EFFECT OF LEADERSHIP COMPETENCIES ON CRISIS MANAGEMENT PRACTICES IN PUBLIC HEALTHCARE FACILITIES IN NAIROBI, KENYA.

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DECLARATION

I declare that this dissertation is my original work and has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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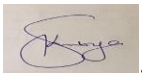
Signed: .....  .....

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DEDICATION

Special thanks to my family for their social and emotional support. You have always inspired me to pursue academic excellence. I also recognize the invaluable help and advice throughout the project. To all of you a very big thank and may God bless you.

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I thank the Almighty God for keeping me well and allowing me to finish this project on time. I also acknowledge the support of my family. I thank my family for the emotional and social support that kept me going. You were an encouragement when things seemed tough and I don't take this for granted. Finally, I also acknowledge my supervisor for their unwavering help and advice. Your invaluable support gave me the confidence to achieve my best.

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LIST OF ACRONYMS AND ABBREVIATIONS

ICF	Informed Consent Form
IOM UN	International Organization for Migration for the United Nations
MoH	Ministry of Health
NACOSTI	National Commission for Science, Technology and Innovation
SPSS	Statistical Package for the Social Sciences
TMC	Transactional Model of Communication
WHO	World Health Organization

ABSTRACT

The purpose of this study is to assess the impact of leadership competencies on crisis management practices in public healthcare facilities in Nairobi, Kenya. Specifically, the study examined the influence of communication, coordination, and resource allocation competencies on health crisis management in the region. The study was anchored on Resilience Theory and Situational Leadership Theory. The study targeted all 104 public health facilities in Nairobi County, with a focus on health facility managers as the unit of observation. This study was conducted as a census, meaning all public health facilities and their managers were included, with no sampling involved. Primary data was collected through close-ended structured questionnaires, ensuring consistency in the data collection process by providing uniformity and that respondents interpret questions in a standard way to ensure consistency and obtain data that can be relied upon. The reliability of the research instrument was tested for validity and consistency. The completed questionnaires was thoroughly edited to minimize errors and omissions. Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 29, employing both descriptive and inferential statistics. Descriptive statistics included percentages, means, and standard deviations, while inferential statistics utilized Pearson correlation to assess the strength and nature of the relationship between leadership competencies and healthcare crisis management, and ordinal regression analysis to determine the influence of leadership competencies on health crisis management. Ethical considerations were strictly observed to promote respect for the rights of the participants, well-being, and their dignity. The finding of the study established that communication competencies, coordination competencies and resources allocation competencies positively improved crisis management in the public health sector particularly Nairobi City County. It was concluded that elaborate communication, coordination and resource allocation strategies should be adopted by public health facilities to enable them to effectively manage health crisis when they arise. The study recommend that Public health facilities, should train its employees and management on the effective communication, coordination and resource allocation strategies. This is important to enable them to respond swiftly during crises. Policymakers, in particular, should ensure that policies to guide adoption of current technologies are in places to ensure efficiency during health crisis response.

Key Words; *leadership competencies, crisis management practices, public healthcare facilities in Nairobi, communication, coordination, and resource allocation competencies*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Crisis management practices play an important role across the world as it helps to ensure effective management of the crises when they occur. Crisis management practices focus on preparedness, response, recovery and mitigation which are important to ensure that emergencies like disease outbreak, natural disasters and shortage of resources are addressed (Haileamlak, 2021). Crisis management practices include development of emergency response plans, training the staff on disaster preparedness and development of clear communication channels (D'Auria & De Smet, 2020). It also includes coordination of various stakeholders like government agencies, non-governmental organizations and community organizations to ensure efficient allocation and use of resources (Oleksa-Marewska & Tokar, 2022). In addition, it entails implementation of strategies such as development of infection control protocols, surge capacity planning and provision of psychosocial support for health professionals and patients (Jabari, 2020). There has been a challenge of effective crisis management in public health facilities particular with regard to communication, coordination and resource allocation which explains the need for the study (Wangari et al., 2021). This study was important as it came up with findings that can help to ensure continuity of service, minimize disruptions and protect the public during emergencies.

In Poland, Oleksa-Marewska and Tokar (2022) found out that there is a need to think about health crisis management. Leaders' ought to relook at the status quo and rethink how they can handle health crises when they happen (Ahti et al., 2023). According to research conducted by Medical University of Lublin, 21.7 percent of health care workers have participated on disaster preparedness (Misztal-Okońska et al., 2020). Further, only 54 percent of medical students in Poland are aware of leadership competencies necessary in crisis management. Crises can bring problems to the health system. It can affect the normal operation of the health facilities and this calls for responsive leadership to contain the crisis. Without enough and proper allocation of the resources, medical supplies can be reduced significantly (Cunniff et al., 2023). According to

Wangari et al. (2021), little emphasis in most cases is placed on coordination and communication consequently threatening the sustainability of the health system. Improper communication and coordination can compound the challenges the health facilities are facing in human resources and medical supplies.

As a result, there is a need to examine leadership strategies that work and continuously work to ensure that they are improved, as healthcare needs evolve (Santoso et al., 2022). There is need to do re-evaluation after every health crisis and this may change thoughts and perceptions about health crises. Whitwell (2021) is of the view that redefining leadership is key to better handling the health crisis. Accordingly, leaders need new skills and competencies to enable them to handle issues in the ever-changing health environment. Leadership competencies can enable leaders to navigate challenges that otherwise would have been difficult (Whitwell, 2021). Investing in skills and competencies should be the focus of leaders of health institutions.

In Germany, Timmis and Brussow (2020) found that coordination is important to effectively deal with health crises. Germany spent 11 percent of its GDP on health infrastructure that translates to 5119 USD per capita and this gives the country capacity to respond effectively on health emergency (World Bank, 2021). This has resulted to adequate hospital bed capacity that reflected on 8.3 hospital beds per 1,000 people giving the country's edge to respond to health emergencies. Accordingly, collaboration determines the response to the health crisis and is important to ensure that all stakeholders are involved. Lack of proper coordination can compound the effects of the crisis and might even cause the health system to collapse (Nyawira et al., 2023). Coordination eliminates wastage and ensures that conflicts that might affect the response efforts are eliminated. According to Macnab (2023), coordination should extend local networks to deal with the crisis swiftly. It should involve an interdisciplinary team that better understands the crisis to enable it to adopt a holistic approach and ensure that the crisis is dealt with within the shortest time possible. Coordination also ensures the effective sharing of information, ideas, and solutions. This is important since it will ensure that the approaches that are adopted are workable (Li et al., 2020). Coordination also streamlines communication channels consequently ensuring that duplication of efforts and duties are avoided (Khatri et al., 2023). It will also ensure that resources are optimally used consequently eliminating wastage. Coordination also ensures prompt response to emerging

issues and challenges (Li et al., 2020). It is also important to address short-term and long-term planning and implementation challenges. Germany's well-funded health infrastructure and robust leadership competencies have enabled them to respond effectively to health crisis particularly health global pandemics.

In Africa, Gebremeskel et al. (2021) found out that Africa encounters unique challenges when health crisis happens due to the nature of its health system. Healthcare facilities in most African countries are neglected and underfunded (Ogunleye et al., 2020). As a result, they are strained during health crisis. Sustainability of the health system after health crises is unpredictable and this may impact negatively on the overall health of African countries (Agwanda et al., 2021). Gebremeskel et al. (2021) are of the view that governance is still a challenge for African countries. The rampant corruption in African countries negatively affects the health system in most countries (Oleribe et al., 2019). The resources that are allocated to ensure the growth and development of health facilities are not used well (Tessema et al., 2021).

In Africa, regional collaboration has helped a lot to promote collective efforts to deal with crises, however the regional collaboration has not helped effectively to address issues facing health systems in Africa but it also works to ensure that there is proper coordination of the resources (Okereke, 2022). Understanding regional dynamics, however, is key to developing leadership strategies that will ensure that health crises are managed effectively and efficiently. Poor governance develops weak health systems that cannot handle health crises effectively. Dealing with crises requires strong systems that can use the available resources effectively and seal loopholes that hinder proper responses to health crises (Gebremeskel et al., 2021).

The region has experienced numerous health emergency crises for instance between 2001 to 2022, a whopping 1800 health emergency were recorded predominantly due to emerging infectious diseases such as cholera, Ebola, measles, and COVID-19. The health preparedness was generally low and this attributed to low investment in health sector across the region, inadequate emergency plans and insufficient training (Farah, Pavlova, & Groot, 2023). The region has approximately 1.3 health workers per 1,000 people, significantly below the WHO's recommended minimum of 4.5 per 1,000, impacting the ability to manage health crises effectively (Koka, et al. 2018). In many of

the areas in the region, less than 50 percent of population can access health within 2 hours impeding timely response to emergencies.

In Kenya, IOM UN Migration (2023) found that the healthcare landscape in Kenya and, in particular, Nairobi which is Kenyan's capital in dynamic especially during times of health crises. Nairobi has the highest population with most health facilities located in the capital. Being the capital city, most of the health decisions are made in Nairobi. The healthcare landscape in Nairobi has changed owing to particular challenges that include resource constraints, healthcare inequalities, and the need to adapt healthcare policy to the changing healthcare needs (Nyawira et al., 2023). The Kenyan government has underscored the importance of programs and policies to ensure that crisis is managed effectively in all sectors. The unpredictability of health crises put unimaginable pressure on leaders to think hard (Wangari et al., 2021). A lot of resources are used and leaders are under pressure to contain situation. Health crisis can provide opportunity for leaders in the health sector to reflect on the leadership strategies that were employed and worked and those that did not (IOM UN Migration, 2023). This is important since it can inform the development of better leadership strategies to deal with future health crises.

Examining the literature, there is growing frequency and complexity of crises such as pandemics, organizational challenges and climate-related disasters which calls for leaders with the right competencies. Gaps in leadership competencies have been noted which particular with regard to communication, coordination and resource allocation competencies which explains why this study is important. There is need not only to fill the identified contextual, conceptual and methodological but also come up with information that can inform policy development and development of evidenced-based strategies.

1.1.1 Leadership Competencies

According to Henry (2021), leadership competencies refer to expertise or skills that make one offer effective leadership. They are important in influencing employees and other stakeholders to achieve set goals and objectives and improve their performance (De Smet, 2022). Leadership competencies are used to provide guidance and improve production and performance. They are

important not only to make employees and teams develop a good organizational culture but also to empower them to identify challenges and opportunities.

There are various leadership competencies such as decision making, emotional intelligence, conflict resolution, strategic thinking, problem-solving, coordination, communication, resource allocation, and adaptation to change that are need in the management of the crises (Jankelova & Joniakova, 2021; Musaigwa, 2023; Reynolds, 2022). Communication, coordination and resource allocation competencies are chosen in this study because of their direct influence to respond to crises effectively and ensure sustainability of operations.

Accordingly, Communication is the pillar of effective leadership (Restivo et al., 2022). Leaders should convey their ideas, goals, and expectations in a concise and precise way. Leaders should be excellent in both verbal and written communication to enable them to influence their teams, especially in times of crisis (Dzinamarira et al., 2023). They should actively listen to have different perspectives about different issues. This is important to make informed decisions. Communication helps leaders to motivate their time and foster collaboration which is important to achieve the set goals and objectives (Ehrenfeld, 2023). Communication is also important in building trust among the team and different stakeholders thus promoting efficiency in times of crisis.

Coordination enables leads to plan well on how tasks and activities will be executed to achieve success (Su et al., 2022). Coordination requires leaders to set clear objectives and goals. Leaders should also define roles and responsibilities clearly to avoid conflicts (Ngoy et al., 2022). Clear timelines should also be put in place to guide the teams. Strong organizational skills are important for proper coordination of the teams (Hirschfeld & Thielsch, 2021). Tasks should be prioritized accordingly and resources budgeted and allocated effectively to ensure efficiency in the operations. Coordination is key cohesiveness and productiveness of the stakeholders involved in the management of the health crisis as it will promote effectiveness and efficiency (Su et al., 2022).

Effective budgeting and distribution of resources during times of crises is important (Diepenhorst & Harrison, 2022). Resources should be distributed in a way that will help to optimize performance and enable the people involved to achieve the desired objectives. Assessment of the need for

resources and constraints is important to making informed decisions about allocation of the resources (Farrell et al., 2020). Resource allocation should be prioritized based on the need. This is important to maximize performance and ensure that wastage is reduced significantly.

Leadership competencies have evolved in line with the changing needs of the health sector. The health sector like any other sector requires effective leadership to achieve the desired results (Restivo et al., 2022). Leadership competencies are important to achieve efficient, safe, and high-quality healthcare. Healthcare leadership requires effective communication and coordination. Collaboration of different stakeholders promotes a better understanding of the health needs (Dirani et al., 2020). It also gives confidence to the stakeholders to face issues and come up with solutions. Communication, coordination, and proper resource allocation are important to effectively handle the changing and evolving needs in the health sector (Ehrenfeld, 2023). In this study, leadership competences was measured using communication, coordination and resource allocation competencies.

Communication is important to reduce the challenges that come with health crises (Muchangi, 2021). Clear and timely communication is important to prevent more risks during crises. The public should be made aware of the risks, preventive measures, and what is required of them to deal with crises effectively (Dzinamarira et al., 2023). Communication can be done through mainstream media, social media, and public announcements (Abbas, 2021). Regular inter-agency communication is important as it promotes proper coordination and allocation of resources. It also helps to prevent duplication of roles that can lead to a waste of resources (Restivo et al., 2022). Timely communication of scientific findings helps healthcare professionals to make informed decisions and deliver effective patient care.

Proper coordination between different stakeholders during a crisis is important to ensure seamless provision of healthcare services (Biel et al., 2022). Clear leadership roles and protocols are important to ensure proper coordination. It is also important to facilitate timely decision- making which is important to deal with issues that emerge during a crisis (Wangari et al., 2021). Coordination between departments and even outside the borders of the country is important during the crisis as it will prevent the spread of diseases and ensure access to resources which is important

to manage the crisis effectively and efficiently (Khatri et al., 2023). Collaboration between different stakeholders is also important to understand the needs of different stakeholders during a crisis.

Resources should be well distributed during a crisis based on the need and priority (Oleribe et al., 2019). This is important to ensure that areas that are mostly affected are neutralized to prevent further spread of the diseases. Medical supplies, financial resources, and human resources, in particular, should be distributed effectively (Kia et al., 2021). Resources should be managed prudently during this time not only to build public trust but also to ensure that they are enough to manage crises effectively and efficiently.

Flexibility in health crisis management is important as crises are prone to uncertainties (Biel et al., 2022). Flexibility will ensure that regular assessment is done and an appropriate approach is adopted to deal with evolving circumstances effectively and efficiently. World Health Organization (WHO) has played an important role in developing guidelines that should be followed by health systems across the world to deal with health crises (World Health Organization, 2024). These guidelines, however, require effective leadership for them to be implemented well to achieve efficiency and success (Alzuod & Alqhaiwi, 2022). The commitment of countries to implement the World Health Organization guidelines is important if countries are to deal with health crises effectively and efficiently.

There is need for leadership competencies in communication, coordination and resource allocation in crises to ensure efficiency in crisis responses. It also helps to reduce risks and promote adaptability which is important to enhance sustainability.

Communication, coordination and resources allocation competencies play a critical role in crisis management. However, according to Wangari et al. (2021), little emphasis in most cases is placed on coordination, resources allocation and communication and this threaten management of public health particularly during crisis period. Timmis and Brussow (2020) found out that these three leadership comp. Macnab (2023) opined that dealing with crisis in a holistic approach involve leveraging on leadership competencies skills such as communication, coordination and resource

mobilization that is critical in effective management of crisis. The three leadership are aligned to World Health Organization leadership crisis management framework such as WHO health emergency and disaster risk management, transformative and adaptive leadership theories that emphasizes on responsiveness, mobilization, and system-level thinking. Therefore, scholars and policymakers are in consensus that communication, coordination and resources allocation aspect of leadership competencies are key in crisis management period justifying the need to explore more on these critical leadership competencies. By focusing on communication, coordination, and resource allocation, the study captures the most operationally relevant and leadership-critical capabilities needed to manage health crises effectively and equitably.

1.1.2 Health Crisis Management

Mehr and Jahanian (2016) defines crisis management as technique that makes it possible for organizations to deal with unexpected challenges that may cause harm to the organization and stakeholders. According to Biel et al. (2022), health Crisis Management refers to coordinated responses to deal with crises and uncertainties in the health system. Health crisis management is important especially when the health system has been overwhelmed (Burkle, 2019). Dealing with health crises requires an elaborate health crisis management system plan (Abbas, 2021). This was important to ensure fast and coordinated responses to mitigate the risks that came with the pandemic. Health crisis management requires proper coordination, communication, and prudent allocation of resources to ensure efficiency and collaboration between different stakeholders (Muchangi, 2021). Dealing with health crises requires consistent efforts even after the pandemic.

Crisis entails a situation in which an organization or group face and which could reduce their ability to cope with normal routine. This crisis can be as a result of unforeseeable consequences as well as events that cannot be predicted by the organization. The occurrence of a crisis can be as a result of slowdown in the economy, wrong management decisions or a recession that has an influence on the industry (Bundy et al., 2017). Crisis management entails the procedures and steps that enables the early detection of the potential crisis and the designing of possible solutions to the crisis as a way of preventing or mitigating the crisis in the unfortunate event of its occurrence (Williams et al., 2017). According to Rosenback and Eriksson (2024), crisis management entails

proper evaluation of the needs during unexpected events and undertaking the necessary steps to ensure that they are addressed effectively to reduce the damage.

The management of crises in institutions has become a common practice as occasioned by the impact of globalization and the high dynamics in the market. Crisis requires the management of the organizations to be proactive and hence be able to detect any signal that cause a crisis as well as coming up with solutions to curb the impending crisis (Sriharan et al., 2022). The managers should therefore be able to analyse the various situations and processes within the organization, identify the potential crisis as well as providing efficient ways of solving the potential crisis (Vasickova, 2019).

Health crisis management should inform development of evolving strategies to enhance preparedness, response, and recovery capacities for future public health emergencies (WHO, 2023). It is ongoing process that emphasizes learning from the experiences of the health crisis and strengthening leadership competencies to effectively navigate complex crisis situations (Khadem & Lim, 2020). It focuses on building resilience within healthcare systems which is important is building elaborate response to future threats (World Health Organization, 2023). Effective leadership is important when unexpected challenges occur. In the healthcare system, leadership looks beyond patients as there is the need to address the needs of caregivers as well. In this study, crisis management was operationalised level of preparedness, resilience and recovery, timeliness and quality of response and flexibility in the combatting health crises.

Theories that anchor health crisis management such as resilience theory established that level of preparedness, timelines and quality response and resilience and recovery are the three important aspects of crisis management that determine effectiveness of crisis intervention. Resilence theory posits that ability of health systems and institutions to absorb shocks, adapt to disruptions and recover swiftly is aligned to proactive planning and coordinated response efforts. Empirical studies have pointed out that crisis management is made up of three critical parameters that include level of preparedness, timelines and quality response and resilience and recovery (Mehr & Jahanian, 2016; Biel et al. 2022; Burkle, 2019). According to Bundy et al., (2017) pre-crisis planning is vital in determining the success of managing a crisis. Rosenback and Eriksson (2024)

noted that effectiveness of crisis response is largely determined speed and coordination of actions taken during phase of health emergency. Similarly, Biel et al. (2022) pointed out that recovery and resilience, noting that systems with strong adaptive capacity rebound more effectively and are better in withstanding future shocks. Together these studies and theoretical framework suggest that crisis management is supposed to be analysed in three dimension that is during, before and after as encompassed by level of preparedness, timelines and quality response and resilience and recovery, which this study adopted.

1.1.3 Health Facilities in Nairobi County

Nairobi County has the highest number of health facilities in Kenya, with a total of 1,319 health facilities as per the Ministry of Health census (2023). These facilities are classified into different levels, ranging from level one to level five hospitals, which are managed by the county government, while national referral hospitals (level six) fall under the national government. According to the Nairobi County Health Department, there are 104 public hospitals in Nairobi County, each headed by a manager responsible for overseeing facility operations (Ministry of Health, 2023). Among these, 104 are public health facilities distributed across 17 sub-counties. These facilities serve a critical role in providing healthcare services to the citizens of Kenya.

The Nairobi City County developed disaster and emergency bill (2015), a framework that highlights how to manage emergencies and disaster effectively including health crisis. The policy has established various structures that manage, promote cooperation between agencies and enhance their capacities to maintain essential services during emergencies. The policy provided mechanism of disaster risk reduction and recovery efforts. The main goal of the policy was to reduce disaster, efficient resource allocation and ensuring that there is essential services during crises, the policy also emphasized the need of involving community in the disaster management. The policy is also backed by the emergency medical care policy 2020-2030, county government integrate their established policy with this framework in order to align their activities of preparedness and mitigation of health crisis as stipulated.

The health services in the Nairobi City County is regulated by existing bodies such as the Ministry of Health, Pharmacy and Poison Board, Clinical Officers Council, Kenya Medical and Practitioners Council and Dentist council and Social Health Authority. The health services is primarily oversighted by the Ministry of Health in collaboration with department of health of county government. The key players in regulating the industry Pharmacy and Poison Board, Clinical Officers Council, Kenya Medical and Practitioners Council and Dentist council which ensure that adherences to professional standards, licensing and ethical practices (MOH, 2023; KMPDC, 2022; PPB, 2023; COC, 2022). The Social Health Authority (SHA) in 2023 additionally oversight health activities in the county by streamlining health insurance and access under the universal health coverage agenda (SHA, 2023).

Adequate health management is a critical driver of economic growth primarily through increased productivity, reduced health care cost and improvement in human development. According to WHO (1946) health is vital concept that accelerate social and personal resources as well as physical capabilities that anchor development (Sethi et al., 2020). Investment in health sector improve overall wellbeing of population and this reduce mortality rates and this enhance life expectancy that define a positive development of a country. Increased health investment is known to reduce mortality particularly middle age people and this is the most productive cohort of the population that is key in enhancing sustainable economic growth (Monterubbianesi et al., 2016). This is also catalyst in ensuring that people work for longer years and reduce dependency ratio depicting sound economic performance. An additional probable effect of improved adult health is higher savings associated with longer period of working life

Despite their essential role in healthcare delivery, public health facilities in Nairobi County face significant operational challenges. Financial constraints hinder the development of necessary infrastructure, while a shortage of healthcare professionals puts further strain on service delivery. Leadership challenges also limit the ability of these facilities to respond effectively to health crises, thereby affecting overall healthcare outcomes. Inadequate leadership competencies such as poor communication, ineffective coordination, and suboptimal resource allocation further complicate crisis response and management. Studies have shown that weak leadership during crises leads to poor healthcare outcomes and inefficient recovery efforts (Liu et al., 2020).

Public healthcare facilities play a pivotal role in delivering essential health services, particularly to vulnerable populations who rely on affordable and accessible care. Their ability to function effectively during crises is crucial to maintaining public health and managing emergency situations. However, existing leadership challenges hinder their capacity to respond adequately. Strengthening leadership competencies in public health facilities is therefore necessary to enhance crisis preparedness, coordination, and resource utilization.

Nairobi County provides an ideal setting for this study due to its high concentration of public health facilities, diverse healthcare demands, and frequent exposure to various public health challenges. The study focuses on leadership competencies specifically communication, coordination, and resource allocation as critical factors in crisis management. By addressing these leadership gaps, this research aims to contribute to improved healthcare service delivery, particularly in times of crisis. Strengthening leadership at different levels of healthcare facilities enhances collaboration, improve resource distribution, and ultimately ensure better health outcomes for the population.

1.2 Statement of the Problem

Health crisis management remains a significant challenge in Nairobi County and Kenya at large, despite technological advancements and globalization. Ensuring the availability of essential drugs and vaccines in health facilities to address crises is an ongoing struggle (Kairu et al., 2021). While the World Health Organization (WHO) provides guidelines for managing health crises, their effectiveness largely depends on implementation, which varies across countries due to differences in resource availability, facility capacity, and leadership robustness (Kirkpatrick et al., 2020). Some countries have well-established health systems, whereas others, especially developing nations, face systemic weaknesses. An effective health crisis management plan, underpinned by strong leadership, is crucial in bridging these gaps. However, there is limited empirical evidence on the specific influence of leadership competencies particularly in communication, coordination, and resource allocation on health crisis management in Nairobi County.

The level of preparedness on health emergency has recorded mixed results. Developed countries have developed adequate systems to address health crisis through adequate investment of resources to health infrastructure for instance Germany invested 11 percent of its GDP. On the other hand, least developed countries have invested less resources on health sector. This has seen low health preparedness to health emergency such as infection diseases that have been common in sub-Saharan Africa that has recorded over 1800 health emergencies since millennium. In Kenya, low ratio of health worker to a population estimated to be 1.3 per 1000 and this impede responding swiftly to health crisis. Resources allocated to the health sector remain substantial low. Further, it is evident that accessing health services in some parts of the country remain problematic with 50 percent of the population unable to access emergency within 2 hours.

Existing studies on leadership during crises emphasize general leadership principles but fail to comprehensively examine the specific leadership competencies crucial for health crisis management. Kaul et al. (2020) in the USA identified six key leadership principles: communication, decision-making, humanism, innovation, realism, and core values. However, their study did not explore resource allocation and coordination, which are critical for implementing these principles effectively. Similarly, Wardman (2020) in the UK emphasized the importance of decision-making, values, and innovation in crisis management, but the study lacked an in-depth analysis of how leadership fosters coordination to optimize resource utilization. Aldrich (2019) further supported the significance of communication and coordination in crisis response across various countries but did not explicitly link these factors to leadership competencies in health crisis management. Thus, a conceptual gap exists regarding the role of leadership competencies specifically communication, coordination, and resource allocation in strengthening health crisis management.

Most existing studies on leadership and crisis management have been conducted in developed countries, which differ significantly from Kenya in terms of governance structures, healthcare systems, and resource availability. For instance, Rezk et al. (2020) examined post-COVID-19 crisis management in Egypt, highlighting the importance of effective leadership in formulating long-term crisis response strategies. However, the findings may not directly apply to Nairobi County due to differences in healthcare infrastructure, economic conditions, and leadership

dynamics. Likewise, Ngoy et al. (2022) examined crisis coordination in Africa during the COVID-19 pandemic and underscored the importance of robust coordination in resource-limited settings. While the study provides useful insights, it does not specifically address the leadership dynamics in Kenya's health crisis management. In Kenya, studies by Shimizu et al. (2023) and Oliwa et al. (2023) found that leadership policies played a crucial role in crisis response, particularly in public communication. However, they did not extensively analyze leadership competencies such as coordination and resource allocation, creating a contextual gap that this study aims to address.

Many studies on leadership in health crisis management have used qualitative or case-study approaches, limiting their generalizability. For example, Negi (2022) explored the logistical challenges during and after the pandemic but did not employ a descriptive cross-sectional survey design, which would provide broader insights into leadership competencies in crisis situations. The absence of such a methodological approach leaves a gap in understanding how leadership competencies influence health crisis management in a more structured and quantifiable manner. Additionally, existing studies in Kenya, such as those by Mbogo (2020), focused on stakeholder involvement in crisis management but lacked a comprehensive methodological approach that examines leadership competencies quantitatively. This study addressed this gap by employing a descriptive cross-sectional survey design to systematically assess the relationship between leadership competencies specifically communication, coordination, and resource allocation and health crisis management in Nairobi County.

Although previous studies have explored leadership strategies in crisis management, significant gaps remain in understanding the specific leadership competencies required for effective health crisis response. This study aims to bridge these conceptual, contextual, and methodological gaps by examining how leadership competencies in communication, coordination, and resource allocation influence health crisis management in Nairobi County. By addressing these gaps, the study contributed to a more comprehensive understanding of leadership's role in strengthening health systems during crises.

1.3 Research Objectives and Questions

1.3.1 General Objective

The general objective of the study was to determine the impact of leadership competencies on crisis management practices in public healthcare facilities in Nairobi, Kenya.

1.3.2 Specific Objectives

i. To examine the influence of communication competencies on health crisis management among public healthcare facilities in Nairobi, Kenya.
ii. To investigate the influence of coordination competencies on health crisis management among public healthcare facilities in Nairobi, Kenya.
iii. To determine the influence of resource allocation competencies on health crisis management among public healthcare facilities in Nairobi, Kenya.

1.3.3 Research Questions

i. What is the influence of communication on health crisis management among public healthcare facilities in Nairobi, Kenya?
ii. What is the influence of coordination competencies on health crisis management among public healthcare facilities in Nairobi, Kenya?
iii. What is the influence of resource allocation competencies on health crisis management among public healthcare facilities in Nairobi, Kenya?

1.4 Scope of the Study

The study aims to determine the influence of leadership competencies on health crisis management. The study's target population is 1319 managers of the health facilities in Nairobi County (Ministry of Health, 2023). The focus in Nairobi where most health facilities are domiciled here. It also has a high population and, as a result, aided in understanding of the factors of interest. Public hospitals was studied to understand the relationship between leadership strategies and

health crisis management. Levels 1-6 health facilities, in particular, were studied. Public health facilities that were targeted are 104 in 17 sub counties.

The unit of analysis was the health facilities in in Nairobi. The target population for the study was 104 managers or CEOs of health facilities in Nairobi County (Ministry of Health, 2023). The unit of observation was the health facility manager. The study targeted facility manager of the health facilities since they understand the influence communication, coordination, and resource allocation on the health crisis management. The dependent variable for the study was health crisis management while the independent variables are communication, coordination, and resource allocation competencies. This study explored how communication, coordination, and resource allocation competencies have shaped health crisis management in Nairobi, Kenya.

1.5 Significance of the Study

This study holds significant implications for policy, practice, and theory, contributing to the improvement of leadership strategies in managing healthcare crises.

The findings of this study provide critical insights for policymakers, particularly government agencies, in formulating policies that enhance effective leadership during crises. By identifying key leadership strategies that improve crisis management, the study can inform the development of policies that promote good governance and accountability in government institutions and agencies. Additionally, the study's findings can serve as a benchmark for other countries to align their policies for more effective and efficient responses to health crises.

In terms of practical application, the study is instrumental for health institutions in understanding the factors influencing the management of healthcare crises. By highlighting essential leadership strategies, the study can guide health institutions in developing frameworks to enhance leadership effectiveness, improve healthcare service delivery, and ensure better health outcomes. Healthcare leaders can gain a deeper understanding of leadership approaches that can strengthen crisis management and resilience within the sector.

The study can contribute to theoretical advancements by providing empirical evidence on the relationship between leadership strategies and crisis management in healthcare settings. It can enhance existing leadership and crisis management theories by identifying key factors that influence decision-making and crisis response. Furthermore, scholars and researchers can use the study as a reference for future research, identifying gaps that require further exploration in leadership and crisis management frameworks.

1.6 Chapter Summary

The chapter discusses the background of the topic. The background has been discussed as per the three variables namely; communication, coordination, and resource allocation to bring out the need for study. The chapter also highlights the research questions and objectives of the study. In addition, the chapter discusses the problem of the statement by bringing out the gaps that have necessitated the study. The scope of the study has also been discussed. Lastly, the chapter has brought out the significance of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the theories that anchor the study and the empirical literature that is relevant to the study. Examination of the literature is done as per the key variables derived from the objectives of the research including communication, coordination, and resource allocation. This was done in relation to leadership competencies and the health management crisis. The chapter also highlights research gaps based on the literature reviewed. The conceptual framework and operationalization are also examined.

2.2 **Theoretical Review**

The theoretical review presents the key theories that anchor this study. The research focuses on communication, coordination, and resource allocation in health crisis management, which necessitates a theoretical foundation that explains resilience in crisis situations and leadership adaptability. This study was primarily anchored on Resilience Theory, which provides the foundational framework for understanding health crisis management as the dependent variable. Additionally, Situational Leadership Theory supported the analysis of the independent variables—communication competencies, coordination competencies, and resource allocation competencies. The two theories provide complementary perspectives, ensuring a comprehensive understanding of crisis management dynamics.

2.2.1 Resilience Theory

Resilience Theory, originally developed by Holling (1973) in the context of ecosystems (Rachmad, 2022), was later adapted to human psychology by Norman Garmezy and Ann Masten, focusing on individuals and communities. The theory examines how individuals, communities, and systems respond, adapt, and recover from disruptions. Within the context of health crisis management, Resilience Theory emphasizes the ability to absorb shocks, adapt to change, and maintain core

functions during crises. It highlights the importance of strengthening protective factors such as social support and leadership to reduce vulnerabilities (Rachmad, 2022).

The theory provides a robust framework for understanding systemic responses to crises, enabling organizations to anticipate, absorb, and adapt to challenges effectively. It encourages capacity building, preparedness, and collaboration among stakeholders, ensuring a coordinated and multi-level approach to crisis response (Lovschal, 2022). Furthermore, it emphasizes post-crisis learning and continuous improvement to enhance long-term resilience.

Despite its advantages, Resilience Theory faces several criticisms. It has been described as ambiguous and difficult to operationalize in specific contexts. Additionally, building resilience often requires substantial resources, which may not be available in resource-constrained settings. The theory's focus on recovery may also overlook systemic vulnerabilities that perpetuate crises (Lovschal, 2022). Critics argue that resilience-based strategies may disproportionately benefit well-resourced populations while neglecting marginalized groups, thereby exacerbating inequalities.

For this study, Resilience Theory provides a critical lens through which health crisis management can be examined. It enhances the understanding of how health systems can be strengthened to improve resilience, ensuring effective responses to crises through communication, coordination, and resource allocation. This theory highlights timely, transparent and clear communication as instrumental in keeping trust, disseminating critical information and enhancing decision making process. Leaders need effective communication to share necessary information and manage uncertainty thus enhancing adaptive capacity. The aspect of coordination features is reflected in the resilience theory by the principle of interconnectedness. Theory suggest that adaptive networks and collaborations across entities enhance system stability that is important respond flexibly and efficiently. Actions that are coordinated enhance alignment of resources and effort hence reducing duplication and reducing gaps in the crisis period. Efficient allocation of resources embodies the resilience theory by managing constraints and prioritizing resources during emergency. Resilience theory supports dynamic reallocation of resources to sustain essential functions, facilitate recovery, and build long-term robustness against future shocks.

2.2.2 Situational Leadership Theory

Situational Leadership Theory, developed by Hersey and Blanchard in 1969 (Walls, 2019), argues that leadership effectiveness depends on situational factors. The theory posits that different situations require different leadership styles and strategies, making flexibility a key component of effective leadership (Thompson & Vecchio, 2009). It emphasizes that leaders should adapt their leadership style based on the maturity and competency levels of their followers. Effective leadership, therefore, involves assessing the needs of the team and adjusting strategies to enhance support and collaboration (Wuryani et al., 2021).

In the context of health crisis management, Situational Leadership Theory provides insights into how leaders can tailor their communication, coordination, and resource allocation strategies to different stakeholders. It ensures that leaders modify their approach based on the urgency of the crisis, the capabilities of their team, and the available resources (Meier, 2016). The theory supports adaptive leadership, which is crucial in dynamic and uncertain crisis situations where leaders must make rapid, informed decisions.

However, Situational Leadership Theory has been criticized for oversimplifying leadership by assuming a linear progression in the development of followers (Walls, 2019). Critics argue that real-world leadership is more complex and influenced by multiple external factors that the theory does not fully address. Additionally, the theory's emphasis on leader adaptability may underestimate the structural and systemic challenges that influence crisis management outcomes.

Despite these criticisms, the theory remains valuable for this study as it highlights the role of adaptive leadership in crisis management. It underscores the importance of effective communication and resource distribution, ensuring that leadership strategies align with the competencies and needs of different stakeholders during a health crisis.

The adaptability aspect of Situational Leadership Theory is vital principle that shape leadership during crisis period. The theory emphasize tailoring communication to the needs of the team. During crisis it is important for leaders to adjust their communication style from directive to supportive in order to reduce confusion and increase clarity. Effective communication facilitates

timely information flow critical to decision-making and managing uncertainty. The theory underscores the leader's role in assessing team capability and determining the appropriate degree of guidance and support needed. In crisis settings, this means dynamically adjusting resource distribution based on evolving priorities and team capacity, ensuring that critical needs are met efficiently while empowering teams to act effectively.

2.3 Empirical Review

This section provides a critical review of past studies on leadership crises and crisis management, with a specific focus on communication, coordination, and resource allocation competencies in health crisis management. The review is structured according to the study's objectives and highlights empirical gaps in existing literature.

2.3.1 Communication Competencies and Health Crisis Management

Effective communication is a fundamental component of health crisis management as it facilitates coordination, decision-making, and public awareness. Several studies have examined the role of communication in crisis response, highlighting its importance in mitigating health emergencies.

Andrew et al. (2018) explored the Ebola crisis response in the United States using 24 face-to-face interviews and 12 online surveys on emergency managers. Their findings indicated that effective communication enhances decision-making speed and fosters collaboration. However, the study did not explicitly examine communication competencies, revealing a conceptual gap in understanding the specific skills required for effective communication in crisis management. Similarly, Ali (2023) conducted a study on 384 organizations in India, finding that communication and management strategies play a crucial role in health crisis response. While the study underscored the importance of communication in resource utilization and stakeholder coordination, its findings may not be directly applicable to Kenya, highlighting a contextual gap.

Further, Da Fonseca et al. (2023) conducted a systematic review of presidential communication during the COVID-19 pandemic and found that effective messaging significantly influences public behavior. This study, however, employed a systematic review method, whereas the current study

adopts a descriptive cross-sectional survey, indicating a methodological gap. Similarly, El Baradei et al. (2021) examined the effectiveness of government social media communication in Egypt during the COVID-19 pandemic, concluding that while social media was effective in information dissemination, misinformation posed a challenge. Given that the study focused solely on COVID-19, a conceptual gap remains regarding broader crisis communication strategies.

Tolu et al. (2020) assessed Ethiopia's pandemic preparedness using the "Ready Score" framework and found that communication plays a critical role in educating the public on health measures, increasing confidence in response strategies. Adebisi et al. (2021) conducted a systematic review of community engagement in 13 African countries, concluding that communication enhances public cooperation in health crisis management. Additionally, Losem et al. (2023) studied communication strategies in Kenyan public secondary schools, finding that clear messaging reduces crisis-related damage. However, the study focused on schools rather than the health sector, indicating a contextual gap. Kiilu and Awuor (2022) investigated crisis communication preparedness at Kenya Airports Authority, underscoring the importance of communication in crisis management but failing to explicitly examine crisis management practices, revealing a conceptual gap.

2.3.2 Coordination Competencies and Health Crisis Management

Coordination in health crisis management involves organizing activities across multiple stakeholders to ensure an efficient response. Various studies have emphasized its role in preventing inefficiencies and ensuring a streamlined response to crises.

Wylie (2021) conducted a systematic review of Cuba's pandemic response, concluding that effective coordination prevents overburdening specific regions. However, as the study focused on the COVID-19 crisis, a conceptual gap remains regarding broader health crisis responses. He et al. (2020) examined China's hospital response to COVID-19 through a case study approach, demonstrating that coordination enhances efficiency and resource utilization. Similarly, Wong et al. (2022) performed a systematic review of crisis responses in Hong Kong and Taiwan,

concluding that coordination enables effective crisis handling. These studies, while insightful, predominantly focus on case study methodologies, leaving a methodological gap.

Burkle (2019) analyzed global public health emergency responses, emphasizing the role of coordination, resource allocation, and response strategies in emergency preparedness. Djalante et al. (2020) found that resilience-building in crisis response requires coordination; however, the study did not explicitly discuss communication and resource allocation, revealing a conceptual gap. Wisniewski (2022) examined the role of integrity in crisis coordination, emphasizing its importance in ensuring smooth operations. Additionally, Munyiri et al. (2019) investigated the impact of training school managers in crisis response, finding that training enhances coordination skills, enabling better crisis handling.

Ngoy et al. (2022) emphasized the role of coordination in crisis preparedness but focused on COVID-19, presenting a conceptual gap regarding broader crisis response strategies. Kagwanja et al. (2020) analyzed resilience in health systems, demonstrating that coordination ensures optimal resource utilization and prevents system collapse. Despite the evidence supporting the importance of coordination in crisis management, further research is required to examine how these competencies apply in the Kenyan context.

2.3.3 Resource Allocation Competencies and Health Crisis Management

Resource allocation plays a crucial role in crisis management by ensuring the effective distribution of health-related materials, personnel, and finances. Several studies have highlighted the necessity of strategic resource allocation in mitigating health crises.

Devereaux et al. (2020) analyzed resource optimization strategies in San Diego County during a pandemic, concluding that prioritization enhances crisis response. Similarly, Mannelli (2020) examined the impact of resource scarcity during a pandemic, emphasizing the need for prioritization to save lives. Kim et al. (2021) studied South Korea's emergency management, revealing that efficient resource allocation is vital for pandemic response. However, the study presents a contextual gap, as South Korea's health system differs significantly from Kenya's.

Barzdins (2012) highlighted that governments should prioritize resource mobilization to effectively manage health emergencies. Kapiriri and LaRose (2018) examined Uganda's disease prioritization strategy, concluding that strategic resource allocation improves crisis management outcomes. Farrell et al. (2020) discussed how shortages of medical supplies and personnel during a pandemic necessitate rationing to maximize efficiency.

Worby and Chang (2020) explored the impact of resource rationing, demonstrating that fair allocation policies mitigate the adverse effects of resource scarcity. However, the study did not consider other crisis management factors such as communication and coordination, indicating a conceptual gap. Barasa et al. (2020) assessed hospital surges during COVID-19 in Kenya's 47 counties, finding that resource rationing was necessary to manage increased hospital admissions. Additionally, Moodley et al. (2020) emphasized that proper resource allocation reduces health disparities and ensures equitable access to healthcare for marginalized populations. Munywoki et al. (2020) analyzed priority practices in Kenya's health sector, concluding that resource allocation should focus on human resources, finances, and medical supplies to enhance crisis response effectiveness.

2.4 Summary of the Research Gaps

A review of existing studies on the relationship between leadership strategies and crisis management reveals persisting contextual and conceptual gaps that warrant further investigation. Despite extensive literature on crisis management, several gaps persist. Conceptually, many studies focus on specific crises, such as COVID-19, without a broader analysis of health crisis management strategies applicable to various contexts. While previous research has explored various aspects of crisis leadership, there remains a lack of comprehensive studies that integrate communication, coordination, and resource allocation as key leadership strategies in health crisis management, particularly within the Kenyan context (Andrew et al., 2018; Ali, 2023; El Baradei et al., 2021; Losem et al., 2023).

Contextually, much of the existing research is conducted in different geographical or institutional settings, such as India, South Korea, and Cuba, making their findings less directly applicable to

Kenya. Methodologically, a significant number of studies employ systematic reviews or case study approaches, whereas the current study utilizes a descriptive cross-sectional survey to provide empirical insights into crisis management competencies.

2.4.1. Contextual Gaps

Most studies on leadership strategies and crisis management have been conducted in developed economies or broader organizational settings, with limited attention to the healthcare sector in Sub-Saharan Africa. For instance, Andrew et al. (2018) analyzed crisis leadership in corporate settings, while Ali (2023) examined governmental crisis responses in the Middle East. These studies provide valuable insights but do not address the unique challenges faced by healthcare facilities in Kenya during crises. The health sector in Nairobi County faces distinct issues such as resource constraints, inefficient coordination, and ineffective communication during crises, necessitating localized research.

2.4.2. Conceptual Gaps

Existing literature largely focuses on individual leadership styles (e.g., transformational, transactional) without adequately linking them to operational strategies such as communication, coordination, and resource allocation in crisis scenarios. El Baradei et al. (2021) emphasize transformational leadership in crisis settings but do not explore its direct implications for healthcare crisis management. Losem et al. (2023) discuss crisis management frameworks but lack empirical evidence on how leadership strategies interact with healthcare-specific crises. This conceptual limitation underscores the need to explore how leadership strategies can be practically applied to enhance crisis response within Nairobi County's health facilities.

2.4.3. Empirical Gaps

Although numerous studies have examined leadership in crisis management, few have empirically analyzed how communication, coordination, and resource allocation collectively impact crisis response effectiveness in health facilities. Prior research has treated these variables in isolation, with studies like Ali (2023) focusing on communication strategies, while Andrew et al. (2018)

explore coordination mechanisms in non-health sectors. There is a need for an integrated approach that examines these leadership strategies simultaneously within the healthcare context in Nairobi.

2.5. Summary of Research Gap

Following the review of the literature, this section presents the summary of the research gaps emanating from this review.

Table 2.1: Summary of Research Gap

Author	Focus of Study	The Findings of the Study	Research Gap	Current study focus
Andrew et al. (2018)	Communication during the 2014 Ebola crisis response	Communication is important for effective collaboration between stakeholders during a crisis.	The study, however, failed to examine explicitly communication competencies during crisis bringing out conceptual gap	Focus on communication, coordination and resource allocation competencies
Ali (2023)	Communication and management strategies during COVID-19 pandemic	Communication and management strategies during health crisis response	The study brings out contextual gap as it was done in context on India which differ in terms of operations and governance from Kenya	Focus on communication, coordination and resource allocation competencies
El Baradei et al. (2021)	Effectiveness of government use of social media communication during the COVID-19 pandemic in Egypt	Use of the social media was effective in ensuring that people are well-informed about the pandemic	The study focused on communication during the COVID-19 pandemic in Egypt consequently bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies.
Losem et al. (2023)	Communication during crisis preparedness.	Communication can reduce the damage that can be caused by crisis	Focused on public primary schools consequently bringing out contextual gap.	Focus on communication, coordination and

				resource allocation competencies
Awuor (2022)	Perception of Crisis Communication Preparedness of Kenya Airports Authority Employees	Communication can help to reduce the impact of crisis	Focused on communication during crisis preparedness and failed to look explicitly on crisis management practices consequently bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies
Wylie (2021)	Cuban's response to COVID-19	Coordination is important during crisis response	Focuses on coordination during COVID-19 response pandemic consequently bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies
Djalante et al. (2020)	Building resilience against pandemics	Coordination is important to building resilience	Focuses on building resilience without focusing on communication, coordination and resource allocation competence consequently bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies
Ngoy et al. (2022)	Coordination response for COVID-19	Coordination at all levels of the health system is important to deal with health crises.	Focuses on coordination during COVID-19 leaving out bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies

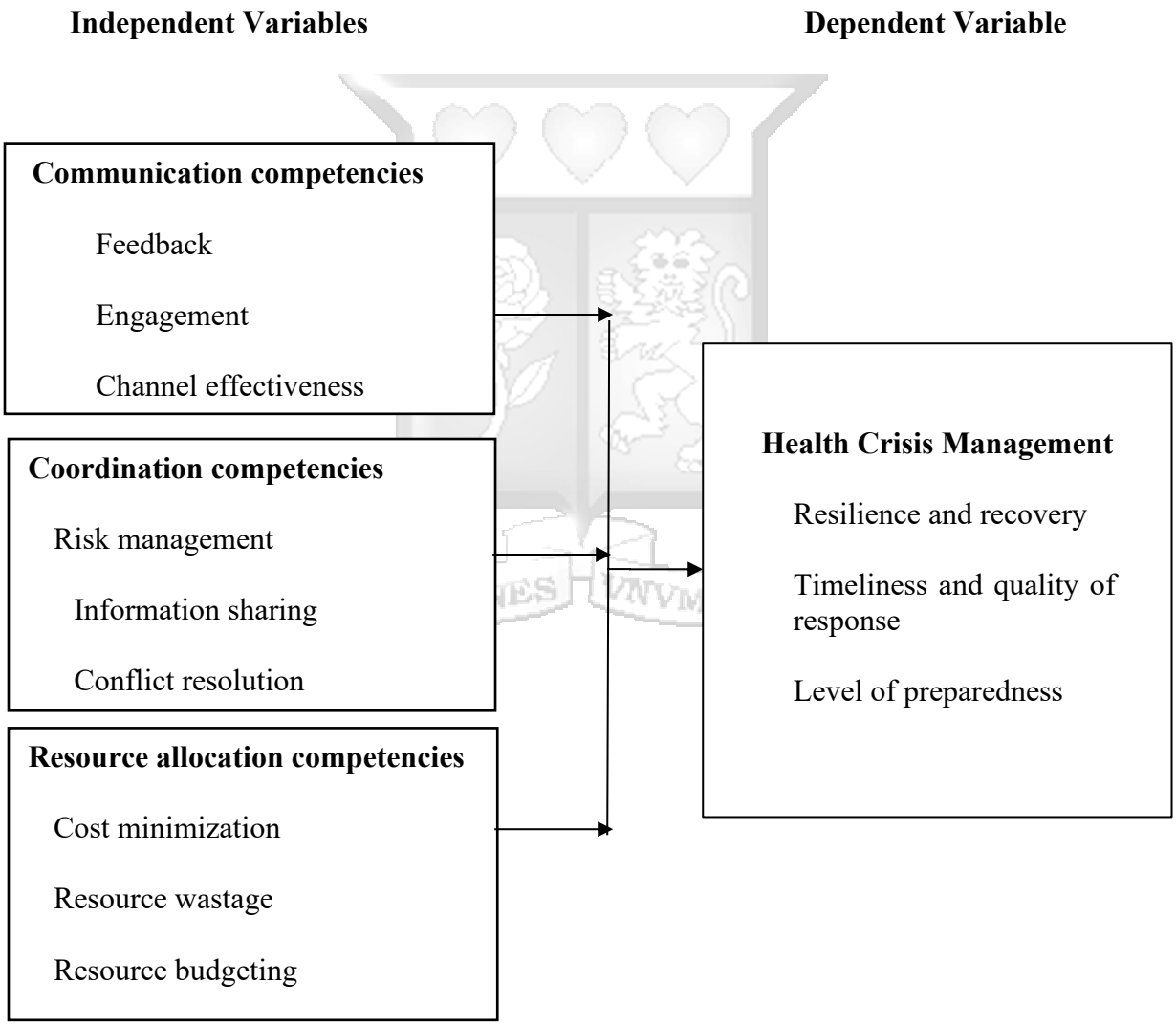
Kim et al. (2021)	Assesses South Korea's management of emergencies during the pandemic	Resource allocation is important in the management of the pandemic	Focuses on resource allocation in South Korea during the pandemic consequently bringing out contextual gap as it was done in the context of South Korea which has different health system from Kenya.	Focus on communication, coordination and resource allocation competencies
Worby and Chang (2020)	Rationing scarce resources during and after pandemic	Rationing can help to deal with pandemics	Fails to look at other factors like communication and coordination bringing out conceptual gap.	Focus on communication, coordination and resource allocation competencies

Source: Researcher (2025)

2.6 Conceptual Framework

The conceptual framework in Figure 2.1 shows the relationship between the independent variables and the dependent. Communication, coordination, and resource allocation are the independent variables while health crisis management is the dependent variable.

Figure 2. 1: Conceptual Framework



Source: Researcher (2024)

2.7 Operationalization of Variables

Operationalization enhances the reduction of the abstract notion of the constructs to observable characteristics making it easy to measure using indicators. A rating scale ranging from 1 to 5 with 1 representing strongly disagree to 5 representing strongly agree was used to measure the dependent and independent variables (Lam, 2019). The indicators are summarized in Table 2.2. below.

Table 2. 2: Operationalization of Variables

Variable	Constructs	Operational Definition	Measurement Scales	Source(s)
Independent variables	Communication competencies	Refers to the exchange of information about health behaviours, policies, and practices through speaking, writing, or any other channel or medium.	Five Point Likert Scale 1 - Strongly Disagree 2 – Disagree 3 – Neutral 4- Agree 5- Strongly agree	Andrew et al. (2018)

	Coordination competencies	Refers to the organization of activities in the healthcare setting to facilitate the effective delivery of healthcare services or address healthcare issues.	Five-point Likert scale 1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree	Wylie (2021)
	Resource Allocation competencies	Refer to distribution of the health-related materials and services to deal with health crises and issues.	Five-point Likert scale 1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree	(Mannelli, 2020)

Dependent Variable	Health Crisis Management	Refers to planning and responding to issues that threaten the health and well-being of the citizens and health systems.	Five-point Likert scale 1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree	(Arevalo, 2023)

Source: Researcher (2025)

2.8 Chapter Summary

This does an empirical review by examining the available empirical literature about the topic. Research gaps also are identified from the reviewed literature. The theories that anchor the study are also discussed. The conceptual framework has been presented and operationalization of study variables highlighted.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the research design that was adopted. It highlights the research philosophy and research methodology that was used to test variables. The chapter also discusses issues about the population, sampling design, data collection methods, research quality, data analysis and presentation, and ethical considerations.

3.2 Research Philosophy

Research philosophy is a set of principles that have been set to guide the undertaking of the research when collecting information (Park et al., 2020). Philosophy is categorized into four namely; positivism, interpretivism, realism, and pragmatism. They form a foundation upon which research and research activities are understood as per the existing knowledge.

This study adopted the positivism research philosophy. Positivism argues that knowledge should be derived from facts that can be observed and data that can be quantified (Ryan, 2018). According to the philosophy, subjects and the researcher are independent and do not impact the outcome of the study or each other (Park et al., 2020). The researcher supported this by being unbiased and remaining objective throughout the research. It is important to note that positivism does not rely on quantitative only but can employ other methods depending on the nature of the case (Junjie & Yingxin, 2022). It aims to generate a prediction of an outcome using the causal relationship between variables.

3.3 Research Design

According to Hassan (2024), research design is the overall strategy that is used to answer the research questions. The research used a descriptive cross-sectional survey design. The use of descriptive cross-sectional survey design enabled the study to provide an extensive description of the characteristics of the phenomena under study. It also enabled the study to determine the

relationship between variables (Siedlecki, 2020). According to Mottus et al. (2020), the use of descriptive research design promotes a good understanding of the variables and enables the study to better explain the variables.

This design is appropriate as it allows for the collection of data at a single point in time from all health facility in-charges in public hospitals in Nairobi County. The approach facilitates an in-depth understanding of their perspectives, experiences, and challenges in healthcare management.

3.4 Target Population

The target population refers to the entire group of individuals or items that the research aims to study and draw conclusions from (Willie, 2022). This study focused on health facility managers or in-charges in public hospitals within Nairobi County, Kenya. For purposes of this study, a "health facility manager" refers to the individual officially designated by the Ministry of Health or County Health Management Teams to supervise the day-to-day administrative, clinical, and operational activities of a public health facility. The unit of analysis for this study is the health facility manager, while the unit of observation is the responses provided by these managers, as they are responsible for overseeing facility operations, service delivery, and administrative functions.

3.5 Sampling Design

According to the Nairobi County Health Department, there are 104 public hospitals in Nairobi County, each headed by a manager responsible for overseeing facility operations (Ministry of Health, 2023). Since the total number of health facility managers in public hospitals is manageable (N = 104), a census approach was used instead of sampling. A census involved collecting data from every member of the target population, ensuring comprehensive coverage and eliminating sampling bias. The respondents of the study were clinic administrator, medical Superintendent and chief officer in charge of level III, level IV and level V public hospitals. A full list of the 104 targeted public health facilities is provided in Appendix V. This method enhances the accuracy and generalizability of findings within Nairobi County's public health system.

3.6 Data Collection Methods

The study collected primary data using structured questionnaires. Structured questionnaires are cost-effective and ensure uniformity in data collection (Brown, 2019). Each item in the questionnaire was designed to address a specific research objective.

The questionnaire contained closed-ended questions using a 5-point Likert scale to measure different aspects of the study variables. Using a close-ended structured questionnaire enhanced uniformity in the collection of data (Mcleod, 2023). It also ensured that respondents interpreted questions in a standard way and this was important in enhancing consistency and getting reliable data. Close-ended structured questionnaires also saved time as data was collected with ease (Cheung, 2014). Participation needed approximately 15-20 minutes to complete the questionnaire. The research tool was divided into three sections: section A: Respondent's demographic information, section B: Questions on leadership strategies, section C: Questions on health crisis management.

Data was collected through a drop-and-pick method and Google Forms. Participants were consented through an informed consent form embedded at the start of the questionnaire. Respondents were required to read the consent statement and confirm their agreement by selecting a "Yes, I consent to participate" option before proceeding to answer the questionnaire.

During the drop-off, the researcher clarified any unclear sections to the respondents, and for online submissions, clarifications was provided via email. Follow-up calls and messages was made to enhance the response rate. The questionnaire were accompanied by an introductory letter explaining the purpose of the study and requesting respondent participation.

3.7 Research Quality

The study made use of two important aspects of research quality control; validity and reliability. The following is a description of how the two research quality control aspects was used.

3.7.1 Reliability Test

Reliability refers to the consistency and stability of the research instrument in producing similar results under consistent conditions. To assess reliability, the study employed Cronbach's alpha, a widely used statistical measure of internal consistency (Hayes & Coutts, 2020). A pilot study was conducted with a small subset of respondents to evaluate the questionnaire's clarity, relevance, and consistency. The data collected during the pilot test was analyzed using Cronbach's alpha, where a value of 0.7 or above indicate acceptable reliability. If the value is below 0.7, necessary adjustments was made to improve the instrument's reliability. The results of the Cronbach's alpha represented in Table 3.1.

Table 3. 1: Reliability Test

Variables	Items	Cronbach Alpha	Remark
Communication competencies	8	.892	Reliable
Coordination competencies	7	.904	Reliable
Resource allocation competencies	7	.867	Reliable
Heath crisis management	5	.729	Reliable

Source: Researcher (2025)

From the results presented in table 3.1, the cronbach's alpha results for all the variables of this study were all above 0.7. As a result, the results of the study were acceptable. This is an indication that the instrument used in the study is adequately reliable and acceptable (Hayes & Coutts, 2020).

3.7.2 Validity Test

Validity assesses whether the research instrument accurately measures what it is intended to measure. This study applied construct validity to ensure that the questionnaire items align with theoretical constructs (Franke & Sarstedt, 2019). To test for construct validity, the Kaiser-Meyer-Olkin (KMO) test was conducted, where a KMO value of 0.5 and above was considered acceptable

(Shrestha, 2021). Additionally, factor analysis was performed to confirm that each variable loads appropriately onto its expected construct.

To further enhance validity, the questionnaire underwent expert review by the research supervisor and other subject matter experts. Their feedback guided necessary modifications to ensure the questionnaire effectively captures the study objectives.

The validity test results for the measurement indicators for all the variables attracted factor loadings > 0.5. As a result, all the measurement indicators for communication competencies, coordination competencies, resource allocation competencies and health crisis management were retained for further analysis. For the KMO and Bartlett's Test, the calculated p-value for the study variables were all <0.05 implying that the measurement indicators attained the validity test threshold. This is in tandem with Shrestha (2021) that statements with factor loadings > 0.5 are acceptable.

Table 3. 2: EFA Results

Variable	Indicators	Factor loadings	KMO and Bartlett's Test KMO Measure of Sampling Adequacy	Approx. Chi-Square	df	Sig.
Communication competencies	COM1	0.972				
	COM2	0.988				
	COM3	0.941				
	COM4	0.973				
	COM5	0.859				
	COM6	0.950				
	COM7	0.968				
	COM8	0.926	0.923	1854.888	28	0.000
Coordination competencies	CORD1	0.982				
	CORD2	0.980				
	CORD3	0.953				
	CORD4	0.960				
	CORD5	0.918				
	CORD6	0.969				
	CORD7	0.933	0.925	1579.738	21	0.000

Resource allocation competencies	RESC1	0.873				
	RESC2	0.976				
	RESC3	0.860				
	RESC4	0.975				
	RESC5	0.857				
	RESC6	0.923				
	RESC7	0.890	0.93	1174.334	21	0.000
Health crisis management	HCM1	0.831				
	HCM2	0.847				
	HCM3	0.810				
	HCM4	0.869				
	HCM5	0.836	0.752	246.914	10	0.000

3.8 Data Analysis and Presentation

To ensure data quality and accuracy, completed questionnaires underwent thorough editing and checking to identify and correct any errors or omissions. Cleaned data was entered into Microsoft Excel before being transferred to Statistical Package for Social Science (SPSS) version 29 for analysis. The data analysis process consisted of both descriptive and inferential statistical methods.

Descriptive analysis was conducted to summarize and better understand the characteristics of the dataset. This involved the use of frequency tables, percentages, and means to present the findings. Descriptive statistics provided insights into the distribution and consistency of the data before proceeding with more complex analyses. Furthermore, it helped assess data quality by identifying patterns, missing values, and potential outliers (Pritha, 2023).

Inferential statistics was employed to examine the relationship between independent and dependent variables. Multiple regression analysis was used to determine the extent to which leadership competencies influence health crisis management. This approach allows for simultaneous evaluation of multiple independent variables and their impact on the dependent variable while addressing potential multicollinearity issues (Bevans, 2023; Kelley & Bolin, 2013).

A multiple regression model was used to establish the relationship between health crisis management and the independent variables: communication, coordination, and resource allocation. The regression analysis was conducted at a 95% confidence interval, with a p-value threshold of 0.05. A p-value below 0.05 indicated statistical significance, suggesting that the independent variable has a meaningful impact on the dependent variable. Conversely, a p-value above 0.05 implied that the relationship was not statistically significant.

The relationship between the independent and dependent variables was analyzed using the following multiple regression model:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$

Where;

Y–Health crisis management

X_1 – Communication

X_2 – Coordination

X_3 – Resource Allocation

Є= Error term

In the model;

β_0 = is the constant term, $\beta_i = 1\ldots.4$ measures dependent variable (Y) sensitivity to unit changes in the independent variable X_1, X_2, X_3, and X_4. Є is the error term which captures the unexplained variations in the model.

3.9 Ethical Consideration

Ethical considerations are important during the study as they promote respect for the rights of the participants, well-being, and dignity. The study obtained the necessary permission, consent, and approvals to enable it to conduct ethical research before data collection. Informed consent was sought from the participants. The participants were told why the study was necessary. They were also be told the fact that their participation was voluntary and that they could choose not to participate (Naufel & Edwards, 2022). They were also informed that the responses they will give will be used solely for academic research. The study did not require any participate to show their identity and this helped to keep up with the privacy and confidentiality of the study. The study also respected the beliefs and the culture of the participants and in case there are questions that the participants feel affect their beliefs and culture, then the participant was allowed to leave the question. The study also was held in an honesty and transparent manner (Naufel & Edwards, 2022). This was important to avoid biasness and conflict of interest which was important to enable the study to get accurate results.

The study sought permission from the school to do the study. It sought a permit from NACOSTI to enable it to get a mandate to do the research. The study also ensured that ethical guidelines and regulations that have been put in place by the school and NACOSTI are followed to the letter. The study sought permission from the health facilities to do their research. During the research, the study sought the consent of the respondents to do the research. The research assured the respondents that their data was to be used for academic purposes and will be kept confidential (Naufel & Edwards, 2022).

3.10 Chapter Summary

The chapter gives the research design of the study. It outlines the research philosophy, target population, and the methods that was used to collect data. It also highlights the research quality, data analysis and presentation, and ethical considerations of the study.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the outcomes of the data analysis and discusses the findings as per the objectives. Tables and graphs are used to present what was found during data analysis. The chapter also examines the reliability of the results.

4.2 Response Rate

The study targeted 104 facility managers and facility in charge in public hospitals in Nairobi County. 104 questionnaires were administered. 91 questionnaires representing 91% were filled and returned while 13 questionnaires were not returned. According to Wu et al. (2022), a response rate of above 50% is representative of the population. 91% response rate, therefore, was a representative of the population.

Table 4. 1: Response Rate

Category	Frequency	Percentage
Returned Questionnaires	91	91.00
Questionnaires that were not returned	13	09.00
Total	104	100

Source: Researcher (2025)

4.3 Demographic Characteristics

4.3.1 Gender of the Respondent

According to Figure 4.1, female made up the majority of respondents, 73.63% while male made up 26.37%. The findings shows that females are now more involved in the management of the health facilities and good given that they had been side-lined for a long as per Okoroafor et al.

(2022). Gender are significantly involved in shaping leadership in crisis period. Women often demonstrate strong emotional intelligence, empathy and strong communication that is key in crisis response and overall management. Women collaborative leadership skills foster cohesion and this is instrumental in high stress environment. Women are more alert in nature and this give them an upper hand of being cautious in decision making and thus reduce error making margin. However, more women involvement in decision making still face challenges such as entrenched biasness cultivated by institutions. Women resilience and multitasking ability gives them advantage in managing crisis.

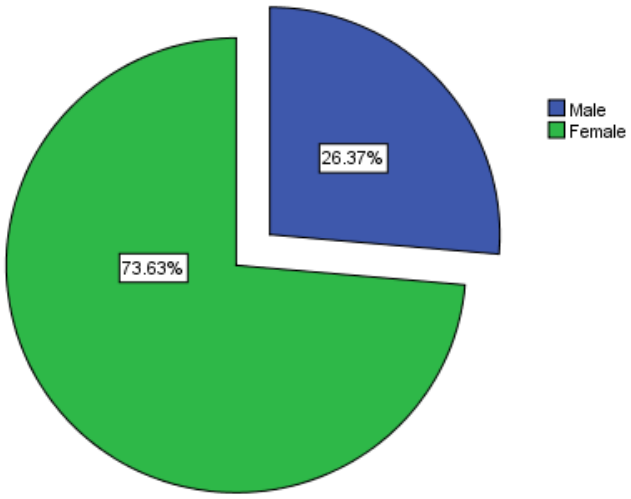


Figure 4. 1: Gender of the respondents

Source: Researcher (2025)

4.3.2 Highest Level of Education of the Respondent

The findings in Figure 4.2 indicate that 41.76% of respondents had diploma level of education, 52.75% had degree level of education while 5.49% had master's level of education. This demonstrates that the vast majority of respondents were literate as a result could answer the research questions without much assistance and could give an input that could be relied upon. Education play pivotal role in management of crisis in public sector particularly shaping leadership competencies. Education induces critical thinking, problem solving and analytical abilities, these

are essential traits necessary and sufficient in crisis management. Leaders with formal education are able to interpret data and information and this is crucial in making a sound decision. Individuals with adequate education can communicate effectively and coordinate activities efficiently and this is paramount in crisis management where smooth flow of information is important. Advanced education create a conducive environment for innovation and thus leaders may use this avenue to respond effectively on dynamic health crisis with strategic solutions. Leaders that possess adequate education tend to embrace evidence bases decisions that may contribute reliable interventions. High literacy level supports stronger leadership and more robust crisis response in public health.

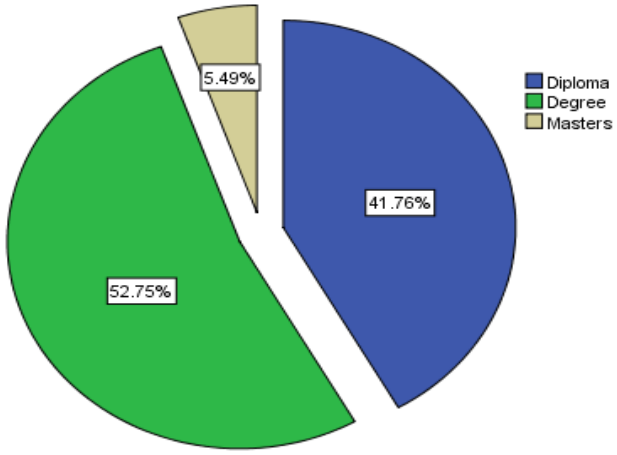


Figure 4. 2: Highest Level of Education of the Respondent

Source: Researcher (2025)

4.3.3 Nature of the Health Facility

From the findings in Figure 4.3, level 2 health facilities studied were 47.25%, level three were 37.36%, level four were 8.79%, level five were 3.30% while level six was 3.30%. The findings shows that important health facilities as far as health crisis management were covered which was important to get findings that can be relied.

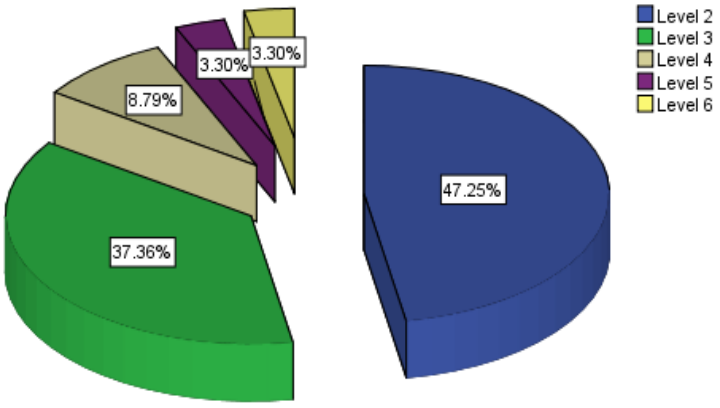


Figure 4. 3: Nature of the Health Facility

Source: Researcher (2025)

4.3.4 Position of the Respondent in the Facility

The findings in Figure 4.4 shows that 2.20% of the respondents were facility managers while 97.80% were facility in charge. The findings shows that most health facilities across all levels are managed by facility in charge person.

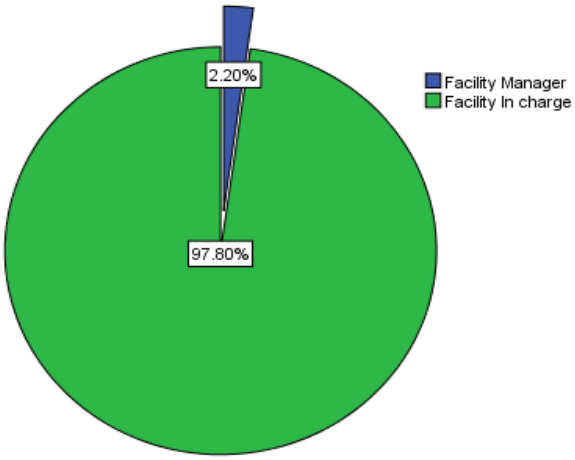


Figure 4. 4: Position one holds in the facility

Source: Researcher (2025)

4.3.5 Number of Years One Has Worked in the Current Position

From the study, 1.10% of the respondents have has worked for health facility for less than one year, 25.27% have worked for 1 -3 years, 58.24% have worked for 4-7 years while 15.38% have worked for above 8 years for the health facility. The year of service shows the experience a person has in managing or being in charge of the health facility. Experience in a position is important during the research. From the study, most of the respondents had the needed experience to answer the questions appropriately based on the number of years they have worked for the health facility. Respondents who have worked for a good number of years for the health facility have a good understanding of the functioning of the health facility and the opportunities and challenges the health facility is facing as far as management of health crises is concerned (Husband, 2020). The level of experience acquired is paramount in developing adequate leadership competencies that are tailored in crisis management. Experienced staff have encounter various challenges in their routine execution of responsibilities shaping their abilities to be calm whenever they are under pressure and make informed decisions and also implement effective strategies during emergencies. Employee who served for a longer period in an organization have deeper insights on how systems in an organization operate, better teamwork and stronger leadership capacity. The presence of a

significant number of moderately and highly experienced staff supports a resilient leadership structure capable of managing health crises efficiently and guiding less experienced colleagues in high-stress situations.

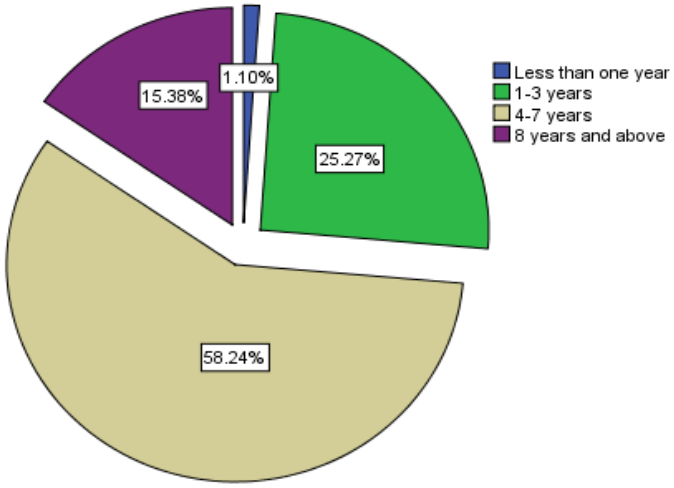


Figure 4. 5: Number of years one has worked in the position

4.4 Descriptive Statistics Results

The descriptive statistics findings were discussed as per variables. The indicators that were used were the mean score and standard deviation.

4.4.1 Communication Competencies

The study sought to examine communication competencies as per different identified strategies. The results are presented in Table 4.2.

Table 4. 2: Descriptives Statistics of Communication

	Mean	Std. Dev
Communication is important for the management of the health crisis	4.43	0.92
Communication is important for proper coordination of the health crisis	4.42	0.92
Communication promotes a better understanding of the health crisis management	4.42	0.90
Communication ensures efficiency in the management of the health crisis	4.38	0.92
Communication ensures proper use of resources in health crisis management	4.32	0.89
Communication is important for the proper engagement of stakeholders in health	4.37	0.92
The channel used for communication determines the efficiency of communication	4.38	0.93
Feedback is important in the management of health crises	4.41	0.88
Average	**4.39**	**0.91**

Source: Researcher (2025)

From the findings in Table 4.2, the respondents agreed that communication is important for the management of the health crisis with a mean of 4.43. The standard deviation was 0.92 showing that the responses are consistent. They agreed that communication is important for proper coordination of the health crisis with a mean of 4.42. The standard deviation was 0.92 showing that the responses are consistent. They agreed that communication promotes a better understanding of the health crisis management with a mean of 4.42. The standard deviation was 0.90 showing that the responses are consistent. They agreed that communication ensures efficiency in the management of the health crisis with mean 4.38. The standard deviation was 0.92 showing that the responses are consistent. They agreed that communication ensures proper use of resources in health crisis management with a mean of 4.32. The standard deviation was 0.89 showing that the responses are consistent. They agreed that communication is important for the proper engagement of stakeholders in health with a mean of 4.37. The standard deviation was 0.92 showing that the responses are consistent. They also agreed that the channel used for communication determines the efficiency of communication with a mean of 4.38. The standard deviation was 0.93 showing that the responses are consistent. Lastly, they agreed that feedback is important in the management

of health crises with a mean of 4.41. The standard deviation was 0.88 showing that the responses are consistent.

The results of the study agree with the findings of Ali (2023) who opines that effective communication is a fundamental component of health crisis management as it facilitates coordination, decision-making, and public awareness. It helps a lot to mitigate health emergencies.

Accordingly, effective communication enhances decision-making speed and fosters collaboration (Andrew et al., 2018). Proper collaboration ensures efficient use of resources and proper coordination of the stakeholders which makes health crisis management effective and efficient. It is worthwhile noting that effective messaging significantly influences public behavior. This is important as it enables health crisis management to receive the needed support that is important to enable it to achieve success.

4.4.2 Coordination Competencies

The study sought to examine the coordination competencies as per identified strategies. The results are presented in Table 4.3.

Table 4. 3: Descriptive Statistics of Coordination

	Mean	Std. Dev
Coordination ensures proper use of resources in health crisis management	4.38	0.92
Coordination enhances conflict resolutions in health crisis management	4.40	0.92
Coordination increases the level of satisfaction for stakeholders in health crisis management	4.35	0.91
Coordination promotes efficiency in information sharing during health crisis	4.38	0.93
Coordination reduces the time of health crisis management	4.38	0.88
Coordination gives confidence to stakeholders in the health crisis management	4.40	0.92

Coordination can ensure proper and effective risk management during health crisis	4.34	0.91
Average	**4.38**	**0.91**

Source: Researcher (2025)

From the findings in Table 4.3, the respondents agreed that coordination ensures proper use of resources in health crisis management with a mean of 4.38. The standard deviation was 0.92 showing that the responses are consistent. They agreed that coordination enhances conflict resolutions in health crisis management with mean of 4.40. The standard deviation was 0.92 showing that the responses are consistent. They agreed that coordination increases the level of satisfaction for stakeholders in health crisis management with a mean of 4.35. The standard deviation was 0.91 showing that the responses are consistent. They agreed that coordination promotes efficiency in information sharing during health crisis with a mean of 4.38. The standard deviation was 0.93 showing that the responses are consistent. They agreed that coordination reduces the time of health crisis management with a mean of 4.38. The standard deviation was 0.88 showing that the responses are consistent. They also agreed that coordination gives confidence to stakeholders in the health crisis management with a mean of 4.40. The standard deviation was 0.92 showing that the responses are consistent. Lastly, they agreed that coordination can ensure proper and effective risk management during health crisis with a mean of 4.34. The standard deviation was 0.91 showing that the responses are consistent.

The findings are supported by Wylie (2021) who argues that coordination is important in activities across multiple stakeholders to ensure an efficient response and manage health crisis effectively. Coordination streamline response to crises and helps a lot to remove inefficiencies. Effective coordination helps to prevent overburdening specific stakeholders and regions. Coordination also enhances efficiency and effective utilization of the resources (Wong et al., 2022). Coordination also helps to build reliance in crisis response as it helps to ensure smooth operations. Coordination also helps to ensure that health organization is well-prepared to deal with crises. It helps to put effective strategies are in place which is important to ensure optimal use of the resources. Coordination helps to stable the system and prevent system collapse.

4.4.3 Resource Allocation Competencies

The study sought to examine resource allocation competencies as per identified strategies. The results are presented in Table 4.4.

Table 4. 4: Descriptive Statistics of Resource Allocation

	Mean	Std. Dev
Resource allocation is important to ensure that health crisis management achieves success	4.37	0.89
Proper allocation of resources in health crisis management is good for achieving cost minimization	4.40	0.92
Resource allocation strategy in health crisis management determines resource utilization rate.	4.41	0.84
Transparency and fairness in resource allocation in health crisis management is important.	4.41	0.92
Balancing resource allocation between different levels and departments in health crisis management enhances a fast success rate.	4.35	0.86
Resource budgeting is important during health crisis management.	4.40	0.89
Proper resource allocation reduces resource wastage.	4.38	0.88
Average	**4.39**	**0.89**

Source: Researcher (2025)

From the findings in Table 4.4, the respondents agreed that resource allocation is important to ensure that health crisis management achieves success with a mean of 4.37. The standard deviation was 0.89 showing that the responses are consistent. They agreed that proper allocation of resources in health crisis management is good for achieving cost minimization with a mean of 4.40. The standard deviation was 0.92 showing that the responses are consistent. They agreed that resource allocation strategy in health crisis management determines resource utilization rate with a mean of 4.41. The standard deviation was 0.84 showing that the responses are consistent. They agreed that transparency and fairness in resource allocation in health crisis management is important with a mean of 4.41. The standard deviation was 0.92 showing that the responses are consistent. They agreed that balancing resource allocation between different levels and departments in health crisis management enhances a fast success rate with a mean of 4.35. The standard deviation was 0.86 showing that the responses are consistent. They also agreed that resource budgeting is important

during health crisis management with a mean 4.40. The standard deviation was 0.89 showing that the responses are consistent. Lastly, they agreed that proper resource allocation reduces resource wastage with a mean of 4.38. The standard deviation was 0.88 showing that the responses are consistent.

The findings are supported by Devereaux et al. (2020) who has underscored the importance of effective resource allocation to ensure effective management of the crises. Accordingly, the effective distribution of health-related materials, personnel, and finances helps also to ensure effective mitigation of health crises. Prioritization of the resources as the per need enhances crisis response. Resources are limited and, as a result, efficient resource allocation is vital for pandemic response (Kim et al., 2021). Also, priority should be given to resource mobilization. Without proper allocation of resources, shortage of medical supplies and personnel can occur and this may affect health crisis management. Fair allocation policies mitigate the adverse effects of resource scarcity.

4.4.4 Health Crisis Management Competencies

The study sought to examine health crisis management competencies as per identified factors. The results are presented in Table 4.5.

Table 4. 5: Descriptive Statistics of Health Crisis Management

	Mean	Std. Dev
Decision-makers are struggling to effectively prioritize resource allocation.	3.76	1.39
Criteria for resource allocation in our organization lack clarity and consistency.	3.69	1.30
The organization's strategies and tools for resource allocation are reliable in determining needs during health crises.	4.38	0.77
Transparency and fairness are consistently maintained in our organization when allocating resources for health crises.	4.30	0.96
There is a fair balance in the allocation of resources between different levels and departments affected by the health crisis.	4.38	0.89
Average	**4.10**	**1.06**

Source: Researcher (2025)

From the findings in Table 4.5, the respondents agreed that decision-makers are struggling to effectively prioritize resource allocation with a mean 3.76. The standard deviation was 1.39 showing that the responses are consistent. They agreed that criteria for resource allocation in our organization lack clarity and consistency with a mean 3.69. The standard deviation was 1.30 showing that the responses are consistent. They agreed that the organization's strategies and tools for resource allocation are reliable in determining needs during health crises with a mean 4.38. The standard deviation was 0.77 showing that the responses are consistent. They also agreed that transparency and fairness are consistently maintained in our organization when allocating resources for health crises with a mean of 4.30. The standard deviation was 0.96 showing that the responses are consistent. Lastly, they agreed that there is a fair balance in the allocation of resources between different levels and departments affected by the health crisis with a mean of 4.38. The standard deviation was 0.89 showing that the responses are consistent.

The findings are supported by Biel et al. (2022) who has emphasized the importance of proper decision to effectively manage crises. Accordingly, health crisis management is important especially when the health system has been overwhelmed which explains why elaborate decision making is important (Burkle, 2019). Elaborate health crisis management is important to ensure fast and coordinated responses to mitigate the risks that came with the pandemic. Health crisis management requires proper coordination, communication, and prudent allocation of resources to ensure efficiency and collaboration between different stakeholders (Muchangi, 2021). health crisis management also requires consistent efforts. Crisis management helps to detect crisis which is important to prevent or mitigate the crisis or the unfortunate event from occurring. Crisis management entails proper evaluation of the needs during unexpected events and undertaking the necessary steps to ensure that they are addressed effectively to reduce the damage.

4.6 Inferential Analysis

4.6.1 Correlations

Correlation analysis presents the relationship between variables in a study. The correlation analysis for the study is presented in Table 4.6. The correlation results are based on Pearson's correlation coefficient which ranges from -1 to +1. The correlation value of -1 indicates a perfect negative correlation, the value of +1 indicates a perfect positive correlation while a value of 0 indicates no correlation at all. Communication competencies, coordination competencies and resource allocation competencies had a Pearson correlation value of 0.517, 0.526 and 0.520 respectively. The values indicate a positive and strong correlation between communication competencies, coordination competencies and resource allocation competencies and health crisis management. The significance value indicators were found to be less than 0.05 (P=0.000 <0.05). The coefficients gave values of 0.5 and above (50% and above) indicating a positive relationship between the study variables.

Table 4. 6: Correlations results

		Communication Competencies	Coordination Competencies	Resource Allocation Competencies	Health Crisis Management
Communication Competencies	Pearson Correlation	1	0.09	0.100	.517**
	Sig. (2-tailed)		0.395	0.344	0.000
Coordination Competencies	Pearson Correlation	0.090	1	.362**	.526**
	Sig. (2-tailed)	0.395		0.000	0.000
Resource Allocation Competencies	Pearson Correlation	0.100	.362**	1	.520**
	Sig. (2-tailed)	0.344	0.000		0.000
Health Crisis Management	Pearson Correlation	.517**	.526**	.520**	1
	Sig. (2-tailed)	0.000	0.000	0.000	

** Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher (2025)

4.6.2 Regressions Analysis

4.6.2.1 Simple linear regression of Communication Competencies and Crisis Management

The study assessed how communication competencies influenced crisis management using simple regression model and the finding is presented in the Table 4.7.

Table 4.7: Regression Results on Communication Competencies and crisis Management

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.702a	0.493	0.487	0.56909

a Predictors: (Constant), Communication competencies

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.998	1	27.998	86.449	.000b
	Residual	28.824	89	0.324		
	Total	56.822	90			

a Dependent Variable: crisis Management indicator

b Predictors: (Constant), communication mean

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.226	0.268		4.574	0.000
	Communication competencies	0.67	0.072	0.702	9.298	0.000

a Dependent Variable: crisis management

Table 7 showed that communication competencies had a positive and significant effect on health crisis management (β=0.67, p=0.000). It means that when communication competencies is increased by one unit, health crisis management will be increased by 0.67 units. P-value= 0.000 which is lower than 0.05 consequently showing that the relationship between communication strategies and health crisis management is not by random chance. The model is also statistically significant as indicated by F statistics of 86.449 and p value of 0.000 that is less than 0.05. Further,

49.6 percent of changes associated with crisis management is attributed to communication competencies.

Ensuring that there is proper communication during health crisis helps a lot to reduce crisis-related damages (Losem et al., 2023). Effective communication helps to eliminate misinformation that may exacerbate health crisis. With the increase in the use of the social media, effective communication has become important as it helps to clarify issues that may hinder effective health crisis management (Da Fonseca et al., 2023). Communication plays a critical role in educating the public on health measures, increasing confidence in response strategies. Communication helps to enhance public cooperation in health crisis management. Clear messaging promotes proper understanding of what has been done, what is being undertaken, the plans that will be undertaken and what is required of the stakeholders which makes handling of the crises more effective (Kiilu & Awuor, 2022).

4.6.2.2 Simple linear regression of Coordination Competencies and crisis Management

Simple regression model was used to establish the relationship coordination competencies and the crisis management and the finding is presented in Table 4.8.

Table 4.8: Regression Finding of Coordination Competencies and Crisis Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699a	0.488	0.483	0.57154

a Predictors: (Constant), Coordination Competencies

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.749	1	27.749	84.949	.000b
	Residual	29.073	89	0.327		
	Total	56.822	90			

a Dependent Variable: crisis management

b Predictors: (Constant), Coordination Competencies

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.142	0.279		4.088	0.000
	Coordination Competencies	0.639	0.069	0.699	9.217	0.000

a Dependent Variable: crisis management

The study finding established that 48.8 percent of changes in crisis management was attributed to coordination competencies. This was backed F statistics of 84.949 and p value of 0.00, depicting that the model is statistically significant. Coordination competencies had a positive and significant effect on health crisis management (β=0.639, p=0.000). It means that when coordination competencies are increased by one unit, health crisis management will be increased by 0.639. P-value= 0.000 which is lower than 0.05 consequently showing that the relationship between coordination competencies and health crisis management is not by random chance.

Coordination ensures smooth running of the health crisis operations which is important to effectively deal with health crises (Timmis & Brussow, 2020). Lack of proper coordination can compound the effects of the crisis and might even cause the health system to collapse (Nyawira et al., 2023). It eliminates wastage and ensures that conflicts that might affect the response efforts are eliminated. Accordingly, coordination helps to build networks that can enable health organizations to respond swiftly to the health crisis (Li et al., 2020). Coordination brings interdisciplinary team together that better understands the crisis to enable it to adopt a holistic approach and ensure that the crisis is dealt with within the shortest time possible. Coordination also ensures the effective sharing of information, ideas, and solutions which is important to ensure that the approaches that are adopted are workable (Macnab, 2023). Coordination also ensures prompt response to emerging issues and challenges and is important to address short-term and long-term planning and implementation challenges (Li et al., 2020).

4.6.2.3 Simple linear regression of Resource Allocation Competencies and crisis management

The relationship between resources allocation and crisis management was analysed using simple regression model and the finding is presented in Table 4.9.

Table 4.9: Regression results of Resource Allocation Competencies and crisis Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.707a	0.499	0.494	0.56535		
a Predictors: (Constant), Resources Allocation Competencies						
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
ANOVAa						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28.376	1	28.376	88.778	.000b
	Residual	28.447	89	0.32		
	Total	56.822	90			
a Dependent Variable: Crisis Management						
b Predictors: (Constant), Resources Allocation Competencies						
		B	Std. Error	Beta		
1	(Constant)	1.354	0.251		5.389	0.000
	Resources Allocation Competencies	0.644	0.068	0.707	9.422	0.000
a Dependent Variable: Crisis Management						

Resource allocation competencies had a positive and significant effect on health crisis management (β=0.644, p=0.000). It means that when resource allocation competencies are increased by one unit, health crisis management will be increased by 0.644 units. P-value= 0.000 which is lower than 0.05 consequently showing that the relationship between resource allocation competencies and health crisis management is not by random chance. This is evident as 49.9 percent of changes in crisis management is attributed to resource allocation competencies. The model is statistically significant as indicated by F statistics of 88.778 and p value of 0.000.

According to Gebremeskel et al. (2021) resource allocation competencies are important in times of crisis as different organizations have different unique challenges. Proper allocation of the resources is important as it will enable health organizations to tackle issues effectively irrespective of the nature of health system (Ogunleye et al., 2020). Health crisis can strain the resources of the health system and with proper resource allocation and planning, health system can be able to deal with health crisis effectively. Preparation of the health system to handle crisis through proper allocation of resources is also important. Health systems should be well-funded to enable them to develop capacity to handle crisis. Proper funding enables health organizations to have what is needed to handle crises (Agwanda et al., 2021).

4.6.2.4 Multiple linear regression of Leadership Competencies and Crisis Management Practices in Public Healthcare Facilities

The study did a regression analysis of the linear relationship between variables. The interpretation of the result was based on regression coefficients, coefficient of determination, ANOVA, and model summaries. The results were presented in Table 4.10, Table 11 and Table 12.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775a	0.601	0.587	0.409

a Predictors: (Constant), Resource Allocation Competencies, Communication Competencies, Coordination Competencies

Source: Researcher (2025)

The results in Table 4.10 show that there was a strong correlation between the factors considered (communication competencies, coordination competencies and resource allocation competencies) and health crisis management (adjusted $R^2 = 0.587$). This meant that 58.7% of changes in health crisis management would be explained by communication competencies, coordination competencies and resource allocation competencies.

Analysis of variance results are presented in Table 4.11.

Table 4. 11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.94	3	7.313	43.72	.000[b]
	Residual	14.553	87	0.167		
	Total	36.494	90			

a Dependent Variable: Health Crisis Management

b Predictors: (Constant), Resource Allocation Competencies, Communication Competencies, Coordination Competencies

Source: Researcher (2025)

The results of the processed data ANOVA reveal an F calculated value of 43.72, while F critical was 2.68, at a 5% level of significance. Since F computed was greater than F critical, the full regression model was significant in predicting the correlation between the research variables. The value of P was 0.000 which was less than 0.05 meaning the research's predictor factors had a statistically significant impact on health crisis management.

Table 4. 2: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.318	0.513		-2.568	0.012
	Communication Competencies	0.478	0.072	0.45	6.6	0.000
	Coordination Competencies	0.487	0.098	0.361	4.963	0.000
	Resource Allocation Competencies	0.351	0.074	0.344	4.724	0.000

a Dependent Variable: Health Crisis Management

Source: Researcher (2025)

When the independent variables (communication competencies, coordination competencies and resource allocation competencies) were regressed together in a multivariate regression, the results are as shown in Table 4.12. Each of the independent variables communication competencies, coordination competencies and resource allocation competencies was related to health crisis management at a 0.05 significance level.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents summarized results related to the impact of Leadership Competencies on Crisis Management Practices in Public Healthcare Facilities in Nairobi, Kenya. The results were guided by research objectives.

5.2 Summary of Findings

The study carried out an investigation to determine the impact of leadership competencies on crisis management practices in public healthcare facilities in Nairobi, Kenya. The study made emphasize on determining the influence of communication competencies, coordination competencies and resources allocation on crisis management practices in public healthcare facilities in Nairobi, Kenya. The study was guided by resilience theory and situational leadership theory. The two theories were premised on how individuals, communities, and systems respond, adapt, and recover from disruptions and posits also how different situations require different leadership styles and strategies, making flexibility a key component of effective leadership. The finding of the study established that leadership competencies (communication, coordination and resource allocation) significantly influenced crisis management practices in public healthcare facilities in Nairobi, Kenya. This concurred with resilience theory that posits on the ability to absorb shocks, adapt to change, and maintain core functions during crises through by leveraging on leadership competencies. It was also supported by situational leadership theory that predicted adaptation of leadership style based on the maturity and competency levels of their followers is vital in crisis management.

5.3 Discussion

5.3.1 Communication Competencies and Health Crisis Management

The study results found that communication competencies had a positive and significant effect on health crisis management (β=0.478, p=0.000). This was confirmed by the Pearson correlation value of 0.517. The findings are supported by situational leadership theory and the resilience theory which have emphasized communication in dealing with issues. According to situational leadership theory adaptive leadership is important during crisis and this can be achieved through proper communication. The theory emphasizes tailoring communication to the needs of the team. During crisis it is important for leaders to adjust their communication style from directive to supportive in order to reduce confusion and increase clarity. Effective communication facilitates timely information flow critical to decision-making and managing uncertainty.

Effective communication is a fundamental component of health crisis management as it facilitates coordination, decision-making, and public awareness. According to Losem et al. (2023) proper communication reduces crisis-related damages and helps a lot to enable stakeholders to understand what is going on. It keeps stakeholders informed which is important to enable them to take elaborate steps to deal effectively with the crisis. Ensuring that stakeholders are well informed helps to eliminate misinformation especially misinformation through the social media. It helps to clarify issues that may hinder effective health crisis management (Da Fonseca et al., 2023). It promotes understanding of what is being undertaken to deal with the crisis, thus promoting effective management of the crisis.

Effective communication is vital in decision making particularly in crisis period where confusion, fear and fear are common. In this scenario poor communication can result to misinformation, delayed responses and breakdown in delivery of health services. Andrew et al. (2018) noted that effective communication promote collaboration that built team work and cohesion that provide a conducive environment in making informed decision during crisis period. These elements are key in creating conducive environment which facilate timely and informed decision making. Ali (2023) noted communication is a corner stone of managing health crisis.

Moreover, Da Fonseca et al. (2023) emphasized that communication is a critical pillar of managing health crisis. Clear, accurate and timely communication ensure that all stakeholders from frontline health workers to policymakers are aligned in understanding and response strategies. It help in calming the public, managing expectations and reinforcing trust in leadership. Effective communication strengthen leadership during crisis period. Similarly, El Baradei et al. (2021) noted that effective communication is largely determined by the communication platform. Emergence of digital media has been considered instrumental in enhancing effective messaging. The adoption of social media that is now more appealing to many people due its persuasive and interactive nature has been key in shaping effective communication during crisis particularly health emergency. Social media is effective in information dissemination, misinformation posed a challenge.

Communication is also essential in creating awareness and sensitization which empowers people with necessary information thus making to remain alert during all times. According to Adebisi et al. (2021) communication remain an education tool of public health crisis that enhances public cooperation in health crisis management. Clear communication distort misinformation that may jeopardize management of public health crisis. Losem et al. (2023) noted that clear messaging reduces crisis-related damage.

5.3.2 Coordination Competencies and Health Crisis Management

From the study coordination competencies had a positive and significant effect on health crisis management (β=0.487, p=0.000) from the regression analysis. This is confirmed by the Pearson correlation value of 0.526. The findings are support by resilience theory which has emphasized the importance of coordination to build resilient systems. The findings are consistent with resilience theory that posits that proper coordination of leadership during crises to ensure adaptability which is important to effectively manage crises. The aspect of coordination features is reflected in the resilience theory by the principle of interconnectedness. Theory suggest that adaptive networks and collaborations across entities enhance system stability that is important respond flexibly and efficiently. Actions that are coordinated enhance alignment of resources and effort hence reducing duplication and reducing gaps in the crisis period.

Coordination in health crisis management involves organizing activities across multiple stakeholders to ensure an efficient response. According to Timmis and Brussow (2020) proper coordination during health crisis management is important to ensure smooth running of the activities. It helps to stabilize the system and ensure that activities run as planned. It prevents the health system from collapsing and eliminates wastage and ensures that conflicts that might affect the response efforts are eliminated (Li et al., 2020). It also motivates all stakeholders to fully participate to ensure that health crisis management achieves success. Coordination ensures that the crisis is dealt with within the shortest time possible as it ensures sharing of information, ideas, and solutions (Macnab, 2023). It also ensures fast response to issues and challenges which is important to deal with health crisis effectively.

Resilience building in crisis require proper coordination and more importantly need to hasten preparedness. Effective coordination ensures that resources, information and personnel are aligned and used efficiently hence minimizing risk of confusion or even duplication of effort. According to Wisniewski (2022) integrity is essential component of coordination during crisis period. Leaser and frontlines who uphold integrity are likely to communicate transparently, act ethically and foster trust among teams and this one of the essential conditions for effective crisis response.

Importantly, initiation of integrity as a leadership trait can be strengthened through training program that impart health professionals with skills to make ethical and collaborative decisions under pressure. The aspect of integrity in spurring coordination during crisis period can be improved by an elaborate training which impart critical players with this important skill. Kagwanja et al. (2020) noted that coordination ensures optimal resource utilization and prevents system collapse.In essence, a resilient health system depends on coordinated efforts rooted in integrity and reinforced through continuous preparedness and professional development.

5.3.3 Resource Allocation Competencies and Health Crisis Management

Resource allocation competencies had a positive and significant effect on health crisis management (β=0.351, p=0.000). A Pearson correlation value of 0.520 supports this. Resilience theory supports that finding and asserts that proper allocation of resource is important to ensure

effective management of the crises. Efficient allocation of resources embodies the resilience theory by managing constraints and prioritizing resources during emergency. Resilience theory supports dynamic reallocation of resources to sustain essential functions, facilitate recovery, and build long-term robustness against future shocks exhibited by the study findings. Situational leadership theory also supports this as it emphasizes the importance of adaptive leadership for effective distribution of resources during crises. During crisis adjusting resource dynamically by distributing it informed by evolving priorities and team capacity, ensuring that critical needs are met efficiently while empowering teams to act effectively.

Effective resources allocation is fundamental to optimal handle crisis, specifically in health sector where resources are scarce and demand surge rapidly whenever crisis occurs. Gebremeskel et al. (2021) has underscored the importance of ensuring that resources are well allocated during the crisis and it helps to ensure efficiency for the management of the crises. When resources such as medical supplies, personal and funding are distributed strategically, it become easier to address priority area, reduce waste and enhance service continuity. Proper allocation of resources helps a lot to deal with unique challenges in crisis management and motivates stakeholders to bring an end to the crisis (Ogunleye et al., 2020). Proper allocation ensures that limited resources are put into good use. It also serves as a motivating factor for stakeholders, fostering a collective sense of responsibility and urgency to resolve the crisis. Ultimately, ensuring that limited resources are used wisely not only enhances the effectiveness of crisis response but also strengthens system resilience and stakeholder trust in leadership.

Resource allocation plays a crucial role in crisis management by ensuring the effective distribution of health-related materials, personnel, and finances. During health crisis making strategic decision on the formula of deploying resources may significantly affect overall response and outcome. Devereaux et al. (2020) observed that it is important to prioritize lives over allocating resources to other areas that may be deemed not productive. Life centered approach ensures that most of the vulnerable populations receive immediate attention and care.

Kim et al. (2021) established that efficient resource allocation is vital for pandemic response. Allowing healthy systems to respond swiftly and with focus of ensuring crisis is managed

effectively. Kapiriri and LaRose (2018) noted that strategic resource allocation improves crisis management outcomes, avoiding waste and reinforcing public trust. Ultimately, proper resource allocation not only maximizes impact but also strengthen systems resilience during health emergencies.

5.4 Conclusions

Health crisis management in public healthcare facilities in Nairobi, Kenya are influenced by all the predictor variables of; communication competencies, coordination competencies and resource allocation competencies. According to the regression analysis results, all these independent variables positively and significantly influenced the health crisis management and had positive and significant correlation with it based on Pearson correlation values. It was concluded that elaborate communication, coordination and resource allocation strategies should be adopted by public health facilities to enable them to effectively manage health crisis when they arise. This is important as it will enable organizations to respond to crisis when they occur. It will also enable them to put strategies that can prevent crises from occurring.

5.5 Recommendations

According to the study, public health facilities have a huge role in the management of health crises when they happen. Public health facilities, therefore, should trained its employees and management on the effective communication, coordination and resource allocation strategies. This is important to enable them to respond swiftly during crises.

Policymakers have a role in ensuring that correct laws and policies are in place to support public health facilities during times of health crises. Policymakers, in particular, should ensure that policies to guide adoption of current technologies are in places to ensure efficiency during health crisis response. Policies should be updated regularly to enable public health facilities to adapt to the changing needs in health crises response.

5.6 Suggestion for Further Study

The study focused only on three factors; communication competencies, coordination competencies and resource allocation competencies. Further, a study should be carried out to determine other factors that may be influencing health crisis management. Also, it is important to examine the role of regulation among other factors in health crisis management.

REFERENCES

Abbas, J. (2021). Crisis management, transnational healthcare challenges, and opportunities: The intersection of COVID-19 pandemic and global mental health. *Research in Globalization*, *3*, 100037. https://doi.org/10.1016/j.resglo.2021.100037

Adebisi, Y. A., Rabe, A., & Lucero-Prisno, D. E. (2021). Risk communication and community engagement strategies for COVID-19 in 13 African countries. *Health Promotion Perspectives (Online)*, *11*(2), 137–147. https://doi.org/10.34172/hpp.2021.18

Aldrich, D. P. (2019). Challenges to coordination: Understanding intergovernmental friction during disasters. *International Journal of Disaster Risk Science*, *10*(3), 306-316. https://doi.org/10.1007/s13753-019-00225-1

Ali, M. (2023). Communication and management strategies during the COVID crisis: An Indian perspective. *Emerging Business Trends and Management Practices*, 383-395. https://doi.org/10.1201/9781003331353-18

Andrew, S. A., Arlikatti, S., Chatterjee, V., & Ismayilov, O. (2018). Ebola crisis response in the USA: Communication management and SOPs. *International Journal of Disaster Risk Reduction*, *31*, 243-250. https://doi.org/10.1016/j.ijdrr.2018.04.028

Arevalo, F. (2023, October 29). *Keys to effective healthcare crisis management*. Maryville University Online. https://online.maryville.edu/blog/healthcare-crisis/

Barasa, E. W., Ouma, P. O., & Okiro, E. A. (2020). Assessing the hospital surge capacity of the Kenyan health system in the face of the COVID-19 pandemic. *PLOS ONE*, *15*(7), e0236308. https://doi.org/10.1371/journal.pone.0236308

Bevans, R. (2023, June 22). *Multiple linear regression | A quick guide (Examples)*. Scribbr. https://www.scribbr.com/statistics/multiple-linear-regression/

Biel, M., Grondys, K., & Androniceanu, A. (2022). A crisis in the health system and quality of healthcare in economically developed countries. *International Journal of Environmental Research and Public Health*, *20*(1), 469. https://doi.org/10.3390/ijerph20010469

Bobbitt, Z. (2024). *What is Slovin's Formula?* Statology. https://www.statology.org/slovins-formula/

Brown, G. T. (2019). *Mixing interview and questionnaire methods: Practical problems in aligning data*. ScholarWorks@UMass Amherst. https://scholarworks.umass.edu/pare/vol15/iss1/1/

Burkle Jr., F. M. (2019). Challenges of global public health emergencies: Development of a health-crisis management framework. *The Tohoku Journal of Experimental Medicine*, *249*(1), 33-41. https://doi.org/10.1620/tjem.249.33

Clinical Officers Council (COC). (2022). *Annual report on licensing and regulatory compliance*. Nairobi: COC.

D'Auria, G., & De Smet, A. (2020, March 16). *Leadership in a crisis: Responding to the coronavirus outbreak and future challenges*. McKinsey & Company. https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/leadership-in-a-crisis-responding-to-the-coronavirus-outbreak-and-future-challenges

Da Fonseca, E. M., Segatto, C. I., & Bastos, F. I. (2023). COVID-19 inequalities in Brazil: health, education, and social assistance policies. In *Global perspectives on wealth and distribution* (pp. 69–84). https://doi.org/10.1007/978-3-031-22219-1_4

De Smet, A. (2022, August 4). *What is leadership?* McKinsey & Company. https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-leadership

Devereaux, A., Yang, H., Seda, G., Sankar, V., Maves, R. C., Karanjia, N., Parrish, J. S., Rosenberg, C., Goodman-Crews, P., Cederquist, L., Burkle, F. M., Tuteur, J. M., Leroy, C., & Koenig, K. L. (2020). Optimizing scarce resource allocation during COVID-19: Rapid creation of a regional Health-Care Coalition and triage teams in San Diego County, California. *Disaster Medicine and Public Health Preparedness*, *16*(1), 321–327. https://doi.org/10.1017/dmp.2020.344

Diepenhorst, J., & Harrison, P. (2022). The complexity of healthcare communication during a health crisis. *Consumption, Production, and Entrepreneurship in the Time of Coronavirus*, 179-204. https://doi.org/10.1007/978-3-030-93169-8_9

Djalante, R., Shaw, R., & DeWit, A. (2020). Building resilience against biological hazards and pandemics: COVID-19 and its implications for the Sendai framework. *Progress in Disaster Science*, *6*, 100080. https://doi.org/10.1016/j.pdisas.2020.100080

Ehrenfeld, J. (2023). Physician leadership in the new era of AI and digital health tools. *Intelligence-Based Medicine*, *8*, 100109. https://doi.org/10.1016/j.ibmed.2023.100109

El Baradei, L., Kadry, M., & Ahmed, G. (2021). Governmental social media communication strategies during the COVID-19 pandemic: The case of Egypt. *International Journal of Public Administration*, *44*(11-12), 907-919. https://doi.org/10.1080/01900692.2021.1915729

Farah, B., Pavlova, M., & Groot, W. (2023). Hospital disaster preparedness in sub-Saharan Africa: A systematic review of English literature. *BMC Emergency Medicine, 23*(1), 71. https://doi.org/10.1186/s12873-023-00843-5

Farrell, T. W., Ferrante, L. E., Brown, T., Francis, L., Widera, E., Rhodes, R., Rosen, T., Hwang, U., Witt, L. J., Thothala, N., Liu, S. W., Vitale, C. A., Braun, U. K., Stephens, C., & Saliba, D. (2020). AGS position statement: Resource allocation strategies and age-

related considerations in the COVID-19 era and beyond. *Journal of the American Geriatrics Society*, *68*(6), 1136-1142. https://doi.org/10.1111/jgs.16537

Farrell, T. W., Francis, L., Brown, T., Ferrante, L. E., Widera, E., Rhodes, R., Rosen, T., Hwang, U., Witt, L. J., Thothala, N., Liu, S. W., Vitale, C. A., Braun, U. K., Stephens, C., & Saliba, D. (2020). Rationing limited healthcare resources in the COVID-19 era and beyond: Ethical considerations regarding older adults. *Journal of the American Geriatrics Society*, *68*(6), 1143-1149. https://doi.org/10.1111/jgs.16539

Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research*, *29*(3), 430-447. https://doi.org/10.1108/intr-12-2017-0515

Gebremeskel, A. T., Otu, A., Abimbola, S., & Yaya, S. (2021). Building resilient health systems in Africa beyond the COVID-19 pandemic response. *BMJ Global Health*, *6*(6), e006108. https://doi.org/10.1136/bmjgh-2021-006108

Germany's COVID-19 response | Exemplars in global health. (n.d.). Exemplars in Global Health. https://www.exemplars.health/emerging-topics/epidemic-preparedness-and-response/covid-19/germany

Hassan, M. (2024). *Research Design – Types, Methods and Examples*. Researchmethod.net. https://researchmethod.net/research-design/

Haute, E. V. (2021). undefined. *Research Methods in the Social Sciences: An A-Z of key concepts*, 247-251. https://doi.org/10.1093/hepl/9780198850298.003.0057

Hayes, A. F., & Coutts, J. J. (2020). Use omega rather than Cronbach's Alpha for estimating reliability. *Communication Methods and Measures*, *14*(1), 1-24. https://doi.org/10.1080/19312458.2020.1718629

He, A. J., Shi, Y., & Liu, H. (2020). Crisis governance, Chinese style: distinctive features of China's response to the Covid-19 pandemic. *Policy Design and Practice*, *3*(3), 242-258. https://doi.org/10.1080/25741292.2020.1799911

Hirschfeld, G., & Thielsch, M. (2021). Impact of crisis communication strategies on people's attitudes toward behavioral guidelines regarding COVID-19 and on their trust in local officials. https://doi.org/10.31234/osf.io/qmcs6

Husband, G. (2020). Ethical data collection and recognizing the impact of Semi-Structured interviews on research respondents. *Education Sciences*, *10*(8), 206. https://doi.org/10.3390/educsci10080206

IOM UN Migration. (2023, November 27). *Kenya crisis response plan 2024*. Global Crisis Response Platform. https://crisisresponse.iom.int/response/kenya-crisis-response-plan-2024

Jabari, M. (2020). *4 lessons for a radical rethink of leadership in the post-COVID-19 era*. Forbes. https://www.weforum.org/agenda/2020/10/leadership-in-the-post-covid-19-era-lessons/

Kagwanja, N., Waithaka, D., Nzinga, J., Tsofa, B., Boga, M., Leli, H., Mataza, C., Gilson, L., Molyneux, S., & Barasa, E. (2020). Shocks, stress and everyday health system resilience: Experiences from the Kenyan coast. *Health Policy and Planning*, *35*(5), 522-535. https://doi.org/10.1093/heapol/czaa002

Kapiriri, L., & LaRose, L. B. (2018). Priority setting for disease outbreaks in Uganda: A case study evaluating the process. *Global Public Health (Print)*, *14*(2), 241–253. https://doi.org/10.1080/17441692.2018.1498532

Kaul, V., Shah, V. H., & El-Serag, H. (2020). Leadership during crisis: Lessons and applications from the COVID-19 pandemic. *Gastroenterology*, *159*(3), 809-812. https://doi.org/10.1053/j.gastro.2020.04.076

Kenya Medical Practitioners and Dentists Council (KMPDC). (2022). *Healthcare standards and regulatory framework in Kenya*. Nairobi: KMPDC.

Kiilu, J. M., Author_Id, N., Awuor, E., & Author_Id, N. (2022). Ethical leadership and performance of parastatals in Kenya: A case study of Kenya Airports Authority. *Journal of Human Resource & Leadership (Leesburg Pike, Va.)*, 31–47. https://doi.org/10.53819/81018102t5047

Kim, M., Cho, W., Choi, H., & Hur, J. (2021). Assessing the South Korean model of emergency management during the COVID-19 pandemic. https://doi.org/10.26686/wgtn.14376440

Kinyanjui, M., & Wanyoike, W. (2023, January 9). *Health facilities in Nairobi*. The Star. https://www.the-star.co.ke/news/infographics/2023-01-09-health-facilities-in-nairobi/

Kirkpatrick, J. N., Hull, S. C., Fedson, S., Mullen, B., & Goodlin, S. J. (2020). Scarce-resource allocation and patient triage during the COVID-19 pandemic. *Journal of the American College of Cardiology*, *76*(1), 85-92. https://doi.org/10.1016/j.jacc.2020.05.006

Koka, P. M., Sawe, H. R., Mbaya, K. R., Kilindimo, S. S., Mfinanga, J. A., & Mwafongo, V. G. (2018). Disaster preparedness and response capacity of regional hospitals in Tanzania: A descriptive cross-sectional study. *BMC Health Services Research, 18*(1), 835. https://doi.org/10.1186/s12913-018-3563-7

Lam, T. (2019). Likert scale: Misuse of mid-point anchor. https://doi.org/10.31124/advance.7765463

Li, Y., Chandra, Y., & Kapucu, N. (2020). Crisis coordination and the role of social media in response to COVID-19 in Wuhan, China. *The American Review of Public Administration*, *50*(6-7), 698-705. https://doi.org/10.1177/0275074020942105

Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: The management and business implications of COVID-19 from an Asian

perspective. *Asian Business & Management*, *19*(3), 277-297. https://doi.org/10.1057/s41291-020-00119-x

Losem, C. C., Bigambo, W. O., & Rotich, D. C. (2023). Effect of communication practices on crisis preparedness in public secondary schools in Kapenguria sub County, Kenya. *East African Journal of Arts and Social Sciences*, *6*(2), 128-138. https://doi.org/10.37284/eajass.6.2.1434

Macnab, A. J. (2023). Innovative strategies to promote global health: Lessons from the COVID-19 pandemic. *GHMJ (Global Health Management Journal)*, *6*(1), 47-53. https://doi.org/10.35898/ghmj-61956

Mannelli, C. (2020). Whose life to save? Scarce resources allocation in the COVID-19 outbreak. *Journal of Medical Ethics*, *46*(6), 364-366. https://doi.org/10.1136/medethics-2020-106227

Mbogo, R. W. (2020). Leadership roles in managing education in crises: The case of Kenya during COVID-19 pandemic. *European Journal of Education Studies*, *7*(9). https://doi.org/10.46827/ejes.v7i9.3250

Mcleod, S. (2023, October 11). *What is a questionnaire and how is it used in research?* Simply Psychology. https://www.simplypsychology.org/questionnaires.html

Meier, D. (2016). Situational leadership theory as a foundation for a blended learning framework. *Journal of Education and Practice*, *7*(10), 25-30. *http://iiste.org/Journals/index.php/JEP*

Ministry of Health (MoH). (2023). *Health sector performance report 2022/2023*. Nairobi: Government of Kenya.

Ministry of Health. (2023). *Kenya Health Facilities Census*. MoH | Ministry of Health. https://www.health.go.ke/sites/default/files/2024-01/Kenya%20Health%20Facility%20Census%20Report%20September%202023.pdf

Misztal-Okońska, P., Goniewicz, K., Hertelendy, A. J., Khorram-Manesh, A., Al-Wathinani, A., Alhazmi, R. A., & Goniewicz, M. (2020). How medical studies in Poland prepare future healthcare managers for crises and disasters: results of a pilot study. *Healthcare*, *8*(3), 202. https://doi.org/10.3390/healthcare8030202

Monterubbianesi, P., Grandes, M., & Dabús, C. (2016). New evidence of the health status and economic growth relationship. *Panoeconomicus*, *64*(4), 439–459. https://doi.org/10.2298/pan150505020m

Moodley, K., Rennie, S., Behets, F., Obasa, A. E., Yemesi, R., Ravez, L., Kayembe, P., Makindu, D., Mwinga, A., & Jaoko, W. (2020). Allocation of scarce resources in Africa during COVID-19: Utility and justice for the bottom of the pyramid? *Developing World Bioethics*, *21*(1), 36-43. https://doi.org/10.1111/dewb.12280

Mottus, R., Wood, D., Condon, D. M., Back, M. D., Baumert, A., Costantini, G., Epskamp, S., Greiff, S., Johnson, W., Lukaszewski, A. W., Murray, A. L., Revelle, W., Wright, A. G., Yarkoni, T., Ziegler, M., & Zimmermann, J. (2020). Descriptive, Predictive and Explanatory Personality Research: Different Goals, Different Approaches, but a Shared Need to Move beyond the Big Few Traits. *European Journal of Personality*, *34*(6), 1175–1201. https://doi.org/10.1002/per.2311

Munyiri, I. N., Thinguri, R., & Edabu, P. (2019). Influence of School Managers' Training on Disaster Risk Management in Public Secondary Schools within Nairobi City County Kenya. *American Journal of Educational Research*, *7*(12), 948–956. https://doi.org/10.12691/education-7-12-9

Munywoki, J., Kagwanja, N., Chuma, J., Nzinga, J., Barasa, E., & Tsofa, B. (2020). Tracking health sector priority setting processes and outcomes for human resources for health, five-years after political devolution: a county-level case study in Kenya. *International*

Journal for Equity in Health (Online), *19*(1). https://doi.org/10.1186/s12939-020-01284-3

Naufel, K. Z., & Edwards, V. M. (2022). Ethical considerations of social change research. *Ethical Considerations of Social Change Research*. https://doi.org/10.4324/9780367198459-reprw82-1

Negi, S. (2022). Humanitarian logistics challenges in disaster relief operations: A humanitarian organisations' perspective. *Journal of Transport and Supply Chain Management*, *16*. https://doi.org/10.4102/jtscm.v16i0.691

Ngoy, N., Oyugi, B., Ouma, P. O., Conteh, I. N., Woldetsadik, S. F., Nanyunja, M., Okeibunor, J. C., Yoti, Z., & Gueye, A. S. (2022). Coordination mechanisms for COVID-19 in the WHO regional office for Africa. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-08035-w

Ngoy, N., Oyugi, B., Ouma, P. O., Conteh, I. N., Woldetsadik, S. F., Nanyunja, M., Okeibunor, J. C., Yoti, Z., & Gueye, A. S. (2022). Coordination mechanisms for COVID-19 in the WHO regional office for Africa. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-08035-w

Okereke, E. (2022, January 19). *How COVID gave African countries the opportunity to improve public health*. The Conversation. https://theconversation.com/how-covid-gave-african-countries-the-opportunity-to-improve-public-health-173335

Okoroafor, S. C., Kwesiga, B., Ogato, J., Gura, Z., Gondi, J., Jumba, N., Ogumbo, T., Monyoncho, M., Wamae, A., Wanyee, M., Angir, M., Almudhwahi, M. A., Evalyne, C., Nabyonga-Orem, J., Ahmat, A., Zurn, P., & Asamani, J. A. (2022). Investing in the health workforce in Kenya: trends in size, composition and distribution from a descriptive health labour market analysis. *BMJ Global Health*, *7*(Suppl 1), e009748. https://doi.org/10.1136/bmjgh-2022-009748

Oleksa-Marewska, K., & Tokar, J. (2022). Facing the post-pandemic challenges: The role of leadership effectiveness in shaping the affective well-being of healthcare providers working in a hybrid work mode. *International Journal of Environmental Research and Public Health*, *19*(21), 14388. https://doi.org/10.3390/ijerph192114388

Oleksa-Marewska, K., & Tokar, J. (2022). Facing the post-pandemic challenges: The role of leadership effectiveness in shaping the affective well-being of healthcare providers working in a hybrid work mode. *International Journal of Environmental Research and Public Health*, *19*(21), 14388. https://doi.org/10.3390/ijerph192114388

Oleribe, O. E., Momoh, J., Uzochukwu, B. S., Mbofana, F., Adebiyi, A., Barbera, T., Williams, R., & Taylor Robinson, S. D. (2019). Identifying key challenges facing healthcare systems in Africa and potential Solutions. *International Journal of General Medicine*, *12*, 395-403. https://doi.org/10.2147/ijgm.s223882

Oliwa, J. N., Mazhar, R. J., Serem, G., Khalid, K., Amoth, P., Kiarie, H., Warfa, O., Schell, C. O., Baker, T., English, M., & Mcknight, J. (2023). Policies and resources for strengthening of emergency and critical care services in the context of the global COVID-19 pandemic in Kenya. *PLOS Global Public Health*, *3*(7), e0000483. https://doi.org/10.1371/journal.pgph.0000483

Park, Y. S., Konge, L., & Artino, A. R. (2020). The positivism paradigm of research. *Academic Medicine*, *95*(5), 690-694. https://doi.org/10.1097/acm.0000000000003093

Pharmacy and Poisons Board (PPB). (2023). *Annual report on pharmaceutical regulation and compliance*. Nairobi: PPB.

Rachmad, Y. E. (2022). Communication Resilience Theory.

Restivo, V., Minutolo, G., Battaglini, A., Carli, A., Capraro, M., Gaeta, M., Odone, A., Trucchi, C., Favaretti, C., Vitale, F., & Casuccio, A. (2022). Leadership effectiveness in healthcare settings: A systematic review and meta-analysis of cross-sectional and before–

after studies. *International Journal of Environmental Research and Public Health*, *19*(17), 10995. https://doi.org/10.3390/ijerph191710995

Reynolds, P. (2022, August 24). *Strategic leadership*. Professional Development | Harvard DCE. https://professional.dce.harvard.edu/blog/strategic-leadership/

Rezk, M. R., Piccinetti, L., Radwan, A., Salem, N. M., Sakr, M. M., & Khasawneh, A. (2020). Egypt beyond COVID-19, the best and the worst-case scenarios. *Entrepreneurship and Sustainability Issues*, *8*(2), 147-162. https://doi.org/10.9770/jesi.2020.8.2(9)

Santoso, N. R., Sulistyaningtyas, I. D., & Pratama, B. P. (2022). Transformational leadership during the COVID-19 pandemic: Strengthening employee engagement through internal communication. *Journal of Communication Inquiry*, 019685992210951. https://doi.org/10.1177/01968599221095182

Sethi, N., Mohanty, S., Das, A., & Sahoo, M. (2020). Health Expenditure and Economic Growth Nexus: Empirical Evidence from South Asian Countries. *Global Business Review*, *25*(2_suppl), S229–S243. https://doi.org/10.1177/0972150920963069

Shimizu, K., Ganda, N., Fisseha Woldetsadik, S., Nabyonga-Orem, J., & Nanyunja, M. (2023). First COVID-19 intra-action review: Experience from Kenya. *Journal of Global Health*, *13*. https://doi.org/10.7189/jogh.13.03043

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, *9*(1), 4–11. https://doi.org/10.12691/ajams-9-1-2

Social Health Authority (SHA). (2023). *Universal Health Coverage implementation and regulatory transition report*. Nairobi: SHA.

Su, Z., Zhang, H., McDonnell, D., Ahmad, J., Cheshmehzangi, A., & Yuan, C. (2022). Crisis communication strategies for health officials. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.796572

Timmis, K., & Brussow, H. (2020). The COVID-19 pandemic: Some lessons learned about crisis preparedness and management, and the need for international benchmarking to reduce deficits. *Environmental Microbiology*, *22*(6), 1986-1996. https://doi.org/10.1111/1462-2920.15029

Tolu, L. B., Ezeh, A., & Feyissa, G. T. (2020). How prepared is Africa for the COVID-19 pandemic response? The case of Ethiopia. *Risk Management and Healthcare Policy*, *13*, 771-776. https://doi.org/10.2147/rmhp.s258273

Walls, E. (2019). The value of situational leadership. *Community practitioner: the journal of the Community Practitioners'& Health Visitors' Association*, *92*(2), 31-33. https://www.communitypractitioner.co.uk/features/2019/03/value-situational-leadership

Wangari, E. N., Gichuki, P., Abuor, A. A., Wambui, J., Okeyo, S. O., Oyatsi, H. T., Odikara, S., & Kulohoma, B. W. (2021). Kenya's response to the COVID-19 pandemic: A balance between minimizing morbidity and adverse economic impact. *AAS Open Research*, *4*, 3. https://doi.org/10.12688/aasopenres.13156.1

Wardman, J. K. (2020). Recalibrating pandemic risk leadership: Thirteen crisis-ready strategies for COVID-19. *Journal of Risk Research*, *23*(7-8), 1092-1120. https://doi.org/10.1080/13669877.2020.1842989

Whitwell, G. (2021, January 27). *Resetting the leadership agenda post-COVID-19*. Global Business Education Network | AACSB. https://www.aacsb.edu/insights/articles/2021/01/resetting-the-leadership-agenda-post-covid-19

Willie, M. M. (2022). Differentiating between population and target population in research studies. *International Journal Of Medical Science And Clinical Research Studies*, *02*(06). https://doi.org/10.47191/ijmscrs/v2-i6-14

Wisniewski, M. (2022). Analysis of the integrity of district crisis management plans in Poland. *International Journal of Disaster Risk Reduction*, *67*, 102650. https://doi.org/10.1016/j.ijdrr.2021.102650

Wong, N. W. M., Ho, K., Wang, M., & Hsieh, C. (2022). Strong government responses? Reflections on the management of COVID-19 in Hong Kong and Taiwan. *International Journal of Public Sector Management*, *35*(4), 428–440. https://doi.org/10.1108/ijpsm-06-2021-0158

Worby, C. J., & Chang, H. (2020). Face mask use in the general population and optimal resource allocation during the COVID-19 pandemic. *Nature Communications*, *11*(1). https://doi.org/10.1038/s41467-020-17922-x

World Bank. (2021). *Germany: COVID-19 strategic preparedness and response*. Exemplars in Global Health. https://www.exemplars.health/emerging-topics/epidemic-preparedness-and-response/covid-19/

World Health Organization. (2024). *Health emergencies*. World Health Organization (WHO). https://www.who.int/our-work/health-emergencies

Wu, M., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, *7*, 100206. https://doi.org/10.1016/j.chbr.2022.100206

Wylie, L. L. (2021). Cuba's response to COVID-19: Lessons for the future. *Journal of Tourism Futures*, *7*(3), 356-363. https://doi.org/10.1108/jtf-10-2020-0187

APPENDICES

Appendix I: Letter of Introduction

Dear respondent,

I am a student at Strathmore University conducting a study determine the impact of Leadership Competencies on Crisis Management Practices in Public Healthcare Facilities in Nairobi, Kenya. This study is done for academic purposes and is also intended to enlighten the health facilities, the policymakers, and the scholars among other interested parties. To accomplish the study, I kindly request you to complete this questionnaire.

The information given will be handled with utmost confidentiality and will only be used for academic purposes. We appreciate your cooperation in advance in making this study a success.

Yours sincerely

……..

Mercy Apanja

Appendix II: Research Questionnaire

This questionnaire aims to gather data on the impact of Leadership Competencies on Crisis Management Practices in Public Healthcare Facilities in Nairobi, Kenya. Participation will require approximately 15-20 minutes to complete. Kindly submit your response according to your understanding of the questions. The information gathered will purely be used for academic purposes.

Instructions

Do not indicate your name on the questionnaire.

For each question, only one answer (box) should be ticked

PART A: PERSONAL INFORMATION

1 Gender: Male [ ] Female [ ]

2 Under which age brackets are you?

21 – 30 years [ ] 31-40 years [ ]

41 - 50 years [ ] Over 50 years [ ]

3 Which is the highest education level that you have attained?

High school [ ] Certificate [ ]

Diploma [ ] Masters [ ]

Degree [ ] Ph.D. [ ]

Others Specify…….

4. Nature of the health facility

Level 1 [ ]

Level 2 [ ]

Level 3 [ ]

Level 4 [ ]

Level 5 [ ]

Level 6 [ ]

5. Which position do you hold in the Facility?

Facility Manager [ ]

Facility In charge [ ]

6. How many years have you worked in your current position?

Less than one year [ ] 1-3 years [ ]

4-7 years [ ] 8 years and above [ ]

PART B

Communication competencies

Indicate the level of agreement on how communication competencies influence on health crisis management scaled from 1 to 5 where 1 is Strongly disagree, 2 is Disagree, 3 is Neutral, 4 is Agree and 5 is Strongly Agree.

STATEMENT	**1**	**2**	**3**	**4**	**5**

7. Communication is important for the management of the health crisis					
8. Communication is important for proper coordination of the health crisis					
9. Communication promotes a better understanding of the health crisis management					
10. Communication ensures efficiency in the management of the health crisis					
11. Communication ensures proper use of resources in health crisis management					
12. Communication is important for the proper engagement of stakeholders in health					
13. The channel used for communication determines the efficiency of communication					
14. Feedback is important in the management of health crises					

Coordination competencies

Indicate the level of agreement on how coordination competencies influence on health crisis management 19 scaled from 1 to 5 where 1 is Strongly disagree, 2 is Disagree, 3 is Neutral, 4 is Agree and 5 is Strongly Agree.

STATEMENT	**1**	**2**	**3**	**4**	**5**

15. Coordination ensures proper use of resources in health crisis management					
16. Coordination enhances conflict resolutions in health crisis management					
17. Coordination increases the level of satisfaction for stakeholders in health crisis management					
18. Coordination promotes efficiency in information sharing during health crisis					
19. Coordination reduces the time of health crisis management					
20. Coordination gives confidence to stakeholders in the health crisis management					
21. Coordination can ensure proper and effective risk management during health crisis					

Resource Allocation competencies

Indicate the level of agreement on how resource allocation competencies influence on health crisis management scaled from 1 to 5 where 1 is Strongly disagree, 2 is Disagree, 3 is Neutral, 4 is Agree and 5 is Strongly Agree.

STATEMENT	**1**	**2**	**3**	**4**	**5**
22. Resource allocation is important to ensure that health crisis management achieves success					

23. Proper allocation of resources in health crisis management is good for achieving cost minimization					
24. Resource allocation strategy in health crisis management determines resource utilization rate.					
25. Transparency and fairness in resource allocation in health crisis management is important.					
26. Balancing resource allocation between different levels and departments in health crisis management enhances a fast success rate.					
27. Resource budgeting is important during health crisis management.					
28. Proper resource allocation reduces resource wastage.					

SECTION C: Health Crisis Management

Which of the following statements do you agree with the most? On a scale of 1 to 5, how would you rate this? (1 Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree, 5 Strongly Agree).

STATEMENT	**1**	**2**	**3**	**4**	**5**
29. Decision-makers are struggling to effectively prioritize resource allocation.					

30. Criteria for resource allocation in our organization lack clarity and consistency.					
31. The organization's strategies and tools for resource allocation are reliable in determining needs during health crises.					
32. Transparency and fairness are consistently maintained in our organization when allocating resources for health crises.					
33. There is a fair balance in the allocation of resources between different levels and departments affected by the health crisis.					

Thank you for your response.

Appendix III: Informed Consent Form

PARTICIPANT INFORMATION AND CONSENT

Topic: IMPACT OF LEADERSHIP COMPETENCIES ON CRISIS MANAGEMENT PRACTICES IN PUBLIC HEALTHCARE FACILITIES IN NAIROBI, KENYA.

SECTION 1: INFORMATION SHEET

Investigator: Mercy Apanja

Institutional affiliation: Strathmore Business School (SBS) since September 2020.

SECTION 2: INFORMATION SHEET–THE STUDY

2.1 : Why is this study being carried out? The general objective of the study will be to determine the impact of Leadership Competencies on Crisis Management Practices in Public Healthcare Facilities in Nairobi, Kenya.

2.2 : Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to fill in a questionnaire to the best of your ability . This questionnaire will take 15-20 min. To share information on +254 (0) 723 145 441. You are free to decline to take part in the study from this study at any time without giving any reasons.

2.3 : Who is eligible to take part in this study?

This study will focus on health facility managers or in-charges in public hospitals within Nairobi County, Kenya.

2.4 : Who is not eligible to take part in this study?
Anyone who is not a health facility manager

2.5 : What will taking part in this study involve for me?

You will be approached Ms. Mercy Apanja and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then taken through a questionnaire to complete.

2.6 : Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

2.7 : Are there any benefits of taking part in this study?

The information will be used to improve leadership competencies on crisis management practices in public healthcare facilities in Nairobi, Kenya.

2.8 : What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.9 : Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

2.10 : Who can I contact in case I have further questions?

You can contact me, Mercy Apanja, at SBS, or by e-mail (**mercy.apanja@strathmore.edu**), or by phone (0723 145 441). You can also contact my supervisor, Dr. Stella Nyongesa, at the Strathmore Business School, Nairobi, or by e-mail (snyongesa@strathmore.edu) or by phone (0727 178 850)

If you want to ask someone independent anything about this research please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email ethicsreview@strathmore.edu Tel number: +254 703 034418

I, _____, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you;

Participation in the research study

☐ I AGREE to take part in this research

Appendix IV: Ethics Approval

Strathmore UNIVERSITY

2nd May 2025

Ms Apanja Mercy,
mercy.apanja@strathmore.edu

Dear Ms Apanja,

RE: Impact of Leadership Competencies on Crisis Management Practices in Public Healthcare Facilities in Nairobi, Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU- Masters** proposal. Your application reference number is **SU-ISERC2727/25.** The approval period is from **2nd May 2025 to 1st May 2026.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

Appendix V: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **141356**

Date of Issue: **20/March/2025**

RESEARCH LICENSE

This is to Certify that Ms.. Mercy Siprin Apanja of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: IMPACT OF LEADERSHIP COMPETENCIES ON CRISIS MANAGEMENT PRACTICES IN PUBLIC HEALTHCARE FACILITIES IN NAIROBI, KENYA. for the period ending : 20/March/2026.

License No: **NACOSTI/P/25/417015**

141356

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix VI: List of Healthcare Facilities

	NAME OF FACILITY	LEVEL
1	KENYATTA NATIONAL HOSPITAL NATIONAL TEACHING AND REFERRAL HOSPITAL GOVERNMENT OF KENYA (GOK) LEVEL 6A NAIROBI LICENCED	LEVEL 6
2	KENYATTA UNIVERSITY TEACHING REFERRAL AND RESEARCH HOSPITAL NATIONAL TEACHING AND REFERRAL HOSPITAL GOVERNMENT OF KENYA (GOK) LEVEL 6A NAIROBI LICENCED	LEVEL 6
3	MAMA MARGARET UHURU PAEDIATRIC HOSPITAL-KNH ANNEX NATIONAL TEACHING AND REFERRAL HOSPITAL GOVERNMENT OF KENYA (GOK) LEVEL 6A NAIROBI LICENCED	LEVEL 6
4	MBAGATHI COUNTY REFERRAL HOSPITAL LEVEL 5 COUNTY GOVERNMENT LEVEL 5 NAIROBI LICENCED	LEVEL 5
5	PUMWANI MATERNITY AND REFERRAL HOSPITAL LEVEL 5 COUNTY GOVERNMENT LEVEL 5 NAIROBI LICENCED	LEVEL 5
6	MAMA LUCY KIBAKI HOSPITAL LEVEL 5 COUNTY GOVERNMENT LEVEL 5 NAIROBI LICENCED	LEVEL 5
7	MAMA MARGARET UHURU HOSPITAL LEVEL 5 COUNTY GOVERNMENT LEVEL 5 NAIROBI LICENCED	LEVEL 5
8	DEFENCE FORCES MEMORIAL HOSPITAL LEVEL 4 COUNTY GOVERNMENT hospital NAIROBI LICENCED	LEVEL 4
9	WESTLANDS HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
10	KAYOLE II SUB-COUNTY HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
11	MAKADARA HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
12	BAHATI HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
13	NJIRU HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
14	DAGORETTI SUB-COUNTY HOSPITAL MUTUINI HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
15	UNIVERSITY OF NAIROBI HEALTH SERVICES-MAIN CAMPUS HOSPITAL LEVEL 4 Institutional LEVEL 4 NAIROBI LICENCED	LEVEL 4
16	TASSIA KWA NDEGE HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
17	NJENGA HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
18	KIANDA 42 HOSPITAL LEVEL 4 COUNTY GOVERNMENT LEVEL 4 NAIROBI LICENCED	LEVEL 4
19	KENYATTA UNIVERSITY FUNERAL HOME FUNERAL HOME (STAND ALONE) STATE CORPORATION LEVEL 3A NAIROBI LICENCED	LEVEL 3
20	KAREN HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
21	KIBERA DO HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
22	UHURU CAMP HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
23	LANGATA WOMENS PRISON DISPENSARY HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
24	RIRUTA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
25	RUAI HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
26	KARIOBANGI HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
27	JERICHO HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
28	DANDORA I HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
29	CO-OPERATIVE UNIVERSITY HEALTH UNIT HEALTH CENTRE Institutional LEVEL 3B NAIROBI LICENCED	LEVEL 3
30	EASTLEIGH HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
31	MIHANGO COMMUNITY HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
32	EMBAKASI HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
33	KAMITI PRISON HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
34	KARURA HEALTH CENTRE BASIC HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3A NAIROBI LICENCED	LEVEL 3
35	HURUMA LIONS HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
36	MARURUI HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
37	KAHAWA WEST HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
38	NYS HEALTH CENTRE RUARAKA HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
39	KASARANI HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
40	KAYOLE 1 HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
41	NSIS HEALTH CENTRE RUARAKA HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
42	CHANDARIA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
43	KENYATTA UNIVERSITY HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
44	NGARA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
45	GSU HEADQUARTERS HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
46	APTC EMBAKASI HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
47	GSU EMBAKASI HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
48	LUNGA LUNGA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
49	SOUTH B HEALTH CENTRE-PLAINSVIEW HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
50	NG'UNDU HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
51	KEMRI MEDICAL CENTRE MEDICAL CENTRE COUNTY GOVERNMENT LEVEL 3A NAIROBI LICENCED	LEVEL 3
52	KITISURU HOSPITAL HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
53	KENYA INSTITUTE OF SPECIAL EDUCATION DISPENSARY BASIC HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3A NAIROBI LICENCED	LEVEL 3
54	WAITHAKA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
55	MUKURU KWA NJENGA HEALTH CENTRE HEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
56	NAIROBI REMAND PRISON HEALTH CENTREHEALTH CENTRE COUNTY GOVERNMENT LEVEL 3B NAIROBI LICENCED	LEVEL 3
57	DOG UNIT DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
58	STATE HOUSE DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
59	LADY NORTHEY DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
60	NGONG ROAD HEALTH CENTRE MEDICAL CLINIC COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
61	UNIVERSITY OF NAIROBI HEALTH SERVICES CHIROMO CLINIC MEDICAL CLINIC STATE CORPORATION LEVEL 2 NAIROBI LICENCED	LEVEL 2
62	UNIVERSITY OF NAIROBI HEALTH SERVICES KABETE CAVS CLINIC MEDICAL CLINIC STATE CORPORATION LEVEL 2 NAIROBI LICENCED	LEVEL 2
63	UNIVERSITY OF NAIROBI HEALTH SERVICES PARKLANDS CLINIC MEDICAL CLINIC STATE CORPORATION LEVEL 2 NAIROBI LICENCED	LEVEL 2
64	UNIVERSITY OF NAIROBI HEALTH SERVICES LOWER KABETE MEDICAL CLINIC STATE CORPORATION LEVEL 2 NAIROBI LICENCED	LEVEL 2
65	GATINA DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
66	LAGOS ROAD STAFF DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
67	SPECIAL TREATMENT CENTRE (CASINO) DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
68	MATHARE POLICE DEPOT DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
69	PANGANI DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
70	KARANJA ROAD BEYOND ZERO CLINIC MEDICAL CLINIC COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
71	HONO CRESENT DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
72	BIAFRA LIONS DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
73	SOUTH B POLICE BAND HEALTH CENTRE MEDICAL CLINIC COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
74	RAILWAYS TRAINING INSTITUTE DISPENSARYDISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
75	LOCO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
76	PUMWANI MAJENGO HEALTH CENTRE MEDICAL CLINIC COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
77	KALOLENI DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
78	SHAURI MOYO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
79	SILANGA DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
80	OFAFA I DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
81	KARIOBANGI SOUTH DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
82	RUARAKA DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
83	MBOTELA DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
84	KARIOKOR DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
85	MARINGO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
86	GATWEKERA B COMMUNITY DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
87	KENYA SCIENCE STUDENTS CLINIC MEDICAL CLINIC STATE CORPORATION LEVEL 2 NAIROBI LICENCED	LEVEL 2
88	NGAIRA RHODES DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
89	RHODES CHEST & TB DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
90	FULL GOSPEL CHURCH DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
91	RAILA COMMUNITY DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
92	KWARE DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
93	JERUSALEM DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
94	MINISTRY OF WORKS DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
95	LENANA SCHOOL MEDICAL CLINIC MEDICAL CLINIC COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
96	MAJI MAZURI CLAY CITY DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
97	KIAMAIKO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
98	KAYOLE SOWETO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
99	GICHAGI DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
100	UNDUGU HIGH RISE DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
101	NGOMONGO DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
102	ZIMMERMAN PICKENS DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
103	GREEN PARK DISPENSARY-RAILWAYS DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2
104	BAHATI MDR DISPENSARY COUNTY GOVERNMENT LEVEL 2 NAIROBI LICENCED	LEVEL 2