MAKERERE  **UNIVERSITY**

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

ASSESSING APPROACHES TO STRENGTHENING HUMAN CAPACITY FOR MONITORING AND EVALUATION AT PUBLIC HEALTH CENTRES IN WAKISO DISTRICT.

BY

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NOVEMBER, 2023

DECLARATION

DECLARATION

I NAMANYA RACHEAL, hereby declare that this dissertation is my original work and has not been presented in any other university. The works of others are quoted and appropriate references have been given.

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APPROVAL BY SUPERVISORS

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ABBREVIATIONS

AHSPR Annual Health Sector Performance Report

DHIS District Health Information System

DHS Demographic Health Survey

FGD Focus Group Discussion

KII Key Informant Interview

MECAT Monitoring and Evaluation Capacity Assessment Tool

MOH Ministry of Health

M&E Monitoring and Evaluation

NDP National Development Plan

OECD Organization for Economic Co-operation and Development

SPSS Statistical Package for Socio Science

SWAPS Sector Wide Approaches

UPSC Uganda Public Service Commission

USAID United States Agency for International Development

WHO World Health Organization

OPERATIONAL DEFINITIONS

Continuous professional development (in-service training)

The process of acquiring skills, knowledge and experiences that you gain while on the job both formally and informally.

Evaluation

A periodic process for collecting, analysing and using health related data to examine the effectiveness, efficiency and impact of health facility activities for continuous program improvement..

Monitoring

This is the process of systematically collecting and analysing health related information of ongoing activities and comparison of the health outcomes against the public health facility intentions.

M&E human capacity

Human capacity for M&E is referred to as the ability of M&E practitioners to effectively, efficiently and sustainably collect, process and analyse health related data for better evidence based health outcomes and decision making.

M&E System

This is a set of components which are related to each other within a structure and serve a common purpose of tracking the implementation and results of a project/programme.

Pre-service training

The education and or training provided before an M&E practitioner begins his/her service as a full or part-time employee.

M&E practitioner/staff

Any individual doing M&E related work. In this study we refer to the health centre-in-charge, ward-in charge, procurement managers, health records information management officers, medical records analysts, health informatics officers, health records information assistants and data managers.

ABSTRACT

Introduction: It is important to report and present data in a format that makes it easy for decision makers to make the best possible decisions. Misleading results can undermine the effective channeling and use of resources. This is the reason why the presence of M&E staff with the required skills and competence is one of the crucial factors in determining the nature of health outcomes and meeting national reporting targets.

Study Objective: To assess approaches to strengthening human capacity for M&E at public health centres in Wakiso district, Uganda.

Methods: This study employed a descriptive survey research design, qualitative and quantitative in nature. The study targeted a sample of 105 M&E practitioners and 15 health centre persons-in-charge. The data collection instruments included the human capacity domain of the 12 components M&E capacity assessment tool and a key informant interview guide. Qualitative data was analysed using thematic content analysis while quantitative data was analysed descriptively and presented in tables and boxplots.

Results: The study found out that pre-service training and in-service training of M&E staff were moderately conducted in public health centres based on the total means and standard deviations of (30.67, 3.3) and (28.67, 3.1) respectively. Supportive supervision was however highly conducted with a total mean and standard deviation of (31.92, 3.6).The findings also showed that though most public health centres had schedules for in-service training and supportive supervision, they hardly conducted them as scheduled.

Conclusions: The study concluded that public health centres should constantly do capacity building of staff through pre-service and in-service training so as to improve their efficiency towards performing the M&E tasks of data collection, analysis and reporting. The district health office in liaison with public health facilities should continue resourcing the support in-trainings and supervision with attention to the M&E capacity gaps.

CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.1 Introduction

Human capacity for M&E is critical for health service delivery since it can lead to generation of proper health reports for better planning of service delivery in public health centres Dragomiroiu et al (2016). M&E human capacity is essential to guide policy makers and senior managers on how to develop an effective M&E workforce that can assure quality health data and reports. The study assessed the key approaches to strengthening human capacity for M&E by which include pre-service training of M&E staff, continuous professional development of M&E staff and supportive supervision of M&E staff.

Monitoring is defined as "a continuous function that uses systematic collection of data on specified indicators, to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives'' Zall Kusek and Rist (2004).Monitoring involves reporting on actual performance against what was planned or expected according to pre-determined standards. Monitoring generally involves collecting and analysing data on implementation processes, strategies, results and recommending corrective measures.

Evaluation as a time bound exercise that systematically and objectively assesses the relevance, effectiveness, impact, performance, challenges and successes of interventions and projects. Evaluation can also address outcomes or other development issues. Additionally evaluation usually seeks to answer specific questions to guide decision-makers.It commonly aims to determine relevance, efficiency, effectiveness, impact and sustainability of a public health facility operations Holvoet and Inberg (2014).

Monitoring and evaluation is the systematic process of gathering, processing, analyzing, interpreting, and storing data and information thereby setting into motion a series of managerial actions for the purpose of ascertaining the realization of set objectives and goals Zall Kusek and Rist (2004). Combined, monitoring and evaluation are distinct but connected analytical exercises. M&E is seen as an effective tool for ensuring the success of implementation and programme outcomes Singh et al (2017). Monitoring and evaluation in public health centres helps to determine and measure progress of health services and operations. Assessment of progress in public health centres is important because it generates useful health related

information for decision-making process and supports accountability for delivery of health services.

A monitoring and evaluation system is a comprehensive undertaking that offers guidance in the screening and tracking of an ongoing project, recording data and systematically evaluating the data for comparison purposes in line with the project's set goals and objectives Tengan et al (2019).

The M&E system is a set of components that can be grouped into planning, information gathering and synthesis, reflection, and reporting processes, along with the necessary supporting conditions and capacities required for the outputs of M & E to make valuable contributions towards those implementing it. Holvoet and Inberg (2014)

Human capacity for M&E in a public health facility is referred to as the ability of an M&E practitioner to effectively, efficiently and sustainably collect, process and analyse health related data for better evidence based health outcomes and decision making Dragomiroiu et al (2016). Human capacity for M&E can be considered part of the people, partnerships and planning ring of the 12 components of an M&E system. It is one of the components of an M&E system that is crucial in measuring progress, identifying areas for improvement, explaining why a strategy is or is not working, and suggesting corrective strategies for improved outcomesRichard and Otundo (2019).M&E human capacity is therefore a key component for any public health centre that aims to continuously improve and provide better health outputs and outcomes. Kawonga et al (2012) denotes that focusing on strengthening human capacity for M&E will improve the quality of health data and reports which are based on for decision making.

1.2 Background to the study

The monitoring and evaluation history is as long as the history of human activity which is full of problem identification, generation of alternatives and selecting the best solution. The basic rationale for M&E is to provide information needed for action and therefore rationalization of the process of decision makingKusak and Rist (2001). The beginning of 1960's saw M&E grow and flourish as a profession first in the developed countries and later to the middle income and low income countries through legislation and funding. Between 1968 and 1978, M&E was so popular that in the US alone, 100 federal statutes advocated for its legitimization as a core practice. By 1980's, there was a lot of financial motivation through funding for people to carry out monitoring and evaluation. With rapid rise in demand for

M&E, governments looked for M&E practitioners in the private and public sector to fill the demand. The demand led to new training programs to train highly needed M&E specialists with relevant skills Luellen et al (2005).

Globally, Monitoring and Evaluation in the Health sector was introduced through the Sector-Wide Approaches (SWAPs). SWAPs in health were developed in the early 1990's in response to the wide spread dissatisfaction with fragmented donor sponsored projects and programs within the health sector. SWAPs were mandated to develop policy frameworks that could focus on priorities of the health sector. However, concerns were raised by the donors that annual reports that were being used as part of M&E reporting mechanisms by national, provincial and local governments were largely scanty and not always helpful. They further indicated that being reporting mechanisms, the annual reports largely failed with regard to objectivity in outlining the successes and failures of previous years. For efficient management of aid and proper reporting by recipient governments, M&E systems were developed and adopted to ensure accountability and maximum use of aid. The growth of monitoring and evaluation in the beneficiary countries was influenced by the employment of M&E practitioners with the rightful skills and competences by donors. This strategy resulted into more efficient and effective government spending and greater realization of national planning goals Garner(2013).

African countries face ongoing pressures from citizens to provide more and better public health services that are evidence based, and to do this under a tight fiscal environment. This provides the context for government efforts to ensure that coherent M&E systems are developed for better performance of the different public health centres. An emphasis on government performance has led a number of African governments to employ formal M&E practitioners so that performance is improved on a regular, planned, and systematic basis with the objective of improving health care provision and the general public health facility performance Zall Kusek and Rist (2004).

In Uganda, the Ministry of Health (MoH) has a recent strategic plan MoH report (2021)which builds on the human capital development component of the National Development Plan III and lays a foundation for movement towards universal health coverage. This plan is underpinned by a performance agreement that enables the ministry to assess and report on the results of the MOH on a daily basis showing the need for effective data reporting MoH SP (2020/21-2024/25). Monitoring and evaluation in health facilities helps to coordinate and support the

ministry of health, health development partners and other stakeholders. This is done through systematically tracking progress of implementation of priority interventions in the health facilities in accordance with the agreed objectives and performance indicators. Recent experience with M&E in the Ugandan health sector has shown how M&E can be developed to contribute to national public health service, rather than becoming an unproductive data collection exercise. This has been done through conducting trainings and site based mentorships for health facility staff involved in data collection and reporting. These trainings are focused on use of MoH HMIS data collection forms and registers, District Health Information Software-Version 2 (DHIS2) for reporting and open medical records system for capturing HIV care data Dehnavieh et al (2019).

In Wakiso district, there are major gaps in data availability and quality in public health centres which has been partially attributed to weak M&E systems Ministry of health (2021). This has been evidenced through delays in submitting district health reports and data inaccuracies identified in the health-related data submitted as reported by the Annual Health Sector Performance report(2020) Poorly managed data does not permit the regular tracking of progress thus delaying the scaling- up of health interventions and weakening health systems within public health centres in the district. The weakness of M&E systems in Wakiso has further been documented in the recent Annual Health Sector Performance report which noted that 57% of the reports submitted by Wakiso district health systems for the past one year are not based on their Service Delivery Budget Implementation Plans AHSP (2021/22).

There other factors however, that affect reporting in public health centres within Wakiso district and these include limited salary payments which de motivate staff, limited number of M&E personnel, failure to use up to date data management software, too much workload and failure to streamline reporting channels by the district health office. These in addition to gaps in training and supervising M&E practioners weaken the human capacity for M&E.

The study is therefore assessing the approaches to strengthening human capacity for M&E in public health centres in Wakiso district.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Monitoring and evaluation has been in existence since the ancient times. However today, the requirements for M&E human capacity have grown with a high demand by stakeholders for accountability and results Holvoet and Inberg (2014).The following section shows available literature concerning the approaches to strengthening human capacity for M&E.

2.2 Pre-service training for current M&E staff.

Pre-service training refers to the training provided before an M&E practitioner begins his/her service as a full or part-time employee. Pre-service training of M&E staff is required in order to equip, maintain and retain a stable M&E staff Goergens and Kusek (2010). This is because competent employees are also a major contribution towards better performance in M&E (Kawonga et al., 2012).

In a study done in Kenya by Waheed (1999) on pre-service training best practices in development, indicates that public health facilities require a number of pre-service training practices which included workshops, short courses and career orientation. The study explains that pre-service training of M&E staff can be standalone section that lasts for a minimum of 3months or it can be incorporated into a larger course in health facility management that may take a minimum of 6months. Furthermore the study indicates that pre service short trainings are awarded with certificates which can be displayed by the employee elsewhere as proof that they went through training. Another study indicated that public health facilities have also adopted career preparation of staff before they are employed and the writer points out conducting workshops within the health facility premises for a period of about a month or less as a major way of preparing M&E staff for their job Kawonga et al (2012).

Tengan et al (2019) study on gaps in pre-service training discovered a huge gap in consistency of training whereby health facilities that have adopted the practice of pre-service training plan include it in their strategic plans but the sessions take place ounce in a while. The training sessions are not implemented as scheduled.

There is a constant demand for pre-service training in planning, monitoring, review, evaluation and impact assessment for M&E practitioners Luellen et al (2005). Skills for numeracy, literacy, interviewing, monitoring and evaluation, data management and reporting, qualitative

and quantitative methods and management information systems Dragomiroiu et al (2016). M&E staff needs to be trained not only on collecting descriptive information about a program, product, or any other entity but also on using something called "values" to determine what information and to draw explicitly evaluation inferences from the data, that is inferences that say something about the quality, value or importance of something. Players in the field of top management like data managers, procurement managers, and other evaluators will require specialized training not just in M&E; but specifically, in areas like participatory monitoring and evaluation and results-based monitoring and evaluation Tengan et al (2019).

In a study by Waheed (2015) on the relevance of pre-service training towards achieving public health facility mission and goal showed that training M&E staff creates awareness on what is expected of them. The M&E team is able to align what they already know to what the health facility demands of them which in turn create results-based services that lead to achievement of health facility goals and objectives.

M&E being a new professional field in Uganda, it faces challenges in effective delivery of pre-service training due to limited funds allocated specifically for the training Mwangi and Moronge (2019). There is therefore a great demand for resources to support the pre-service training processes and for harmonization of M&E pre-service training within the training courses available. According to the 2022 Uganda budget, monitoring and evaluation received Ugandan shillings 68, 825,000,000 and the subsections of the budget indicated that 5% was to be invested into training M&E personnel PSC report(2021). The findings are in tandem with the Public Financial Management Report PFMR (2015) in Kenya that indicates how the Kenyan government financial management act, 2015 supported public expenditure management by providing a legal framework for investing in M&E training (n.d.)

Despite a study in Uganda by Xia et al (2016) reporting on dedication of the available public health facilities towards training M&E staff and how the practice is displaying positive effects Kothari (2004) found that 58% of the M&E staff in public health centres are not given a chance to provide feedback from the pre-service training. Feedback from such trainings is important in that it shows if the trained M&E staff have acquired the required skills and also if the training bodies have been able to achieve their intention to make staff well equipped for the job. The differences in observations could be attributed to M&E being a new profession in most developing countries and due to the fact that most sectors do not have well-established M&E pre-service training curriculum.

2.3 Continuous professional development of M&E staff

Regardless of how experienced individual members are, once a team to implement M&E activities has been identified, continuous professional development/in-service training of M&E practitioners is important. This enhances understanding of the project deliverables, reporting requirements and builds the team's capacity to perform M&E functions Blaser Mapitsa and Khumalo (2018).

Continuous professional development is the process of tracking and documenting the skills, knowledge and experiences that you gain both formally and informally as you work. It goes beyond any initial trainings Holvoet and Inberg (2014) .Continuous profession development in M&E is deliberately participatory to ensure that those responsible for implementing and using the M&E system are familiar with its design, intent, focus, and how to use the M&E tools. M&E in-service training should focus not only on the technical aspects of M&E, but also address skills in leadership, financial management, facilitation, supervision, advocacy and communication Porter and Goldman (2013).

M&E practitioners in health facilities have access to training resources that can be completed through certification programs, short courses, e-learning, conferences and workshops Kawonga et al (2012). According to the Uganda Health Information and Digital Health strategic plan (2020/21-2024/25), M&E e-learning training opportunities which include Health Management Associate Program and the Data Intelligence Program are to be introduced into public health facilities. These provide hands on experience that serves as a foundation for results based M&E service within health facilities.

Understanding the skills needed and addressing capacity gaps through in-service training is at the heart of the M&E Waheed (2015). Creating great evaluators requires far more technically oriented M&E in-service training and development that can usually be obtained through Mentorship and career development sessions. In his book "a practitioners manual on monitoring and evaluation" book, Singh et al notes that, not only is it necessary to have dedicated and adequate numbers of M&E staff, it is essential for this staff to have their skills continually improved while on the job Blaser Mapitsa and Khumalo (2018). Moreover, M&E in-service training requires a wide range of activities, including formal education in M&E, mentorship, coaching and internships. Monitoring and evaluation carried out by untrained and inexperienced people is bound to be time consuming, costly and the results generated could be impractical and irrelevant Mwangi and Moronge (2019).

According to a study in Botswana, 51 recent university graduates with no experience in M&E were recruited and provided with on-the-job training and mentoring to develop a new cadre of M&E officer in a public health centre. Three years after establishment of the cadre, an assessment was conducted to document achievements and employer's lessons learnt. The results indicated that achievements of the cadre included improved health worker capacity to monitor and evaluate the public health facility programs, improved data quality, management and reporting and finally increased use of health data in the facility.Sürücü and Maslakçi (2020)

Singh et al (2017) in their study reported that health facilities worldwide do not display sufficient number and mix of M&E knowledge, skills and experience while on the job. Xia et (2016)et al in their study in Uganda further indicated that 51.5% of those practicing monitoring and evaluation in public health centres do not have enough experience and skills basing on the quality of the reports they produce while a study in Uganda by Blaser Mapitsa and Khumalo(2018) concluded that the level of in-service training has an effect on the M&E results produced to a large extent. This however shows that despite the need for specialists in M&E, majority of the existing lots do not possess the rightful skills and knowledge in monitoring and evaluation.

2.4 Supportive supervision of M&E staff

Supportive supervision refers to a facilitative approach to supervision that promotes mentorship, joint problem solving and communication between supervisors and supervisees Holvoet and Inberg (2014).Supportive supervision is a process of helping staff to improve their own work performance continuously. It is carried out in a respectful way with a focus on using supervisory visits as an opportunity to improve knowledge and skills of M&E staff. Supportive supervision helps to make things work, rather than checking to see what is wrong. Waheed (2015)

Luellen et al (2009), in their study about the functions of supportive supervision of M&E staff among health facilities in the UK, argued that supportive supervision in the M&E professions consists of three basic functions: management, education, and support. They defined supervision as "the provision of monitoring, guidance, and feedback on matters of personal, professional, and educational development in the context of the M&E duties in order to promote professional development." The emphasis on professional development of M&E staff through supervision is worth noting since the role of supervision in assuring better performance has been made explicit in developed countries. The study further indicated that support supervision in developing countries has often been viewed only as an instrument through which

to impose M&E needs on M&E personnel rather than as a means to address the M&E personnel multiple needs. Singh et al (2017)

A study by Blaser Mapitsa and Khumalo(2018) revealed some of the best practices for supportive supervision as motivation, training, and coach-ing by external supervisors to effectively conduct self-assessment and to conduct internal supervision of M&E practitioners. He further listed practices such as problem solving, mentorship, giving feedback and group discussions as being key in having successful and purposeful support supervision Blaser Mapitsa and Khumalo (2018).

A study conducted in the West Nile region of Uganda by Kawonga et al (2012), on the role played by supportive supervision of M&E staff among health facilities in the West Nile region established that 40% of the health facilities in the region had registered improvement in service delivery according to patients' responses due to mentorship. The findings imply that the consideration of supportive supervision as a health service improvement strategy led to motivation of staff to create accurate data and thus creating evidence informed health care. The study also showed that data reporting in most of health facilities in the region was poor due to the presence of de-motivated staff. The findings were in agreement with the observations of Kusak and Rist (2001) who observed that majority (58%) of M&E practitioners in health facilities did not report health related information due to failure to support M&E staff in carrying out their duties.

In a study by Garner (2013) on support supervision best practices indicates the need for staff support through supervision and provision of feedback in implementing and managing M&E activities. He points out that M&E cannot be successful without staff that can effectively execute the M&E tasks for which they are responsible. In its framework for a functional M&E system in health facilities, Ministry of Public Service (2021) notes that not only is it necessary to have dedicated and adequate numbers of M&E staff, it is essential for this staff to be supported in their endeavors to perform M&E tasks through thorough supervision of work.

In conclusion, the review of previous studies indicate that a lot of effort has been put in place to have result-based and effective M&E human capacity within public health centres such as proper planning and management however, little has been done to assess human capacity for M&E as one of the major areas that affects results based and effective M&E. M&E human capacity enhances data use for decision making however there are several facilitators and barriers to achieving this goal (decision making). A study in Ghana assessing the capacity

building and Mentorship Program (CBMP) lists the facilitators of human capacity for M&E as: strong leadership, clear policy direction and financial support Porter and Goldman (2013). The same study mentions limited staff turnover of staff and lack of technology for intra facility data sharing as key barriers for human capacity for M&E. This study therefore focuses on assessing approaches to strengthening human capacity for M&E in public health centres in Wakiso district, Uganda.

CHAPTER THREE

Problem statement, justification, conceptual framework

3.1 Problem statement

Wakiso district is facing major challenges that are related to poor staff performance concerning health data management and reporting. The data submitted by M&E practitioners in public health centres has been found to be untimely and incomplete. Ministry of health (2021). This has been attributed to incapable M&E staff who possess less skills in health data management and reporting.Ministry of Health (2021).

Human capacity for M&E among public health centres in Wakiso district is characterized by persons performing M&E functions such as routine data entry in daily rosters, reporting on daily performance of staff yet they have inadequate knowledge and skills in handling data(Mwangi and Moronge (2019). This in turn creates constraints towards providing evidence-informed health care and in meeting national reporting targets. Public health centres are data intensive whereby they deal with routine data on health-related indicators which creates a need for qualified and skilled M&E practitioners.

According to the Annual Health Sector Performance report (2021/22), Wakiso district sent in monthly health reports that were 69% complete compared to the 85% target for completeness of district reports set by the Ministry of Health. The same monthly reports were 87% on time compared to the 98% target for timeliness of reports AHSP (2021/22). The same annual report shows low staffing levels in Public health centres in Wakiso district (56.4% compared to 80% target) showing that there is a shortage of M&E practitioners as well.

The ministry of health however has streamlined its data collection through establishing the District Health Information system (DHIS2) with each DHIS having enough skilled M&E practitioners. By doing this, primary health related information flow channels are defined and information sharing among stakeholders can be embraced so as to avoid untimely and incomplete health data reported by M&E practitioners in public health centres in Wakiso district. Ministry of health (2021)

Although previous research has identified several key determinants for better health data management and reporting such as use of quality data management software that helps create a robust health data analytics environment, little has been carried out on the prioritization of strengthening human capacity for M&E within public facilities as a major determinant for better data management and health outcomes that are evidence based. This study therefore fills

this existing gap in knowledge. The study assesses perceptions on pre-service training, continuous professional development(in-service training) and supportive supervision of M&E staff as key approaches to strengthening human capacity for M&E in public health centres.

3.2 Justification of the Study

1. The study is expected to offer information to the district health office which will be used for strategic policy considerations towards M&E system capacity strengthening in public health facilities within the district.
2. The study will also provide information showing how M&E system capacity strengthening can be used as a powerful management tool in providing evidence-based health care.
3. Although this study looks at M&E system capacity strengthening in public health centres within Wakiso district, it is also relevant in other health facilities that are not necessarily public facilities.
4. Public health centre administration will be able to understand the approaches for M&E human capacity strengthening better and improve the M&E Framework within their facilities.
5. The study will also benefit researchers and scholars who may use its findings as a reference and to enrich M&E literature.

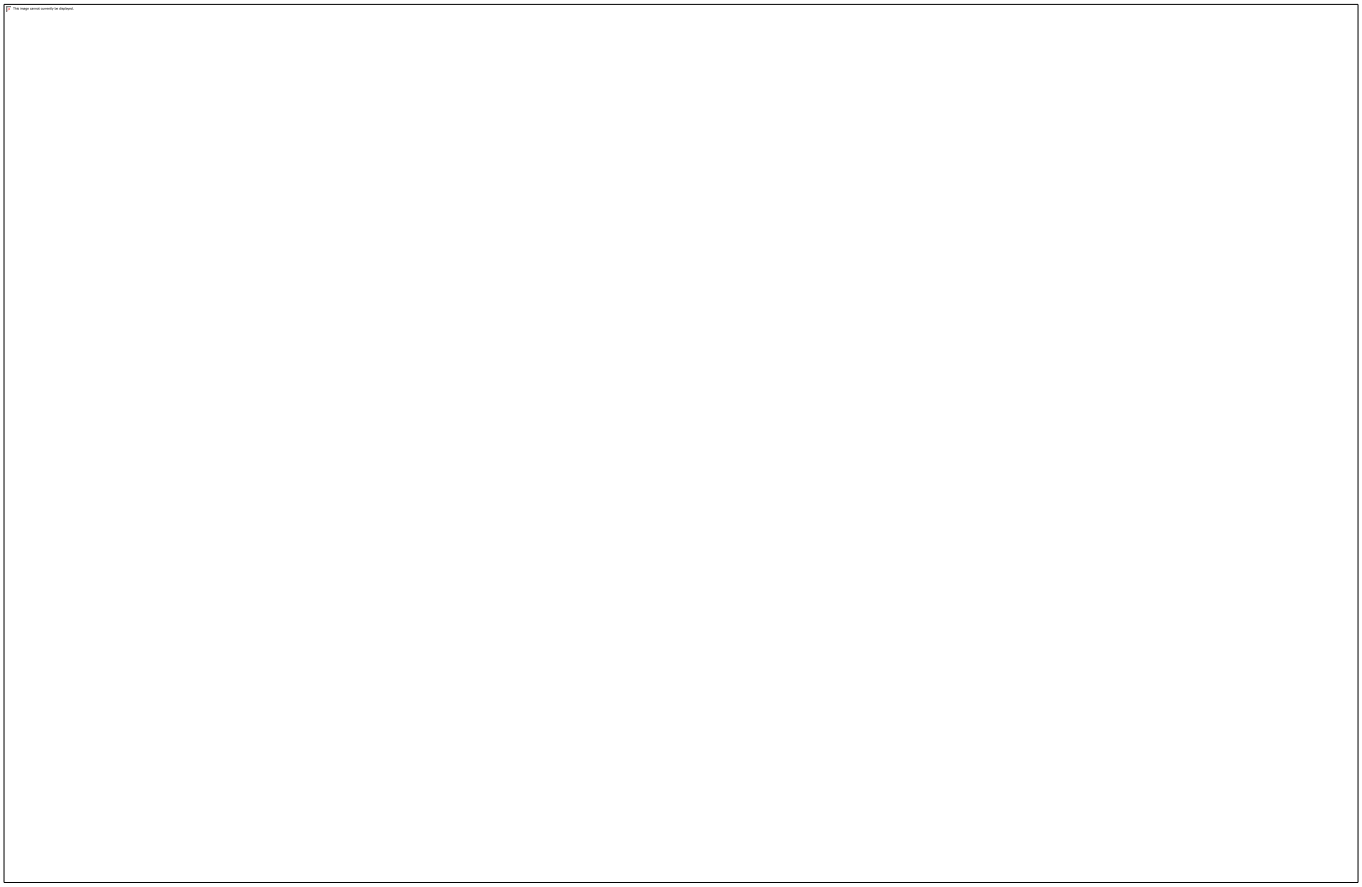
3.3 Conceptual framework description and narrative.

It is necessary to notice that human capacity for M&E plays an essential role in enhancing effectiveness of M&E staff. Strengthening M&E human capacity requires adoption of certain approaches such as pre-service training, continuous professional development and supportive supervision of the M&E staff. The level of professional competence of M&E staff leads to better results-based service especially the nature of reporting and health information management systems in public health centres Mondiale (2006).

The Conceptual Framework by the World Health Organisation (WHO), 2006 report on the major stages of workforce development was adopted. This is because human capacity for M&E tends to look at aspects within the stages of career development such as pre-service, in-service training and supportive supervision. The conceptual framework below describes 3 major stages of workforce development according to the World Health Organisation and these include entry, current workforce and performance. The entry stage consists of how workforce can be developed through having the required education and training before joining the health workforce. The current workforce stage explains how the current health workforce can be

developed through in service training and supportive supervision. Health workforce that has gone through the entry and workforce stages will be able to perform better through displaying high competence levels, high productivity and high responsiveness.

Figure 1: Diagrammatic presentation of the Conceptual Framework



Source: Stages of health workforce development(WHO report, 2006) and modified by the researcher.

CHAPTER FOUR

RESEARCH OBJECTIVES

4.1 Research questions

i. How is pre-service training for current M&E staff conducted in public health centres in Wakiso district?

ii. How is continuous professional development of M&E staff conducted in public health centres in Wakiso district?

iii. How is supportive supervision of M&E staff conducted in public health centres in Wakiso district?

4.2 General objective of the study

To assess approaches to strengthening human capacity for monitoring and evaluation at public health centres in Wakiso district.

4.3 Specific objectives of the study

i. To assess the pre-service training of M&E staff in public health centres in Wakiso district.
ii. To assess the continuous professional development of M&E staff in public health centres in Wakiso district.
iii. To assess supportive supervision of M&E staff in public health centres in Wakiso district.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

This chapter discusses the research methodology that was followed in the study. The study discusses the study design and the rationale on why this method was selected, the target population, the study site, sampling procedure, sample size and sampling unit determination, the target population, data collection tools and methods, data analysis and how the reliability and validity were maintained.

5.2 Study design

This study employed a descriptive survey research design. Both qualitative and quantitative methods were used to provide an understanding of human capacity for M&E. Quantitative data was collected using a self-administered standard M&E capacity assessment tool while qualitative data was collected using key informant interviews.

Descriptive research design is used to describe an event or phenomena as it exists at present and is appropriate when the study is concerned in specific predictions, narrative of facts and characteristics concerning individuals or situations Kothari (2003). This design was preferred because it does not allow manipulation of the variables by the researcher.

5.3 Study population

Target population or population of interest refers to the group of people of interest whom the researcher desires and intends to investigate. The study population included the health centre-in-charge, ward-in-charge, procurement managers, health records information management officers, medical records analyst, health informatics officers, health records information assistants, and data managers. The health centre in charge acted as the key informant whereas the rest of the M&E practitioners filled in the 12 components capacity assessment tool.

5.4 Study site

The study was conducted in the Kyadondo North health sub district with in Wakiso district, Uganda. This is because this specific sub district has more health centre III's and health centre IVs which are of more interest to the researcher compared to the rest of the district health sub districts which have most of the health centres being health centre II's. Health centre III's and IV's were preferred because these specific levels of primary health care facilities have higher staffing norms.

5.5 Sampling Procedure

Participants for the study interviews were selected using purposive sampling. Staff was selected based on their different positions in the health centre, and hence ability to give varied responses during the data collection phase. The 15 public health centres in the Kayadondo North health sub district were purposefully selected from the National health facility master list, 2018 downloaded from the internet.

A list of the health centre persons in charge was compiled from the Wakiso district service commission, they were emailed and those that responded to the correspondence were included in the sample. It is the health centre in charge that provided the list of M&E practitioners basing on the researcher's target population list, those that had been listed were included in the sample.

5.6 Sample size

The study sample size was computed using Slovin's Formula, given as follows:

$n = N/ (1+Ne^2)$. Where, n was the sample size, N was the population size and e was the margin of error which was decided on by the researcher.

Where: n = Sample size

N = Total Population of M&E practitioners (150)

e= Error = 0.05

Whence, n= 150/ (1 + 150(0.05)2)

n = 104.7 = 105 M&E staff members.

The researcher selected 15 health centre persons in charge one from each health centre and 105 M&E staff. This number was sufficient, accounting for absentees at any particular time due to off-site scheduling.

The numbers of respondents expected from the different public health facilities were selected using the probability proportional to size sampling (PPS) method. The PPS is a sampling procedure under which the probability of a unit being selected is proportional to the size of the ultimate unit, giving larger clusters a greater probability of selection and smaller clusters a lower probability Xia et al (2016).

This method was preferred because there are various levels of public health facilities with different staffing norms. Another reason to justify use of this sampling method was because some cadres are found at specific levels of the public health facilities. Some cadres at health centre IV's may not be found at the health centre II level.

5.6.1 Inclusion criteria

Respondents included in the study were; official public health centre employees who had worked at the public health centre for at least three months prior to the commencement of the research. These three months were sufficient for one to be conversant with the processes of the public health centre so as to be able to provide appropriate responses during the data collection phase.

5.6.2 Exclusion Criteria.

Support staff and volunteers.

Newly recruited staff(less than 6months)

Respondents that were present but not able to fit the scheduling arrangements of the data collection period were also excluded.

5.7 Data collection methods and tools.

Key informant interviews were conducted with each health centre in-charge as guided by a KII guide. KIIs are qualitative in-depth interviews with people considered knowledgeable about a particular topic. Here, the researcher was very active and engaged with her informants to generate a detailed understanding of the reality about approaches to strengthening the human capacity for M&E in public health centres. This method was preferred because it enables the researcher to obtain information concerning the study from a more knowledgeable person concerning the objectives. The key informant interview guide consisted of three sections one with the introduction, the other with respondent's demographic information and guiding questions concerning the study objectives. After obtaining official organisational consent and individual written consent, the key informants were then interviewed on the appointment acquired by email. Those that did not reply to the emails were met in person by the researcher seeking for appointment.

Quantitative data collection was gathered using a standard Monitoring and Evaluation Capacity Assessment Toolkit (MECAT) while focusing on the human capacity domain. The above tool

was developed by the WHO and MEASURE Evaluation and it is called the 12 components M&E capacity assessment tool. This tool was self-administered by the M&E practitioners and it was used to assess pre-service training, continuous professional development and supportive supervision of M&E staff. The overall objective of the assessment was to understand the current training programs in public health centres, identify gaps and determine M&E skills and knowledge to perform M&E functions for better health outcomes in public health centres in Kyadondo North health sub district. The MECAT tools were distributed after obtaining a list from the health centre in charge of the M&E practitioners based on the researcher's description.

5.7.1 Summary of the Research Methods

Table 1: Summary of the research methods

	Objective	Approach	Tool	Method	Unit of analysis	Key variables	Analysis method
1.	To assess the pre-service training for current M&E staff in public health centres in Wakiso district.	Mixed methods	MECAT and KII guide	Key informant interview and Survey	Ward-in-charge, procurement managers, health records information management officers, medical records analyst, health informatics officers, health records, information assistants and data managers.	Pre-service training schedules. Gaps in Pre-service training. Career preparations.	Thematic analysis for qualitative data SPSS for quantitative data.
2.	To assess the continuous professional development of M&E staff in public health centres in Wakiso district.	Mixed methods	MECAT and KII guide	Key informant interview and Survey.	Ward-in-charge, procurement managers, health records information management officers, medical records analyst health informatics officers, health records information assistants and data managers.	Training schedules. Relevancy of training. In-service training practices.	Thematic analysis for qualitative data. SPSS for quantitative data.
3.	To assess supportive supervision of M&E staff in public health centres in Wakiso district.	Mixed methods	MECAT and a KII guide	Key informant interview and survey.	Ward-in-charge, procurement managers, health records information management officers, medical records analyst, health informatics officers, health records information assistants and data managers.	Frequency of supportive supervision. Supervision approaches. Supervision outcomes.	Thematic analysis for qualitative data. SPSS for quantitative data.

5.7.2 Validity and Reliability of Research Instruments.

Validity is the degree to which a test measures what it purports to measure (Riege, 2011).

Validity concerns the accuracy of the questions asked, the data collected and the explanation

offered. In order to ensure validity, the researcher used numerous sources of information through literature review of both online and hardcopy of articles concerning the objectives. Reliability is defined as a measure of the degree to which a research instrument yields consistent results after repeated trials. (Golafshani, 2009). If the findings reflect as high degree of similarity the research instrument has internal consistency (Leedy&Ormrod, 2009). The researcher conducted five interviews using the MECAT tool and three key informant interviews using the interview guide through a pilot study to appraise the soundness of the tools and to estimate the time that will be required for the interviews. The respondents for the pilot study were selected from other health centres that were not necessarily public health centres within the Kyadondo North health sub district which helped the researcher to measure validity. The results of the pilot study were also discussed with the respondents which helped the researcher to measure consistency (reliability).

5.8 Data collection Procedure

Ethical approval was sought from the Makerere School of Public Health Research and Ethics Committee (Mak SPH-REC) before commencement of the study (See Appendix III). As soon as permission was granted and an introduction letter obtained, the study proceeded in the following chronology:

The researcher recruited one research assistant who had a bachelor's degree in statistics and had two years experience working in a research firm. The research assistant was then given a briefing on the main objective and the specific objectives of the study to avoid discordination. The researcher then conducted a pilot test in 3 community health centres in Mende Sub County, Wakiso district and these were not necessarily government aided. Two were faith based and one was a private for profit hospital. From the three health facilities, the researcher selected 3 persons in charge of each health centre as key informants and 5 M&E practitioners. The data collection instruments were then revised after the pilot study and new copies of the data collection tools reproduced. The researcher then proceeded to the data collection process and study instrument administration which were followed by transcription of the audios by the key informants and finally data analysis and reporting.

5.9 Data Analysis Procedure

Qualitative data was analysed using an analysis method called thematic analysis. The recorded interviews were transcribed and data organized into themes. Thematic analysis is the most commonly used method of data analysis in qualitative research. According to Byrne "thematic analysis is a qualitative analytic method for identifying, analysing and reporting

patterns (themes) within collected data. It organizes and describes data sets in detail. However frequently it goes further than this and interprets various aspects of the research topic" (Byrne, 2022).Due to the qualitative nature of the data collected via key informant interviews, a thematic analysis was carried out along the major themes of the study as represented in the objectives and conceptual framework.
Recordings were transcribed using Descript version 48.1.0, and then verified manually. They were stored in soft copy format in more than one location (both locally on the computer but also online).

Recordings were transcribed using Descript version 48.1.0, and then verified manually. They were stored in soft copy format in more than one location (both locally on the computer but also online).The transcribed data was manually categorised according to the themes. Emergent themes arising from this categorization were deduced, Data related to the human capacity for M&E that did not fit into the pre-determined themes was used to create extra themes that could have not been anticipated from the start. The results were then summarised in a table and reported on in form of textual quotes.

Quantitative data was analysed using SPSS 21. The Quantitative data responses from the capacity assessment tools was analysed using SPSS 21 following the simple scoring for each question on a scale of 0-4 that is:1—strongly agree;2—agree ;3—disagree;4— strongly disagree ;0— Not sure. Responses were entered into an excel sheet which was later uploaded into SPSS software for analysis. The mean and standard deviation of the agreement levels of each variable in the capacity assessment tool was computed through SPSS and compared with the composite mean and composite standard deviation to come to a conclusion. The composite mean is the simple average of all the variables. When the variable mean and standard deviations are lower than the composite mean and composite standard deviation, the researcher agrees with the statement and or variable and the reverse is true. Data was then presented in form of tables and box plots. Box plots were used because they enable the researcher to quickly visualize the distribution of survey data within the dataset.

5.10 Data quality assurance

A research assistant qualified in the collecting, analysing and reporting on data was hired and briefed prior to the onset of the research.

Data collection tools were pre-tested to a small number of intended respondents before being distributed to the majority respondents.

Data quality checks were performed to identify outlying data and changing trends and to verify the data.

Data collection process was supervised by the university supervisors.

Interviews were recorded and labeled appropriately in a standard format as evidence.

5.11 Dissemination plan

Study findings will be disseminated to the school of public health, Makerere University as one of the requirements for acquiring a degree of Masters in public health monitoring and evaluation.

5.12 Ethical considerations

Ethical approval was sought from the Makerere School of Public Health Research and Ethics Committee (MakSPH-REC) before commencement of the study.

Informed consent was obtained from each respondent before being interviewed.

All participants were treated with dignity and respect regardless of who they are and what positions they occupy.

A good relationship was established with the respondents through rapport building at every beginning of an interview.

Interview responses were kept confidential. All data gathered was strictly used for study purposes alone.

CHAPTER SIX: RESULTS

6.1 Introduction

This chapter presents the study findings. The findings are presented in three different sections. First, the research response rate was computed and presented. Secondly, the demographic information of the participants was described. Thirdly, the findings on the three major themes in the conceptual framework which include pre-service training, continuous professional development and supportive supervision were presented.

6.2 Response Rate

A sample of 105 M&E practitioners were targeted while supplying the MECAT tools and 101 respondents filled and returned the tools giving a response rate of 96%. This response rate implies that most respondents participated in the study by filling and returning the MECAT tool. The response rate was considered credible, sufficient and representative and conforms to (Mugenda and Mugenda, 2008)with a stipulation that a response rate of 80% and over is excellent, 60% is good and 50% is adequate for analysis and reporting. The study's response rate for quantitative data collection was therefore considered excellent and enough to allow for generalization of findings to the target population besides arriving at the conclusion of the study.

All the 15 key informant interviews were conducted giving a response rate of 100%. This performance was attributed to the presence of enough time for data collection where the researcher was able to adjust to the schedules of the few key informants who were not available at the time of the study.

6.3 Demographic Information of the Respondents

The study sought to determine the demographic characteristics of the respondents as they are considered as categorical variables which give some basic insight about the respondents. The characteristics considered in the study were; age distribution, gender distribution, level of education, area of operation, length of work, respondent, nature of employment, years since start of work and the nature of previous employers.

Table 3 below shows the demographic distribution of respondents that filled in and returned the capacity assessment tool.

Based on age distribution of the respondents, the findings shows that, 47(46.5%) of the respondents were between 18 - 35 years, while 39 (37.9%) were between 36 - 45 years of age. Those between 46 - 59 years were 13(12.9%).

Based on gender, the study found that majority 52(51.5%) were male respondents while 49(48.5)% were female respondents inferring that the male gender is dominating the M&E workforce in public health centres.

Based on the level of education of the respondents, the study found that 28(27.7%) of the respondents had attained Diploma education, 58(57.4%) had a University degree and 15(14.9%) had attained a Master degree.

Based on area of operation, the study found that 56(55.4%) were top managers and 45(44.6%) were in middle level managers. The results infer that the respondents were in a position to provide the needed information related to their respective areas of responsibility.

Based on length of work (current job), the study found that 40(39.6%) respondents had worked in the public health centres for a period of 1-5 years, 40(39.6%) and 8(7.9%) stated that they had worked for the specific health centres for a period of 5-10 years and 10 years and above respectively, and 13(12.8%) respondents indicated that they had worked for less than 1 year.

Based on the length since start of work (current and former jobs), the study found that 31(30.6%) had worked for a period of 1-5 years since their start of work, 41(40.6%) respondents had worked for 5-10 years and 29(28.7%) stated that they had worked for 10 years and above.

Based on the nature of previous employer, the study found that 40(39.6%) had previously been employed by the government, 25(24.7%) respondents had been employed by private not for profit and 28(27.7%) had been previously employed by private health providers. 8(7.9%) respondents had been employed by other agencies.

Based on the nature of current employment, the study found that 53(52.4%) were permanently employed, while 20(19.8%) respondents had been employed on contract and 22(21.7%) were employed as volunteers and 6(5.9%) were employed on other terms.

Table 2: Demographic distribution of respondents(quantitative).

Particulars	Frequency	Percentage	Cumulative percentage
Age distribution (in years). N=101			
18-35	47	46.5	46.5
36-45	39	37.9	85.1
46-59	13	12.9	100
Gender distribution. N=101			
Male	52	51.5	51.5
Female	49	48.5	100
Level of Education. N=101			
Diploma	28	27.7	27.7
University degree	58	57.4	85.1
Masters	15	14.9	100
Area of operation. N=101			
Top management(managers)	56	55.4	55.4
Middle management(their assistants)	45	44.6	100
Length of work (current job). N=101			
Below 1year	13	12.8	12.8
1-5	40	39.6	52.4
5-10	40	39.6	92.2
10 and above	8	7.9	100
Length since start of work (current and previous). N=101			
1-5	31	30.6	30.6
5-10	41	40.6	71.2
10 and above	29	28.7	100
Nature of previous employer. N=101			
Government	40	39.6	39.6
Private Not for Profit	25	24.7	64.3
Private Health Provider	28	27.7	92.0
Other	8	7.9	100
Nature of current employment. N=101			
Permanent	53	52.4	52.4
Contract	20	19.8	72.2
Volunteer	22	21.7	93.9
Other	6	5.9	100

6.4 Demographic information for respondents (qualitative).

The total number of key informants that participated in the study was 15 and this included 7 males and 8 females. They were both health centre persons in charge indicating that they were able to respond to the questions with ease. Among the 15, 12 had degrees while 3 had masters as their highest level of education. Majority of them (14) had worked for a period between 5-10 years. Only one key informant had worked for less than 5years indicating that the information gathered from them was credible. All the key informants were permanently employed to their designated health centres and only 4 of them had previously worked as private health providers. The rest (11) had previously worked in government hospitals.

The interviews were conducted for an average of 32 minutes (range 28-40 minutes)

6.5 Assessing pre-service training of M&E staff in public health centres.

While assessing pre-service training, the respondents were asked to share their views in relation to the presence of a workforce plan and how often is it reviewed, incorporation of pre-service training in the facility strategic plan and to what extent did the training help staff to perform M&E activities (data collection, analysis and reporting). The study further sought to understand if the trainings were conducted as scheduled and the effect of those trainings on performance of the M&E activities. Table 4 below shows the agreement levels during the assessment of pre-service training of M&E staff in public health centres.

About the presence of a workforce development plan, out of 101 respondents who participated in the study, 10(9.9%) strongly disagreed, 18(17.8%) disagreed, 3(2.9%) were not sure, 25(24.7%) agreed and 45(44.5%) strongly agreed. This was backed by a mean of 4.26 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that most public health facilities had a workforce development plan.

On inquiry if the workforce plan is reviewed annually, out of 101 respondents who participated in the study, 46 strongly disagreed, 30(29.7%) disagreed, 3(2.9%) were not sure, 12(11.8%) agreed and 10(9.9%) strongly agreed. This was backed by a mean of 3.25 and standard deviation of 0.4. This is lower than the composite mean and standard deviation which implies that most public health facilities did not review their workforce development plan annually.

About including data collection training on the pre-service training mandate, Out of 101 respondents who participated in the study, 15(14.8%) strongly disagreed, 21(20.7%) disagreed, 30(29.7%) agreed and 35(34.6%)strongly agreed. This was backed by a mean of

3.08 and standard deviation of 0.3. This is lower than the composite mean and standard deviation which implies that a training in data collection was included on the pre-service training mandate.

About including data analysis training on the training mandate, Out of 101 respondents who participated in the study, 27(26.7%) strongly disagreed, 34(33.6%) disagreed, 16(15.8) agreed and 14(13.8) strongly agreed. This was backed by a mean of 4.31 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that training in data analysis was not included on the pre-service training mandate.

About including data reporting training on the training mandate, Out of 101 respondents who participated in the study, 25(24.7%) strongly disagreed, 20(19.8%) disagreed, 27(26.7%) agreed and 29(28.7%) strongly agreed. This was backed by a mean of 2.98 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that training in data reporting was included on the pre-service training mandate.

About the presence of a facility register for M&E training offered, out of 101 respondents who participated in the study, 18(17.8%) strongly disagreed, 20(19.8%) disagreed, 10(9.9%) were not sure, 28(27.7%)agreed and 25(24.7%)strongly agreed. This was backed by a mean of 2.43 and standard deviation of 0.1. This is lower than the composite mean and standard deviation which implies that most public health facilities did not have a facility register for M&E training offered.

On M&E practitioners having enough skills and knowledge in data collection, analysis and reporting, out of 101 respondents who participated in the study, 31(30.6%) strongly disagreed, 29(28.7%) disagreed, 21(20.7%)agreed and 20(19.8%) strongly agreed. This was backed by a mean of 2.79 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that M&E practitioners did not have enough skills and knowledge in data collection, analysis and reporting.

About having a linkage between the pre-service training offered and the required staff competences, out of 101 respondents who participated in the study, 13(12.8%) strongly disagreed, 12(11.8%) disagreed, 4(3.9%) were not sure, 40(39.6%) agreed and 35(34.6%) strongly agreed. This was backed by a mean of 4.20 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that there was a linkage between the pre-service training offered and the required staff competences.

Table 3: Agreement level on pre-service training.

Statements	1-strongly disagree	2-disagree	3-agree	4-strongly agree	0- not sure	Mean	Stdev
The facility has a work force development plan.	10(9.9%)	18(17.8%)	25(24.7%)	45(44.5%)	3(2.9%)	4.26	0.6
The workforce development plan is reviewed annually.	46(45.5%)	30(29.7%)	12(11.8%)	10(9.9%)	3(2.9%)	3.25	0.4
Training in data collection is included in the pre-service training mandate.	15(14.8%)	21(20.7%)	30(29.7%)	35(34.6%)	2(1.9)	3.08	0.3
Training in data analysis is included in the pre-service training mandate.	26(25.7%)	34(33.6%)	16(15.8%)	14(13.8%)	0	4.31	0.6
Training in data reporting is included in the pre-service training mandate.	25(24.7%)	20(19.8%)	27(26.7%)	29(28.7%)	0	2.98	0.2
M&E practitioners have enough knowledge and skills in data collection, analysis and reporting.	31(29.7%)	29(28.7%)	21(20.7%)	20(19.8%)	0	2.79	0.2
There is a facility register of the M&E courses offered to avoid duplication of topics.	18(17.8%)	20(19.8%)	28(27.7%)	25(24.7%)	10(9.9%)	2.43	0.1
The M&E staff pre-service training offered is linked to the required staff competences.	13(12.8%)	12(11.8%)	37(36.6%)	35(34.6%)	4(3.9%)	4.20	0.6
Total mean						30.67	3.3
Composite mean						**3.84**	**0.54**

Figure 2 shows a box plot of survey data for the various variables used in assessing pre-service training in public health centres. Below is a narrative of the box plots from the survey data showing data distribution around the median based on the whisker length/skewness.

The box plot work plan being reviewed has a longer whisker on the right indicating a wider variability of the data points to the median whereas the box plot for training in data analysis has a shorter whisker on the right indicating a lower variability of the data points to the median. Training per skill and presence of a work plan has both whiskers comparatively similar indicating that data points were generally distributed in a similar way. The box plot for training in data reporting shows a slightly left skew. This is due to the left whisker being longer on the left indicating less variability of the data points to the median. There is a greater variability for training in data collection as well as large outliers and this may be due to the comparatively low interquartile range.

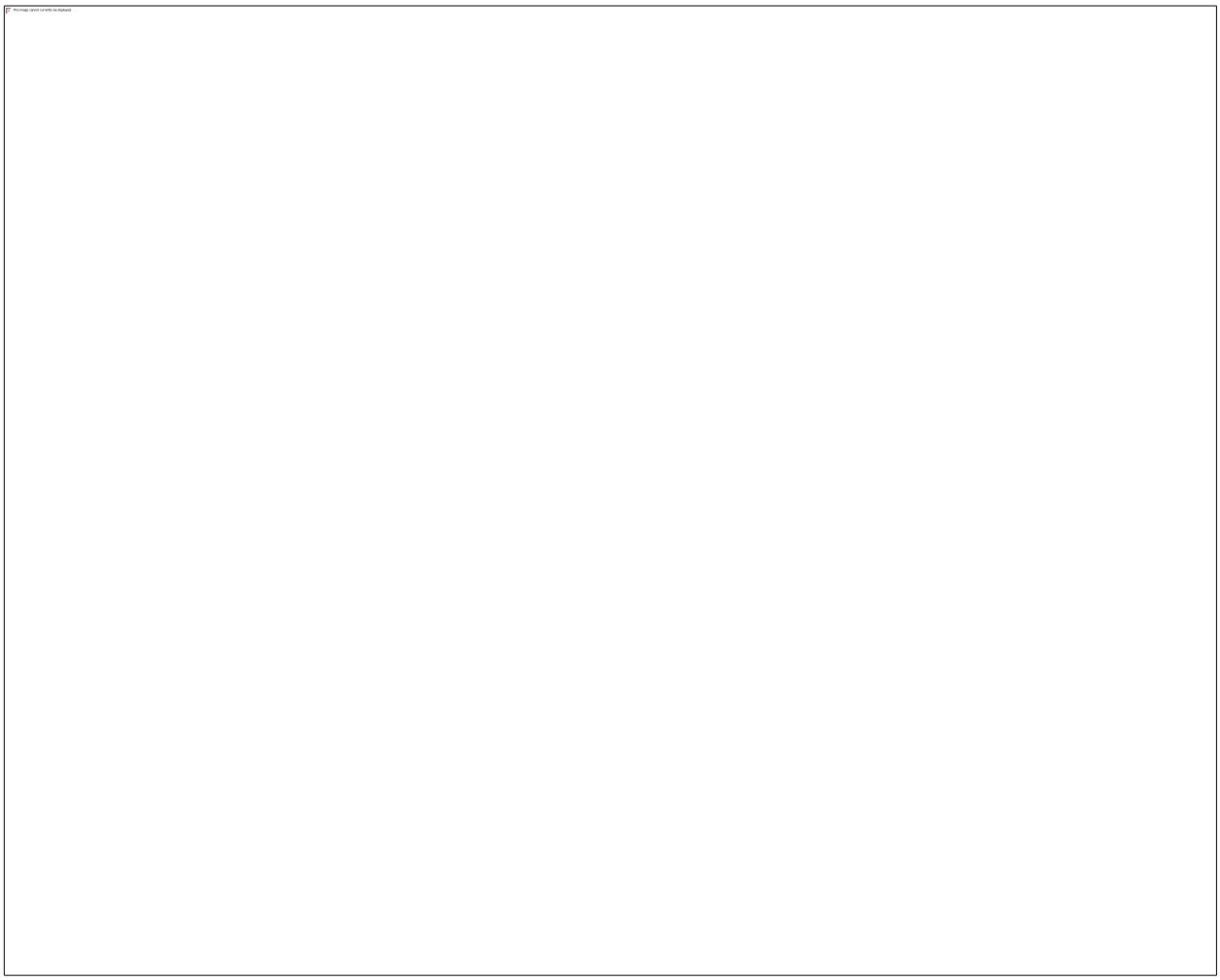


Figure 2: ***A box plot of survey data for pre-service training assessment.***

On finding out if the respondents conducted pre-service training through a key informant interview; the findings indicated that most M&E practitioners were not trained prior to commencement of work. Most respondents claimed they only obtained training in school and in other areas by their own initiatives though a small portion acknowledged that they had received some sort of short training in M&E as a sub section of a wider course in management before they started work. Respondents elaborated;

"The only training I received before I started work was maybe my degree. I was appointed to work and I immediately started work"

Participant E12. 06.23

"I only remember getting some orientation around the health centre to show me the different departments, wards and other necessary places such as the canteen and wash rooms"

Participant E02.06.23.

"We intend to start departmental trainings so that we increase the quality of data collected and reported at each department but for now the only training we give is that one after you have worked for us and we notice your area of weakness so that we improve it".

Participant E04. 06.23

On inquiring about the pre-service training curriculum, the study showed that a few public health facilities had training curricula. However the study further found out that the few public health facilities that had the curriculum, it was not responsive to the current M&E needs and was often outdated. On asking further if it was being reviewed sometimes, the study indicated that it was being reviewed after 5years. Respondents explained;

"What is needed is a standard curricula for specifically M&E so that staff can exclusively get enough skills in M&E. We have a training curriculum but it also includes health workers not just M&E staff"

Participant E13. 06.23

"Management just developed a training curriculum for all workers in the month of January. We are currently just attempting to rollout the curriculum to all our departments starting next year without fail".

Participant E09. 06.23

On inquiring about the presence of a workforce development plan and how often it is reviewed, the study showed that most public health facilities had a training workforce development plan. However the study further found out that most public health facilities that had a workforce development plan were reviewing it for a period between 5-10 years. Just a few of them agreed that they review the workforce development plan annually. A respondent explained;

“We really take a long time to review the workforce development plan. Aren't we in 2023, I think we last reviewed it like 5 years back"

Participant E07. 06.23

Another respondent explained

"We usually review our work plan every after2 years so that we check where to adjust"

Participant E04. 06.23

On further inquiry about the effect of the training on their performance, the respondents that had received pre-service training agreed that the training they conducted helped them to carry out M&E activities effectively while just a moderate number of them were not sure whether the training helped them or not. On the other hand, among the respondents, none of them said the training they performed did not help staff in carrying out their M&E activities effectively. One of the respondents explained the effect of training on performance as follows;

““The Ministry of health had sent some experts to offer training to new staff on routine data management and with time i noticed that the level of performance of the data management team had not remained the same.

Participant E01.06.23

"I now register a few mistakes in the information delivered to my office for perusal since the time we started organising workshops to train staff compared to the time before the training”

Participant E02.06.23

6.6 Assessing continuous profession development in public health centres

Under continuous profession development assessment, the respondents were asked to share their views in relation to the training they took, whether the training helped them to carry out M&E activities and to what extent, training schedules, frequency and duration of the training, level of training, attendance levels and finally the level of knowledge and experience.

Table 5 below shows the agreement levels during the assessment of in-service training of M&E staff in public health centres.

About in-service training being conducted between 5-10 times a month, out of 101 respondents who participated in the study, 33(32.6%) strongly disagreed, 27(26.7%) disagreed, 5(4.9%) were not sure, 20(19.8%) agreed and 16(15.8%) strongly agreed. This was backed by a mean of 2.98 and standard deviation of 0.1. This is lower than the composite mean and standard deviation which implies that most public health facilities did not conduct in-service training between 5-10 times a month.

About assessing M&E staff competences in the past 3 years, out of 101 respondents who participated in the study, 16 strongly disagreed, 15(14.8%) disagreed, 2(1.9%) were not sure, 41(40.5%)agreed and 27(26.7%) strongly agreed. This was backed by a mean of 4.35 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that most public health facilities had assessed M&E staff competences in the past 3years.

About the presence of a defined skill set for M&E practitioners, out of 101 respondents who participated in the study, 24(23.7%) strongly disagreed, 20(19.8%)disagreed, 3(2.9%) were not sure, 29(28.7%) agreed and 25(24.7%)strongly agreed. This was backed by a mean of 2.34 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that most public health facilities did not have a defined skill set for M&E practitioners.

About including data collection course on the in-service training mandate, Out of 101 respondents who participated in the study, 15(14.8%) strongly disagreed, 25(24.7%) disagreed,, 31(30.6%) agreed and 30(29.7%) strongly agreed. This was backed by a mean of 4.41 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that a course in data collection was included on the in-service training mandate.

About including data analysis course on the in-service training mandate, Out of 101 respondents who participated in the study, 25(24.7%)strongly disagreed, 16(15.8%) disagreed, 0 were not sure, 27(26.7%)agreed and 33(32.6%) strongly agreed. This was backed by a mean of 3.39 and standard deviation of 0.4. This is lower than the composite mean and standard deviation which implies that a course in data analysis was not included on the in-service training mandate.

About including data reporting course on the in-service training mandate, Out of 101 respondents who participated in the study, 26(25.7%) strongly disagreed, 15(14.8%) disagreed, 28(27.7%) agreed and 32(31.6%) strongly agreed. This was backed by a mean of 3.41 and standard deviation of 0.4. This is lower than the composite mean and standard deviation which implies that a course in data reporting was not included on the in-service training mandate.

About the in-service training being coordinated at all departments in the facility, out of 101 respondents who participated in the study, 17(16.8%) strongly disagreed, 15(14.8%) disagreed, 11(10.8%) were not sure, 29(28.7%) agreed and 29(28.7%) strongly agreed. This was backed by a mean of 3.28 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that in-service training in most public health facilities was not coordinated at all departments.

About In-service training programs being relevant towards improving data quality, out of 101 respondents who participated in the study, 6(5.9%) strongly disagreed, 10(9.9%) disagreed, 40(39.6%) agreed and 45(44.5%) strongly agreed. This was backed by a mean of 4.51 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that in-service training is relevant towards improving data quality.

Table 4: Agreement level on continuous professional development (in-service training)

Statements	1-strongly disagree	2- disagree	3-agree	4-strongly agree	0-not sure	Mean	Stdev
In service training is conducted between 5-10 times a month.	33(32.6%)	27(26.7%)	20(19.8%)	16(18.8%)	5(4.9%)	2.98	0.1
M&E staff competence levels have been assessed within the past 3 years.	16(18.8%)	15(14.8%)	41(40.5%)	27(26.7%)	2(1.9%)	4.35	0.6
Training in data collection is included in the in-service training mandate.	25(24.7%)	15(14.8%)	31(30.6%)	30(29.7%)	0	4.41	0.6
Training in data analysis is included in the in-service training mandate.	25(24.7%)	16(15.8%)	27(26.7%)	33(32.6%)	0	3.39	0.4
Training in data reporting is included in the in-service training mandate.	26(25.7%)	15(14.8%)	28(27.7%)	32(31.6%)	0	3.41	0.4
The in-service training is coordinated at all departments in the facility.	17(16.8%)	15(14.8%)	29(28.7%)	29(28.7%)	11(10.8%)	3.28	0.2
The facility has a defined skill set for M&E practitioners.	24(23.7%)	20(19.8%)	29(28.7%)	25(24.7%)	3(2.9%)	2.34	0.2
In-service training programs are relevant towards improving data quality.	6(5.9%)	10(9.9%)	40(39.6%)	45(44.5%)	0	4.51	0.6
Total mean						28.67	3.1
Composite mean.						**3.87**	**0.49**

Figure 3 shows a box plot of survey data for the variables used in assessing in-service training in public health centres. Below is a narrative of the box plots from the survey data showing data distribution around the median based on the whisker length/skewness.

The box plots for training in data collection and frequency of training have longer whiskers on the right indicating a wider variability of the data points to the median. Coordinated training, training in data analysis and training in data reporting have shorter whiskers on the right indicating a lower variability of the data points to the median. There is a greater variability of the data points for data improvement. Neither data shows any suspiciously far outliers which might require a closer look.

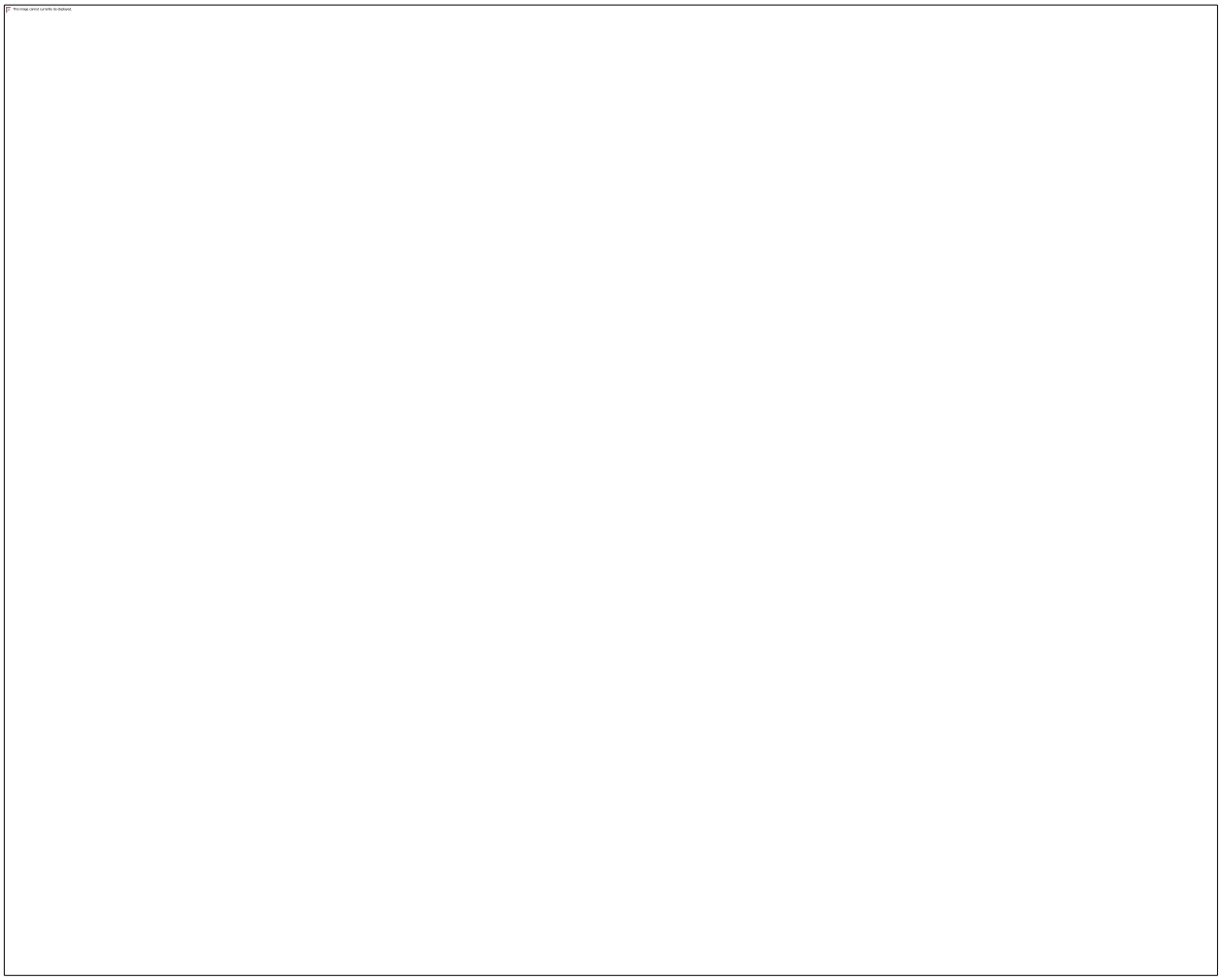


Figure 3*: A box plot of survey data for support in-service training assessment.*

On finding out whether M&E practitioners in public health centres conducted in-service training of M&E practitioners through a key informant interview, the study found that a few M&E practitioners received in-service training in M&E while majority of the M&E practitioners did not receive in service training in M&E. These findings indicate that despite the presence of M&E practitioners in public health facilities, a significant portion of M&E practitioners do not develop their professions through in-service training. One of the informants explained;

"*The department has made little effort in relation to the capacitation of the M&E team even though the nature and amount of the work in this facility indicate that the unit is in serious need of building M&E capacity through in-service training"*

Participant E10.06.23

"We do not only require a large number of M&E personnel but they should be equipped with the rightful skills before they start offering the required services. That's why we are doing our best to start training them. About this time next year we would have started training them".

Participant E05.06.23

On finding out the relevance of the in-service training, the study showed that the main purpose of in-service training was to improve knowledge, skills and attitudes towards M&E tasks of data collection, analysis and reporting. On further inquiry whether the public health centres that train M&E staff had achieved their purpose, respondents indicated that M&E had acquired new data collection, analysis and reporting skills as explained indicated below;

"We conduct in-service training so as to ensure that our staff is able to meet reporting deadlines through acquiring new skills in data reporting"

Participant E01.06.23

"The main purpose of developing staff capacity is to create staff morale to perform better in their tasks. These people need morale boosters, hahaa"

Participant E15.06.23

On finding out about the effects of in-service training of M&E practitioners, the study showed that M&E practitioners are able to acquire new skills and competencies through training. Other respondents explained that continuous professional development improves the overall performance of the M&E practitioners to effectively perform their current M&E duties. Most respondents gave positive effects showing that in-service training is beneficial to M&E staff to a greater extent. Below are some of the effects that respondents pointed out;

"There is definitely a difference between those who are trained and those who are not. Training equips our staff with new skills that help them in performing their tasks"

Participant E02.06.23

"Continuous professional development helps M&E staff to keep track of the changing tastes and preferences in the M&E profession forexample the use of digital technologies in collecting data"

Participant E01.06.23

On inquiring whether training M&E practitioners in public health facilities was conducted regularly as scheduled, the study established that a few health facilities were conducting M&E as scheduled while majority of the public health centres were not conducting training sessions on M&E as scheduled . The findings imply that most public health centres had schedules for in-service training but were not training M&E practitioners as scheduled.

A respondents indicated that:

"*In the last 5 years, M&E staff members only attended a one week long training and several short capacity building courses on M&E. Members were offered general report writing courses and management.*

Participant E07.06.23

"No M&E courses have been offered on a regular basis and surprisingly the trainings are planned but not conducted due to some reasons".

Participant E09.06.23

On further enquiry on why most of health facilities were not conducting training of M&E staff as was scheduled, the respondents based their arguments on; lack of clear schedules for conducting M&E training in some health facilities, different ideologies by the key decision makers, lack of M&E resources such as M&E frameworks/tools, lack of training personnel and lack of budgetary allocations for training M&E practitioners in public health centres. Some of their responses included;

"Some of the activities in this health centre are not included on the health facility Service Delivery Budget Implementation Plans and that has made it very difficult to conduct M&E trainings as scheduled. We plan several training sessions but the budget does not provide enough funds to implement the plan.

Participant E 015.06.23

"There is no sufficient fund dedicated for monitoring and evaluation activities in our health centre, we conduct monitoring and evaluation based on availability of fund received resources"

Participant E04.06.23

6.7 Assessing supportive supervision of M&E staff.

Under supportive supervision assessment, the respondents were asked to share their views in relation to the current supportive supervision approaches/practices, frequency and duration of support supervision activities, the extent to which these practices engage with M&E activities of data collection, analysis and reporting and planning of supportive supervision. Table 6 below shows the agreement levels during the assessment of supportive supervision of M&E staff in public health centres.

About conducting mentorship, motivation and provision of feedback to individual M&E practitioners, Out of 101 respondents who participated in the study, 30(32.6%) strongly disagreed, 12(11.8%) disagreed, 40(39.6%) agreed and 39(38.6%) strongly agreed. This was backed by a mean of 4.76 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that most public health facilities conducted mentorship, communication and provision of feedback to individual M&E practitioners.

About the current supportive supervision processes being sufficiently harmonised and integrated into the facility strategic plan. Out of 101 respondents who participated in the study, 15(14.8%) strongly disagreed, 16(15.8%) disagreed, 31(30.6%) agreed and 37(36.6%) strongly agreed. This was backed by a mean of 3.91 and standard deviation of 0.5. This is lower than the composite mean and standard deviation which implies that most public health facilities did not sufficiently harmonise and integrate the supportive supervision practices into the facility strategic plan.

About each supportive supervision activity taking not less than 2 hours duration, Out of 101 respondents who participated in the study, 22(21.7%) strongly disagreed, 21(20.7%) disagreed, 32(31.6%) agreed and 26(25.7%) strongly agreed. This was backed by a mean of 3.25 and standard deviation of 0.5. This is lower than the composite mean and standard deviation which implies that most supportive supervision practices took more than 2 hours duration.

About supportive supervision activities being conducted between 5-10 times a month, Out of 101 respondents who participated in the study, 45(44.5%) strongly disagreed, 35(34.6%) disagreed, 11(10.8%) agreed and 10(9.9%) strongly agreed. This was backed by a mean of 2.87 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that most supportive supervision practices were being conducted between 5-10 times a month.

About supportive supervision practices improving data reporting and dissemination, Out of 101 respondents who participated in the study, 13(12.8%) strongly disagreed, 10(9.9%) disagreed, 41(40.5%) agreed and 36(35.6%) strongly agreed. This was backed by a mean of 4.78 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that supportive supervision practices improve data reporting and dissemination.

About the presence of communication channels appropriate for direct feedback from supervisors to supervisees. Out of 101 respondents who participated in the study, 13(12.8%) strongly disagreed, 10(9.9%) disagreed, 41(40.5%) agreed and 36(35.6%) strongly agreed. This was backed by a mean of 4.98 and standard deviation of 0.6. This is greater than the composite mean and standard deviation which implies that most public health centres have communication channels appropriate for direct feedback from supervisors to supervisees.

About supportive supervision of M&E staff being conducted on a daily basis. Out of 101 respondents who participated in the study, 38(12.8%) strongly disagreed, 31(9.9%) disagreed, 12(40.5%) agreed and 20(35.6%) strongly agreed. This was backed by a mean of 3.55 and standard deviation of 0.2. This is lower than the composite mean and standard deviation which implies that most public health centres do not conduct supportive supervision activities on a daily basis.

About achieving the intended results from mentoring M&E staff, Out of 101 respondents who participated in the study, 15(14.8%) strongly disagreed, 20(19.8%) disagreed, 2(1.9%) were not sure, 36(35.6%) agreed and 28(5.6%) strongly agreed. This was backed by a mean of 3.82 and standard deviation of 0.4. This is lower than the composite mean and standard deviation which implies that most public health centres do not achieve the intended results from mentoring M&E staff.

Table 5:Agreement level on supportive supervision of M&E staff.

Statements	**1-strongly disagree**	**2-disagree**	**3-agree**	**4-strongly agree**	**0- not sure**	**Mean**	**Stdev**
There is mentorship, communication and provision of feedback to individual M&E practitioners.	10(19.8%)	12(11.8%)	40(39.6%)	39(38.6%)	0	4.76	0.6
The current supportive supervision processes are sufficiently harmonised and integrated into the facility strategic plan.	15(14.8%)	16(15.8%)	31(30.6%)	37(36.6%)	2(1.9%)	3.91	0.5
A supportive supervision activity takes not less than 2 hours duration.	22(21.7%)	21(20.7%)	32(31.6%)	26(25.7%)	0	3.25	0.5
Supportive supervision is conducted between 5-10 times a month.	45(44.7%)	35(34.6%)	11(10.8%)	10(9.9%)	0	2.87	0.2
Supportive supervision practices have improved data reporting and dissemination.	13(12.8%)	10(9.9%)	41(40.5%)	36(35.6%)	0	4.78	0.6
There are communication channels appropriate for direct feedback from supervisors to supervisees?	5(4.9%)	6(5.9%)	50(49.5%)	40(39.6%)	0	4.98	0.6
The intended results from mentoring staff have always been achieved.	15(14.8%)	20(19.8%)	36(35.6%)	28(27.7%)	2(1.9%)	3.82	0.4
Supportive supervision of M&E staff is conducted on a daily basis.	38(37.6%)	31(30.6%)	12(11.8%)	20(19.8%)	0	3.55	0.2
Total mean						31.92	3.6
Composite mean						**3.97**	**0.58**

Figure 4 shows a box plot of survey data for the variables used in assessing support supervision of M&E staff in public health centres. Below is a narrative of the box plots from the survey data showing data distribution around the median based on the whisker length/skewness.

The box plots for activity duration and daily supervision have longer whiskers on the right indicating a wider variability of the data points to the median. Achieving intended results, mentorship and feedback together with supervision as planned have shorter whiskers on the right indicating a lower variability of the data points to the median. Activity frequency and presence of communication channels have both whiskers comparatively similar indicating that data points were generally distributed in a similar way. The box plot for data improvement shows a slightly left skew due to the left whisker being longer on the left indicating less variability of the data points to the median. The outliers observed are not very far from the adjacent values showing that they are not a threat.

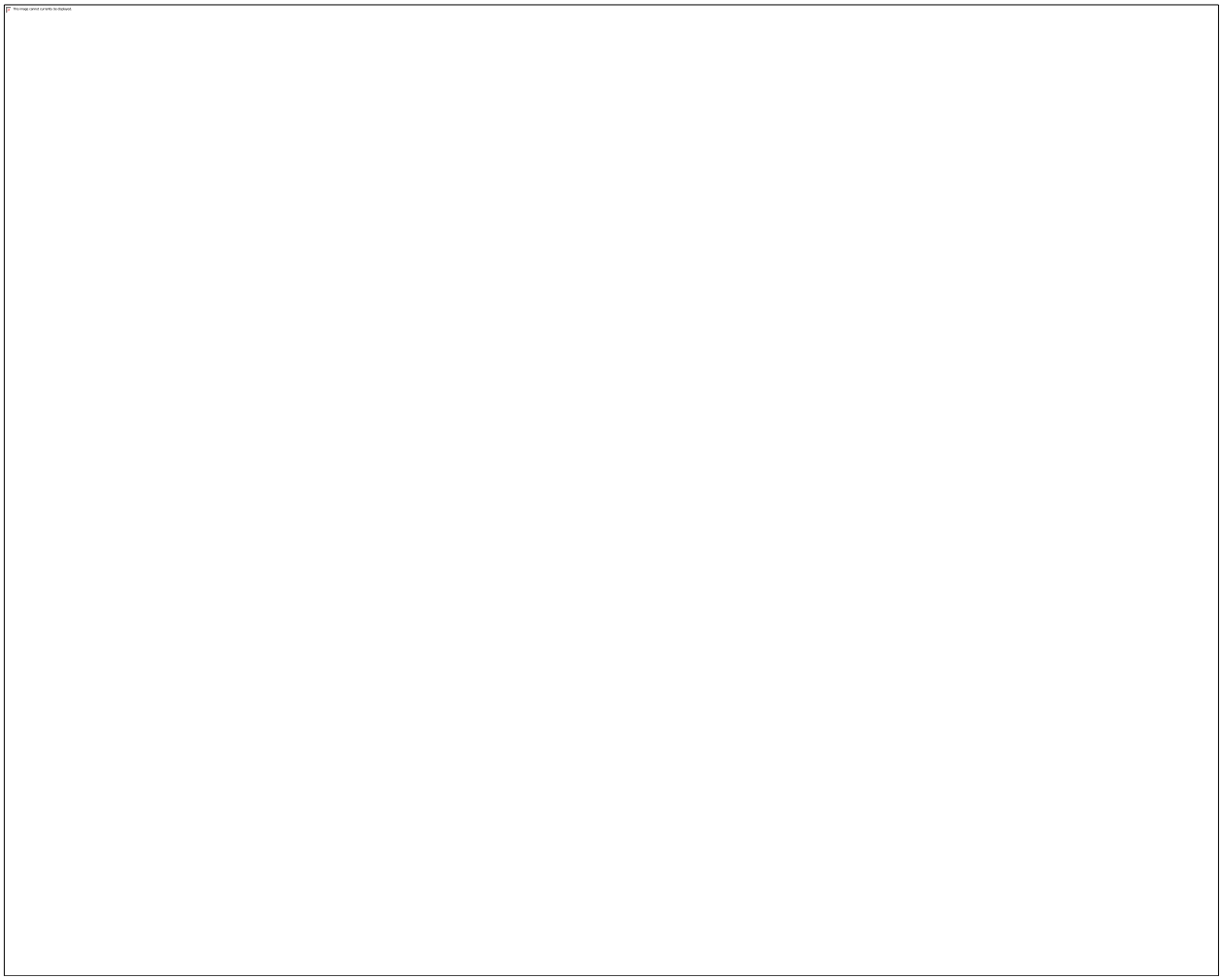


Figure 4*: A box plot of survey data for support supervision assessment.*

On finding out about the current supportive supervision approaches through a key informant interview, four main approaches were emphasized and these included group mentoring sessions, providing constructive feedback, follow up sessions and episodic problem solving as listed by the respondents below;

"We conduct supportive supervision activities such as mentoring and following up staff to measure their progress and recommend solutions"

Participant E03.06.23

" The facility sometimes hires consultants from outside to come and educate staff about key issues".

Participant E05.06.23

About frequency, the study found that some supportive supervision practices were performed weekly, others were conducted monthly. However, a small number of respondents reported conducting at least an approach of supportive supervision on a daily. This is evidenced from the responses below;

"We usually supervise staff on a daily however feedback is given after a day or two so that they know where they need to improve"

Participant E01.06.23

"Mentorship sessions usually take place ounce in a month. We bring a consultant to talk and impart new knowledge in our staff".

Participant E08.06.23

Another respondent said

"Every week we hold a staff meeting where staff does self-examinations and we advise accordingly".

Participant E02.06.23

About duration of supportive supervision, the study indicated that the supervisors spent approximately 30 minutes while others said between 2-5 hours with the maximum duration being 5hours. No respondent gave a duration that is beyond 5 hours as indicated by some of the responses shown below;

"Usually workshops take not later than 3 hours but if you subtract time for introductions and a little bit of jokes to put us in the mood, we end up receiving the actual training for about 2 hours".

Participant E14.06.23

Another respondent said,

“Because of our busy schedules, supportive supervision practices take approximately 30 minutes ".

Participant E12.06.23

About supportive supervision outcomes, the study found out that it led to improved data quality and timeliness of submission of HMIS reports. The study also found out that supportive supervision contributes to increased adherence to M&E professional standards and guidelines. The study further indicated that supervision approaches generally lead to teamwork, motivation, skill sharing, and promotion of cross-learning. A respondent explained;

“It raises staff morale, motivation and knowledge and skills towards performance of M&E tasks. I now receive weekly reports that have less mistakes and I give all credit to the mentoring sessions we usually conduct".

Participant E01.06.23

"Although the data quality is not yet up to date, at least it has improved so much due to supervision activities".

Participant E04.06.23

Another respondent also alluded to performance improvement as explained below;

“There has been improvements in the timeliness of HMIS reports. We used to submit our reports past the deadlines but with routine data audits, staff is able to work on the reports on time"

Participant E09.06.23

About planning and coordination of supportive supervision, the study found that some supportive supervision visits are never planned whereby supervisors just show up at the health centre without notice while other respondents said that support supervision visits were being planned according to the existing challenge which calls for attention. Other respondents indicated that their facilities plan supportive supervision visits at the request of the Uganda

ministry of health due to problems reported to them. A respondent suggested in one of the interviews that;

"I would like to suggest that supervisors and clinical supervisees should coordinate so that time spent during training will bring out the best M&E skills and competencies among M&E staff ".

Participant E02.06.23

Another respondent explained;

"To be sincere, I don't think the administrators plan for these activities. Sometimes we are called for an abrupt meeting only to be told that we have visitors from MOH that want to mentor us about some issues".

Participant E12.06.23

CHAPTER SEVEN: DISCUSSION

7.1 Assessing pre-service training of M&E staff.

The study findings provide evidence that shows that pre-service training is essential for the development of M&E staff competences in performing M&E tasks. The evidence shows that although pre-service training is fundamental and has been conducted by some health centres, it has not adequately prepared M&E staff to collect, analyse and report on data in those health centres. This is due to a number of reasons which include the failure to implement the training work plans and the inadequacies of the training curriculum which is not responsive to current M&E needs such as changing trends in technology. The findings are in agreement with Waheed(2013) and Byrne (2019) observations that the presence of a training work plan is never enough to guarantee positive results unless this work plan is implemented.

Blaser Mapitsa and Khumalo (2018) highlights various levels of responsibilities required by M&E staff to effectively function in their roles. They identified external factors that affected health data collection, analysis and use. The factors included poor motivation, new and untrained M&E staff and failure to put the training work plan to use. The scholars suggested that the training work plans should be implemented at the right durations and frequencies.

In Mwangi and Moronge (2019) "evaluation of the creation and implementation of a multidimensional monitoring tool (dashboard) for monitoring information on staff performance", an improvement in data quality between the first quarter of 2014 and the fourth quarter of 2015 was reported due to pre-service training. In addition, Sürücü and Maslakçi (2020) also reported an improvement in evidence based public health care delivery following the prescribed data for decision making delivered by trained M&E staff.

It is also worth noting that, as public health centres continue with their quest into conducting pre-service training, they also continue their arguments into its importance. Some of the facilities in charge argue that the recognition of the importance of pre-service training in recent years heavily influences decisions to invest in employee development. Related to the above, Dehnavieh et al (2019) added that technological developments have gradually led M&E practitioners to the realization that better performance relies on their acquisition of new skills and knowledge basing on the current M&E needs thus a need for considerable and continuous investment in training and development in order to align with the current transitions in monitoring evaluation.

The insights from this study gave rise to various recommendations to guide pre-service training of M&E staff one of which included; there is need for periodic review of the M&E training curriculum on the current trends in health data management such as the use of mobile technologies and the need to actively implement the training workplan.

7.2 Assessing continuous professional development of M&E staff.

The findings showed that despite the presence of M&E practitioners in public health centres, a significant portion of M&E practitioners in health facilities received continuous professional development through small workshops and seminars but not so often. The findings also showed that though some public health centres had schedules for in-service training on M&E, they hardly conducted the trainings as scheduled. Most key informants admitted scheduling trainings but only a few admitted that the trainings were conducted in their respective scheduled periods. This indicates that some public health centres schedule trainings just for formality and to fulfill certain requirements from the ministry of health but they are not actually implementing the trainings. The findings are contrary to observations by Dragomiroiu et al (2016) who postulated that majority of M&E practitioners in private facilities receive training in M&E as scheduled. The differences in observations could be attributed to the presence of enough funds in private health facilities which funds enable the facilitation of the training compared to the public health centres.

M&E practitioners in public health centres still need to be taken for M&E related courses to improve their knowledge and skills base for them to properly execute their M&E duties. It was indicated that even though skill levels were very low, however certain members of the M&E team did possess somewhat relevant skills and expertise in relation to carrying out their duties effectively. It was also noted that as M&E is considered as an evolving discipline, it is important that staff attend M&E training and capacity building courses on a regular basis in order to build and improve on their skills with time. This indicates that even though M&E skill levels are very low in public health facilities, little effort is still put in to ensure routine skill development through training in relation to carrying out M&E duties effectively. The findings were found to be in disagreement with the observations of Juma et (2023) and Tengan et al (2019) who observed that majority (58%) of M&E practitioners were regularly involved in conducting M&E trainings in their respective health facilities.

The study shows that the main purpose of in-service training is to acquire and improve knowledge, skills and attitudes towards work related tasks. It is one of the most important

potential motivators which can lead to both short-term and long-term benefits for M&E practitioners and the public health centres in which they work. The findings are in tandem with the findings by Blaser Mapitsa and Khumalo (2018) who summarizes the purpose of in service training as; High staff morality, lower costs of production and improved knowledge and skills.

Considering the effects of in-service training, the study found out that M&E staff training plays a vital role in improving performance as well as increasing productivity of M&E staff. This therefore implies an existence of a significant difference between the public health centres that train M&E staff and those that do not. A study by Luellen et al (2005) presents evidence of an existence of obvious effects of training and development on M&E staff performance. Some studies have proceeded by looking at performance in terms of employee performance in particular while others have extended to a general outlook of facility performance. In one way or another, the two are related in the sense that M&E staff performance is a function of facility performance since employee performance influences general facility performance. In relation to the above, Singh et al (2017) notes that M&E staff competencies change through effective in-service training programs. Continuous professional development therefore not only improves the overall performance of the M&E practitioners to effectively perform their current M&E duties but also enhances the knowledge, skills and attitudes necessary for future jobs elsewhere. Luellen et al (2005) in their study agrees with Singh et al (2017) that through training the M&E staff competencies are developed and this enables them to implement M&E functions efficiently, and achieve facility objectives in a competitive manner. Further still, dissatisfaction complaints, absenteeism and turnover can be greatly reduced when M&E staff is so well trained.

7.3 Assessing supportive supervision of M&E staff

Based on frequency, the study indicated irregular frequency of supportive supervision approaches. However, studies by Holvoet and Inberg (2014) in South Africa demonstrated that supportive supervision practices were regularly practiced and more effective. With this, there was regular monitoring of work and regular problem solving. Therefore sufficient time investment is needed to achieve maximum benefits from the supportive supervision approaches. Another study in Eastern Uganda by Richard and Otundo (2019) demonstrated that there was irregular supervision visits of staff in Arua hospital. The two studies in Uganda indicated irregular frequency of supportive supervision approaches whereas the study in South Africa shows regular frequency of supportive supervision approaches. The difference

in findings could be because Uganda is a low income country and therefore funds are limited compared to South Africa which is a middle income country.

Based on duration of supportive supervision practices and M&E performance, the study indicated that the duration of the practices was not enough and sustainable resulting into poor data management. A study by Xia et al (2016) demonstrated that increasing the duration of supervision visits had a positive impact on some dimensions ofdata management and reporting. Another study by Blaser Mapitsa and Khumalo (2018), found that with ample time for M&E mentorship sessions, there was improvement of data reporting and dissemination because there was enough time to acquire new knowledge and skills.

Additionally, a study conducted by Mwangi and Moronge (2019) found that regular supervision was insufficient in improving the functionality of M&E practitioners. The difference in findings could be as a result of other factors for example a health facility might conduct a mentoring session for a short period but because majority of staff members are present, the session becomes effective.

The study findings indicate that there are four major current practices and these were mentorship; giving constructive feedback, follow up activities and problem solving. Another study by Kusak and Rist (2001) pointed out two major supportive supervision practices and these were direct feedback and group training though in their study, they acknowledged that the two approaches had a component of problem solving. The results are in tandem with a study conducted by Goergens and Kusek (2010) that showed three major supportive supervision activities being problem solving, follow up and mentorship Tengan et al (2019). All the three studies therefore indicate problem solving as a major support supervision practice. This could be because most of the supportive supervision approaches are aimed at problem solving.

Based on supportive supervision outcomes, the study findings indicated that sustained feedback and follow up of M&E staff resulted into improved staff attitudes and relationships between supervisors and supervisees. These findings corroborate the findings from a study by Byrne (2022) where feedback and follow up of staff resulted into increased confidence and a positive relationship between supervisors and supervisees. Additionally, most public health centres registered improvement in health data management and reporting due to supportive supervision of M&E staff. The study findings are in agreement with a study by Waheed (2015) which also alluded to the potential of mentoring in improving the level of professional

competence in performing M&E tasks through enhancing their skills and knowledge. Therefore the agreements in the findings above could be because better quality of data collected, analysed and reported cannot be achieved unless the M&E practitioners have the appropriate knowledge, skills and motivation.

Considering planning and coordination of supportive supervision practices, the study found out that the success of supportive supervision hinges on meticulous planning and coordination. The findings show some gaps in coordination of supportive supervision practices for example some respondents reported cases where the supervisors didn't show up for supervision visit and instances where most staff were absent on a seminar day. There were also cases where the public health facility closed during time for a workshop. Similar to the findings by Juma et al (2023), the lack of coordination of supportive supervision approaches leads to disagreement, confusion and wastage of scarce resources. The similarity in findings could be due to the fact that planning and coordination of supportive supervision practices are key management functions that bring about order and preparedness.

The insights from this study may give rise to various recommendations towards health policy planning through providing details about how human capacity can be strengthened through pre-service, in-service training and supportive supervision of M&E staff. The findings also show the gaps with in public health centres concerning human capacity for M&E and knowledge of these may guide the ministry of health on how to fill such gaps. The study may benefit researchers and scholars who may use its findings as a reference and to enrich M&E literature in public health centres.

7.4 Study Limitation

1. Some respondents were unavailable and others did not have enough time to give required information due to their busy schedules which hindered effective data collection. However, the researcher addressed this problem by making a follow up to allow them respond at their most convenient time.
2. Data collection required huge financial outlays because the public health centres with in kyadondo north help sub district are scattered however the study used questionnaires to gather information with in the shortest time.
3. There was sampling bias while purposively selecting the public health facilities from the national health facility master list however this bias was overcome by using PPS sampling which gives each respondent an equal chance of appearing in the sample.

4. The study was tiring and time consuming since Kyadondo North is a large health sub district. This was overcome by hiring a research assistant prior to the study. However the study had strengths for example the use of both qualitative and quantitative methods of data collection, analysis and presentation which allowed the researcher to explore the approaches to strengthening human capacity for M&E in public health centres in Wakiso district.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusion

Regarding the first objective, the results from the questions on pre-service training indicate that the training institutions often had registers for recording the topics covered though majority of the M&E practitioners said that these registers were never reviewed. This was evidenced by the fact that these M&E practitioners agreed to having studied some topics over and over again.

Regarding the second objective, the findings showed that despite the presence of M&E practitioners in public health centres, a significant portion of M&E practitioners in health facilities received continuous professional development through small workshops and seminars but not so often. The findings also showed that though some public health centres had schedules for in-service training on M&E, they hardly conducted the trainings as scheduled.

Regarding the third objective, the findings indicated that the supervision approaches of mentorship, constructive feedback, follow up sessions and problem solving were commonly conducted by the public health facilities and that they helped M&E practitioners to learn new skills and acquire new knowledge which increased their performance of M&E tasks. The study suggested that support supervision approaches should be planned, frequently conducted and for longer durations in order to be more effective since most respondents reported less coordination among these approaches due to less planning.

Conclusively, Human capacity for M&E can be strengthened through pre-service training, in-service training and supportive supervision of M&E staff. When M&E staff is well capacitated, they will be motivated and able to acquire more skills and knowledge to perform better the M&E tasks of data collection, data analysis and data reporting thus improving the quality of data collected 'analysed and reported. The study may benefit researchers and scholars who may use its findings as a reference and to enrich M&E literature in public health centres.

8.2 Recommendations of the study:

1. The study recommends that the ministry of health should develop capacity of M&E practitioners through financing their pre-service trainings, in-service trainings and supportive supervision with in public health centres.

2. Training institutions should include basic training in the M&E tasks of data collection, data analysis and data reporting among the academic programs to enhance capacity of the M&E practitioners.
3. The district health office in liaison with facilities should continue resourcing the support supervision with attention to the M&E capacity gaps.
4. The facility registers used for recording in-service training sessions should be constantly reviewed by the in charge to avoid duplication of training topics.
5. The time dedicated to capacity building of M&E staff by training institutions should be sufficient to facilitate learning and problem solving. This is the only way the capacity building will be able more effective to the staff and facility as a whole.

8.3 Recommendations for Further Research:

1. The researcher calls for a similar study to be carried out in other districts in Uganda in order to obtain more holistic information on approaches to strengthening the human capacity for M&E in public centres.
2. The researcher also suggests a comparative study that compares the findings from public, private, Non Government Organisations and Faith Based Organisations health facilities in both urban and rural areas.
3. Due to the nature of discriptive survey research design which does not allow understanding the cause and effect of the behaviour, further research may be needed to get a more complete picture on why pre-service training and continuous professional development were moderately conducted.

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APPENDICES

APPENDIX I: THE 12 COMPONENTS M&E CAPACITY ASSESSMENT TOOL

Section 1: Background information

Health Centre name: …….

Respondents age.....

Area of operation: …….

Length of work: .....

Respondent position: ……

Nature of employment: .....

Level of education: .....

Years since start of work: .....

Nature of previous employers: .....

Extent of engagement with M&E work in previous job.....

Extent of engagement with M&E work in current job.....

To what extent does your job engage with the following M&E tasks(Indicate if very high, high, moderate or less)

1. Data collection
2. Data management, processing and analysis
3. Reporting/dissemination activities

Section 2: ASSESSING THE HUMAN CAPACITY FOR M&E DOMAIN OF THE 12 COMPONENTS CAPACITY ASSESSMENT TOOL.

Q/N	Question	1=strongly agree	2=agree	3=disagree	4=strongly disagree	0= not sure	COMMENT
Pre-service training							
Q1	The facility has a work force development plan.						
Q2	The workforce development plan is reviewed annually.						
Q3	Training in data collection is included in the pre-service training mandate.						
Q4	Training in data analysis programs is included on the pre-service training mandate.						
Q5	Training in data reporting programs is included on the facility training mandate.						
Q6	M&E practitioners have enough knowledge and skills in data collection, analysis and reporting.						
Q7	There is a facility register of the M&E courses offered to						

	avoid duplication of topics.						
Q8	The M&E staff pre-service training offered is linked to the required staff competences						
Continuous professional development/in-service training							
Q9	In service training is conducted between 5-10 times a month.						
Q10	M&E staff competence levels have been assessed within the past 3 years.						
Q11	Training in data collection is included in the in-service training mandate.						
Q12	Training in data analysis is included in the in-service facility training mandate.						
Q13	In-service training has improved skills in analysing data among the different departments of the facility.						
Q14	The facility has a defined skill set for M&E practitioners.						
Q15	The in-service training is coordinated at all						

	departments in the facility.						
Q16	In-service training programs are relevant towards improving data quality.						
Supportive supervision							
Q17	There is mentorship, communication and provision of feedback to individual M&E practitioners.						
Q18	Supportive supervision is conducted between 5-10 times a month.						
Q19	A supportive supervision activity takes not less than 2 hours duration.						
Q20	Supportive supervision of M&E staff is conducted on a daily basis.						
Q21	The current supportive supervision processes are sufficiently harmonised and integrated into the facility strategic plan.						
Q22	There is provision of direct feedback to the						

	M&E concerning data reporting and dissemination activities.						
Q23	There are communication channels appropriate for direct feedback from supervisors to supervisees?						
Q24	The intended results from mentoring staff have always been achieved.						
	Pre assessment checklist: 1. Check if there is a human capacity building plan exists (could be part of the NSP, M&E Plan, or as a separate document) 2. Check if existing human capacity building plan is based on assessment results.						

APPENDIX II: KEY INFORMANT INTERVIEW GUIDE

Section 1: Introduction

My name is Racheal Namanya, a student from Makerere University undertaking a Master's Degree in Public Health Monitoring and Evaluation. I am seeking for information which will enable me assess pre-service training, continuous professional development and supportive supervision of M&E staff as key approaches to strengthening human capacity for M&E in public health centres in Wakiso district. The information you give me will be kept confidential. This session will be recorded due to the interest of time.

Section 2: General information

What is your unit of operation?

What is your current position?

How old are you?

For how long have you worked in the position?

What is your nature of employment?

At what level are you in this facility?

What is the nature of your previous employers?

How do you rate the extent of engagement with M&E work in previous job?

What is your level of education?

How many years have you spent since you started work?

To what extent does your job engage with the following M&E tasks?

a. Data collection
b. Data management, processing and analysis
c. Reporting/dissemination activities

Starting time

Ending time

Section 3: KEY INFORMANT INTERVIEW QUESTIONS

Considering pre-service training

1. Did you receive specific training on M&E before you started work?
2. If yes, what type of training did you receive?
3. If no, what elements of M&E do you think you should have received?
4. How were you selected for training?
5. How often do you undergo training?
6. What are the methods of facilitation during training?
7. Is there a workforce development plan for pre-service training?
8. Who creates the workforce development plan?
9. How often is it reviewed?
10. Does the facility have a nationally endorsed curricula for the pre-service training?
11. How has this training prepared you to perform your duties at your current job?
12. What is working well in the pre-service training sessions? What is not working well? Why?
13. How well has pre-service training prepared M&E staff to collect data?
14. How well has pre-service training prepared M&E staff to analyse data?
15. How well has pre-service training prepared M&E staff to report on data?
16. Please specify any ways you think training and development of staff in public health centres can be improved.

Considering continuous professional development/ in-service training

1. Did you receive extra training concerning your job?
2. How well has in-service training prepared M&E staff to collect data?
3. How well has in-service training prepared M&E staff to analyse data?
4. How well has in-service training prepared M&E staff to report and disseminate data?
5. Who coordinates these training sessions?
6. How relevant were the trainings you received to your work?

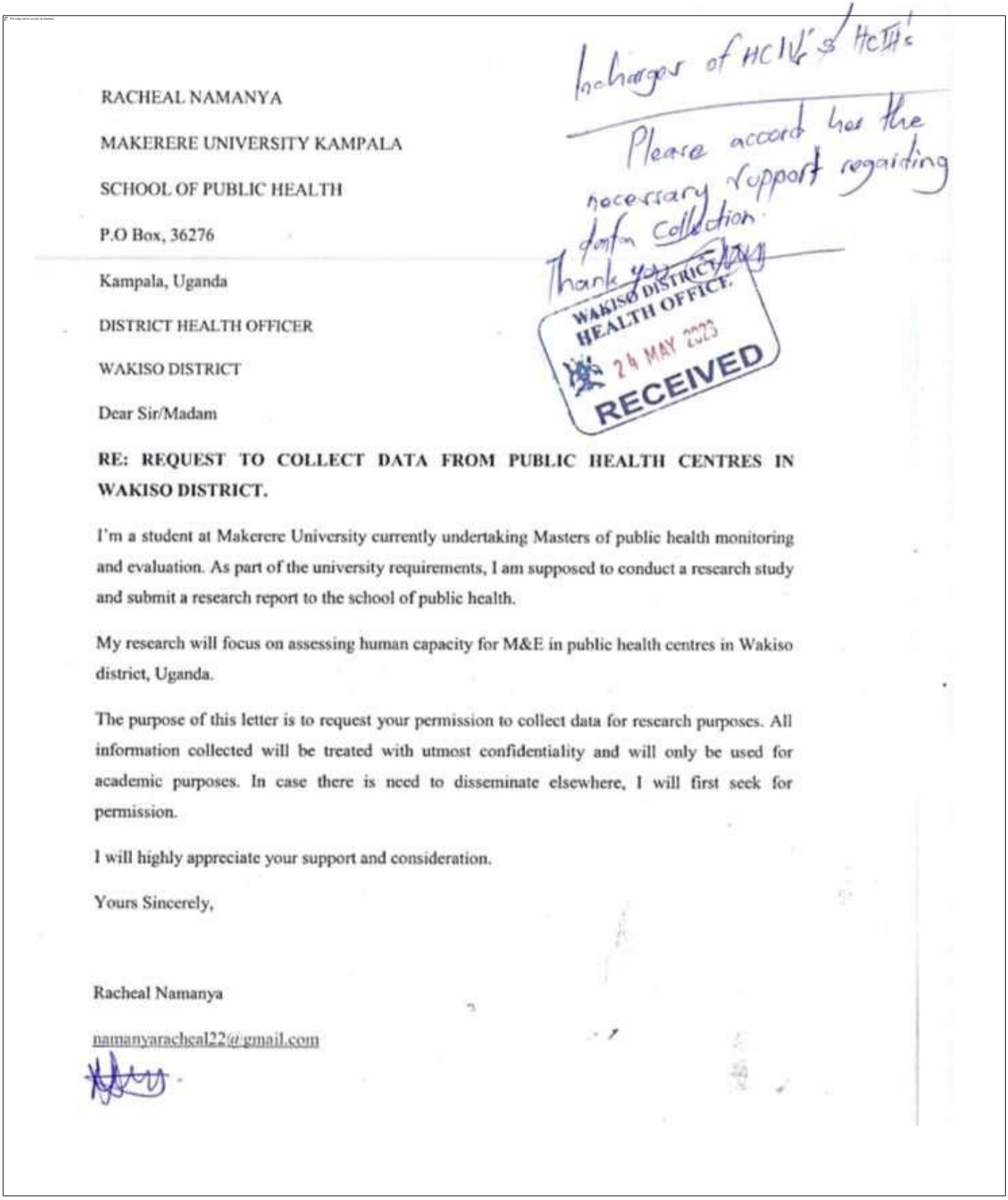
7. From your own observation how would you describe the competence of the health center's M&E personnel concerning data management?
8. In your view, do you think training has helped improve your skills in data collection, analysis and reporting?
9. What gaps can you identify considering in-service training?
10. How has such gaps been filled?
11. What areas in M&E do you think could be strengthened by in-service training?
12. What ways can be used to improve overall in-service training experience?
13. Is there anything else you would like to add concerning M&E staff capacity development?

Considering supportive supervision

1. What are some of the current support supervision practices/approaches in your current job?
2. How have these practices prepared M&E staff to collect data?
3. How have these practices prepared M&E staff to analyse data?
4. How have these practices prepared M&E staff to report and disseminate data?
5. How long does it take while conducting these practices?(duration)
6. Are the current support supervision practices sufficiently harmonised and integrated into the health centre plan?
7. Who coordinates these practices?
8. Are there examples of M&E practitioners who have been promoted following mentoring and coaching?
9. How frequent is supportive supervision conducted with in this facility?
10. What supportive supervision practices do you receive on a daily basis?
11. What recommendations would you give to help improve M&E staff performance?

Thank you for your response

APPENDIX III: AUTHORISATION FOR RESEARCH



Incharges of HCIV's & HCIII's

Please accord her the necessary support regarding data collection.

Thank you

WAKISO DISTRICT
HEALTH OFFICE.
24 MAY 2023
RECEIVED

RACHEAL NAMANYA

MAKERERE UNIVERSITY KAMPALA

SCHOOL OF PUBLIC HEALTH

P.O Box, 36276

Kampala, Uganda

DISTRICT HEALTH OFFICER

WAKISO DISTRICT

Dear Sir/Madam

RE: REQUEST TO COLLECT DATA FROM PUBLIC HEALTH CENTRES IN WAKISO DISTRICT.

I'm a student at Makerere University currently undertaking Masters of public health monitoring and evaluation. As part of the university requirements, I am supposed to conduct a research study and submit a research report to the school of public health.

My research will focus on assessing human capacity for M&E in public health centres in Wakiso district, Uganda.

The purpose of this letter is to request your permission to collect data for research purposes. All information collected will be treated with utmost confidentiality and will only be used for academic purposes. In case there is need to disseminate elsewhere, I will first seek for permission.

I will highly appreciate your support and consideration.

Yours Sincerely,

Racheal Namanya

namanyaracheal22@gmail.com

APPENDIX IV: ETHICAL APPROVAL