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ORIGINAL RESEARCH

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Strengthening health management, leadership, and governance capacities: What are the actual training needs in Tanzania?

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Abstract

Background and Aim: Effective management, leadership, and governance (MLG) contribute to improved population health outcomes. However, weak management, leadership, and governance capacity continue to haunt many health systems in low- and-middle-income countries (LMICs). Capacity strengthening through training of health system managers is among the strategies to address the latter challenge. However, the actual needs for MLG training remain unestablished in many LMICs. The main objective of this study was to assess the training needs for MLG among health managers in Tanzania Mainland.

Methods: We employed a mixed methods approach and convergent mixed methods study design to establish MLG training needs among health managers. In March 2019, quantitative data were collected by administering a questionnaire to a quantitative sample of 156 health managers working in 14 councils and seven regions. We used semi-structured interviews to collect qualitative data from a qualitative sample of 35 health managers. We used descriptive statistical technique and thematic analysis to analyse quantitative and qualitative data, respectively.

Results: The main findings of this study show that: 152 (97%) health managers and all 35 interviewees said that there was a need for training health managers on MLG; 31 out of the 33 proposed MLG competencies were rated as important by the health managers; and a list of 35 general topics and 19 priority topics were suggested by the health managers for inclusion in future MLG training.

Conclusion: Our research has generated useful empirical evidence indicating the needs for training health managers on MLG in terms of expressed needs, important competencies, and topics. Policymakers and training developers should use the evidence to develop training programs to address identified needs. Future training needs studies on management and leadership should use observational and diary methods to collect data on the competencies of health managers.

KEYWORDS
governance, health management teams, leadership, management, Tanzania, training needs

1 | INTRODUCTION

Globally, poor leadership and management continue to be among the major contributors to the poor performance of health systems.[1] Poor coordination of health service delivery, insufficient budgeting for affordable and effective health programs, and inadequate resources for health workers to provide high-quality health care, poor health quality services continue to surface in many health systems.[2,3] Effective leadership and management are a precursor for the optimal performance of health systems.[4,5] There is growing evidence that leadership and management positively impact health services and the population's health outcomes.[5–7]

In low- and middle-income countries (LMICs), the performance of the health systems is negatively affected by the lack of a critical mass of competent leaders and managers at various levels.[8,9] Lack of competent leaders and managers is attributed to inadequate quality of pre-and in-service training for health professionals and an insufficient number of competent health system managers and leaders.[8,10,11] As a result, most health professionals have been appointed to leadership and managerial positions without adequate competencies to lead and manage health organizations, services, and programs. To address the weaknesses of leadership and management in health systems in LMICs, international organizations, and experts are calling for strengthening management, leadership, and governance competencies through training in health systems at all levels.[4,6,12,13]

Tanzania, an East African Country, is not an exception in the quest for the suboptimal performance of its health system attributed to weak health management systems at all levels.[14–16] Health policy and strategies have documented the general health system management weakness,[14–17] which compromises the health system's performance at the health facility, council, and regional levels. Moreover, some researchers have identified that good management and leadership practices contribute to improved performance of the district health system[18] and weaknesses in management and leadership constrained decision-making space and performance of the district health system.[19]

To address identified weaknesses in management and leadership, the Ministry of Health (MOH), through the National health policy of 2017, Health Sector Strategic Plan V (HSSP V) and Human Resources for Health and Social Welfare Strategic Plan 2014–2019 and 2019–2024 calls for all stakeholders to support in strengthening management, governance, and leadership capacities of health system managers.[13,14,16,17] Among the recommended approaches for strengthening management, governance, and leadership capacities is to train health professionals on management, leadership, and governance.[1,14,15,18–21] Despite the above documented weaknesses and calls, there is limited empirical evidence on the actual training needs on management, leadership and governance for frontline health managers working at regional, council, and health facility levels in Tanzania.[18,19,22] To address this knowledge gap, this study sought to assess the management, leadership, and governance training needs at the health facility, council, and regional levels of the health system in Tanzania. Specifically, we assessed the training needs in terms of the following: health managers' expressed training needs; important competencies for managerial and leadership duties and responsibilities; and topics to be included in the management, leadership, and governance training.

2 | METHODS

2.1 | Conceptual model of the study

This study was guided by a competency-based education and training model.[23,24] The model emphasizes the importance of understanding the context or situation in which a training will be formulated and implemented. The model has four major steps: conducting a training needs assessment, developing a curriculum and teaching materials, teaching and learning, and evaluating the training.[23] The model requires training developers to conduct a training needs assessment (situational analysis).[24,25] In relation to conducting the training needs assessment (the focus of this study), the model suggests that training developers have to consider and assess training needs in terms of the expressed need for training, important competencies required by the potential learners, and the topics to be taught to potential learners.[23–25]

2.2 | Study design

This was a mixed methods study, which is suited to understanding the training needs for management, leadership, and governance among health managers.[26,27] We employed a convergent mixed methods study design, which allowed us to simultaneously collect quantitative and qualitative data on the training needs for management, leadership, and governance.[27]

2.3 | Study settings

The study was conducted in 14 councils and seven regions (Iringa, Morogoro, Dodoma, Pwani, Singida, Tabora, and Dar es Salaam) out of the 26 regions in Tanzania Mainland. Specifically, we conducted the study to assess the training needs for management, leadership, and governance for health managers working at the primary health facility (dispensaries, health centers, and district hospitals), council, and regional levels. We focused on these levels because the

managers at these levels are responsible for managing and leading the provision of the majority of health and social welfare services needed by the majority of Tanzanians.[16,17]

Administratively, the Tanzanian health system is organized to follow the decentralized governing structure, which is a pyramid of four levels. The first level is the council level, which comprises the district health management team, district hospital, health centers and dispensaries; the second is known as the regional level which includes the regional referral hospitals and the Regional Health Management Team (RHMT). The third level is formed by the zonal referral hospitals, specialized hospitals, and the national hospitals; the fourth is the national level, which is formed by the Ministry of Health(MoH), the President's Office-Regional Administrations and Local Governments (PO-RALG), and other national health organizations.

2.4 | Population, sampling technique, and sample size

The study population included health managers at the health facility, council, regional, and ministerial levels. Multi-stage sampling and purposeful sampling methods were employed to select health managers for this study. Multistage sampling was used to obtain a quantitative sample of health managers working at the health facility, council, and regional levels.[28]

2.4.1 | Quantitative sampling

From the list of seven pre-defined zones,[29] four zones (eastern, central, southern highlands, and western zone) were randomly selected using simple random sampling. From the four zones, one region was randomly selected from each zone, but only one region from the Western zone was selected using simple random sampling. From the selected regions, we involved regional health management team (RHMT) members, council health management team (CHMT) members, health facility management team (HMT) members from dispensaries, health centers, district hospitals, and ministerial officials. We included health managers who had served for at least 1 year in managerial positions. For the quantitative part of this study, 156 members of RHMT, CHMT, and HMT in the seven regions formed the quantitative sample.

2.4.2 | Qualitative sampling

The qualitative sample comprised 35 informants, purposefully selected to include health managers with more experience and who were information-rich working at the health facilities, council, regional, and ministerial levels.[30] Our qualitative sample size is within the recommended sample size of 12–32 participants.[31,32]

2.5 | Measurement of variables

This study had two major variables: training needs-related and socio-demographic variables.

2.5.1 | Training needs variables

The training needs variables were used to measure the need for training health managers on management, leadership, and governance; these variables expressed needs for training, important competencies, and topics to be included in the management, leadership, and governance training. As advocated by WHO,[21] we assessed these variables using quantitative and qualitative measurement approaches.

The expressed need for management, leadership, and governance training was assessed using a 3-point scale: 1 (no need at all for health management team members), 2 (there is a need for a small number of health management team members), and 3 (there is a need for most health management team members). To identify important leadership, management, and governance competencies, each participant rated the importance of a proposed list of 33 competencies using a Likert scale with a 5-point Likert scale: 1 (do not know), 2 (not important), 3 (minimally important), 4 (important), and to 5 (very important). Competencies rated as important and very important were regarded as the required competencies. Moreover, participants were asked to propose a list of specific topics and were then required to prioritize three topics for inclusion in the management, leadership, and governance training. Also, the training needs variables were assessed qualitatively by asking health managers to: state whether there was a need for training; suggest a general list of topics to be taught in management, leadership, and governance, prioritize three topics for inclusion in the future management, leadership, and governance training.

2.5.2 | Sociodemographic variables

Socio-demographic characteristics were measured using a questionnaire by requesting participants to state or indicate their age, sex, level of education, cadre, type of health management team, and employment experience, which was measured in years since a person was employed. Management experience was measured in the years since a person was appointed as a health manager. The managerial title was measured as indicated in the health sector staffing level.

2.6 | Data collection methods and tools

2.6.1 | Quantitative data collection

Quantitative data were collected from the health managers working at the health facility, council, and regional levels. The data collection

was done in March 2019 by the researchers, and research assistants were trained in data collection, tool, and procedures.[24,33] A questionnaire was administered to 156 health managers to collect quantitative data; the questionnaire contained closed questions. The questionnaire was developed based on existing training needs assessment tools, which were modified to suit the Tanzanian health context and the study topic.[21,24,33,34]

2.6.2 | Qualitative data collection

A semi-structured interview was employed as a qualitative data collection method. It was used to collect data from 35 health managers working in a health facility, council, and regional and national levels of the Tanzania health system. Qualitative data were collected using an interview guide, and some data were collected using the questionnaire, which had open questions. The interview guide was developed based on existing training needs assessment tools, which were modified to suit the Tanzanian health context and the study topic.[21,24,33,34]

2.7 | Data analysis and presentation

2.7.1 | Quantitative data analysis

We analyzed quantitative data using quantitative methods; quantitative data were entered into SPSS version 23 for analysis.[35] Categorical variables were summarized using frequency and percentages, while continuous were summarized using the median.

2.7.2 | Qualitative data analysis

Qualitative data were analyzed using a thematic approach to identify themes and patterns related to training needs for management, leadership and governance training, and general and priority topics to be included in management, leadership, and governance.[34] During qualitative data analysis, the data saturation point was reached after analysis of the first 17 out of the 35 interviews for data related to the needs for management, leadership, and governance training, general topics, and priority topics. This is in line with recent evidence from a systematic review of qualitative research.[31]

2.7.3 | Presentation of findings

A side-by-side presentation of findings was chosen to integrate the results from the quantitative and qualitative strands because it is an appropriate method for presenting findings from both qualitative and quantitative datasets.[27]

2.8 | Validity and reliability

Various strategies were employed in this study to ensure the validity and reliability of tools and findings.[26,27] Data collection tools were developed and pilot-tested to CHMT and HMT members in Dodoma Municipal Council. Second, we triangulated quantitative findings with qualitative findings obtained through semi-structured interviews. Third, we validated our preliminary findings through member-checking. Fourth, the preliminary findings were presented to a workshop of 25 health managers working at the health facility, council, regional and ministerial levels.

2.9 | Ethical issues

Data used in this article was collected to inform operational decisions of Po-RALG. Permission to collect data was obtained from the PORALG and regional and district authorities. Informed consent was sought from participants before data collection. Participants were ensured the confidentiality of the collected information and were granted the right to withdraw from the study at any time they wished.

3 | RESULTS

3.1 | Characteristics of health management team members

In total, the study involved 191 health managers: 156 health managers (RHMT, CHMT, and HMT members) who were respondents, and 35 were key informants comprising PO-RALG senior staff, MOH senior staff, and more experienced health managers working at the regional, local, and health facility levels. The median age of the health managers was 41 years. The median age of being in managerial and leadership positions was 5 years. The majority (65%) had not attended any management and leadership training after being appointed to managerial and leadership positions (Table 1).

3.2 | Expressed need for management, leadership, and governance training

Almost all 152 (97%) health managers said there was a need to train regional, council, and health facility managers on management, leadership, and governance (Table 2). The need for management and leadership training was not influenced by the type of team, gender, cadre, educational qualifications, and managerial experience of respondents.

Similarly, all 35 interviewed health managers had a shared view that there was a need for health management and leadership training for health managers working at regional, council, and health facility levels. The following quotes illustrate the need for training in management, leadership and governance:

TABLE 1 Demographic characteristics of respondents ($N = 156$).

Characteristics of respondents	Frequency (%)
Age of respondents (years)	
Median	41
Sex	
Male	70 (45)
Female	86 (55)
Type of health management team	
RHMT	45 (29)
CHMT	82 (52)
HMT	29 (19)
Highest education qualification	
Certificate	6 (4)
Diploma	27 (17)
Advanced diploma	18 (11)
First degree	65 (42)
Master and above	40 (26)
Cadre/designation	
Health professional	132 (84)
Administration professional	12 (8)
Social welfare professional	12 (8)
Employment experience (years)	
Median age since employed	12
Median of managerial experience	5
Attendance to management and leadership training after appointment to a managerial position	
Yes	55 (35)
No	101 (65)

Abbreviations: CHMT, council health management team; HMT, health facility management team; RHMT, regional health management team.

TABLE 2 Need for management and leadership training by type of health management team.

Type of management team	Need for management and leadership training	
	Needed by a few members	Needed by the majority of members
RHMT members	2 (4%)	43 (96%)
CHMT members	1 (1%)	81 (99%)
HMT members	1 (3%)	28 (97%)
Total	4 (3%)	152 (97%)

Abbreviations: CHMT, council health managemen team; HMT, health facility management team; RHMT, regional health management team.

> "The new members do not have necessary knowledge and skills on management, leadership, and governance.... There is a definite need [for management, leadership, and governance], but we have limited resources to address this need". *Interviewee 1, Municipal Medical Officer*.

> "Extremely necessary; the need is there... they lack [management and leadership] capacities-they are not trained, and some are appointed to [managerial] positions without formal training; as a result, they underperform". *Interviewee 10, PO-RALG senior officer*.

Participants of this training needs assessment provided three main reasons for the need for management, leadership, and governance training. First, they said few RHMT/CHMT/HMT members have the necessary competencies on management and leadership necessary to be effective managers and leaders at regional, council and health facility levels. Second, they said very few management and leadership competencies are covered when health professionals are prepared in their colleges/universities; as a result, most health managers are appointed to managerial and leadership positions without adequate preparation. Third, they said there was a need for training on management and leadership as a strategy for the continuous professional development of health managers to meet the current and future managerial and leadership requirements and new changes/reforms taking place in the health sector and the public sector in general.

3.3 | Important management, leadership, and governance competencies

Respondents of this research rated 32 specific management, leadership, and governance competencies as important (i.e., important or very important) for health managers working at regional, council, and health facility levels in Tanzania. The specific management, leadership, and governance competencies viewed as important are presented in Table 3 under seven competency domains.

3.4 | Proposed topics for inclusion in the management, leadership, and governance training

The study participants suggested that 35 unprioritized topics be included in future training on management, leadership, and governance (Box 1). One of the key informants gave a general recommendation that the list of topics for future training on management, leadership, and governance should be derived from or address the WHO's six building blocks of a health system: 1) health services delivery; 2) human resources for health; 3) medical products,

TABLE 3 Important management, leadership, and governance competencies.

Competency domain	Specific management, leadership, and governance competencies
1. Decision-making and planning	Making managerial decision-making and solving problems
	Conducting basic analysis of health policies and strategic plans
	Using data for decision making
	Developing a health plan
	Developing action plans
2. Human resources for health	Performing basic human resources management functions
	Managing performance and empowering others
	Building a team
	Using motivation techniques
3. Health financing and financial management	Using various financial sources to generate revenue
	Using financial management principles
	Developing a budget
4. Management of other resources	Managing health information systems
	Assessing the quality of information from health information system
	Managing health commodities
	Developing procurement plan for health services
	Managing time
5. Health services	Setting standards for the provision of quality health services
	Assessing the quality of health services
	Applying principles of quality improvement for health services
6. Monitoring and evaluation	Conducting monitoring and evaluation
	Conducting supportive supervision
	Providing constructive feedback to others
	Prepare various monitoring and evaluation reports.
7. Leadership and governance	Setting a shared mission and vision for the future.
	Identifying and managing conflicts in workplaces
	Using delegation principles
	Mentoring and coaching subordinates
	Manage stress in workplaces
	Using governance principles in health
	Using accountability principles in health
	Organizing and conducting management meetings
	Establishing and maintaining partnerships and networks

vaccines, and technologies; 4) health financing; 5) health information and intelligence, and 6) leadership and governance. From the general list, the participants suggested 19 priority topics for inclusion in future management, leadership, and governance training (Box 2). The prioritized topics were identified after analyzing the first 12 interviews. A similar list was suggested through questionnaire administration.

4 | DISCUSSION

To our knowledge, this is the first study that has assessed the actual training needs for health managers working at three levels (health facility, council, and regional) of the Tanzanian health system. In this study, our broad objective was to assess training needs for management, governance, and leadership among health managers

BOX 1. A general list of 35 management, leadership, and governance topics

1) Management and leadership concepts and principles
2) Leadership ethics
3) Good governance
4) Politics of management and leadership
5) Strategic management
6) Human resource management
7) Conflict management/resolution
8) Staff motivation
9) Managerial decision-making and problem solving
10) Financing and financial management
11) Procurement and materials management,
12) Partnership/collaboration/networking
13) Quality improvement concepts and principles
14) Planning and budgeting
15) Project management and proposal writing
16) Management of health information system
17) Team building and teamwork
18) Monitoring and evaluation
19) supportive supervision
20) Performance management
21) Mentorship and coaching
22) Delegation
23) Time management
24) Operational research
25) Coordination
26) Organizational structure
27) Health sector reforms
28) Communication
29) Accountability
30) Policy, strategies, and guidelines interpretation and dissemination
31) Report writing
32) Data analysis and interpretations
33) Stress management
34) Customer care
35) Organizational culture

BOX 2. A list of 19 priority topics for management, leadership, and governance training

1) Management and leadership concepts and principles
2) Policy, strategies, and guidelines interpretation and dissemination
3) Leadership ethics
4) Planning and budgeting
5) Human resource management
6) Financing and financial management
7) Procurement and materials management
8) Partnerships and collaboration
9) Evaluation and monitoring
10) Delegation
11) Coaching and mentoring
12) Time management
13) Roles and responsibilities of health managers
14) Supportive supervision
15) Accountability principles and framework
16) Communication
17) Team building and teamwork
18) Conflict management/resolution
19) Data analysis, interpretation and reporting

working at regional, council, and health facility levels in Tanzania Mainland. The study findings demonstrate a need for training health managers on management, leadership, and governance. Also, the study identified competencies and topics to be included in future training.

Almost all 152 (97%) respondents to the questionnaire and all (35) interviewed health managers said there is a need for training the health managers working at the health facility, council, and regional levels on management, leadership, and governance. The finding on the need for training health managers working at regional, council, and health facility levels is consistent with the need for capacity building documented in the current National Development Vision (2002), National Health Policy (2007), current health sector strategic plan and human resource strategic plan.[16,17,36,37]

The health managers 31 out of 33 of the suggested specific management, leadership, and governance competencies as important and relevant to the health managers working at regional, council, and health facility levels in Tanzania Mainland. Other experts have suggested almost similar competencies for managers and leaders.[4,11,13,38–40] Furthermore, participants suggested 35 unprioritized and 19 priority topics be included in future management, leadership, and governance training. Most of the suggested priority topics are consistent with and related to management and leadership competencies suggested by experts.[4,38]

Overall, our research generated findings that have implications to practice in Tanzania and other settings of LMICs. Our findings call for policymakers and educators in the health sector to develop health management, leadership, and governance trainings to address the identified needs. Such training should include competency domains, specific competencies, and contents identified in this study.

This research has several strengths. First, this study used a mixed methods approach, an approach that has a higher potential for achieving a "complete understanding of research problem [or phenomenon] than either approach alone."[26] Second, the study has managed to collect quantitative and qualitative data from a reasonably sizeable quantitative sample of 156 health managers[35,41] and an empirically valid qualitative sample of 35 experienced key informants.[31,32] Third, the study has generated data from four

categories of health managers working at national, regional, council and health facility levels. Thus, the findings of this study are likely to be more reliable and have high validity.

Despite these strengths, the study has one limitation that needs to be appreciated; the current management, leadership, and governance competencies were assessed using a self-assessment method, which over-estimate or underestimates the need for training and actual competencies of health managers; the need for training and competencies could have been collected using observational methods. However, for adults, using self-assessment methods is acceptable.[42] The negative effects of the self-assessment method on the findings were minimized by combining qualitative and quantitative data collection methods.[35] Thus, the findings of this study are likely to present the reality of management, leadership and governance and can be generalized to the study population.

Our evidence has implications for policymakers. First, policymakers should ensure that a short course on health management, leadership and governance is developed to meet an identified need and include prioritized topics and competencies; the course should have standardized teaching and learning materials in the form of manuals. Second, the policymakers should ensure that teaching and learning materials are pilot-tested to other councils and regions in Tanzania not included in the study. Third, policymakers should ensure that the course is registered and provided by competent and experienced health training institutions. Fourth, the policymakers should ensure that the health managers (working at a health facility, council, and regional levels) attend this course to acquire health management, leadership, and governance competencies. Fifth, health training institutions in Tanzania Mainland should incorporate the identified management, leadership, and governance topics and competencies in their long courses(educational programmes). Implementing this recommendation will ensure that graduates of these courses have relevant competencies o manage, lead and govern programs, health services, and health facilities in Tanzania.

5 | CONCLUSION

Our research has generated useful evidence indicating a need to train health managers at the health facility, council, and regional levels on management, leadership, and governance. Moreover, this research identified specific management, leadership, and governance competencies for health managers at the health facility, council, and health facility levels. Furthermore, this research generated priority management, leadership, and governance training topics. Policymakers and training developers should use the generated evidence to develop short and long-training programs to address identified needs. Moreover, future training needs research on management and leadership should use observational and diary methods to collect data on job tasks and competencies of health managers.

AUTHOR CONTRIBUTIONS

Mwandu K. Jiyenze: Conceptualization; formal analysis; investigation; methodology; writing—original draft; writing—review & editing. **Nathanael Sirili**: Formal analysis; methodology; writing—review & editing. **James Samwel Ngocho**: Formal analysis; methodology; validation; writing—review & editing. **Amani Kikula**: Formal analysis; methodology; writing—original draft; writing—review & editing. **Beatus Chikoti**: Conceptualization; formal analysis; funding acquisition; investigation; methodology; project administration; writing—review & editing. **Ntuli Kapologwe**: Conceptualization; methodology; supervision; writing—review & editing. **James T. Kengia**: Conceptualization; data curation; formal analysis; investigation; methodology; project administration; validation; writing—review & editing.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data study supporting this study's findings are available from the corresponding author upon reasonable request.

TRANSPARENCY STATEMENT

The lead author Mwandu Kini Jiyenze affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

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