanda)

## Efforts to regulate

### Broad policy

Each institution has a formal policy/legislation/strategic document (see Table 2) that makes provisions for academics to engage in external multiple job holding on condition that it does not interfere with the primary job responsibility [25–27]. A closer look at the policies shows that they all emphasize the importance of realizing the institutional mandate and protecting the reputation of the institution. However, except in the case of the Rwandan institution, where academics are required to seek permission from their home institution prior to involvement in external jobs, the policies were found to be too broad and vague to operationalize or serve as an accountability mechanism. Key informants across all contexts reported that regulatory mechanisms were either not clear or not enforced. Even in the case of the Rwandan institution, there were reports of undeclared participation in external multiple job holding.

**Table 2.** Institutional policy about external multiple job holding.

| UEM, Mozambique | UR, Rwanda | AAU, Ethiopia |
|---|---|---|
| *'It is the responsibility of departments and research centres to promote the transfer of knowledge, produced by research, to decision-making bodies, the productive sector and society, in general, through extension activities. For this, it is urgent … [to] regulate extension, consulting and service activities by the units and centres, as well as by teachers and researchers, providing incentives that stimulate the teacher and the researcher'.* [25] | UR recognizes the benefit of its staff undertaking consultancy services … to enhance financial capability of the university and staff as well as contribute to the development of the core activities of the university particularly research. ... UR staffs are encouraged to engage in consultancy as a valued and legitmate activity. … University employees are permitted to undertake … consultancy activity … with approval of the College Principal. [26] | *'No academic staff shall undertake any outside activity, which may impair his usefulness to the University or conflict with his duties. The provisions of this shall, however, not be deemed to constitute a bar on an academic staff from participating in social organizations, civil societies, professional associations or consultancy services."* [27] |

### Weak practice

Key informants reiterated that freedom and flexibility to undertake external work came with certain responsibilities, and staff were expected to deliver on their basic responsibilities to students, the university, and donors. However, there were challenges in this regard, and the extent to which faculty lived up to this expectation varied, depending on self-regulation:

> *There is no limit to how much work you can do … as long as your routine work is not affected. … The practice of the staff in this regard depends on personal commitment. There are those who do it well, and those who don't.* (Senior academic staff member, Ethiopia)

There was little effort in terms of supervision and enforcing regulations. The tacit tolerance may have emanated from appreciation of the poor incentives and working conditions under which academics operate, or the substantial funding the institutions generate in terms of research or contract overheads.

> *In my department they [junior staff members] are quite free. I am not telling them "you are free to do this." I know they are finding ways. I am not controlling their entire time presence; I just want results for my department.* (Senior academic staff member, Mozambique)

The institutional arrangements to generate funding through high overheads, which are often not matched with adequate administrative support, have led some academics in Rwanda and Ethiopia to undertake consultancies without the knowledge of the home institution. This is done with the

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intent to pay relatively low overheads, or circumvent the perceived lack of administrative support from their home institution, such as expediting release of project funds.

> *[Since 2015] an academic staff [member] involved in a consultancy should [receive] only about 32 percent of the amount [paid for the] consultancy: the remaining [goes to] taxes and [the] university … meaning that motivation [for] doing consultancy is decreasing unless some faculty apply to consultancy [posts without declaring this] at [the] university level.* (Senior academic staff member, Rwanda)

## Discussion

This study contributes to the body of literature on multiple job holding practice by highlighting the complex nature of the phenomenon involving multiple processes and actors with differing interests. External multiple job holding practice among academics in public health training institutions has multiple drivers, evokes contrasting views about its impact on academics' or institutions' capacity and performance, and raises the issue of the viability and implications of strategies to regulate the practice.

This study has shown that external multiple job holding is a longstanding and ubiquitous practice among academics across all three public health training institutions considered. Findings from the study illuminate different aspects of the practice. Locating academics in the institutional and local realities in which they operate was found to help advance understanding of the nature and pervasiveness of the phenomenon in the respective settings. The institutions under examination are experiencing growing enrollment, poor incentive structures, and poor retention and attraction of qualified staff (see Table 1).

Perceptions regarding academics' engagement in external multiple job holding practice (teaching, clinical practice, and consultancy) varies. The excessive and unchecked external engagement by some academics is considered by most to undermine the capacity of home institutions to accomplish their core responsibilities. Conversely, positive sentiments towards the practice exist in relation to the additional income it affords academics, which some even credited with attracting or retaining employment of qualified academics in public universities. Furthermore, some highlight the contribution of the practice towards promoting the profiles of academics and institutions.

One of the important findings of the research is that it reveals that few accountability mechanisms exist or succeed with respect to the practice. The broad guidelines the institutions have in this regard (see Table 2) are not observed or enforced effectively, leaving academics to self-regulate. This high level of tolerance academics enjoy in the institutions seems to be strongly related to the following conditions: appreciation of the poor working conditions and payment in the institutions; inability of the institutions to enforce restrictions under these circumstances without losing academics to better-paying international or local NGOs; or reliance on the substantial funding the institutions generate in terms of research or contract overhead.

Academics seeking multiple job holding to supplement their meager salaries is a scenario that is well documented in the literature [28,29]. The positive views and benefits of external multiple job holding, similar to the ones mentioned in this study, are also highlighted in the literature. Multiple job holding helps increase income and expand the scope of experience and expertise of educators, which contributes to enhancing the quality of academic engagement in the main institution [7].

By contrast, the study reveals that if left unchecked, academics may abuse the privilege of participating in external multiple job holding, which undermines faculty performance and the realization of institutional mandates. The practice was reported to particularly affect academics' availability for and performance in teaching responsibilities, and to reduce the drive for research productivity. This supports observations made in other studies about the negative implications of external multiple job holding, with many characterizing any additional job holding outside the institution as detrimental to the academic quality in the public institution [6,7,28–30]. '[Moonlighting] affects public universities in an undesirable way [… resulting in] low or non-existent publication records, and little time to supervise students and prepare quality lecturers' [28].

Literature also supports our findings about the excessive engagement of academics in multiple job holding practice in response to the uncertainty/scarcity of external multiple job holding opportunities and the pressure of maintaining the standard of living made possible by additional income from multiple job holding. A multi-country study on multiple job holding reported: 'For many academic staff in most of the countries … a middle-class income requires additional employment' [7] in a context wherein HEIs were considered part of the public sector, which meant working under poor conditions and low salaries [7,9].

The study revealed that the institutional arrangements in the public universities afford faculty members the freedom and time to engage in external multiple job holding. Similar claims were made in two studies conducted in Ghana [31] and Cameroon [32]. 'Apart from the financial motive that drives an individual's decision to moonlight, the engagement of moonlighting on account of lower working hours in the individual's main job could be a symptom of visible or time-related underemployment' [31].

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As reiterated in this study, the culture of tolerance towards the practice was what drives many to seek employment or continue to work for the institution. Against this background, putting in place appropriate strategies to regulate the practice is a complex undertaking. A group of experts from 13 countries, who deliberated on 'perils and promises' facing HEIs in developing countries, identified as major challenges the practice of unregulated external multiple job holding and lack of accountability mechanism thereof [8].

Contestations around ways to address the phenomenon or its negative implications are common in the literature. Altbach et al. (2012) call for recognition of the multifaceted and complex nature of the challenges facing the academic profession, and the need to address issues like external multiple job holding in a concerted manner [7]. In line with this, some measures to address the low pay in public institutions were also criticized for being too limited, using the wrong indicators, or focusing more on research than teaching, perhaps due to the difficulty of measuring the latter [24,29].

Literature on external multiple job holding among health workers also warns against restrictions such as banning outside professional practice in the public health sector, in the context of low salaries and staff possessing highly marketable skills [33]. 'Preventing professionals from undertaking private practice may induce them either to leave the sector entirely or migrate overseas' [33].

The state of brain drain and multiple job holding in public health training institutions evidenced in this study reflects the situation of clinicians in many respects [3]. Firstly, a significant proportion of academics have clinical backgrounds, with high demand for their expertise in academic or nonacademic work, including clinical practice. Secondly, the private sector and NGOs, both national and international, play a prominent role in enticing senior faculty, and contributing to the high turnover rate and vacant positions. This has been substantiated by previous studies, such as one in Ethiopia that highlighted an overall turnover rate of 92.8 percent within a 20-year period in the medical faculty, with the public health department being one of the most affected [34].

In the context of weak health systems and very inadequate public health capacity in the countries regarding trained personnel, it is ironic that external agencies in Low and Middle Income Countries (LMICs), which are primarily meant to engage in health system strengthening, inadvertently undermine the national ability to strengthen public health through training and research.

The findings of this research reflect the diversity of perceptions and experience of participants about various facets of external multiple job holding practice in the three public health training institutions. However, the findings cannot be generalized to other public health institutions in the countries. Future research should focus on measuring the magnitude of practice and its multifaceted reasons and implications, and assess the effectiveness of existing approaches targeting the practice to inform future intervention.

## Conclusion

External multiple job holding practice is a complex phenomenon characterized by multiple drivers, processes (formal or informal), actors (internal or external to the main institution), and divergent interests. The practice is also marked by a lack of consensus about its implications for individual and institutional capacity, and the nature and scope of regulatory mechanisms targeting the practice. In the context of a complex set of interacting drivers, public health training institutions make provisions for academics to be involved in the practice as a strategy to attract/retain staff or generate funds/reputation for the institutions. In the absence of a strong accountability mechanism, the practice can perpetuate and aggravate the fledgling capacity of public health training institutions.

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## Author contributions

WA, as part of a PhD project, collected and analyzed data, and conceptualized and wrote the paper. UL and DS are PhD supervisors and provided substantive input to the conceptualization of the paper, interpretation of findings, and writing of the article. BC, ER, and DHM contributed to reviewing country-specific documents, and revising and interpreting country-specific details in the article. All authors have read and approved the final version of the manuscript.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Ethics and consent

This research is part of a larger doctoral project assessing a partnership of universities that aims to strengthen national leadership and training capacity in health workforce development in sub-Saharan Africa. Ethical clearance to undertake the research was obtained from the Senate Research Committee of the University of Western Cape, South Africa.

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## Paper context

Public health training institutions in sub-Saharan Africa assume a prominent role in training the next generation of health professionals and addressing the myriad health challenges facing countries. These institutions, however, face multifaceted challenges in fulfilling their mandates, and efforts to strengthen capacity are mediated by a range of factors. This study seeks to gain an understanding of the capacity implications of external multiple job holding, which is a widespread phenomenon for public health training institutions in public universities in the region.

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# OFFICE OF THE DEAN
# DEPARTMENT OF RESEARCH DEVELOPMENT

05 December 2012

**To Whom It May Concern**

I hereby certify that the Senate Research Committee of the University of the Western Cape has approved the methodology and ethics of the following research project by:
Mr W Amde (School of Public Health)

| | |
|---|---|
| Research Project: | Unpacking capacity development: A systemic exploration of a partnership of African universities to develop capacity on health workforce development. |
| Registration no: | 12/10/19 |

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

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The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias*
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