Professional Doctoral Program in Public Health (DRPH): Ghana Assessment

Assessment of the Relevance and Optimal design for a professional doctoral program in Public Health for Africa with a focus on strategic leadership for health system reform and development in Sub-Saharan Africa: Ghana Country Report

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We thank the key informants who participated in the individual in-depth interviews. Please see Annex 1, "Brief profile of Key Informants for the in-depth interviews.

We thank the senior and mid level directors and managers at regional and district level in the Greater Accra and Eastern regions that participated in the program needs assessment and competencies validation survey

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Executive Summary

Introduction

The classic terminal degree is the Doctor of Philosophy (PhD) degree. This training is predominantly structured and targeted at those who wish to pursue more academic teaching and research career paths rather than professional practice pathways. Another type of terminal degree, the Doctor of Public Health (DrPH) degree addresses the need for a terminal degree targeted at people who want to use the training, skills and capacity predominantly in practice. The DrPH is a professional, interdisciplinary degree. The DrPH aims to prepare individuals for evidence-based public health leadership, including practice oriented research and field-based roles. While the concept of DrPH is not a new one and there are several programmes on offer in the US, Europe, and Asia; there has not previously been a DrPH programme available anywhere in Africa.

To fill this vacuum, a collaborative initiative between the University of Ghana School of Public Health, the Gillings School of Global Public Health University of North Carolina at Chapel Hill (US); the University of the Western Cape School of Public Health, and the University of Cape Town School of Public Health and Family Medicine (both in South Africa), and Makerere University School of Public Health (Uganda) is developing a pan African DRPH with support from the Rockefeller foundation. The aim is to offer a world-class DrPH programme based in Africa to support health systems reform and development in Africa.

Objectives of the assessment

The current study is part of an assessment in Ghana, Uganda and South Africa. This report focuses on the Ghana assessment. The aim of the wider study of which this is a part was to analyze context, institutions, programs, actors and needs in relation to health sector strategic leadership capacity development needs to inform the customization of the design of the most relevant professional doctoral level public health training (DRPH) for Africa, in terms of content, mode of delivery and contextual relevance.

Methods

A mixed methods cross sectional case study approach was used. Data collection methods involved a non exhaustive desk review, key informant in-depth interviews with past and present strategic level health sector leaders and an interviewer administrated questionnaire with closed and open ended items for middle and senior level managers.

The desk review aimed to provide information on context, institutions and already existing strategic level leadership programs.

The aim of the key informant in-depth interviews was to understand perspectives of experienced senior and strategic level health sector leaders on the relevance of professional doctoral level training, the competencies needed and what would be relevant program design approaches. Twelve in-depth key informant interviews were held with past and present leaders in the health sector and in health related academia.

Those interviewed occupied or had occupied positions such as Director Generals of the Ghana Health Service; Chair of professional council, Chair of foundation, Executive Director of the Christian Health Association of Ghana, Head of a Research Institute and academic leadership positions e.g. Departmental head, Pro Vice Chancellor. Their professional backgrounds included physicians, pharmacists, researchers and academics.

The mid and senior level manager interviews aimed to understand their perceptions of need for a professional doctoral program in the form of a DrPH; and relevance of the DrPH competencies developed by the Association of Schools and Programs of Public Health (ASPPH)[1]. The ASPPH competencies are in domains with sub-domains as summarized below.

- Advocacy: The ability to influence decision making regarding policies and practices that advance public health using scientific knowledge, analysis, communication and consensus building
- Communication: The ability to assess and use communication strategies across diverse audiences to inform and influence individual, organization, community and policy actions
- Community /cultural orientation: The ability to communicate and interact with people across diverse communities and cultures for development of programs, policies and research
- Critical analysis: The ability to synthesize and apply evidence based research and theory from a broad range of disciplines and health related data sources to advance programs, policies and systems promoting population health
- Leadership: The ability to create and communicate a shared vision for a positive future; inspire trust and motivate others; and use evidence based strategies to enhance essential public health services
- Management: The ability to provide fiscally responsible strategic and operational guidance within both public and private health organizations for achieving individual and community health and wellness
- Professionalism and ethics: The ability to identify and analyze an ethical issue: balance the claims of personal liberty with the responsibility to protect and improve the health of the population; and act on the ethical concepts of social justice and human rights in public health research and practice
- Systems thinking: The ability to recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities and environments
- Competence integration and application: This has to do with how leaders are able to effectively pull together, inter-related and integrate linked concepts from different domains and be able put it all together to effectively lead change

A total of seventy-eight respondents (78) at district and regional level mid and senior management were interviewed with an interviewer administered structured questionnaire. Fifty one (51) of these respondents were from the Eastern and 27 from

[1] ASPPH Education Committee. Doctor of Public Health (DrPH) Core Competency Obtainable from: www.asph.org

the Greater Accra regions. Fifty respondents (65%) were female. Their ages ranged from 30 to 65 years with a mean of 47 years (SD 9) and a median age of 46 years. The majority of the respondents 73/78 (i.e. 94%) were based in a district, municipal or metropolitan health directorate or hospital. The rest were at the regional health directorate.

Findings

In our desk review to identify currently available graduate programs with a focus on leadership; we found two already running (a Bachelors and a Masters) and one in the last stages of planning (a doctoral) graduate programs in Ghana. None of these programs was specifically targeted at the health sector. However the generic nature of many of the issues in leadership and governance meant that the GIMPA Executive masters program was attracting a fair number of senior people from the health sector. The programs were:

- Ghana Institute of Management and Public Administration (Public)
    - Executive Masters in Governance and Leadership (Established)
    - Doctor of Philosophy (PHD) in Governance, Leadership and Public Administration (in final planning stages)
- Graduate School of Governance and Leadership of the Almond Institute (Private)
    - Bachelor of Science in International Business Administration and Global Leadership

All our key informants felt that the concept of a terminal professional degree in the form of a DrPH to offer professional level doctoral training in health was relevant. From their experience the skills and competencies needed at the strategic level of leadership in the health sector, and that the program needed to help support and nurture included:

- Providing Vision and Inspiration
- Core personal values /character qualities of integrity and trustworthiness
- Understanding of the technical area in which you are a leader
- Skills for interacting with and managing people
- An understanding of the context in which the leader is operating
- A results /output oriented approach
- Skills in creating change
- Ability to put the interest of the organization before personal interests when there is any conflict of interest
- Ability to adapt
- Skills and knowledge to leverage the political system
- Crisis management skills
- Policy analysis and development skills
- Management skills /competencies
- Creating systems that work
- Leadership as hard work and service
- Gender sensitivity

They felt the core competencies developed by the Association of Schools and Programs of Pubic Health (ASPPH) encompassed these competencies and were therefore of relevance for an African program..

In relation to program design; they suggested that program design should emphasis learning by doing with the emphasis on professional practice and application of theory to practice. Formal training was important and had a role to play in helping learners to become conversant with relative theory that was applicable to professional practice. Related to this it was better to have short periods on campus for learning related to theory as well as peer to peer and peer to facilitator engagement with workplace based learning inbetween. Apart from academic supervisors, it was important to link trainees to professional practice based mentors who could support them and also to encourage self directed learning.

In the semi structured questionnaire interview with 78 mid and senior level managers 71 (91%) felt the concept of a professional doctoral level leadership training program was potentially of relevance to them. The most frequent reason it was seen as relevant was because of a general desire to upgrade and expand their knowledge and skills base in order to perform better. Other reasons included interest in enhancing leadership skills, career progression and academic appointment opportunities, combining one's practical experience with higher-level training, improving capacities to design and develop plans, and influence policy, to improve research capacities, and to improve service delivery overall. The 9% who felt DrPH training was not relevant felt terminal training was only important for academic reasons or more of a personal ambition issue and not very necessary for professional practice.

When asked to indicate whether on an item by item basis whether the ASPPH competencies were relevant the respondents were overwhelmingly positive about the relevance of these competencies; with 89 – 100% "agree" for each of the individual sub-areas.

In conclusion

(1) Professional doctoral training in public health (DRPH) is perceived as relevant and timely for the health sector in Ghana
(2) There is a high congruence between the competencies for DRPH training developed by the Associations of Schools and Programs of Public Health and the competencies that our respondents perceived as relevant for DRPH training
(3) The target group for any DrPH program should be people who already have extensive experience in leadership at the operational level and higher in the health sector
(4) The intellectual rigor of terminal (doctoral level) training should be applied in the program but with an emphasis on practice, application, innovation, leadership and management
(5) An approach that involves a mix of short periods of campus residence with in between periods that enables work place based learning was felt to be the most relevant capacity building approach. The laboratory of professional practice is the workplace.

(6) The details of the optimal mix of residence periods and work place based learning need to be carefully worked out to be contextually relevant and feasible
(7) Contact between trainees and facilitators as well as between trainees and other trainees needs to be maintained in-between the residence periods since learning was felt to be best done by a mix of self directed learning, peer to peer learning and facilitator and mentor supported learning
(8) Learning has to be peer to peer as well as peer to facilitator and draw on the experience of the learners
(9) Learning must also be practice based with an emphasis on application of theory rather than didactic and predominantly theory based
(10) Trainees must already be technically proficient in the field of public health and their area of practice. A leader in any field must understand the field. Purely managerial and administrative expertise without an understanding of Health and the field of Public Health is inadequate for those who aspire to be leaders within health systems.
(11) Trainees must therefore have relevant masters e.g. and MPH and practice experience. In the absence of this, they will have to acquire a core understanding of the field before completing a DrPH.

1. Introduction

Leadership is an orientation and a capacity, and must be nurtured carefully and deliberately at all levels in institutions and organization that want to succeed in attainment of their mission and goals. (John Adair). Important in this process, is the appropriate selection, training, support and mentoring of present and future leadership. Much effort has been put into supporting training for health system managers and leaders in sub-Saharan Africa. This has typically taken the form of Masters of Public Health (MPH) training. This wave of operational leadership capacity strengthening in sub-Saharan Africa, targeted primarily at the district (i.e. mid-level) can be charted back to the Alma Ata Declaration of 1978.

In Ghana, as a result of this focus and the establishment of the University of Ghana School of Public Health in 1994; the situation has greatly changed from inadequate numbers of district level and higher managers with MPH training to a situation in a critical mass of public health professionals with MPH training have been trained and continue to be trained each year.

During this period, the assumption has been that Masters training plus years of service and experience will automatically result in the needed leadership and strategic management skills as staff move up to higher leadership positions. Indeed an MPH is alongside professional public health practice experience is a critical part of leadership development. However guiding and facilitating this process can greatly improve it. With the easing of the pressure of building capacity and filling in the mid level management and leadership gaps; it is time to pay more attention to how to more formally supporting higher level management and leadership capacity in the health system in Ghana.

Traditionally the terminal degree or training beyond the level of a masters has been the Doctor of Philosophy (PhD) degree. Classical doctor of Philosophy (PHD) training however is predominantly structured and targeted at those who wish to pursue predominantly academic career pathways rather than predominantly professional practice pathways. Another type of doctoral-level degree, the Doctor of Public Health (DrPH), addresses the need for a terminal degree targeted at people who want to use the training, skills and capacity predominantly in practice. The DRPH is a professional, interdisciplinary degree specifically targeted to strategic level leadership in health systems and health sector institutions and organizations. The DrPH aims to prepare individuals for evidence-based public health leadership, including practice oriented research and field-based roles. While the concept of DrPH is not a new one and there are several programs on offer in the US, Europe, and Asia; there has not previously been a DrPH program available anywhere in Africa.

To fill this vacuum, a collaborative initiative between the University of Ghana School of Public Health, the Gillings School of Global Public Health University of North Carolina at Chapel Hill (US); the University of the Western Cape School of Public Health, and the University of Cape Town School of Public Health and Family Medicine (both in South Africa), and Makerere University School of Public Health (Uganda) is developing a pan

African DRPH with support from the Rockefeller foundation. The partner institutions are strategically selected both based on their capacity and experience; and also to cover East, West and Southern Africa. The Gillings School of Public Health, the northern-based institutional partner has extensive experience in international distance DrPH training, with some students from sub-Saharan Africa.

The aim of the DRPH being developed is to offer a world-class DrPH programme based in Africa. The expected outcome is a high-quality, highly specialised doctoral programme tailored to the experience, needs, concerns and aspirations of strategic leaders in health, and those who will instruct them.

The current study is part of an assessment in Ghana, Uganda and South Africa to under better context, institutions, programs, actors and relevant competencies for such a program.

2. Objectives

2.1 Aim /General Objective

The aim of the study was to analyze context, institutions, programs, actors and needs in relation to health sector strategic leadership capacity development needs in Ghana to inform the customization of the design of the most relevant professional doctoral level public health training (DRPH) for Africa, in terms of content, mode of delivery and contextual relevance.

2.2 Specific objectives

1. Describe the wider national, regional and international context for health sector strategic leadership in Ghana, its effects on strategic leadership, how and why and the implications for the strategic leadership training needs within African health systems and the design of the DRPH program
2. Describe the nature of the institutions in which strategic leaders in Ghana work and the kinds of capacity that these leaders need to have to be able to function effectively within and to strengthen these institutions and the health systems they serve.
3. Scope programs, courses and curricula targeted at providing strategic leadership training to leaders in the health sector in Ghana in terms of what they offer, why, the relevance to the performance needs; and what can be learned from their activities and experience about leadership training approaches for the DRPH
4. Describe the perceptions and experiences of individuals in strategic leadership (past and present) and health sector stakeholders as to the needs for strategic leadership in the health sectors in Ghana, why and how these can inform capacity building (including what the curriculum content for individual capacity building should contain)

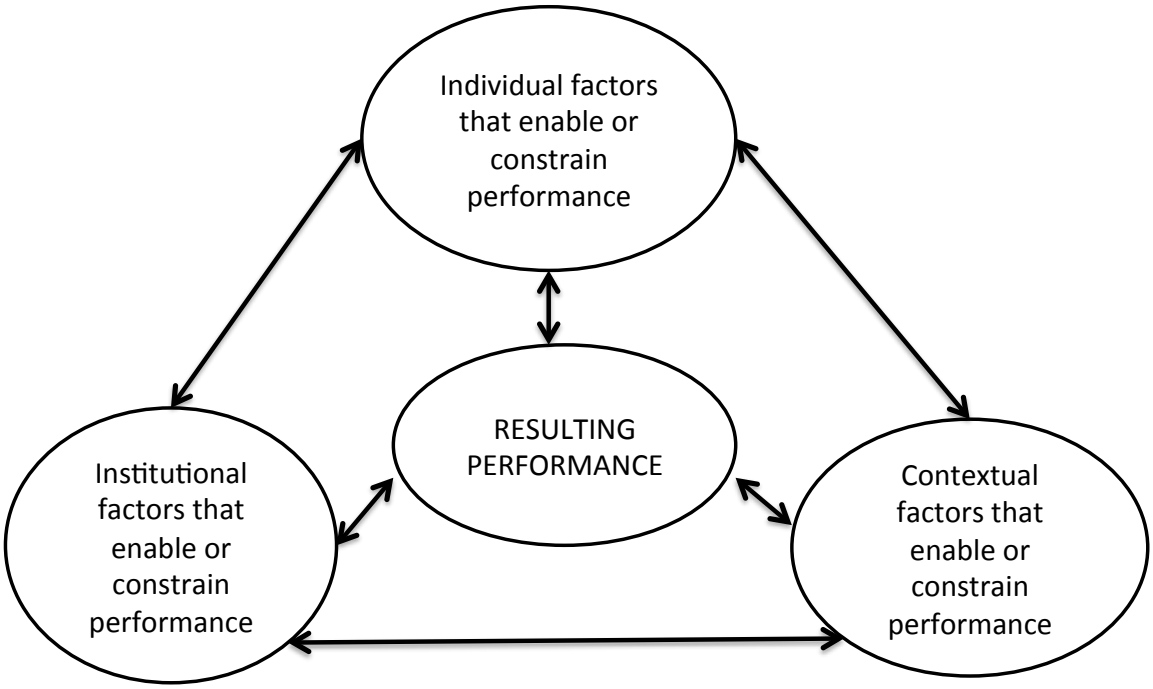
5. Validate the relevance of the core DrPH competencies developed by the Association of Schools of Public Health (ASPH) for Africa

3. Methodology

3.1 Framework for the needs assessment

Milen (2001)[i] defines capacity as the ability of "individuals, organizations or systems to perform appropriate functions effectively, efficiently and sustainably". La Fond et al (2002)[ii] see capacity as related to the ability to carry out stated objectives, to do or perform. Boffin (2002)[iii] refers to both Milen and La Fond et al in his review of the literature on health system capacity building. The United Nations Development Program (UNDP 1998, 2006)[iv] similarly define capacity in terms of the ability to perform assigned functions effectively, efficiently and sustainably. In all these definitions, the ability to do or perform is a function of the skills of individuals, the tools at their disposal as well as the organization or institution within which they work. Capacity is a complex relationship within and between different levels and elements of organizations and networks - therefore a combination of different tools are often required to capture and address this complexity (Brown et al., 2001). Capacity is dynamic, and the ability and willingness to perform different tasks are always a balance, even within a single organization. The conceptual framework for this study (see figure 1) draws upon the systemic capacity building hierarchy of needs framework of Potter and Brough (2004)[v] as well as the three levels of capacity concept of LaFond et al (2002).

Framework for Assessment



Drawing on the definition of capacity as the ability to perform expected or assigned tasks, we will explore three levels of factors that enable or constrain performance and therefore affect capacity at each level namely personal or individual; institutional or organizational and contextual or environmental.

Individual level capacity refers to what competencies are needed to enable performance; and whether individuals in strategic leadership positions or aiming to occupy strategic leadership positions are sufficiently knowledgeable, skilled and experienced in terms of these competencies and also confident and motivated to perform the functions of strategic leadership adequately. Individual level capacity has to be assessed in relation to the desired performance. In our assessment we will focus on the competencies needed by individuals to perform well as strategic leadership in health and how these competencies are acquired.

Organizational or institutional capacity refers to the capacity of the organizations and institutions within which individuals will work to support the required individual performance. Indicators of Organizational capacity include the design of the organization, Infrastructure, tools and other resource availability and appropriateness including staffing numbers, skills mix and distribution in relation to the tasks to be performed. Organizational culture which refers to "how things are done around here – both written and unwritten"; and organizational climate which refers to "how it feels to work around here" are closely related concepts that are also part of organizational capacity. Contextual or environmental capacity refers to the wider international,

national or sub-national context within which institutions exist. Thus for example, the national political, economic and sociocultural context, history, demographics, other sectors and institutions whose work affects the health sector are all part of the environmental context within which public policy development related to health occurs.

As our framework suggests, the levels of capacity and the factors that enable or constrain capacity at each level interact iteratively. They can do so in both directions and produce a final effect together rather than in isolation. Thus for example, the capacity of individuals can affect the capacity of the context and vice versa.

3.2 Type of study and data collection methods

A mixed methods cross sectional case study approach was designed.
Data collection methods involved a non exhaustive desk review, key informant in-depth interviews with past and present strategic level health sector leaders and an interviewer administrated questionnaire with closed and open ended items for middle and senior level managers to understand their current status and needs; and validate the ASPH[2] competencies.

3.2.1 Document review

A non exhaustive desk review of grey and published literature in relation to the objectives of the training needs assessment was carried out. Documents reviewed included:

- Peer-review articles on leadership, management and leadership and management capacity building experiences and outcomes in Sub-Saharan Africa;
- Books, Grey literature and any other relevant print material on leaderships, management and leadership and management capacity building in Sub-Saharan Africa
- Information on international DrPH programmes objectives, content and experiences from but sources such as program websites, course handbooks and manuals, recruitment brochures
- Blogs, such as the Harvard Business Review
- Course materials available for other leadership programmes or short courses, available in-country from NGOs, international organisations, universities (including business and technology/innovation programmes) or other; that are targeted at or include participants who work or will work in health sector leadership positions in sub-Saharan Africa

3.2.2 In-depth interviews

[2] ASPH Education Committee. Doctor of Public Health (DrPH) Core Competency Model. Version 1.3 November 2009
Obtainable from: www.asph.org

Key informants were defined as people in past and present strategic level leadership positions in the health sector in Ghana. These included past and current directors and deputy director Generals of the health service, chairperson of national level boards e.g. Pharmacy council etc. The interviews lasted between 30 minutes and one-hour. All interviews were conducted by the same member of the research team. Additional to the notes taken during the interview they were tape recorded and transcribed. An indepth interviewed guides structured by thematic areas was used. The thematic areas were:

As part of the qualitative interviewing, real life experiences that could be documented to be used as case studies and teaching materials were explored, and documented as part of the process of collecting teaching material and case studies.

Respondents will be identified from relevant groups of academic instructors, practitioners, potential DrPH candidates, strategic practice advisors, DrPH-holders, and others as relevant. People to be interviewed will be major DRPH-HLA stakeholders, including, but not limited to:

- Instructors on relevant leadership and management training course identified from the desk review,
- Potential DrPH candidates. These will be identified from people currently in mid level management positions such as District directors of health, Hospital medical directors, who aspire to progress to higher leadership positions in the health sector. Current MPH students will also be interviewed since many participants in MPH programs aspire to eventually hold leadership and management positions
- People in current strategic level leadership and management positions such as regional or provincial directors of health and national level directors of health
- People who work with those in strategic leadership health positions e.g. local and central government officials, wider actors e.g. suppliers of inputs for the health sector such as medicines and logistics etc
- People who work under those currently in strategic leadership health positions such as middle level managers and frontline health workers
- Past /retired strategic health leaders
- Health sector stakeholders – mainly representatives of consumer groups and users of health services.

A snowballing approach will be used to identify any other key informants to be interviewed based on recommendations from those already identified and on the interview list. Interviews will be conducted face to face or by telephone based on the location of respondents.

Twelve (12) individual in-depth interviews were conducted. All interviews were done with informed consent. All those interviewed were asked if it was okay to be acknowledged; and they all gave permission to be acknowledged. All interviews were done by the same team member. The language used was English. Apart from notes taken during the interview, the interview was also recorded and then transcribed by an independent research assistant.

3.2.3 Validation of competencies survey

A semi-structured questionnaire was designed and administered to mid (district) and senior (regional) level managers in two regions of Ghana – the Greater Accra and the Eastern region in August 2014. A total of 78 such interviews were administered. In the district the district director and members of the District Health Management team were interviewed as well as the Hospital Medical Superintendent or director and members of the hospital management team. In addition the leadership of NGO in health and their team members were interviewed. The criteria to qualify for the interview were to be a potential DRPH candidate. Thus only members of these teams who already had a Masters and working experience in mid or senior level leadership were interviewed.

The Association of Schools of Public Health (ASPH) based in the USA DrPH Steering Committee, draft Consensus Statement about DrPH programs (ASPH 2009) states:

> *"There is consensus that 'the basic public health degree is the master of public health (MPH), while the doctor of public health (DrPH) is offered for advanced training in public health leadership'*[vi]

ASPH embarked on an extensive and rigorous process in 2007 to define guidance on the core competencies required for a DrPH. Over a two-year period between 2007 and 2009 the working group consulted over 200 academic and practice participants, using a modified Delphi process to generate consensus and agreement on these guidance notes. Rather than redevelop core competencies we wished in this research to take the ASPH core competencies and ask public health practitioners, health sector leaders and educationists familiar with the issues and needs in sub-Saharan Africa about their relevance.
In brief, the topics or domains of the competencies were:

- Critical thinking and analysis
- Multi-disciplinarity and teamwork, including community/cultural orientation
- Policy analysis, development, communication and advocacy
- Leadership and management
- Professionalism and ethics
- Systems and complexity thinking
- Politics and politicization of technical posts
- Change management
- Academia linkages and brokering

Table 1: Topic areas/information requirements

Topic area	Information required
Critical thinking and analysis	▪ How best to foster high-quality reasoning and argumentation, continuous learning; what are the skills, experiences and modes of teaching required (lectures, case studies, role plays, self-directed study, seminars etc.)?
Multi-disciplinarity and teamwork, including community/cultural orientation	▪ How to build collaborative partnerships across diverse groups, both inter- and extra-organizationally, what are the skills, experiences and modes of teaching required?

Policy analysis, development communication and advocacy	▪ How to impart integration difference types of data into decision-making; what are the skills, experiences and modes of teaching required?
Leadership and management	▪ What are the current debates in leadership discourse (transformational; distributed; complex leadership etc.)? ▪ What are the current debates in managerial competencies ▪ How to motivate and inspire trust in others
Professionalism and ethics	▪ How best to teach ethics of public health, including administrative, legal, quality assurance, related to debates of universal health coverage, and cultural sensitivities; what are the skills, experiences and modes of teaching required?
Systems and complexity thinking	▪ How to reorient mind-sets and build new mental models for systems and complexity thinking
Politics and politicization of technical posts	▪ How to build an appreciation for, and strategies to navigate politics of decision-making, including coordination and management of development partners; what are the skills, experiences and modes of teaching required?
Change management	▪ How to teach influence and manage change in fast paced (or at times static) organizations
Academia linkages and brokering	▪ How to improve relationships between strategic leadership and academia, including increasing demand for policy-evidence

4. Findings

4.1 Background of respondents

4.1.1 In-depth interview respondents

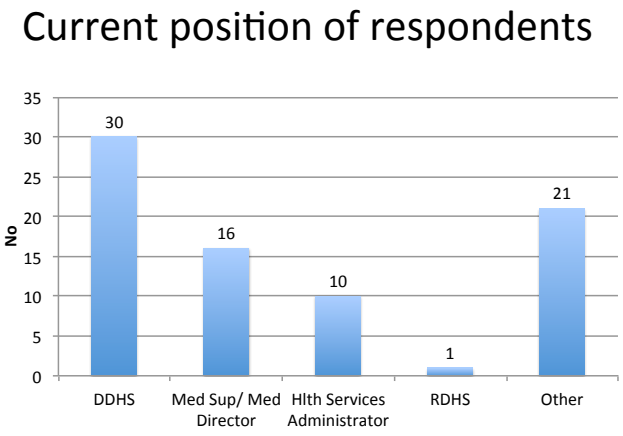
Twelve in-depth interviews were held with past and present leaders in the health sector and in health related academia. Those interviewed occupied or had occupied positions such as Director Generals of the Ghana Health Service; Chair of a professional council, Chair of a foundation, Executive Director of the Christian Health Association of Ghana, Head of a Research Institute and academic leadership positions (Departmental head, Pro Vice Chancellor). Their professional backgrounds included physicians, pharmacists, researchers and academics.

4.1.2 Mid and Senior level manager interview respondents

A total of seventy-eight respondents (78) were interviewed with 51 from the Eastern and 27 from the Greater Accra regions respectively. Fifty respondents (65%) were female. Their ages ranged from 30 to 65 years with a mean of 47 years (SD 9) and a median age of 46 years.

The majority of the respondents 73/78 (i.e. 94%) were based in a district, municipal or metropolitan health directorate or hospital. The rest were at the regional health directorate.

The organizational position held by respondents at the time of the survey is summarized in figure ….. The majority of respondents were substantive or acting District Directors of Health Services. The group "other" in the chart was a diverse group at regional and district level with positions such as Deputy Director of nursing services, deputy director of pharmaceutical services, acting clinical care coordinator, program coordinator, head of department, head of pharmacy, head of finance and executive directors of NGO.



They had been in their current positions for periods ranging from 1 month to 18 years, with a mean of 5.51 years (SD 4.41)

4.2 The national, sub-regional and international context of health leadership in Ghana

Objective 1 was to describe the wider national, regional and international context for health sector strategic leadership in Ghana, its effects on strategic leadership, how and why and the implications for the strategic leadership training needs within African

health systems and the design of the DRPH program. Contextual or environmental capacity refers to the wider international, national or sub-national context within which institutions exist. Thus for example, the national political, economic and sociocultural context, history, demographics, other sectors and institutions whose work affects the health sector are all part of the environmental context within which public policy development related to health occurs.

Ghana is currently classified as a lower middle income country After a long period of near stagnation Ghana has seen rapid growth in its GNI since 2003 when the NHIS law was passed, leading to its evolution from a low to a lower middle income country. Its GNI per capita was estimated at US$ 1,410 (Atlas method current US$) in 2011 [vii]. It is traditionally an agricultural country with cocoa, timber and gold as its main exports. Oil was discovered off shore in 2006 and production in commercial quantities started in 2011. The amounts produced are still small, but the importance of oil to its economy is growing. Most of its estimated twenty six million population are employed in the non-formal sector, and about half the population is below 15 years. Mortality of children under five years has declined but very slowly, from 155 per 1000 live births in 1983 - 1987 to 80 per 1000 live births in 2003 – 2008 [viii]. Maternal mortality declined from 503/100,000 in 2005 to 451/100,000 in 2008 [ix] Shortages of skilled human resources has been and remain a problem. The world health report 2006 estimated that it had 0.15 physicians and 0.92 nurses per 1,000 population. This compares with 2.14 and 9.95 in a high-income country like Canada and 0.77 and 4.08 in a sub-Saharan Africa middle-income economy like South Africa [x]. The country's challenges with inadequacies in infrastructure, equipment, tools and supplies in the health sector mirrors its human resource challenges. A little less than 15% of the public sector budget is allocated to health [xi].

Related to context, respondents in the in-depth interviews mentioned several contextual factors that it was important for strategic leaders to understand and apply the understanding in their practice. We mention the contextual issue as a broad heading and then use quotes to illustrate.

Economic context, challenges and constraints.

> *"….. if you look at the economic context, there is lack of money. If you look at the facilities, and the different professional groups, Ghana political context, there is more of bringing people out, knowing where they are and pushing them to where they need to be. It should be focused on an outcome of always ensuring that, the populace benefits. If leadership is based on the outcome measure, the purpose should be more honest and more committed; it tends to drive people towards the end point." AD*

Political context (micro or organizational /institutional as well as macro or national)

> *"……..If you look at the facilities, and the different professional groups, Ghana political context, there is more of bringing people out, knowing where they are and pushing them to where they need to be." AD*

Cultural context

> *"One of the chiefs said, "your people, they don't understand culture", so he wanted to establish his own school of culture. So if you can do that as well…." AD*

> *"The cultural bit is also very important. ……..The traditional people have a leadership training program of their own; "Benkum Hene, Dunsi Hene" etc. we can take some studies on their leadership styles." AD*

International Context

> *"I will talk a little bit just about of this national and international environment… so for example the MGD that everybody talks about, their agenda as to how people should work toward one thing… just like we did with primary health care, now the discussion on post MDGs, so potential leaders should begin to think through it, because they will inherit that period, and so they should also be thinking though it, what is it that affects us now and how are we going to communicate that through your national government, because at the end of the day, it's a UN decision, and the UN system is such that they take instructions from the presidents of the constituent members, and the president also takes instructions from the country, so if there so no system in place for us to communicate what we hope to achieve to the ministry of health or to other ministries, and have that sent to the cabinet and for the president to buy in, then the president is going to go to all these global discussions and basically he's going to respond to… he's going to present something that aids will write for him at his speech, so it's very important that as part of the training of young people they get a feel of how we communicate things to our ministers and how to make sure that the minister makes it an agenda on the cabinet… and particularly if it has an international implication… so that's my… "*

4.3 Institutional and Organizational context in which strategic leaders in Ghana work

Objective 2 was to describe the the nature of the institutions in which strategic leaders in Ghana work (institutional and organizational context) and the ability the implications for the leadership capacity building to enable leaders who can function effectively within and to strengthen these institutions and the health systems they serve.

We will use the terms organizations and institutions interchangeably. We explored indicators of organizational ability to support performance. We also explored organizational culture which refers to "how things are done around here – both written and unwritten"; and the closely related concept of organizational climate which refers to "how it feels to work around here". Factors explored included the organizational design, infrastructure, tools and other resource availability and appropriateness, human numbers, skills mix and distribution in relation to the tasks to be performed.
We relied mainly on the document reviews and key informant interviews for the assessment.

Institutions in the health sector in which strategic health sector leaders in Ghana work are public as well as private not for profit and private for profit. The Ministry of Health (MOH) as the lead institution in the health sector; and the Ghana Health Service (GHS) as the public sector provider featured prominently in mention by key informants as a critical health sector institution. The public sector organizational structure is hierarchical. Within the Ghana health service as an institution there are various levels, as well as divisions and sub-institutions. Apart from at the top or national and regional levels of the Ghana Health Service as an organization, key informants felt that strategic leadership training was needed within the hospitals and in clinical care as well in the more purely public health areas such as disease control and surveillance programs such as malaria control, HIV/AIDS control etc.

In the private not for profit sector, the association of Church owned and managed institutions under the umbrella of the Christian Health Association of Ghana was frequently mentioned. The institutions and organizations mentioned for focus in leadership training were predominantly the public sector and the private not for profit sector as already described. However, one key informant also mentioned the private for profit sector.

> *"The health systems and big non-governmental organizations, private sector...Even the private nonprofit and profit making organizations. …" SA*

Beyond Ghana the West Africa Health Organization (WAHO) was mentioned as an important institution to consider in understanding the instituitional /organizational context within which health system leaders work because of its link to country health sectors across the West African sub-region.

There was a general perception that institutions were resource constrained both in times of finances as well as human resources and systems were sometimes weak. Specific system weakness mentioned that needed to be addressed to enable better performance included:

A lack of clarity in organizational vision and mission, goals and boundaries and strategy and clear understanding of roles and responsibilities.

> *"…..(from) my own experience, until you are clear with what your organization is, and wants to do, everything you do is confusing. …if you take the ministry of health, the ministry of health for me, they are not clear themselves what their peculiar goal is, and therefore how the ministry as an organization is expected to behave, before they can even determine what they do and what they don't do…." GB*

> *"…the head needs to understand what the organization is and what its supposed to do, and how the organization is supposed to behave, before he can even start thinking of intervention activity programs. …….irrespective of the institution, there must be a way in which leaders can be supported to have clarity. " GB*
> ***"…****I worry about the ministry of health itself, at the top policy levels I worry about them because my feeling is that I'm not sure whether they understand their roles*

and responsibilities, and what kind of leadership they have to provide for the rest of the health sector, …"

Human resource adequacy in terms of numbers, competencies and skills and how competencies are skills are matched to positions were also mentioned as sometimes weak.

" The first one I will talk about is organization of the institution, and then you have to talk about their human resource and their competencies, what extent are they are able to share the mission that you will have, and are they able to respond to the need for change and challenges, so the capacity of the human resource itself is very important." SA

Ability of institutions to remain relevant in a changing environment was also mentioned as a potential institutional challenge

"….The other challenge again …., how do you remain relevant as the environment changes……" GB

How the leadership was selected was also noted as a potential system weakness

"*…most of them were not appointed strategically, they just found themselves there by stroke of accident or whatever…."*

There was also expressed by several respondents a need to look at strategic leadership training as a continuum. Strong leaders at every level would influence leadership at the strategic level since ideally before getting to the strategic level of leadership experience must be gained at lower levels of leadership.

"I think we shouldn't create a gap between who are there now and who are coming in, there should be a certain link into our system, to be able to link up to see that there will be no gap or not too much of a gap between them, because when we were in the district level, we had a lot of interaction with the region, and we were also exposed to the headquarters… we sort of knew what was happening in the region and knew what was happening at the headquarters. And we get invited even at the district level to participate in what was called the… somewhere along the line it became senior managers, but it was called Regional Directors Conference; and they moved from region to region and when they are the region they make sure that many people participate in the discussion……."SA

4.4 Programs, courses and curricula targeted at providing strategic leadership training to leaders in the health sector in Ghana

Objective 3 was to scope programs, courses and curricula targeted at providing strategic leadership training to leaders in the health sector in Ghana in terms of what they offer, why, the relevance to the performance needs; and what can be learned from their activities and experience about leadership training approaches for the DRPH. This section presents our findings related to this objective.

4.4.1 Degree awarding programs

Of the three programs we found advertised that offer a degree related to leadership two (one established and one in the final planning stages) were in the Ghana Institute of Management and Public Administration (GIMPA) a public institute and one was in the Graduate School of Governance and Leadership of the Almond Institute, a private institute.

The programs were:

- GIMPA
    - Executive Masters in Governance and Leadership
    - Doctor of Philosophy (PHD) in Governance, Leadership and Public Administration
- GSGL
    - Bachelor of Science in International Business Administration and Global Leadership

None of these programs was specifically targeted at the health sector. However the generic nature of many of the issues in leadership and governance meant that the GIMPA Executive masters program for example was attracting a fair number of senior people from the health sector. We briefly provide a background on GIMPA and GSGL below. Summary information on the programs can be found in annex 2 (Scoping of health sector leadership programs)

Ghana Institute of Management and Public Administration (GIMPA)

The Ghana Institute of Management and Public Administration (GIMPA) ([xii]) was established in 1961 as the Institute of Public Administration to provide administration and professional training to public servants to provide them with and improve their competence to plan and administer national, regional and local services. It was established as a joint Ghana Government and United Nations Special Fund Project. In 1999/2000, along with about 200 other public sector organizations in Ghana; it was earmarked under the World Bank-funded Public Sector Reform Programme to be taken off Government Subvention. It was subsequently selected under the National Institutional Reform Programme to be transformed into self-financing institute; and in 2001 it was taken off Government Subvention in 2001. GIMPA has done well under these reforms; and expanded and transformed into a full-fledged public university level tertiary institution. It currently offers under graduate and post-graduate programmes in leadership, management, governance, leadership, public and business administration, development management and technology. It offers short courses for the award of

certificates and diplomas in addition to bachelors and masters degrees. It is currently starting to offer doctoral level degree programs. GIMPA has four schools namely the Business school, the school of technology, the law school and the school of public services and governance. It also has a training center, a management development center, a gender and development resource center and an IT professional development center.

Graduate School of Governance and Leadership (GSGL) of the Almond Institute

The Graduate School of Governance and Leadership (GSGL) is the graduate division of the Almond Institute. The Almond Institute is an offshoot of the Pan-Africa Institute for Leadership and Governance Studies and the African Management and Productivity Institute (AMPRO). The Pan-African Institute of Governance and Leadership Studies was established by Bishop Gideon Titi-Ofei and Rev (Mrs.) Olivia Titi-Ofei in 2004 to provide quality, affordable short-term training and development programmes for middle to lower level management personnel. It was founded under the name of the African Centre for Leadership and Human Resource Development (AFRILEAD) and later renamed Pan-African Institute of Governance and Leadership Studies. AMPRO, was established in 2007 to provide training to middle and senior level corporate and business executives ([xiii]. We could not access the website of AMPRO ([xiv]) at the time of our research. It is however listed on the Ghana web ([xv]) as an education, employment and research institute located on the Spintex road in Accra.

GSGL became the graduate division of Almond Institute in 2014. The Almond Institute is a private Christian institution of higher education based in Accra Ghana, regulated by the National Accreditation Board of Ghana. It is mentored by /affiliated with the Kwame Nkrumah University of Science and Technology (KNUST) and their BSc International Business Administration and Global Leadership degree is awarded by the Kwame Nkrumah University of Science and Technology. It is also affiliated the Australian Institute of Business (AIB) in Adelaide, South Australia. The stated mission of the Almond Institute is *"to discover, develop and mold an elite group of leaders into global servant leaders, educated to global standards, who will lead change, drive innovation and solve complex problems. In the process, we redefine leadership to mean service, a new definition that moves leadership from the top of the pyramid to its base."* ([xvi], [xvii])

4.4.2 Non degree awarding programs

Information on non-degree awarding leadership programs and short courses are summarized in annex 2.

4.5 Perceptions and experiences of individuals in strategic leadership (past and present)

Objective 4 was to describe the perceptions and experiences of individuals in strategic leadership (past and present) and health sector stakeholders as to the needs for strategic leadership in the health sectors in Ghana, why and how these can inform capacity building (including what the curriculum content for individual capacity building should contain). This section describes our findings related to this objective.

4.5.1 What competencies /skills should strategic leaders have

The following were skills and competencies that the past and current holders of strategic leadership positions in the health sector that we interviewed felt were important and needed skills at that level:

- Vision and Inspiration
- Core personal values /character qualities of integrity and trustworthiness
- Understanding of the technical area in which you are a leader
- Skills for interacting with and managing people
- An understanding of the context in which the leader is operating
- A results /output oriented approach
- Skills in creating change
- Ability to put the interest of the organization before personal interests when there is any conflict of interest
- Ability to adapt
- Skills and knowledge to leverage the political system
- Crisis management skills
- Policy analysis and development skills
- Management skills /competencies
- Creating systems that work
- Leadership as hard work and service
- Gender sensitivity

We explain each of these headings, using quotations from the interviews to illustrate.

Vision

Respondents talked about the importance of being able to develop a vision for the organization. This vision was not a personal vision but rather a vision rooted in the aspiration of the people. Such a vision needed to be futuristic and yet take into account current realities. The ability to inspire people to share the vision and work towards its attainment was important.

> *"Ability to envision the future based on current realities"* CEO

> *"You need to envision".* DG

> *".....you knew you represented the people, and you represented their aspirations of all those who worked, and therefore, your role was to translate their aspiration to management, but also to make sure that their aspirations were met, and for me*

that is the real objective of leadership; leadership inspires, and leadership achieves for the people, what their interests and aspirations are." Former DG

".....in a system like Ghana where you cannot place people, and the system itself places people, then you must try hard to get them to also buy into whatever vision that you have for the organization... former DG

Professionalism and Ethics

"I believe a form of professional training and mentorship is needed. Professional training in the sense that people need understanding of the core principles of effective leadership especially in the public sector i.e. the usual principles of public service; probity, accountability, honesty, openness, team building etc., and these are critical in any pubic leadership position." AD

Character qualities /Core personal values

Who a leader was in and of his or herself or their core values was considered to be important rather than just what they did. In relation to this, integrity or a wholeness and consistency in character; and the related concepts of trustworthiness and honesty were important.

"...let me use the word core values... ....If you want to be a leader these are the core values you must posses:.....prudence you must be shrewd like Li Kwang Liu ....you must be astute ...able to judge wisely .....temperance ...self-restraint in the display of your emotions. You just cannot allow outbursts of your emotions .....You must lead by example .....You must be an exemplary of justice. You must have the ability to discern what is wrong from what is right.....You must be honest. You must be trustworthy. It sums up by the use of the term integrity". Chairman of a professional council

"Fortitude" Chairman of a professional council

"you should know that your integrity is so important for people to believe you, people to know that your word...your honor and whatever you say you mean it. Like Mahatma Ghandi said; "this is me what you see is what you get"; what I say and what I do are not by faith...its one and the same thing, so that for me...the character traits are very important. A lot of people somehow think that these little misdemeanors must be tolerated, but at the leadership level, that is certainly not what should happen, ...integrity means you obey the laws of the land, you do what is right by that law, and not what you think is good for you.." former DG

"if you are to lead an institution, by character, you should be upright." Former DG

"Leadership does not put your interest as part of the equation at all, it is the total interest of the organization. I find that most Ghanaian leadership put their interest probably way ahead of the interest of the organization. And that is why a lot of

people fail, I mean apart from the fact that they probably do not have the leadership skills, they put their personal interest almost into the equation, and for me that is always a recipe for failure. The qualities that one needs is honesty, you've got to be honest, you've got to have integrity, and if your self interest is not part of it, then you are motivated to move, the last thing I would want to do is to get somewhere and somebody says you're doing it for yourself, and if you're not doing it for yourself then you really don't care where you go, I mean you go anywhere to fight for what is good for your organization, and I think maybe that is one of the constraining factors for a lot of people. But once you're able to that, then really there is no limit to what you can achieve,….." former DG

"if you are to lead an institution, by character, you should be upright."

Critical thinking and analytic skills /Strategic thinking

"Critical thinking skills….." DG

"How to strategize. People will be complaining how do we move forward. They have not turned the thing into a solution.
Analyzing data – people may have a lot but may not have analyzed it for decisions making" DG

Understanding of the field /technical area in which you are a leader

Understanding of the field /technical area in which a person is a strategic leader was not seen as able to make a good leader in and of itself. At the same time, respondents felt that without a good core understanding, it would be difficult for anyone to lead in a given field. Managerial skills mattered, but managerial skills alone without an understanding of the field and an ability to communicate with the professionals in the field in which you want to lead it was likely that your credibility as a leader would be questioned. The leader did not have to be the leading technical expert in that field, but they did need to understand it enough to appreciate the work of the experts in the field who they would inevitable work with. The leader themselves would have challenges leading sometimes; and it would also be difficult to get the respect of those being led, if the leader did not understand their field of work /profession.

".....some of the managers it would be ideal if they are technically sound in disease control, disease prevention etc… not just the managerial things but you must understand the nuances of that and be able to teach…because training of your subordinates is also a requirements. … Former DDG GHS

"… in all seriousness you must be technically sound. You must understand and be able to articulate in a technical manner. That is a pure technical skill in addition to your cross cutting skills…….. You should be able to train people, interact with international experts, present papers and contribute meaningfully… able to critique articles, contribute articles write articles, development of memos to the minister…….policy analysis issues will be quite key." Former DDG GHS

"…….. I will insist that within the GHS I will insist on having technical in addition to managerial skills and capacity. Former DDG GHS

"….the technical ones are very critical, I mean, if you want to be the Dean of the School of Public Health its assumed that you know what public health is about, you must have had some training in public health, you should be able to understand the curriculum that is required and all those things" former National level Director GHS

"……People should respect you by your very professional undertaking... that then leads on to them respecting you as a leader. So in terms of your knowledge of your profession, your practice of your profession, it should be there, ...nobody should have cause to question, and again, this is where your integrity and all those things are …." Former DG GHS

One respondent felt that in the health sector, if there was respect for your technical and professional understanding of the field in which you aspire to lead; even with limited leadership and managerial skills you might more easily gain acceptance as a leader than a strong manager without some acknowledged competence in and understanding of the field.

"Once you are in that situation (i.e. people respect you by your professional knowledge and practice), it becomes a lot easier to them even if you don't know or you don't have the rudiments of leadership ……..because already people look up to you, people give you the respect …….. …… the fact that somebody has even gone to business school or gone to this school does not necessarily mean the person is capable, you've got be determined to stand up above...you should be taller than everybody in professionalism from the shoulders".

Skills in Program design and Implementation

"Ability to interpret policy and implement policy operationally. Distill the nice language and actually do" Executive Director CHAG

"Program design for outcomes. Program design……the kind of proposals and projects that people write are so basic. People do it mechanically. Project proposal, intervention design." ED CHAG

"the capacity to analyze the situation in the district not only health but also non health. ....it provided an in-depth analysis of the district that is a skill that a district level……ability to plan a district…….a district health plan following the situational analysis.. a strategic plan for service…. Ability to monitor and actually supervise the implementation." Former DDG

"When you come to the region level… ability to understand policy now….district is more of implementation…you must understand policy nuances and translate the policy to particular regions and guide the districts". Former DDG

Understanding of and skills in Operational /Implementation Research

"operational research at that level either undertaking it or understanding it..translating the research findings into implementable things at that level…that is when the district health level training was quite handy…but why approach… those are basic at the district level". Former DDG

Skills for interacting with and managing people (People related skills)

Matching people & their skills to task requirements

"…you've got to …….put the right kinds of people (in the right positions)....people who share the same vision as you… for the organization" former DG

Team work /team management:

"The ability to actually manage a team. My experience more and more tells me that at this level of leadership your job is not actually to do anything". ED CHAG

"Also important …. is the ability to work with other people….all those things are translated upwards. Former DDG GHS

"A leader must be a team player. If you are a team player we see it in your life activities." GCPh

"….team building etc, and these are critical in any pubic leadership position. This is so because like it or not you have work with people you may or may not like and that should not be an issue but rather the issue should be the focus." AD

Coaching and Mentoring /Empowering /Developing people:

"Your job is to coach and mentor your directors to harness their own competencies and do what they have to do. Practical skill of coaching mentoring is fundamental". ED CHAG

"And then a way of empowering. People may have the skills but you need to look at he potential in them". DG GHS

"The skills for a higher level leader is the ability to identify, mentor and build capacity". Former DDG

Relationships:

"At this level it is about people relationships, engaging with people" GB

"….You have to be bring people on board especially outside." EAD

"International relations and other things will also be quite key here". GA

Communication

"I also find that you have to have the ability to communicate. Not just to top level policy makers but ..we shy away from the media because sometimes they are problematic but you need to be able to communicate with the media to make a point on what needs to be done." SA

"Key thing is communication skills. You need to be able to communicate". EAD

"Communication – the ability. High level communication skills. Very few of the colleagues I have dealt with …cabinet memos, short letters to chief directors, director general etc. Linked to that is an appreciation of the notion of the nation state – courts, laws, I see that as a distinct serious lack" AD

Conflict resolution and negotiation

"People are fighting you need to bring them together". EAD

"Negotiation – every single action you take has to be based on negotiated issues…whether you are a health manager who needs to manage resources….negotiate within yourself and also the various groupings" AD

Listening

"……ability to listen to others and learn" . EAD

Advocacy

"Another core competency and skill for me is to be able to advocate" GB

"Presentation skills…advocacy …becomes key at the higher level". GA

Context: Understanding and interpretation of context

"Area of skills in policy, practical core issue is doing that interpretation of context to generate briefs, documentation where there is a logical consistency and staying objective, not being emotional about it". GB

"The ability to contextualize local national, international policies ideas and concepts into relevant local national policies. Cut and paste does not work" GB

"…..an appreciation of how the world runs. UN system through to national level and below…" AD

Results /Output oriented.

> *"Leadership should be results oriented not activity based"* GB
>
> *"…The course should be such a way that as you progress in the course, the system is benefiting. By the time you finish, you find that there will be a dramatic change within the system. Unlike others where you go and you are now coming to apply what you learnt. This time it should be…if possible there should be some rippling effect." AD*

Creating change

"Your role and how to push levers to achieve change…." AD

Ability to put the interests of the organization before your personal interests if there is a conflict

"Leadership does not put your interest as part of the equation at all, it is the total interest of the organization. I find that most Ghanaian leadership put their interest probably way ahead of the interest of the organization. And that is why a lot of people fail, I mean apart from the fact that they probably do not have the leadership skills, they put their personal interest almost into the equation, and for me that is always a recipe for failure." ABA

Ability to adapt

"Key capability is the ability to adapt. When confronted with a situation don't just throw your hands into the air but confront it and asks what is the adaptive capacity that I should adopt. For now everyone talks about funding and throws their hands into the air. You have to have the capability to go round that and do things different. One aspect of that is to look at the HR at different levels. One level is the community. There are quite a bit of resources within the community. They may not have the technical competencies that we have but I am sure we would work with community leaders a bit more". SA

"…I also include civil society groups in the leveraging and adapting to problems and difficulties.
What I mean is that I talked about community and community level but I do not just mean individuals but also civil society and community organizations". SA

Skills and knowledge to leverage the political system

"Then there is a whole political system which one has to leverage. You need to have the skills and the knowledge and the ability to leverage that political system because at the end of the day that is where the top level political decision is being made aside the technical system. ……if you are daring then you can do the big time politics of the UN system". SA

Managing crisis

"Bigger role – crisis management or crisis response. As leaders we often have to take decisions on the go. Our risk assessment, ability to realize consequences". AD

Policy Development skills

You must be able to contribute to development of policies. GA

Management skills/ competencies

Specifically financial management skills and human resources management were mentioned.

"Financial management will be quite critical there just as it is also critical at the district level. Especially at the higher level you will then be able to match financial allocations with interventions". GA

"Appreciation and awarding. If there is also sanctioning. You do not mince your words you just tell them what you want….You have to be bring people on board especially outside". EAD

Creating systems that work

you've got to create systems that work, you've got to create systems and put the right kinds of people...again people who share the same vision as you there, but in a system like Ghana where you cannot place people, and the system itself places people, then you must try hard to get them to also buy into whatever vision that you have for the organization. And I think these are some of the challenges. ABA

Leadership as hard work and service

In the first place I want you to agree with me that leadership entails hard work. Leadership means responsibility. Leadership means the desire to serve your community, humanity at large. If that desire is there already inborn, It means that you chose to be a leader out of your own free will and accord. Nobody decides to impose on you…. It is you who must offer yourself. If you agree with me then …you must be able and willing to undertake the assignments of leaderships. There are some of us who out of rhetoric will promise all sorts of things.. you give him the role and he fails miserably. AA

It calls for commitment….commitment means a lot. It calls for giving up your time and your energy…..you must be fit in terms of your health. In other words by your own lifestyle you must lead a healthy life style to possess that kind of energy needed for the work because it is hard work. AA

Gender sensitivity

One person mentioned gender sensitivity

> *"Then something that we the men fail to mention… you must be gender sensitive and uphold family values" AA*

4.5.2 How are/ how should these competencies acquired

Our respondents said that from their observation and personal experience, leadership competencies were acquired by:

- Formal training /tuition

- Self directed learning including reading
- Mentoring
- Learning by doing
- Experience over time

Formal Training / tuition

"Formal tuition". EAD

"You may have the inborn quality or genetic disposition to play football…but Abedi Pele's son was trained by the father and he went to school to get to where he is.." AA

*"Some people are natural leaders… has an innate potential. That type of thing can be built. Something happens and before you know he is literally leading people. But he will not have the academic capacity. Such a person when he is picked up and groomed he will definitely mature…"*GA

Self directed learning including reading

"Personally for me it has been a realization that this is what I need to do and so reading about it and personally daring to practice it. GB

"A lot of it for me has been reading. …. Sometimes a good conference…. GB

"And then more of the person evaluating things, thinking, researching. EAD

"People seriously do self tuition and by experience. GA

"People acquire things by reading, their own self tuition if they are the type. GA

"Most of us have become leaders by accident…fortunately you happen to have been invited to one WHO committee and you see how business is done. It would have been helpful if they had been taught them. You go to a work shop you pick up a few ideas, you go to a conference. AD

"You have to acquire skills by learning. Self tuition. AA

"I have dictionaries, good dictionaries wherever I am…..Why? I will look at any word that I come across use a good dictionary that shows me how to pronounce the word, write the meaning down, form a sentence with it so that it can be mine. It is a skill that was taught me by my headmaster and my teacher AA

Self motivated …it is important, you must be self motivated If you are self motivated, nobody will tell you to learn. Self motivation will eventually lead to self tuition because you are always searching for knowledge. AA

"....I read autobiographies of people who have been successful.....and .. begin to understand how what they did that was extraordinary, or what they did that was a little out of the ordinary..... people should read, people should read autobiographies, people should read outside their comfort zones...read books on leadership.....and so on and so forth, …..... by reading you build up yourself ....."ABA

Mentoring

"..You learn with people that you are working with – even juniors....." SA

"Mentoring – get somebody to work with the person". EAD

Learning by doing

"... a lot for me has been the actual doing". GB

"It is not about coming for a lecture or section on how to write policy briefs. You actually do it." GB

"It is very difficult. This is not something that you acquire in the classroom. It is more learning by doing and you are bound to make some mistakes but you should be willing to learn. There are ways of learning very unconsciously. .....It is a practical something." SA

Experience over time /Life long learning

"Core values – talking about strategic leaders – you must start from the bottom to get to the top. You do not start by getting to a strategic leader one day. .....from the bottom to the top……AA

"Life long learning. AA

You need to be knowledgeable…knowledge is power. Knowledge means a life long learning habit, non stop. You do not just come to university and then that is the end of it AA
Having a life long learning habit and being knowledgeable is self explanatory. ....you should be one step ahead. ....I have already displayed to you that I am one step ahead by pointing out all the mistakes I have seen between the car park and here AA

4.5.3 Program design / approach to training

Vision, Mission

"…So really we want to build intellectuals, build people who can think deep and bring something to the table, ……We want to build heroes and leaders and powerful ones as well …… If the fruits are seen to be influencing society then we can just rest and know that our job is done. But if it's going to be another PhD where people finish and they are called a doctor which we don't see the impact then why bother. I don't want to call it the Ashesi style but then if you can see how they are building undergraduates who are assertive, bold, communicative and impactful ….."AD.

"…..and if we are going to train them, we want them to be people who will actually come up with solutions and not just come and listen and not come with solutions….." AD

Target group /Cohort profile and

Suggestions as to the target group for the program included:

- People already in middle and senior level leadership and management positions in the health sector who aspire to continue with leadership positions and aspirt to higher positions.
- Such people could be in the public sector (MOH and GHS) and the private not for profit sector (CHAG, NGO). One respondent also specifically suggested the private for profit sector
- People in clinical care leadership and management e.g. Directors, Medical Superintendents and Chief Executives of hospitals needed the training just as people in more directly public health positions such as program managers etc

- <u>People whose past history and track record give you an idea of their inclinations. This includes proven past willingness to take on some of the roles and tasks already mentioned in the leadership competencies or exhibition of some of them</u>

"…But I must say this, some of us, right from...should I say our young days, I have always taken the role of fighting which ever group that you've been a part of...I mean from Secondary School to University, ……..that the very first day that we entered lectures in first year medical school, we were told that we needed a class rep, and I just got up and said I was the class rep, that's all, and I was class rep for all the years that we were in medical school, …… people who have that innate will to lead or to be part of decision making……." ABA

Therefore if I take my self and my other friends and colleagues who are leaders like me we will all see that it starts very early in life. You are made a prefect in secondary school. When I came to Opoku Ware 6th form I was the coach and

captain of the hockey team. A leader must be a team player. If you are a team player we see it in your life activities. AA

- Considering targeting people who aspire to political leadership positions in health and not only those who aspire to technical leadership.

  "... at the end of the day it boils down to politics...if you become a deputy minister for health and you are a health professional you'll have to show leadership in health..." SA

Program Duration

"I would not want to see a programme like this go beyond four (4) years because if programs drag, people lose interest." AD

Suggested issues to factor into Design

Key informants suggested that program design should emphasis learning by doing wit the emphasis on professional practice and application of theory to practice. Formal training was important and had a role to play in helping learners to become conversant with relative theory that was applicable to professional practice. Related to this it was better to have short periods on campus for learning related to theory as well as peer to peer and peer to facilitator engagement with workplace based learning inbetween. Apart from academic supervisors, it was important to link trainees to mentors who could support them and also to encourage self directed learning.

In summary Issues to be considered were:

- Learning by doing
- Punctuated periods of campus residence
- Workplace based learning
- Attachments and internships
- Formal training
- Mentoring
- Interactive and peer to peer learning
- Encouraging self directed learning

Learning by doing

"I think that at this level the challenge is the doing the doing, and therefore, whatever it is, they must do. If it is something about organization, they must do.

Case studying notwithstanding, they must try their hands on some kind of intervention. If you say it is about being strategic advocacy, you want to actually let them do, strategic advocacy……. it's not even about getting it right or wrong, but the fact that you've tried it, the learning happens and the habit forms. If it's about program design, they should actually design the program, not conceptual; actually do it for it to be implemented in your own organization, or whatever, and you have to go through the process of negotiation, discussing it, getting people on board, those key skills will have to have to actually be there." GB

Punctuated periods of campus residence

"….. It's not an in-house thing, you know, one week, two weeks, you come, you go. But when they go, it should be to do. I think for me that is the most important. It should be to do, they must do….they have to do it." GB

"I think that it should not be more of a classroom something, it should be, a sandwich sort of, they come and they go." EAD

"…… kind of training where you bring people away for some few days and go into the nitty gritty and would want it not be theoretical but extremely practical. I say this because quite often than not you can teach them all what is in the text book but how does it apply to the Ghanaian situation…"AD

"I would like to see this program probably starting with a series of what I call core subjects i.e. leadership, communication, crisis management, strategic planning etc, but delivered in modules over weekends or three (3) weeks at a time where people go away and come back in six (6) months. This approach is appropriate. But in built into that and after the core courses are done based on the areas of the people, then you spend probably 12 – 18 months on what I call the hard bit; at which time we will expect them to be thinking and writing articles focused on their areas of interest but coming to the same team of leadership. " AD

"There has to be a form of a modular approach, whiles the person is still in the service, ……there will be periods at most two months out of work to complete a particular module, ….during that technical preparation in the university or where ever, he would have identified some practical project work which he currently engages in, and so that when he goes back he'd be working on the project. There must also be an online support system so that the person has access to current literature, as for literature there is plenty but he must be targeted to identify particular areas. So more competency based types of approach in a modular system while the person is still working coupled with self-tuition …or project work at the workplace. That is how I am seeing it." GA

Workplace based learning

"…….for me, at the end of the day, it's about the doing. I currently just finished a coaching course. Every week, we had an assignment on various skills you have to do. And I realized that in doing it, it wasn't about doing it well. They just said, "go and interview somebody and tell us your experience". At the end of the process, I had even forgotten that I didn't know how to do it……. So I used my workplace as my learning laboratory……, So I think for me, the main thing is how to practice it, they will have to do it." GB

Attachments and Internships

"…….they also need some attachment. You realize the banking sector is very good (at learning through attachments)." EAD

"…. a structured training backed with some level of internship and exposure" AD

"….a structured training backed with some level of internship and exposure and I would like to see this training not be didactics but more interactive." AD

Formal training

"I think leadership training must be systematic…" AD

"Of necessity there is an academic component to it which you cannot ignore, ……. in fact you call it the basic sciences of the practice, ……..people have to understand the theory behind the practice, and then you look at the application of that on the field……" SA

Mentoring

"I believe a form of professional training and mentorship is needed…" …AD

"I think we haven't developed a good program for mentorship, and mentorship basically is that you have somebody you are learning from… and that person should be a…so that you can actually… It is not necessarily you supervisor, your supervisor is more formal… but somebody that you can talk to about issues, so it's the mentorship program I think will be need. So that whatever topic the person is working on, there is somebody that they can go and bounce of ideas, he can discuss issues with… " SA

Interactive and Peer to peer learning

"People are coming from different professional backgrounds. We want to see how they share, ……." EAD

"I would like to see this training not be didactic but more interactive…… would want it not be theoretical but extremely practical. I say this because quite often than not you can teach them all what is in the text book but how does it apply to the Ghanaian situation and if we are going to train them, we want them to be people who will actually come up with solutions and not just come and listen and not come with solutions. As such they must be listened to …AD

Encourage self directed learning

"What I used to do on a personal level was that whenever there was an issue I go and read about it on my own, summarize it…….. and then discuss with somebody, and say this is what I think……. so there is an individual learning that must occur apart from the group learning that people can work on a problem together…" SA

4.6 Relevance of DRPH to mid-level managers and Validation of DrPH competencies developed ASPH

Objective 5 was to validate the relevance of the core DrPH competencies developed by the Association of Schools of Public Health (ASPH) for Africa.

In the in-depth interviews, we asked whether the concept of a DRPH was relevant. Additionally, at the end of each interview we presented a table of the ASPPH competencies and asked respondents if they felt they were relevant or had any comments, suggestions or disagreements. These past and current strategic level leaders in the health sector who participated in the in-depth key informant interviews felt additional training beyond the masters level was strategically valuable. They also felt the competencies were relevant. To quote one respondent *"it is hard to disagree with these".* What they did was to sometimes elaborate on or qualify some of the competencies.

"I would add implementation; there is this huge body of knowledge out there on this this whole 'implementation'. How do you actually do the thing, how do you harness all the together and actually implement, in that, yeah! Let me clear certain complexities and thinking and extra, I may be mixing organizations." GB

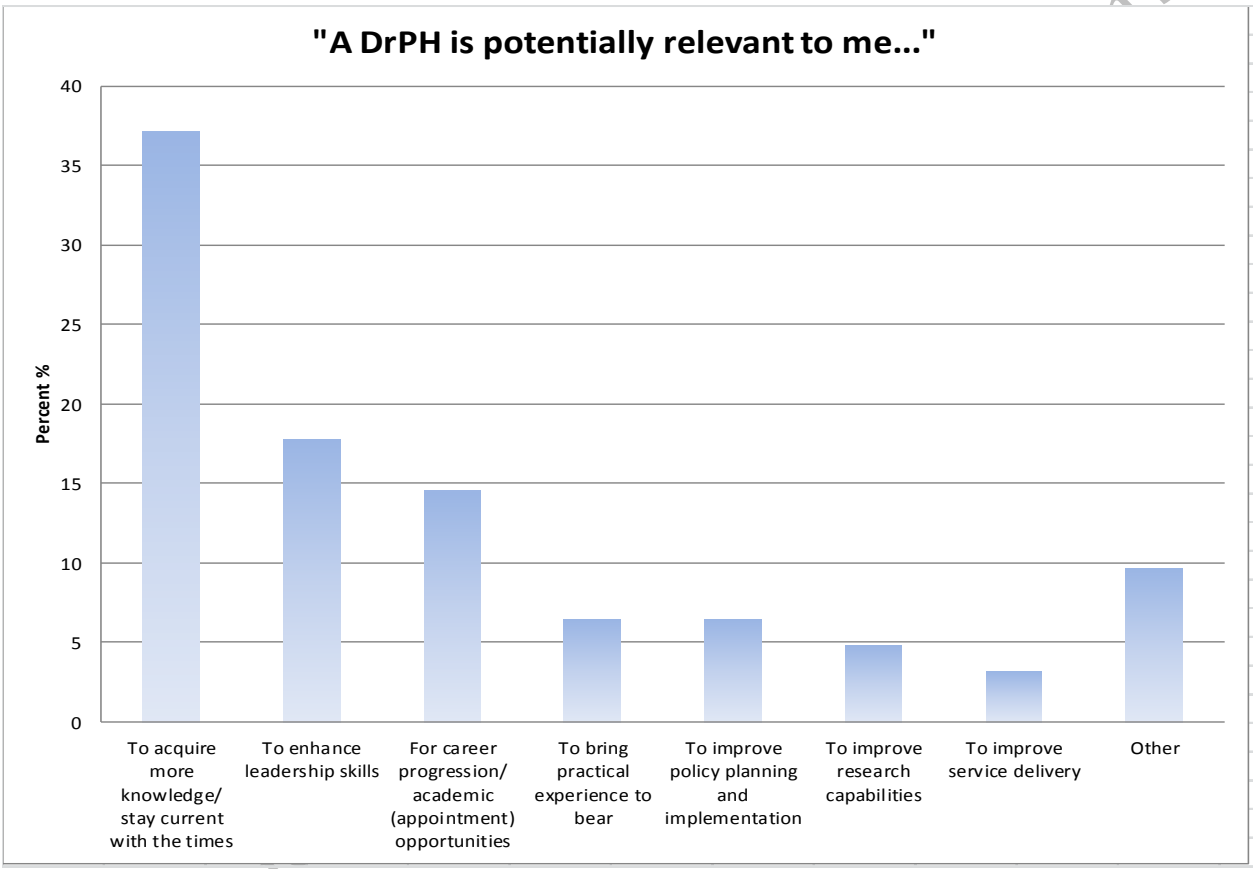
Their concern was more the most relevant approach to build additional capacity rather than the concept of building additional capacity. Their view on the most relevant approach has already been presented.

Additionally we used the structured questionnaire administered to mid and senior level managers at district and regional level in the Greater Accra region to get a more quantitative assessment of the perceived relevance of the competencies. The detailed findings of the quantitative assessment are presented below.

4.6.1 Mid and senior level managers (district and region) Perceptions of the personal relevance of a DRPH

Analysis of positive cases i.e. "A DRPH is relevant to me"

In response to the question: "Do you think the concept of a professional doctoral level leadership training program is potentially of relevance to you", 71 respondents (91%) said yes. Their reasons:



Of the 71 respondents who replied 'yes', only 62 gave comments. The most frequent 'yes' response related to a general desire to upgrade/expand one's knowledge and skills base in order to conduct one's scope of work (n=23 of 62, i.e. 37%). This was followed by interest in enhancing leadership skills (n=11 of 62, i.e. 18%), career progression and academic appointment opportunities, combining one's practical experience with higher-level training (n=9 of 62, i.e. 15%), improving capacities to design and develop plans, and influence policy (n=4 of 62, i.e. 6%), to improve research capacities (n=3 of 62, i.e. 5%), and to improve service delivery overall (n=2 of 62, i.e. 3%).

'Other' responses were varied, and included such perspectives as:

- Accessing current technology (n= 1; 2%)
- Enhancing management skills (n= 1; 2%)
- Strengthening analytical skills (n= 1; 2%)
- Learning to better teach subordinates (n= 1; 2%)

- Increasing negotiation skills (n= 1; 2%)
- For the prestige of the qualification (n= 1; 2%)

Of interest, respondents for all answers were varied in their composition (i.e. from hospitals, district and regional directorates). Only those respondents interested in possible academic appointments reflected any uniformity: the three respondents were from hospitals and the regional health directorate in the Eastern Region.

Analysis of negative cases i.e. "A DRPH is not relevant to me"

The reasons the seven respondents who said "no" gave are as in the table below:

Q1	Q2-open
0	The concept of leadership is rather complex. Even your technical skills can make you assume a leadership capacity in a group that constantly consults you.
0	Academic purposes, yes, but for the work, a PHD is not very necessary
0	Managers outside doctoral level are doing very well
0	Capacities Below the PHD could do this work. Someone with a masters with strong leadership training will do well in this line.
0	Choice of the answer is due to the fact that experience together with additional relevant trainings related to one's work should be enough to deliver.
0	Profession Doctorate is a Personal Ambition, not necessarily a requirement
0	My observation on this is that, its mostly personal ambitions or fulfillment

Six (6) of these respondents who felt a DRPH was not of relevance to them were at the district level and one was at the regional level. Six (6) were in the Eastern region and 1 in GAR.

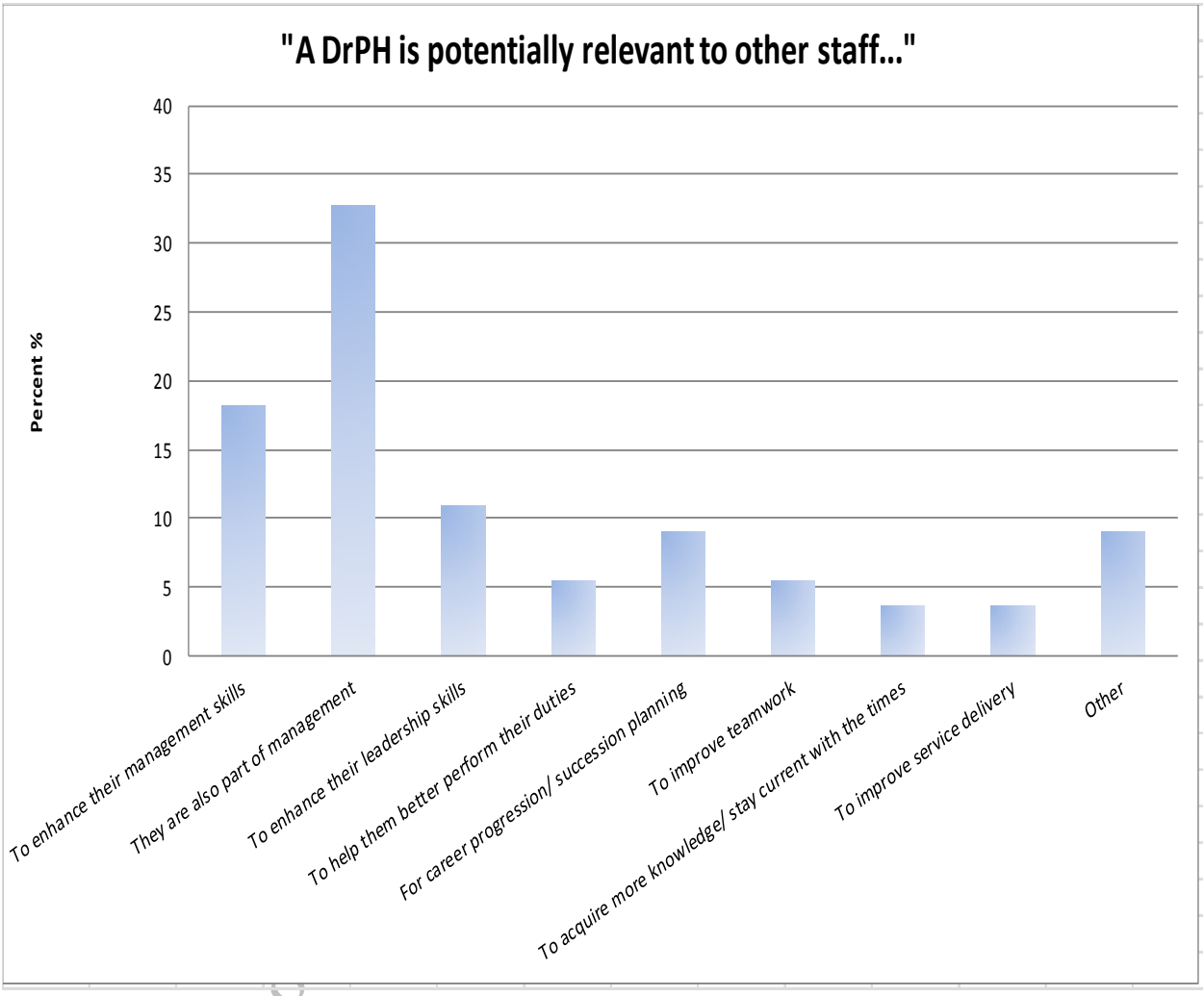
Two of these 7 people also felt that the concept of a professional level doctoral leadership training in Public Health (DRPH) was not of relevance to other staff in the health sector. Their reasons are given in the next section.

The other 5 indicated it was potentially of relevance to other staff in the health sector though not of relevance for them personally.

4.6.2 Mid and senior level managers (District and Region) Perceptions of the relevance of a DRPH to other staff

Analysis of positive cases "A DRPH is of relevance to other staff in the health sector"

In response to the question: "Do you think the concept of a professional level leadership training program is potentially of relevance to other staff in the health sector?", 71 respondents (91%) said yes.



Of the 71 respondents who replied "yes", only 55 gave comments. The most common responses (n=18; 33%) reflected the sentiment that other staff are important in service delivery and also have management responsibilities:

"because their roles are have direct impact as far as the success of the organization is concerned"
"If other staff have leadership skills, organizations thrive well"

There was also recognition by respondents that other staff could benefit from improved management (n=10; 18%) and leadership skills (n=6; 11%). Several respondents also pointed to the fact that other staff would also want professional development opportunities to progress their careers, and the need to train junior staff to fill leadership positions in the future (n=5; 9%).

Of those respondents who gave other diverse reasons (n=5; 9%), these ranged as follows:

- For academic appointment opportunities
- To bring practical experience to bear
- For improving inter-personal relations
- To increase research capabilities
- To strengthen analytical abilities

Analysis of the negative cases i.e. "A DRPH is not relevant to other staff in the health sector"

Of the 7 respondents who felt a DRPH was not relevant to other staff, two also felt it was not personally relevant for them. Of these two respondents who felt the DRPH concept was not relevant to them or to other staff in the health sector; one gave their reason as:

> *"You need higher knowledge to perform, but you don't need a PHD to do this work. Ghanaians are wishful themselves. The system requires non performers to influence policy."*

This matches with the reason why they felt they themselves did not need a DRPH i.e.

> *"Academic purposes, yes, but for the work, a PHD is not very necessary"*

The other gave no reason why they felt that other staff did not need a DRPH. However the reason why they personally did not need a DRPH was that

> *"The concept of leadership is rather complex. Even your technical skills can make you assume a leadership capacity in a group that constantly consults you."*

The others who gave reasons had a similar perception that a terminal degree was not necessary for performance in leadership in the health sector. A first or second degree was adequate.

> *"Not really needed for performance. First and second degree persons must be able to do it"*

4.6.3 Competencies Validation

Similarly mid level and senior managers to whom the questionnaire was administered also felt the competencies were relevant. Table ..below summarizes perceptions of the relevance of the ASPH competencies by the mid level and senior managers who responded to the semi structured questionnaire. The competencies are structured by domain areas. These are: Advocacy, Communication, Community and Cultural Orientation, Critical Analysis, Leadership, Management, Professionalism and ethics, Systems thinking, Competence Integration and application and others. Under each domain area are sub-areas. Respondents were overwhelmingly positive about the relevance of these competencies; with 89 – 100% "agree" for each of the individual sub-areas.

	Upon graduation a DRPH trainee should be able to:	Agree	Disagree	Don't know	Total	% Agree
ADVOCACY						
ADV1	Analyse the impact of legislation, judicial opinions, regulations, and policies on population health	78	0	0	78	100%
ADV2	Establish goals, timelines, funding alternatives, and strategies for influencing policy initiatives	77	1	0	78	99%
ADV3	Design action plans for building public and political support for programs and policies	77	1	0	78	99%
ADV4	Develop evidence based strategies for changing health law and policy	76	1	1	78	97%
ADV5	Understand and utilize international diplomacy and negotiation skills for the promotion of health	68	3	5	76	89%
COMMUNICATION						
COM1	Discuss the inter-relationships between health communication and marketing	77	1	0	78	99%
COM2	Explain communication program proposals and evaluations to lay, professional and policy audiences	78	0	0	78	100%
COM3	Employ evidence based communication program models for disseminating research and evaluation outcomes	77	1	0	78	99%
COM4	Guide an organization in setting communication goals, objectives and priorities, including risk communication during epidemics/pandemics	77	1	0	78	99%
COM5	Create informational and persuasive communications	76	1	1	78	97%
COM6	Participate actively and meaningfully in international health discussions and fora	78	0	0	78	100%
COM7	Integrate health literacy concepts in all communication and marketing initiatives	75	1	2	78	96%
COM8	Develop formative and outcome evaluation plans for communication and marketing efforts	72	5	0	77	94%
COM9	Prepare dissemination plans for communication programs and evaluations	78	0	0	78	100%
COM10	Propose recommendations for improving communication processes	76	2	0	78	97%
COMMUNITY /CULTURAL ORIENTATION						

	Upon graduation a DRPH trainee should be able to:	Agree	Disagree	Don't know	Total	% Agree
CCO1	Develop collaborative partnerships with communities, policy makers, and other relevant groups, esp MDAs and civil society organisations	77	1	0	78	99%
CCO2	Engage communities in creating evidence based, culturally competent programs	76	2	0	78	97%
CCO3	Conduct community based participatory intervention and research projects	76	2	0	78	97%
CCO4	Design action plans for enhancing community and population based health	76	2	0	78	97%
CCO5	Assess cultural, environmental, and social justice influences on the health of communities	77	1	0	78	99%
CCO6	Implement culturally and linguistically appropriate programs, services and research	74	1	3	78	95%
CRITICAL ANALYSIS						
CRA1	Apply theoretical and evidence based perspectives from multiple disciplines in the design and implementation of programs, policies, and systems	77	1	0	78	99%
CRA2	Interpret quantitative and qualitative data following current scientific standards	78	0	0	78	100%
CRA3	Design needs and resource assessments for communities and populations	76	1	1	78	97%
CRA4	Develop health surveillance systems to monitor population health, health equity, and public health services	77	1	0	78	99%
CRA5	Synthesize information from multiple sources for research and practice	78	0	0	78	100%
CRA6	Evaluate the performance and impact of health programs, policies and systems	78	0	0	78	100%
CRA7	Weigh risks, benefits, and unintended consequences of research and practice	73	5	0	78	94%
LEADERSHIP						
LDR1	Communicate an organization's mission, shared vision, and values to stakeholders	76	1	1	78	97%
LDR2	Develop teams for implementing health initiatives	77	1	0	78	99%
LDR3	Collaborate with diverse groups	75	2	1	78	96%
LDR4	Influence others to achieve high standards of performance and accountability	76	0	2	78	97%

	Upon graduation a DRPH trainee should be able to:	Agree	Disagree	Don't know	Total	% Agree
LDR5	Guide organizational decision making and planning based on internal and external environmental research	77	1	0	78	99%
LDR6	Prepare professional plans incorporating lifelong learning, mentoring, and continued career progression strategies	77	0	1	78	99%
LDR7	Create a shared vision	75	2	1	78	96%
LDR8	Develop capacity building strategies at the individual, organizational and community level	76	2	0	78	97%
LDR9	Demonstrate a commitment to personal and professional values	76	1	1	78	97%
MANAGEMENT						
MNG1	Implement strategic planning processes	75	2	1	78	96%
MNG2	Apply principles of human resource management	77	1	0	78	99%
MNG3	Use informatics principles in the design and implementation of information systems	71	3	4	78	91%
MNG4	Align policies and procedures with regulatory and statutory requirements	72	3	3	78	92%
MNG5	Deploy quality improvement methods	76	1	1	78	97%
MNG6	Organize the work environment with defined lines of responsibility, authority, communication, and governance	76	1	1	78	97%
MNG7	Develop financial and business plans for health programs and services	74	1	3	78	95%
MNG8	Establish a network of relationships, including internal and external collaborators	78	0	0	78	100%
MNG9	Evaluate organizational performance in relation to strategic and defined goals	77	1	0	78	99%
PROFESSIONALISM & ETHICS						
PRM1	Identify and Manage potential conflicts of interest encountered by practitioners, researchers, and organizations	76	1	1	78	97%
PRM2	Differentiate among the administrative, legal, ethical, and quality assurance dimensions of research and practice	77	0	1	78	99%
PRM3	Design strategies for resolving ethical concerns in research, law and regulations	72	4	2	78	92%
PRM4	Develop tools that protect the privacy of individuals and communities involved in health programs, policies, and research	76	0	2	78	97%

	Upon graduation a DRPH trainee should be able to:	Agree	Disagree	Don't know	Total	% Agree
PRM5	Prepare criteria for which the protection of the public welfare may transcend the right to individual autonomy	73	2	3	78	94%
PRM6	Assess ethical considerations in developing communications and promotional initiatives	77	1	0	78	99%
PRM7	Demonstrate cultural sensitivity in ethical discourse and analysis	77	0	1	78	99%
						Systems Thinking
ST1	Identify characteristics of a system	74	2	2	78	95%
ST2	Identify unintended consequences produced by changes made to a public health system	77	1	0	78	99%
ST3	Provide examples of feedback loops and "stocks and flows" within a public health system	74	1	3	78	95%
ST4	Explain how systems (e.g. individuals, social networks, organizations and communities) may be viewed as systems within systems in the analysis of public health problems	77	0	1	78	99%
ST5	Explain how systems models can be tested and validated	74	1	3	78	95%
ST6	Explain how the contexts of gender, race, poverty, history, migration, and culture are important in the design of interventions within public health systems	77	1	0	78	99%
ST7	Illustrate how changes in public health systems (including input, processes and output) can be measured	77	1	0	78	99%
ST8	Analyse inter-relationships among systems that influence the quality of life of people in their communities	76	1	1	78	97%
ST9	Analyse the effects of political, social and economic policies on public health systems at the local, state, national and international levels	75	3	0	78	96%
ST10	Analyse the impact of global trends and interdependencies on public health related problems and systems	76	2	0	78	97%
ST11	Assess strengths and weaknesses of applying the systems approach to public health problems.	78	0	0	78	100%
COMPETENCE INTEGRATION AND APPLICATION						
CIA	Apply evidence and leadership principles to create a plan for change that, if implemented, can improve the public's health	77	0	1	78	99%

5. Conclusions

(1) Professional doctoral training in public health (DRPH) is perceived as relevant and timely for the health sector in Ghana
(2) Both from the in-depth key informant interviews and the questionnaire survey there is a high congruence between the competencies for DRPH training developed by the Associations of Schools and Programs of Public Health and the competencies that our respondents perceive as relevant for DRPH training
(3) The target group should be people who already have extensive experience in leadership at the operational level and higher in the health sector
(4) The intellectual rigor of terminal (doctoral level) training should be applied in the program but with an emphasis on practice, application, innovation, leadership and management
(5) An approach that involves a mix of short periods of campus residence with in between periods that enables work place based learning was felt to be the most relevant capacity building approach. The details of the optimal mix of residence periods and work place based learning need to be worked out
(6) Contact between trainees and facilitators as well as between trainees and other trainees needs to be maintained in-between the residence periods since learning was felt to be best done by a mix of self directed learning, peer to peer learning and facilitator and mentor supported learning
(7) Given the experience of the target group learning has to be peer to peer as well as peer to facilitator and draw on the experience of the learners
(8) Learning must also be practice based with an emphasis on application of theory rather than didactic and predominantly theory based
(9) The training should be at the intellectual level of a terminal (doctoral degree) and trainees must already hold at least a masters or the equivalent
(10) Trainees must already been technically proficient in the field of public health and their area of practice.

Annexes

Annex 1 – Brief Profile of Key Informants for the in-depth interviews (in alphabetical order)[3]

Dr. Sam Adjei MBChB MPH MSc was a District Medical Officer before becoming Regional Senior Public Health Specialist in the Greater Accra region. He was instrumental in setting up what is currently the research and development directorate of the Ghana Health Service, and the first Director of Research. He subsequently became Deputy Director General Ghana Health Service. At the Global level he has served on several committees of WHO, UNICEF, GAVI, the Health metrics network, and the Applied Field Research committee of TDR

Professor Agyeman Badu-Akosa MBChB FRCP after graduation from the University of Ghana Medical School and work as a clinician left for training as a pathologist in the UK. He was appointed a consultant in the UK and subsequently became director of Pathology in his Trust. He returned to Ghana as an Associate professor of pathology and became the head of department of Pathology in the Korle-Bu Teaching Hospital /University of Ghana Medical School. He subsequently became Director General of the Ghana Health Service before moving back into academia.

Dr. Erasmus Agongo MBChB MPH started his career as a medical officer providing clinical care; then became a District Director of Health, and then a Medical Superintendent of a hospital. He was subsequently Regional Director of Health Services in three different regions of Ghana before finally becoming the director of the Policy Planning Monitoring and Evaluation (PPME) division of the Ghana Health Service.

Mr. Anim Addo BPharm .....has been in the forefront of the profession of pharmacy beginning from 1971 to date. He has been secretary of the Greater Accra Regional branch of the Pharmaceutical Society of Ghana. He has served on the pharmaceutical society governing council and has been the only non elected general secretary of the society. He was president for two terms of the Pharmaceutical Society of Ghana and is currently chairman of the Pharmacy Council of Ghana. He has served the commonwealth pharmaceutical association West African branch as their representative, and has been awarded for his meritorious service to the pharmaceutical society by being made a fellow of the pharmaceutical society. He is also a fellow of the West African post graduate college of pharmacists and of the Ghana society of Pharmacy

Dr. George Amofah MBChB MPH has worked at all levels in Ghana from community through districts, to regional and finally national level. At the community level he was involved in the training of village health workers, supervising them, coordinating their activities, and EPI management. At the district level he has been District Medical Officer for the Kumasi; and at regional level Regional director of health for the Ashanti region before moving to become Director Public Health and then Deputy Director General for

[3] All key informants in the in-depth interviews gave their informed consent to be interviewed and to be acknowledged in the final report

the Ghana Health Service. He has also worked extensively at international levels as a WHO and Global Fund technical advisor.

Dr. Ebenezer Appiah Denkyira MBChB MPH has been district director of health services in the Ashanti region. He subsequently became regional director of health services in 3 different regions become moving to become director of Human Resources in the Ministry of Health and finally Director General of the Ghana Health Service. He has also worked as a leader in Liberia's Ministry of Health.

Dr. Gilbert Buckle MBChB MPH has been district director of health for the New Juabeng Municipality, capital of the Eastern region before moving to the Christian Health Association of Ghana (CHAG). Within CHAG he has been director of the public health services for 10 years and CHAG deputy director for 5 years before becoming Executive Director of CHAG. He is currently the Chief Executive Officer of the Korle-Bu Teaching hospital. He has been a member of various committees in health, and several national strategic planning committees.

Professor Alex Dodoo PHD is a pharmacist by training. He has been for two terms, which is the maximum you can have, President of the Pharmaceutical Society of Ghana. He has been for nearly eight (8) years Director of the Center for Clinical Pharmacology at the University of Ghana Medical School. He serves on the Technical Committee and the Editorial Board for development of the Ghana Standard Treatment Guidelines. He has been Chairman of the governing board of the Food and Drugs Board for a short time and a member of the governing council of the Pharmacy Council for four (4) years. He has also served for about five (5) years on the governing board of the Centre for Scientific Research into Plant Medicine (CSRIPM) and on various University Academic Boards, College Boards, Medical School Boards, and Education Committees. He has been Research Coordinator for the University of Ghana Medical School. He has also served and continues to serve on several WHO expert committees; and president for one term of the International Society of Pharmacology; and for four (4) of the International Pharmacy Federation which represents all Pharmacists.

Professor John O. Gyapong MBChB MPH PHD started his career as medical officer and researcher in the Navrongo hospital and subsequently the Health Research Center of the Ghana Health Service. He moved to the Health Research unit in Accra and subsequently became director Research and Development Division of the Ghana Health Service. He subsequently moved into the University of Ghana full time, and was vice dean of the School of Public Health, before being appointed as Pro Vice Chancellor for the Office of Research Innovation and Development of the University of Ghana. At the international level he has served on several committees.

Dr. Margaret Gyapong PHD started her career as researcher in the Navrongo Health Research Center of the Ghana Health Service. She subsequently moved to the Dodowa Research Center of the Ghana Health Service, where she was one the pioneers in setting up the District Demographic Surveillance system. She subsequently become and currently is the director of the Dodowa Health Research Center. At the international level she has served on several committees.

Dr. Abraham V. Hodgson MBChB MPH PHD started his career as a medical officer providing clinical care. He then became District Director of Health for the Wassa District of the Western region of Ghana before moving to the Navrongo Health Research Center of the Ghana Health Service where he rose to become director. He subsequently became and currently is the Director of the Research and Development Division of the Ghana Health Service.

Mr. Ohene Manu BPharm …is pharmacist by training. He start his career working with Pfizzer, an international pharmaceutical company involved in the distribution of pharmaceutical and medical produces in Ghana initially and then much later in Anglophone west Africa with the exception of Nigeria. After his initial work with Pfizzer, he later moved on to work with Glaxo. He received management training from Pfizzer and Glaxo both in Ghana and in the UK. He was active in organizing the Pharmaceutical Society of Ghana. He was a council member of the commonwealth pharmaceutical association for many years. After leaving Glaxo in 1981, he set up his own pharmacy business, which has been engaged in wholesale and retail. Since retirement, he has concentrated his activities on continuing professional development programs for pharmacists in Ghana and setting up the Ghana College of Pharmacists. He was the Chair of the first pharmacy council in Ghana.

Annex 2 – Data collection tools

Annex 2.1 Key respondent in-depth interview and focus group discussions topic guide

INFORMED CONSENT FORM FOR IN-DEPTH INTERVEIWS

Part I: Information sheet

Good morning/afternoon. My name is _____ from _____.

I am here today on behalf of the DRPH-HLA project, a Rockefeller Foundation-funded project that is working to develop a Doctor of Public Health (DrPH) doctoral programme curriculum to be delivered in our country and other African schools of public health. We are currently carrying out a training needs assessment, and are inviting respondents like you with a given interest in such a potential programme. I would like your permission to talk with you today about your ideas and experiences related to this topic.
You are at liberty to answer or not answer any or all of my questions. You may end our discussion at any time. Nothing you say will be directly attributed to you in any way. We seek your consent to participate in this interview. We may need to meet you on a different day to follow up on your answers and ideas expressed in this interview. We seek your consent to do so. To ensure I have a complete record of everything you say, I would like to audio record our conversation. However, only the Training Needs Assessment team at my Institute will be able to listen to the recording. Your identity will not be revealed in any research findings.

Do you agree to participate in this interview?

Yes ☐ No ☐

Would you be able to participate in a subsequent interview if required?

Yes ☐ No ☐ Don't Know ☐

If you do not agree to participate in this first interview, I thank you for your time.

If yes i.e. you agree to participate

Do you agree to the interview being tape recorded? Yes ☐ No ☐

If respondent agrees to the interview:

Would you like to be acknowledged in the final report?

Yes ☐ No ☐

_____
Name or signature or initials of respondent

Do you have any questions before we start?

If respondent agrees to participate, and agrees to be recorded, start the recorder, and say - Interview on *date*, and for the benefit of the recorder note that the respondent has consented to this interview.

Terminology

Brief explanation of terminology to be provided to all respondents before the interview starts. This will ensure that we are all thinking and talking about the same thing.

In this interview we are focused on the concept of strategic leadership. We use the term as part of terminology related to levels of leadership. The three broad levels or domains of leadership are:

- Team: The leader of a team of some 10 – 20 people with clearly specified tasks to achieve. An example would be the head of a sub-district health team or the head of a research team.
- Operational: The leader of one of the main parts of the organization with more than one team leader under their control. This is already a case of being a leader of leaders. An example would be a district director of health services with the district health management team several sub-district health team leaders operating under their leadership
- Strategic: The leader of a whole organization with a number of operation leaders under their personal direction. An example would be a regional or provincial director of health service or a national director of a health service or a big NGO.

The focus of the professional doctoral level program in connection with which we are interviewing you is the training and capacity building of strategic leadership for the health sectors of Africa.

Background on respondents and interview

Individual or Participant group	
Name(s)	
Date of interview/group discussion	
Place	
Facilitator(s)	
File Name	

Is the recorder working?	
Consent given?	

Interview Guide

PART A: INDIVIDUAL STRATEGIC LEADERSHIP SITUATION AND CAPACITY BUILDING NEEDS

Items here are related to the specific objectives to describe the perceptions of individuals in strategic leadership (past and present) and health sector stakeholders as to the needs for strategic leadership in the health sectors of Africa and what the curriculum content for individual capacity building should contain

1. Describe any past and present personal leadership roles and experiences in the health sector
2. From past and present experiences what would you describe and the core /key competencies individuals in strategic leadership in the health sector need?
3. How are these competencies acquired?
4. What should be looked for in selecting /appointing strategic leaders for the health sector?
5. What should go into the training and preparation of such leaders?
6. We are designing a professional doctoral level program to train strategic leaders for the health sector, what suggestions might you have as to what the design of this program should look like in terms of content, structure, process?
7. Please indicate (and explain your answer) if you would agree that some understanding and competence related to the items in the list below should be part of the core competencies that someone trained in this program should acquire
    a. Critical thinking and analysis
    b. The ability to work in multi-disciplinary teams /teamwork
    c. An understanding of community and cultural issues and ability to understand and work across different communities and cultures
    d. Policy development, analysis, communication and advocacy
    e. Health politics, policy and law
    f. Professionalism and ethics
    g. Systems and complexity thinking
    h. Change management
    i. Academic linkages and brokering

PART B: INSTITUTIONAL CONTEXT OF STRATEGIC LEADERSHIP AND IMPLICATIONS FOR CAPACITY BUILDING

Items here are related to the objective to scope, understand and describe the nature of the institutions in which strategic leaders in African Health Systems work and the kinds

of capacity that these leaders need to have to be able to strengthen these institutions and systems

1. What are some of the institutions and organizations in which we can anticipate that strategic leaders in this country /in Africa would be working?
2. What is your opinion about the nature of these institutions and what you need to know to be an effective leader in such an institution? Why?
3. What are the implications for capacity building and training of the leaders of these institutions?
4. How should we go about making sure that people being trained to be the next generation of leaders in these institutions are well equipped to move the institutions forward and help them to achieve the mission of public health to ensure the conditions in which societies can be healthy?

PART C: ENVIRONMENTAL CONTEXT OF STRATEGIC LEADERSHIP AND IMPLICATIONS FOR CAPACITY BUILDING

Items here are related to the objective to Scope, understand and describe the wider context for strategic leadership, the related training needs within African health systems and the implications for design of the DRPH HLA program

1. From your experience and observation, how would you describe the wider environmental (i.e. international, national, regional /provincial and district) context in which strategic leaders in the health sectors of Africa work
2. What are the implications of this for developing leadership training and capacity building?
3. How does this affect the kind of skills that strategic leaders need to have to effectively lead in these environments?

PART D: INSTITUTIONS THAT CURRENTLY PROVIDE STRATEGIC LEADERSHIP TRAINING FOR SUB-SAHARAN AFRICA

Items here are related to the specific objective to scope, understand and describe institutions and programs that currently provide strategic leadership training in health for Africa, what they offer, and what can be learned from their activities and experience about leadership training needs in Africa and optimal training approaches

1. Where and how – to the best of your knowledge – are strategic leaders in the health sector currently trained / Do you know any institutions that currently provide formal training and capacity building for such leaders?
2. What about informal training and capacity building?
3. Are you aware of the content /curriculum of these programs?

4. If you are aware what is your opinion of the content /curriculum?

Annex 2.2 Questionnaire for mid-level managers

Target Group: District Directors of Health, Hospital Medical Directors, Program heads, NGO heads

Informed consent form for mid-level manager interviews

Good morning/afternoon. I am here today on behalf of the DRPH-HLA project, a Rockefeller Foundation-funded project that is working to develop a Doctor of Public Health (DrPH) doctoral programme curriculum to be delivered in our country and other African schools of public health. We are currently carrying out a training needs assessment, and are inviting respondents like you with a given interest in such a potential programme. The information you provide to us will help us in the design of the program. I would like your permission to talk with you today about your ideas and experiences related to this topic. You are at liberty to answer or not answer any or all of my questions. You may end our discussion at any time. Nothing you say will be directly attributed to you in any way. We seek your consent to participate in this interview.

Do you agree to participate in this interview?

Yes ☐ No ☐

If you do not agree to participate in this first interview, I thank you for your time.

If yes i.e. you agree to participate

_____

Name or signature or initials of respondent

Do you have any questions before we start?

You may also contact Irene A. Agyepong of the Department of Health Policy, Planning and Management of the University of Ghana School of Public Health, the Principal Investigator for this project, if you want any further information. You can contact her on 0244862665 or iagyepong@hotmail.com

Introduction to Questionnaire

The focus of the professional doctoral level program in connection with which we are interviewing you is the training and capacity building of strategic leadership for the health sectors of Africa. We use the term strategic leadership as part of terminology related to levels of leadership. The three broad levels or domains of leadership are:

- Team: The leader of a team of some 10 – 20 people with clearly specified tasks to achieve. An example would be the head of a sub-district health team or the head of a research team.
- Operational: The leader of one of the main parts of the organization with more than one team leader under their control. This is already a case of being a leader of leaders. An example would be a district director of health services with the district health management team several sub-district health team leaders operating under their leadership
- Strategic: The leader of a whole organization with a number of operation leaders under their personal direction. An example would be a regional or provincial director of health service or a national director of a health service or a big NGO.

Date of interview: _____

Start time: _____ End time: _____

Name of interviewer: _____

Region: _____ District:_____

Institution

1=RHD _____

2=DHD _____

3=Hospital _____

4=NGO _____

5=Other (specify) _____

Part I

1. Do you think the concept of a professional doctoral level leadership training program is potentially of relevance to you:

1 Yes □ 0 No □

2. Please explain your answer: _____

3. Do you think the concept of a professional level leadership training program is potentially of relevance to other staff in the health sector?

1 Yes □ 0 No □

4. If yes, what kinds of staff: _____

5. Why_____

6. What is your current position:_____

7. How long have you been in this position (Years & Months[4]):
_____

8. Previous position: _____

9. No. of years & months in this position: _____

10. Sex: 1 Female □ 0 Male □

_____

[4] Express months as a decimal place e.g. 1 year 4 months would be 1.33. See conversion table below

1 month	= 0.08 years
2 months	= 0.17 years
3 months	= 0.25 years
4 months	= 0.33 years
5 months	= 0.42 years
6 months	= 0.50 years
7 months	= 0.58 years
8 months	= 0.67 years
9 months	= 0.75 years
10 months	= 0.83 years
11 months	= 0.92 years
12 months	= 1.00 years

11. Age (completed years at last birthday): _____

12. Formal Educational Background

	Disciplinary area	Year of award	Institution
Bachelors degree BA/BSc			
Masters degree MA/MSc			
Other degrees			
Other degrees			

Part II – Competencies
The program we are designing will be based on a competency model. We would very much like your opinion as to whether the competencies below are relevant to strategic leaders in sub-Saharan Africa. The competencies are grouped into domains and a brief explanation is provided of each domain. Please select "yes", "no" or "don't know" in relation to each of the competencies under a particular domain. A column is also provided for you to make any explanatory comments, remarks or raise questions.

1. DOMAIN: ADVOCACY

Definition: The ability to influence decision making regarding policies and practices that advance public health using scientific knowledge, analysis, communication and consensus building

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
ADV1	Analyse the impact of legislation, judicial opinions, regulations, and policies on population health				----------
ADV2	Establish goals, timelines, funding alternatives, and strategies for influencing policy initiatives				
ADV3	Design action plans for building public				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
	and political support for programs and policies				
ADV4	Develop evidence based strategies for changing health law and policy				
ADV5	Understand and utilize international diplomacy and negotiation skills for the promotion of health				

2. DOMAIN: COMMUNICATION

Definition: The ability to assess and use communication strategies across diverse audiences to inform and influence individual, organization, community and policy actions

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
COM1	Discuss the inter-relationships between health communication and marketing				---------- ----------
COM2	Explain communication program proposals and evaluations to lay, professional and policy audiences				
COM3	Employ evidence based communication program models for disseminating research and evaluation outcomes				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
COM4	Guide an organization in setting communication goals, objectives and priorities, including risk communication during epidemics/pandemics				
COM5	Create informational and persuasive communications				
COM6	Participate actively and meaningfully in international health discussions and fora				
COM7	Integrate health literacy concepts in all communication and marketing initiatives				
COM8	Develop formative and outcome evaluation plans for communication and marketing efforts				
COM9	Prepare dissemination plans for communication programs and evaluations				
COM10	Propose recommendations for improving communication processes				

3. DOMAIN: COMMUNITY /CULTURAL ORIENTATION

Definition: The ability to communicate and interact with people across diverse communities and cultures for development of programs, policies and research

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
CCO1	Develop collaborative partnerships with communities, policy makers, and other relevant groups, esp MDAs and civil society organisations				Reason /comments ---------- ---------- -
CCO2	Engage communities in creating evidence based, culturally competent programs				
CCO3	Conduct community based participatory intervention and research projects				
CCO4	Design action plans for enhancing community and population based health				
CCO5	Assess cultural, environmental, and social justice influences on the health of communities				
CCO6	Implement culturally and linguistically appropriate programs, services and research				

4. DOMAIN: CRITICAL ANALYSIS

Definition: The ability to synthesize and apply evidence based research and theory from a broad range of disciplines and health related data sources to advance programs, policies and systems promoting population health

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
CRA1	Apply theoretical and evidence based perspectives from multiple disciplines in the design and implementation of programs, policies, and systems				----------
CRA2	Interpret quantitative and qualitative data following current scientific standards				
CRA3	Design needs and resource assessments for communities and populations				
CRA4	Develop health surveillance systems to monitor population health, health equity, and public health services				
CRA5	Synthesize information from multiple sources for research and practice				
CRA6	Evaluate the performance and impact of health programs, policies and systems				
CRA7	Weigh risks, benefits, and unintended consequences of research and practice				

5. DOMAIN: LEADERSHIP

Definition: The ability to create and communicate a shared vision for a positive future; inspire trust and motivate others; and use evidence based strategies to enhance essential public health services

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
LDR1	Communicate an organization's mission, shared vision, and values to stakeholders				----------
LDR2	Develop teams for implementing health initiatives				
LDR3	Collaborate with diverse groups				
LDR4	Influence others to achieve high standards of performance and accountability				
LDR5	Guide organizational decision making and planning based on internal and external environmental research				
LDR6	Prepare professional plans incorporating lifelong learning, mentoring, and continued career progression strategies				
LDR7	Create a shared vision				
LDR8	Develop capacity building strategies at the individual, organizational and				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
	community level				
LDR9	Demonstrate a commitment to personal and professional values				

6. DOMAIN: MANAGEMENT

Definition: The ability to provide fiscally responsible strategic and operational guidance within both public and private health organizations for achieving individual and community health and wellness

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
MNG1	Implement strategic planning processes				---------- ---------- ----------
MNG2	Apply principles of human resource management				
MNG3	Use informatics principles in the design and implementation of information systems				
MNG4	Align policies and procedures with regulatory and statutory requirements				
MNG5	Deploy quality improvement methods				
MNG6	Organize the work environment with defined lines of responsibility, authority, communication, and governance				
MNG7	Develop financial and business plans for health programs and services				
MNG8	Establish a network of relationships, including internal and external				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
	collaborators				
MNG9	Evaluate organizational performance in relation to strategic and defined goals				

7. DOMAIN: PROFESSIONALISM AND ETHICS

Definition: The ability to identify and analyze an ethical issue: balance the claims of personal liberty with the responsibility to protect and improve the health of the population; and act on the ethical concepts of social justice and human rights in public health research and practice

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
PRM1	Identify and Manage potential conflicts of interest encountered by practitioners, researchers, and organizations				----------
PRM2	Differentiate among the administrative, legal, ethical, and quality assurance dimensions of research and practice				
PRM3	Design strategies for resolving ethical concerns in research, law and regulations				
PRM4	Develop tools that protect the privacy of individuals and communities involved in health programs, policies, and research				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments
PRM5	Prepare criteria for which the protection of the public welfare may transcend the right to individual autonomy				
PRM6	Assess ethical considerations in developing communications and promotional initiatives				
PRM7	Demonstrate cultural sensitivity in ethical discourse and analysis				

8. DOMAIN: SYSTEMS THINKING

The ability to recognize system level properties that result from dynamic interactions among human and social systems and how they affect the relationships among individuals, groups, organizations, communities and environments

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments_____
ST1	Identify characteristics of a system				
ST2	Identify unintended consequences produced by changes made to a public health system				
ST3	Provide examples of feedback loops and "stocks and flows" within a public health system				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments_____
ST4	Explain how systems (e.g. individuals, social networks, organizations and communities) may be viewed as systems within systems in the analysis of public health problems				
ST5	Explain how systems models can be tested and validated				
ST6	Explain how the contexts of gender, race, poverty, history, migration, and culture are important in the design of interventions within public health systems				
ST7	Illustrate how changes in public health systems (including input, processes and output) can be measured				
ST8	Analyse inter-relationships among systems that influence the quality of life of people in their communities				
ST9	Analyse the effects of political, social and economic policies on				

	Upon graduation a DRPH trainee should be able to:	Agree=0	Disagree=1	Don't know=2	Reason /comments_____
	public health systems at the local, state, national and international levels				
ST10	Analyse the impact of global trends and interdependencies on public health related problems and systems				
ST11	Assess strengths and weaknesses of applying the systems approach to public health problems.				

9. DOMAIN: COMPETENCE INTEGRATION AND APPLICATION

This has to do with how leaders are able to effectively pull together, inter-related and integrate linked concepts from different domains and be able put it all together to effectively lead change

	Upon graduation a DRPH trainee should be able to:	Agree	Disagree	Don't know	Reason /comments
CIA	Apply evidence and leadership principles to create a plan for change that, if implemented, can improve the public's health				

10. DOMAIN: OTHERS

Are there any other areas, which have not emerged but you feel should have /should be included in the competencies of DRPH graduates who aspire to strategic leadership positions in institutions and health sectors in sub-Saharan Africa. Please explain the area under definition and list any related competencies

	Upon graduation a DRPH trainee should be able to:	Reason /comments
		……..

Name (Optional)_____