



Workforce Capacity and Operational Processes on Delivery of Healthcare Services in Zambia: A Case of Chikuni Mission Hospital in Monze District

Cecilia Muyunda & Vincent Kanyamuna

1. Department of Development Studies, School of Humanities and Social Sciences, University of Zambia, Lusaka, Zambia

Abstract: This study aimed to assess the Public Service Delivery Performance (PSDP) systems at Chikuni Mission Hospital in Monze District, Southern Province, Zambia. Utilizing a qualitative case study design, the research employed a purposive sampling method to select 20 participants, including healthcare professionals, support staff, and administrators, who provided insights into the hospital's service delivery dynamics. Data was collected through interviews and review of existing literature. Data was analysed thematically. Zambia's [12] aims to achieve equitable access to quality healthcare for all by 2030. However, [19] highlights persistent challenges in the healthcare sector, including inconsistent supply of essential medical supplies, shortages of health personnel, and ineffective management of Non-Communicable Diseases (NCDs). Rural areas, such as Chikuni, face even greater barriers to healthcare access due to low health-seeking behaviors, limited healthcare workforce, long distances to health facilities, inadequate medical supplies, and a shortage of specialists to handle complex cases. The study focused on Chikuni Mission Hospital and aimed to assess the workforce capacity in delivering healthcare services and evaluate the effectiveness of operational processes in improving public service delivery at the hospital. The study revealed inadequate medical equipment, and inconsistent supply chains, which compromise the quality of healthcare delivery. Workforce issues, such as staffing shortages and gaps in specialized skills, further strained the hospital's capacity to manage patient care effectively. Despite the hospital's commitment to improving service delivery through systems like electronic health records (smart care) and centralized pharmacy management, inadequate staff training hindered the full utilization of these systems. The study concluded that Chikuni Mission Hospital requires urgent interventions to address these challenges. Further, the study revealed critical staffing shortages and a lack of specialized skills, which place additional strain on existing healthcare workers. Overburdened staff often experience burnouts and reduced efficiency, leading to compromised patient care. The study concludes that without modern and well-maintained, healthcare providers struggle to deliver timely and effective treatment, potentially leading to delays in diagnosis, increased patient referrals, and higher mortality rates. The inconsistent supply chain further exacerbates these issues, as a lack of essential medical supplies can disrupt treatment plans, leaving patients without necessary medications or equipment. Recommendations include recruiting additional healthcare professionals, and enhancing training programs. Implementing these changes is essential for improving service delivery and ensuring the hospital can meet the healthcare needs of its community effectively.

Keywords: Public Service Delivery Performance, Health care delivery, workforce capacity, operational processes, service delivery, Monze, Zambia.

BACKGROUND TO THE STUDY

The WHO emphasizes that access to essential health services is a fundamental human right and essential for achieving universal health coverage (UHC). Countries with robust healthcare systems tend to experience better health outcomes, highlighting the need for comprehensive performance management systems to enhance service delivery and ensure equitable access to healthcare [24].

Regionally, in Northern Africa and partly Southern, Public service delivery performance systems has been widely studied, with scholars and policymakers emphasizing the need for efficiency, accountability, and responsiveness in healthcare services. Across the continent, health systems face persistent challenges, including inadequate funding, human resource shortages, bureaucratic inefficiencies, and disparities in access to care [6]. Many African countries have attempted to reform their public healthcare services through the adoption of performance management systems aimed at improving efficiency and service delivery.

One of the major performance challenges in African health systems is the weak implementation of performance management frameworks. For instance, Ethiopia's urban municipalities have integrated PMS to enhance public service delivery, but issues such as limited data monitoring, bureaucratic delays, and weak accountability structures have hindered their effectiveness [12, 30]. Similarly, in South Africa, despite efforts to strengthen public health service performance, the sector continues to struggle with inefficiencies due to corruption, and inadequate staff training [3-5, 9].

In Zambia, the healthcare system has faced numerous challenges, including a high disease burden and inadequate access to quality healthcare services. Furthermore, the WHO reports that Zambia has one of the highest rates of HIV prevalence globally, with approximately 12.3% of the adult population living with HIV [21]. These health indicators highlight the pressing need for improved healthcare delivery mechanisms and performance management systems in the Zambian context.

The Zambian government has recognized the importance of healthcare reforms to address these challenges. [20] outlines the government's commitment to achieving universal health coverage and improving health outcomes for all citizens [15]. However, implementation has been hindered by factors such as inadequate funding, shortage of healthcare personnel, and a lack of robust performance management systems to monitor and evaluate healthcare delivery [15, 16, 23].

The government's efforts to decentralize health services aim to improve access to healthcare in rural areas. However, progress has been slow, and many communities continue to lack adequate healthcare facilities and personnel. The shortage of healthcare professionals is a pressing issue, with the WHO estimating that Zambia faces a shortfall of approximately 30,000 healthcare workers [24], 27. This shortage significantly impacts the quality of care provided and exacerbates health disparities between urban and rural populations.

[4] indicates that the performance of the Public Service organisations has been a topical issue that attracts public scrutiny and outcry in as far as delivery of public services is concerned. This brings to the fore the type of Public Service leadership that exists and is required in order to champion the kind of relevant, worthy, acceptable and deliverable

public services to the Zambian masses, such as, the use of performance agreements, performance inducements, strategic forecasting, generating a performance culture, or enhanced managerial authority. Performance means both executing the work and achieving the desired results.

The Zambian Public Service has embraced a leadership style that combines autocratic and paternalistic traits, resulting in bureaucratic traits such as hierarchical structures and centralized decision-making authority. Top management is frequently the only one that makes decisions, which causes actions to be delayed or programs and projects to not be implemented. Delays in decision-making ultimately lead to subpar performance and poor public service delivery. Because leadership is closely related to performance management, Zambia's progress in managing public service performance is crucial in measuring the delivery of public services. As a consequence of the Public Service Reform Programme in [13], the Zambian government started enhancing service delivery through efficient performance management. The target areas of the Public Service Reform Programme were to strengthen the government's ability to develop, analyze, and carry out its tasks; efficiently manage expenditure in order to accomplish fiscal stabilization goals; and improve the efficiency and responsiveness of the public sector to the requirements of the country's citizens.

The performance management package was successfully implemented by the Zambian government as the performance management system for the Public Service and connected public service institutions. The Annual Performance Appraisal System forms, which are a measurement instrument for individual employee performance, came with the performance management package. Setting Specific, Measurable, Achievable, Realistic, and Timely (SMART) targets, which are used to evaluate employee performance, is a requirement of the performance management system. [4] argues that significant improvements in the field of performance had led to the establishment of Performance Based Contracts for Permanent Secretaries, which had been extended to Directors, Assistant Directors, and heads of parastatal organisations. Performance-based contracts were supposed to result in more accountability and better public service delivery. Performance-Based Contracts were first established in 2016 and had been in existence for seven years.

In 1995, the National Health Service Act was enacted. It called for a significant change in the role and structure of the Ministry of Health and called for the establishment of an autonomous health service delivery system. This led to the creation of Central Board of Health (CBoH) The mandate of the CBoH was to monitor, integrate, and coordinate the programs of the Health Management Boards [13, 22, 29]. In 2006, the CBoH was abolished and its functions taken on by the Ministry of health [14, 3].

The country has also been developing and implementing successive National Health Strategic Plans (NHSPs) since 1995. An example is the National Health Strategic Plan 2011 to 2015. The 2011-2015 National Health Strategic Plan (NHSP), aimed at reducing the disease burden and accelerating the attainment of the Millennium Development Goals and other national priorities. The NHSP represents a departure from past interventions as it places emphasis on addressing certain key areas such as; human resource crises; improving the state of the health care, nutrition, HIV/AIDS, control of epidemics, and health education; and increasing access to basic environmental health facilities such as water and sanitation, electricity, and telecommunication. The plan advocates for an increased interest and focus

establishing very effective, strong, and sustainable partnerships among all key stakeholders involved in health service delivery in Zambia [11].

The main priority areas of the 2011-2015 National Strategic Plan can be summarised as; human resources, health service delivery interventions, clinical care and diagnostic service priority interventions. For example, one of its objectives was to reduce the population/nurse ratio from the current 1,864 to 700 by 2015 [10]. Zambia has adopted successive health policies in past years. The National Health Policy was also enacted in August 2012. The National Health Policy for Zambia seeks to respond to many problems in the health sector. It has been developed within the context of the Vision 2030 and has taken into consideration other relevant national, regional and global health related policies, protocols and strategic frameworks, including the Millennium Development Goals (MDGs).

Similarly, the current 2022 to 2026 National Health Strategic Plan focuses on safety; quality; equity; access; affordability; efficiency and effectiveness; transparency and accountability; participation; partnerships; decentralization; and good governance. The Shortage of human resources is also another key problem affecting the health care delivery in Zambia. The main contributing factors to these problems are brain or skill drain and the impact of HIV/AIDS on health workers [20, 26, 32].

Chikuni Mission Hospital plays a vital role in providing healthcare services to the surrounding communities in Southern Province. Founded in 1920, the hospital has evolved from a small clinic to a crucial healthcare provider, serving as a first referral hospital for many rural communities. The hospital primarily provides essential services such as maternal and child health, HIV/AIDS treatment, and non-communicable disease management. However, the hospital faces numerous challenges, including limited resources, outdated infrastructure, and a shortage of skilled personnel.

Despite these challenges, the hospital remains committed to delivering quality healthcare services and is actively seeking ways to enhance its performance management systems to improve service delivery. The implementation of performance-based contracts and monitoring systems could significantly contribute to optimizing healthcare delivery and addressing the unique challenges faced by the hospital.

The Zambian government has implemented various policies and programs aimed at improving healthcare delivery and access. The National Health Policy emphasizes the need for equitable access to quality health services and has established frameworks for monitoring and evaluating healthcare performance [14]. The government has also introduced initiatives such as the Health Sector Strategic Plan and the National Health Insurance Scheme, which aim to enhance healthcare financing and accessibility [15, 10]. Despite these efforts, challenges persist in the implementation of healthcare policies. Inadequate funding and limited human resources hinder progress toward achieving the government's healthcare goals. The Ministry of Health acknowledges that more needs to be done to strengthen the healthcare system and ensure that policies translate into tangible improvements in service delivery [14 & 31]. Continuous evaluation and adjustment of healthcare policies are essential to address emerging challenges and meet the evolving needs of the population.

Performance management is crucial for enhancing the efficiency and effectiveness of healthcare delivery systems. According to the WHO, well-structured performance management frameworks can significantly improve health outcomes by ensuring

accountability and transparency in service delivery [24]. Implementing performance management systems allows healthcare institutions to set clear goals, measure progress, and identify areas for improvement. In the context of Chikuni Mission Hospital, adopting a robust performance management system could lead to enhanced service delivery and better health outcomes for the communities served. By establishing performance indicators and regularly monitoring progress, the hospital can identify challenges, allocate resources effectively, and improve the overall quality of care provided. Furthermore, involving healthcare professionals and community members in the performance management process can foster a culture of accountability and collaboration, ultimately benefiting patient care.

The challenges facing healthcare delivery in Zambia, particularly in rural areas, underscore the need for tailored approaches to performance management. The unique socio-economic and cultural contexts of communities like those served by Chikuni Mission Hospital require solutions that address specific barriers to accessing healthcare. Additionally, the integration of community engagement and stakeholder participation in the performance management process is essential for ensuring that health services are responsive to the needs of the population.

The study was conducted in Chikuni Mission which is a Jesuit mission hospital located in the rural areas of Zambia's Southern Province, approximately 30 km southeast of the nearest town of Monze. Chikuni Mission Hospital was founded in 1920 by Sisters of Notriedem as a small clinic to facilitate health care services in the early missionary era and it was handed over to the Religious Sisters of Charity in 1948. The Facility primarily provides the services that form the Basic Health Care Package at the level of first referral hospital. The services offered are health promotion, preventive and curative (community mobilization & IEC, Laboratory, NCDs, X-ray, VCT, PMTCT, male circumcision and ART).

STATEMENT OF THE PROBLEM

According to Zambia's [12], the country aspires to achieve equitable access to quality healthcare for all by 2030. However, the Eighth National Development Plan (2022-2026) acknowledges persistent challenges in the delivery of quality health services, particularly in ensuring a consistent recruitment and placement of healthcare personnel, and the effective management of Non-Communicable Diseases (NCDs). Recent studies on healthcare service delivery in rural Zambia [18] indicate that health facilities in rural areas, such as Chikuni, face greater difficulties compared to urban counterparts. These challenges include inefficient health service delivery, high patient-to-healthcare worker ratio, inadequate medical supplies, and a shortage of specialists to handle complex medical conditions.

This study examined public service delivery systems at Chikuni Mission Hospital, aiming to identify and address challenges affecting optimal healthcare performance. Issues such as workforce and operational processes constraints present significant barriers that necessitate comprehensive analysis and targeted interventions. Understanding how these factors influence public service delivery remains a critical research gap, requiring further exploration to inform strategic improvements. The findings of this study provide valuable insights to enhance healthcare service delivery not only at Chikuni Mission Hospital but also in other rural health facilities facing similar challenges.

APPROACH OF THE STUDY

This research adopted a qualitative approach to analyze Public Service Delivery Performance (PSDP) systems at Chikuni Mission Hospital in Monze District, Southern Province. According to [9], the use of qualitative methods allows for a deeper understanding of the experiences, perceptions, and measurable outcomes related to a phenomenon. This was ideal for this study since the focus was on Chikuni Mission Hospital only. Qualitative methods are particularly effective in capturing the rich experiences, perceptions, and outcomes related to social phenomena such as public service delivery. This approach allowed for a comprehensive exploration of the analysis of public service delivery systems at Chikuni Mission Hospital, providing insights that quantitative methods may overlook [7, 28].

The qualitative approach was further justified by its alignment with the study's objectives, which aimed to explore the complexities and nuances of public service delivery at a local health institution. By engaging with staff, patients, and stakeholders through interviews and focus group discussions, the research aimed to gather diverse perspectives that could reveal underlying issues affecting service delivery. This emphasis on human experience and context is critical in understanding how public service systems operate and the factors that influence their effectiveness. The flexibility of qualitative methods also enabled the researcher to adapt questions and discussions based on participants' responses, thereby fostering a more in-depth exploration of topics that emerged during the data collection process.

Additionally, the qualitative methodology facilitated a narrative approach that highlights the stories and experiences of individuals within the healthcare system. By focusing on personal accounts and testimonies, the study aimed to illuminate the impact of public service delivery on community health outcomes. This narrative approach not only enriches the data collected but also provides a platform for marginalized voices within the health sector to be heard, thus contributing to a more holistic understanding of the challenges and opportunities within Chikuni Mission Hospital. Such insights are crucial for developing targeted interventions and policies aimed at improving service delivery and overall healthcare quality in the region.

Design of the Study

The case study design was chosen for its ability to capture the complexities and nuances of public service delivery within the unique context of Chikuni Mission Hospital. By employing a case study, the research can uncover the intricate relationships between various factors impacting healthcare delivery, such as management practices, resource availability, and community needs. This depth of exploration is essential for understanding the specific challenges faced by Chikuni Mission Hospital, where generalized findings from broader studies may not fully apply.

Moreover, the case study design facilitates the collection of rich qualitative data, which is crucial for understanding the perceptions and experiences of healthcare providers and recipients at Chikuni Mission Hospital. Through in-depth interviews, focus groups, and observations, the study can gather diverse perspectives that illuminate how public service delivery operates on the ground. This method not only highlights the voices of those directly involved in healthcare delivery but also provides valuable insights into the effectiveness and

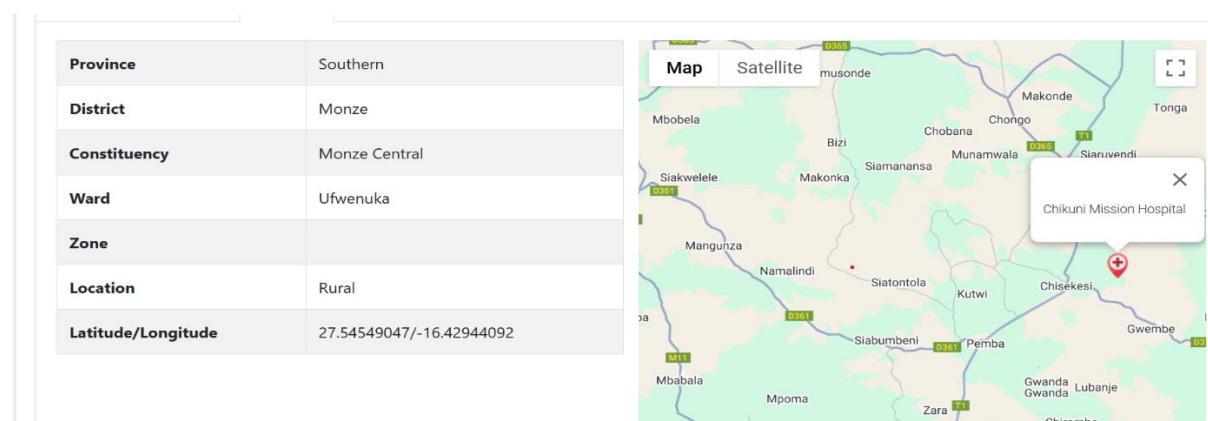
challenges of existing systems. Such detailed data can reveal patterns and themes that quantitative methods might overlook, allowing for a more nuanced understanding of service delivery dynamics.

Additionally, the flexibility inherent in case study research allows for adjustments as new findings emerge during the data collection process. This adaptability is beneficial when exploring a complex and evolving subject such as public service delivery. Researchers can modify their focus or delve deeper into unexpected areas of interest, ensuring that the study remains relevant and comprehensive. By concentrating on Chikuni Mission Hospital, the research can offer tailored recommendations for improving service delivery that are rooted in the specific realities of the institution and its community, contributing to the broader discourse on health service improvement in similar contexts.

Study Site

The study focused exclusively on Chikuni Mission Hospital located in the rural area of Monze district, Southern Province, Zambia. The people living near Chikuni Mission Hospital in the rural area of Monze District, Southern Province, Zambia, primarily engage in subsistence and small-scale commercial agriculture as their main economic activity. The coverage was to ensure that a detailed and context-specific understanding of public service delivery dynamics is captured. By concentrating on this particular institution, the research was able to delve into the factors that influence service delivery within this context. The selection of Chikuni Mission Hospital as the case provided a rich source of data, making it possible to thoroughly examine the specific challenges and strengths of the hospital's public service delivery. This detailed examination contributed to a comprehensive understanding of the phenomena under study, highlighting the interactions and factors that shape service delivery in this specific setting.

Map:



Population of the Study

The selection of healthcare professionals, support staff, and administrators at Chikuni Mission Hospital as the population of the study was strategic for several reasons. First, these individuals are directly involved in the daily operations of the hospital and have firsthand

experience with the public service delivery systems in place. Their insights are invaluable for understanding the effectiveness of current practices and identifying challenges that may not be evident in higher-level assessments. Engaging with those on the front lines allows the research to capture a comprehensive view of the service delivery dynamics at Chikuni Mission Hospital.

Second, this population encompasses a diverse range of roles and perspectives, which is essential for a holistic evaluation of public service delivery. By including doctors, nurses, and support staff, the study can explore how different professional experiences and responsibilities contribute to the overall functioning of the healthcare system. Each group plays a unique role in service delivery, and their interactions can significantly influence patient outcomes and satisfaction [8, 25]. Gathering input from various personnel allows for a more nuanced understanding of the collaborative nature of healthcare provision and the interdependencies that exist within the hospital.

Lastly, including administrators in the study population is crucial for understanding the decision-making processes that affect service delivery. Administrators often set policies and allocate resources, directly impacting how healthcare professionals can perform their roles. Their perspectives on institutional challenges, resource constraints, and strategic priorities provide critical context for the operational dynamics at Chikuni Mission Hospital. By encompassing all these stakeholders, the study can produce well-rounded findings that inform practical improvements in public service delivery, ultimately contributing to better healthcare outcomes for the community served by the hospital.

Sample Size

The study employed a purposive sampling method, selecting a sample size of 20 participants. This sample size was chosen based on the specific objectives of the research, which required participants with particular knowledge and experience relevant to public service delivery at Chikuni Mission Hospital. Purposive sampling ensures that the data collected is highly relevant to the study's goals, as it focuses on participants with direct involvement in or expertise on the subject matter [8, 13].

Saturation was reached when no new information or insights were emerging from additional interviews or data collection. This point was identified after the 20th participant, when the responses began to show repetition, indicating that the data collection had sufficiently covered the range of perspectives and experiences related to the research topic. Thus, the sample size was determined to be adequate for the purposes of the study once saturation was reached, ensuring that the insights were comprehensive without the need for further sampling.

Additionally, a sample size of 20 was deemed adequate for conducting in-depth qualitative analysis. Qualitative research prioritizes depth over breadth, allowing for a detailed exploration of participants' experiences, perceptions, and insights. By limiting the sample size, the researcher can devote more time to each participant, facilitating thorough interviews that delve into the complexities of public service delivery at the hospital. This approach also ensures that the data collected is rich and textured, providing a robust foundation for subsequent analysis and interpretation.

Furthermore, the inclusion of participants from all departments within Chikuni Mission Hospital contributed to the study's comprehensiveness. This diversity allowed for a variety of perspectives to be represented, enriching the data collected and offering a more holistic understanding of the factors influencing public service delivery. By incorporating insights from different roles such as medical staff, support personnel, and administrative officials the research was better positioned to identify patterns, challenges, and opportunities that might otherwise be overlooked if only a single department or role was represented [8, 17, 24].

Table 1: The table below shows departments of the Hospital where respondents were selected from and the method of data collection that was used

No.	Category of respondents	Number of respondents	Method
1	Out Patient Department	8	KII
2	In Patient Department	9	KII
3	Administration	3	KII
	Total	20	

Finally, purposive sampling enhances the relevance and validity of the research findings. By ensuring that participants are well-informed and positioned to provide valuable information about public service delivery, the study's results are more likely to reflect the realities of Chikuni Mission Hospital. This targeted approach to participant selection not only strengthens the credibility of the data but also facilitates actionable recommendations for improving public service delivery in the healthcare sector, ultimately benefiting the patients and communities served by the hospital.

Sampling Technique

The study employed a purposive sampling technique, selecting participants based on specific criteria relevant to the research objectives. The selection of a purposive sampling technique was crucial for this study, as it enabled researchers to identify and include participants who possess specific knowledge or experiences pertinent to public service delivery at Chikuni Mission Hospital. This approach is particularly advantageous in qualitative research, where the goal is to gain in-depth insights rather than achieve statistical generalizability. By focusing on individuals with direct involvement in healthcare delivery, the study aimed to capture detailed perspectives that reflect the complexities of the hospital's operations. This targeted sampling ensured that the information collected would be rich and relevant, enhancing the overall quality of the research findings [8].

In contrast to random sampling, which may yield a broad but shallow representation of a population, purposive sampling allows researchers to hone in on key individuals whose insights are likely to illuminate the research questions effectively. This strategic selection process was vital in ensuring that the voices of those directly engaged in the public service delivery processes were heard, thereby facilitating a more comprehensive understanding of the challenges and successes experienced at Chikuni Mission Hospital. The participants were carefully chosen based on their roles, experiences, and contributions to service delivery, thereby enriching the data with diverse yet relevant perspectives.

Moreover, the purposive sampling technique allowed for flexibility in participant selection, enabling researchers to adjust their criteria based on emerging insights throughout the data collection process. As interviews progressed, researchers could identify new themes or areas of interest, guiding the inclusion of additional participants who could provide further depth to the analysis. This iterative approach ensured that the research remained responsive to the complexities of public service delivery, capturing a holistic view of the dynamics at play within the hospital.

Ultimately, the purposive sampling method was instrumental in achieving the study's objectives. By deliberately selecting participants who were knowledgeable about the intricacies of public service delivery at Chikuni Mission Hospital, the research was better positioned to yield meaningful findings that could inform future interventions and improvements in healthcare service delivery. This approach not only strengthened the validity of the research but also provided a robust foundation for generating actionable recommendations to enhance the quality of healthcare services in the region.

Sources of Data

Primary Data

Primary data refers to information collected directly from original sources for the specific purpose of a study.

Primary data were collected directly from participants through semi-structured interviews, focus group discussions, and observations. These methods allowed the researchers to gather first-hand accounts from healthcare professionals, support staff, and administrators about their experiences, perceptions, and challenges related to service delivery. Semi-structured interviews provided the flexibility to explore specific topics in depth while allowing participants to express their thoughts and feelings freely. Focus group discussions fostered interactive dialogue among participants, revealing collective insights and shared experiences that might not emerge in one-on-one interviews. Observations of daily operations at the hospital further enriched the data by providing contextual information about the environment in which public service delivery occurs [21, 5-9].

The advantage of primary data is that it is tailored to the research objectives and provides firsthand insights. However, collecting primary data is often time-consuming and resource-intensive. In this study, primary data played a crucial role in capturing the lived experiences of healthcare workers and their perspectives on service delivery at Chikuni Mission Hospital.

Secondary Data

Secondary data refers to information that has already been collected, analysed, and published by other researchers, institutions, or organizations. In this study, secondary data were sourced from existing literature, policy documents, and institutional reports related to healthcare service delivery in Zambia [22, 7].

Secondary data were sourced from existing literature, policy documents, and institutional reports related to healthcare service delivery in Zambia and at Chikuni Mission Hospital specifically. These secondary sources included governmental and non-

governmental publications, strategic plans, health sector reforms, and performance assessments. By reviewing this literature, the researchers were able to situate their findings within the broader context of public health challenges and strategies, thereby enhancing the study's credibility and relevance. Analyzing secondary data also helped identify gaps in existing research, justifying the need for the current study and providing a foundation for comparison with the primary data gathered.

The integration of both primary and secondary data sources was essential for achieving a comprehensive understanding of public service delivery performance at Chikuni Mission Hospital. By leveraging firsthand accounts from hospital staff alongside established research and policy frameworks, the study was able to present a multifaceted analysis that could inform future improvements in healthcare services. This approach not only enriched the findings but also contributed to a more robust discussion on enhancing public service delivery in rural healthcare settings.

Data Collection Techniques

The study employed various data collection techniques to gather comprehensive and detailed information on public service delivery at Chikuni Mission Hospital. One primary technique used was semi-structured interviews. This involved conducting interviews with key stakeholders, including hospital staff, administrators, and patients. The semi-structured format allowed for flexibility in questioning, enabling the exploration of specific issues while also allowing respondents to share their experiences and insights. This method facilitated an open dialogue, encouraging participants to elaborate on their responses and provide rich qualitative data. Interview questions were designed to probe into various aspects of public service delivery, such as challenges faced, perceived effectiveness of services, and suggestions for improvement, thus yielding a diverse range of perspectives.

Another significant technique utilized in this study was focus group discussions (FGDs). A total of 3 FGDs were conducted, each comprising 8 participants. The focus groups were constituted with a diverse mix of healthcare professionals, including doctors, nurses, and administrative support staff, to discuss their experiences and perceptions regarding public service delivery at the hospital. This interactive method encouraged participants to engage with one another, fostering a dynamic exchange of ideas and promoting deeper insights into the collective experiences of staff. The focus group format was particularly effective in identifying common challenges and shared experiences, as participants often built on each other's responses. This approach provided a holistic understanding of the issues at hand and highlighted the collaborative nature of service delivery in the healthcare setting.

In addition to interviews and focus groups, the study also incorporated direct observation as a data collection method. The researcher conducted systematic site visits to Chikuni Mission Hospital, where she closely observed daily operations, staff interactions, and the overall work environment. The focus of these observations was to assess workflow efficiency, communication among healthcare professionals, patient-staff interactions, and the implementation of hospital policies and procedures. By witnessing these elements in real-time, the researcher gained firsthand knowledge of the hospital's functioning and the practical realities of public service delivery. Observations provided contextual insights that

complemented data from interviews and focus groups, allowing for a deeper understanding of how stated policies were enacted in practice. This triangulation of data sources strengthened the validity of the findings by enabling comparisons between reported experiences and actual on-the-ground practices.

Furthermore, the study employed document analysis as a complementary data collection technique. This involved reviewing internal documents such as hospital policies, patient records, and service delivery logs. Document analysis provided objective data on the hospital's procedures, policies, and historical performance. By examining these records, researchers could identify trends, assess compliance with established protocols, and evaluate the effectiveness of service delivery over time. This method added depth to the qualitative insights gained from interviews and focus groups, offering a comprehensive view of public service delivery practices at the hospital.

The combination of semi-structured interviews, focus group discussions, observational techniques, and document analysis provided a robust framework for data collection in this study. Each technique contributed unique insights, allowing for a comprehensive exploration of public service delivery at Chikuni Mission Hospital. The diverse data collection methods ensured that the research captured the complexities of the healthcare environment and the various factors influencing service delivery, ultimately leading to a more thorough understanding of the issues being investigated.

Data Analysis Methods

In the study, qualitative data analysis methods were utilized to deeply explore and interpret the data collected on public service delivery at Chikuni Mission Hospital. The primary method employed was thematic analysis. This involved identifying, analyzing, and reporting patterns or themes within the data. Researchers systematically reviewed interview transcripts, observation notes, and other qualitative data, coding and categorizing information into key themes that emerged from the data. Thematic analysis was particularly effective in organizing the vast amount of qualitative data and helping to focus on the core issues and recurring patterns related to public service delivery. This method facilitated a comprehensive understanding of the dynamics at play in the healthcare setting and allowed for a structured approach to interpreting the findings.

The next analytical technique used was content analysis, which complemented thematic analysis by providing a systematic and objective means to quantify qualitative information. Content analysis involved coding the data into predefined categories and counting the frequency of certain words, phrases, or themes. By examining how often specific themes or terms appeared in the data, researchers could draw conclusions about the prevalence of particular issues or sentiments. This quantitative dimension added depth to the qualitative findings and allowed for comparisons across different data sources, reinforcing the credibility of the results. Through content analysis, the study was able to highlight significant trends and commonalities that emerged from the experiences of participants regarding public service delivery.

Additionally, the study employed narrative analysis to delve into the personal stories and accounts shared by participants. This technique focused on understanding the context, structure, and meaning of these narratives, providing insights into how individuals

experienced and perceived public service delivery at the hospital. By exploring the narratives of healthcare professionals, administrators, and patients, the research captured the complexities of human experiences and the personal significance of service delivery outcomes. Narrative analysis was instrumental in shedding light on the emotional and contextual aspects of the participants' experiences, enriching the overall understanding of public service delivery dynamics.

The integration of thematic, content, and narrative analysis in this study allowed for a multifaceted exploration of the data. By combining these methods, the researcher was able to triangulate the findings, cross-validating insights derived from different analytical approaches. This triangulation strengthened the overall robustness of the study, ensuring that the conclusions drawn were well-supported by multiple lines of evidence. Such an approach enabled a comprehensive analysis of public service delivery, accounting for both the statistical prevalence of themes and the richness of personal narratives.

Furthermore, the qualitative data analysis methods were chosen for their ability to provide a rich, detailed, and nuanced understanding of the complex social, cultural, and organizational factors influencing public service delivery at Chikuni Mission Hospital. The nature of qualitative research allows for the exploration of not just "what" is happening, but "why" it is happening, revealing the underlying motivations, perceptions, and experiences that shape service delivery. This depth of understanding is crucial in the healthcare context, where human interactions and experiences play a significant role in determining the quality of services provided.

The research team employed software tools NVivo and Atlas to assist in the qualitative analysis process. These tools facilitated efficient coding, organization, and visualization of the data, making it easier to identify themes and patterns. By leveraging technology, researcher could manage the complexity of the data more effectively and focus on the analytical process, enhancing the overall rigor of the study.

Moreover, ethical considerations were integrated into the data analysis process, ensuring that participant confidentiality and integrity were maintained throughout. Any direct quotations or identifiable information were anonymized, allowing for the presentation of findings while respecting the privacy of individuals involved in the study. This ethical approach was crucial in fostering trust and encouraging open dialogue during the data collection phase, ultimately leading to richer and more honest contributions from participants.

The diverse qualitative data analysis methods employed in this study provided a comprehensive framework for exploring public service delivery at Chikuni Mission Hospital. Thematic analysis, content analysis, and narrative analysis worked in concert to deliver a holistic understanding of the complexities and nuances involved in the healthcare service delivery context. By using these methods, the research was able to contribute meaningful insights that can inform future improvements in public service delivery practices, ensuring that the needs of the community are met effectively and efficiently.

Data Collection Instruments

Structured and semi-structured interview guides were used to facilitate interviews with hospital staff, administrators, and patients. These guides contained predefined questions

that ensured consistency across interviews while allowing flexibility for follow-up questions based on respondents' answers.

Study Limitations

The researcher encountered some limitations during data generation as participants at most times were only available to respond to questions after attending to patients which made the researcher wait long hours to be availed information. However, participants were very cooperative. And to avoid wasting more time the researcher devised a plan to meet at most 3 respondents at the same time.

Additionally, some participants were not available to respond to questions on appointed days which made the researcher reschedule appointments and time wasted. However, the researcher opted to meet up with respondents at their convenient time, which helped collection of data easy.

More funds were spent on transport than what was earlier budgeted for commuting from Monze town to Chikuni during the period of data collection due to rescheduling of appointments which were done after initial travels were made. The researcher opted to meet up with respondents at their convenient time.

Meeting up with the supervisor was a challenge as most times he was committed to other duties and the researcher does not reside in Lusaka. Despite this limitation, the researcher and supervisor arranged some meetings via google meet and guidance was provided.

Ethical Considerations

The researcher acquired prior ethical clearance from the Institute of Distance and Research Ethical Board, University of Zambia. In addition, permission was obtained from participants for their participation in the study. Respondents were not subjected to any embarrassment or unusual stress for they were informed to choose either to participate in the study or not. Furthermore, confidentiality of the respondents was assured in that the information obtained was not used for any other purposes other than the ones intended for in this study. Since research is a form of human conduct, it therefore follows that such conduct has to follow generally accepted norms and values.

STUDY FINDINGS

Coding Framework

The coding framework in this study serves as a systematic tool for categorizing and organizing data collected from various healthcare professionals at Chikuni Mission Hospital. Each code corresponds to a specific role or position, providing a clear structure for identifying the contributions and perspectives of participants, categorized by their professional role and age group. This framework facilitated a comprehensive analysis by allowing the researcher to track and compare responses based on participants' roles and experience levels. It aids in ensuring consistency in data interpretation, making it easier to

identify patterns, draw meaningful insights, and understand the dynamics of public service delivery within the hospital. All the participants were coded with letters HW to mean Health Worker. These codes according to the number of interviews held and there a total of 20 interviews conducted. Participants were purposively selected from all the departments at the hospital. The table below shows the category of the participants that were interviews with the codes assigned.

In this study, a systematic coding system was used to ensure the anonymity and confidentiality of participants while maintaining clarity in data analysis. Each participant was assigned a unique code based on their role and category, allowing for an organized presentation of findings without revealing individual identities.

Table 2: Participants coding

CODE	ROLE/POSITION
HW1	Registered Nurse Midwife
HW2	Medical Doctor
HW3	Clinical Officer General
HW4	Clinical Officer General
HW5	Clinical Nurse
HW6	Nurse in Charge
HW7	Hospital Administrator
HW8	Registered Nurse
HW9	Registered Nurse
HW10	Physiotherapy Technologist
HW11	Pharmacy Technologist
HW12	Medical Laboratory Technologist
HW13	Clinical Officer Psychiatry
HW14	Radiography Technologist
HW15	Zambia Enrolled Nurse
HW16	Registered Nurse
HW17	Hospital Administrator
HW18	Senior Resident Medical Officer
HW19	General Worker
HW20	Dental Therapist

As above reflected in the table, the coding structure distinguished between different groups of respondents, such as healthcare professionals, administrative staff, and support personnel, ensuring that perspectives from various levels of the hospital were accurately captured. This approach facilitated thematic analysis by enabling the identification of trends and patterns in responses while upholding ethical research standards.

Workforce Capacity on Delivery of Healthcare Services in the Hospital

The aim of the objective was to assess the workforce capacity on healthcare delivery at Chikuni Mission Hospital and was included to understand the role of staffing levels and personnel skills in the quality of patient care. Inadequate workforce capacity can lead to

overburdened staff, reduced efficiency, and potential compromises in the quality of care provided to patients. By examining this aspect, the study aimed to identify any gaps in staffing, skill levels, and training that may affect the hospital's ability to meet patient needs effectively. Understanding these factors is crucial for developing strategies to improve staff support, optimize workforce utilization, and ultimately enhance healthcare delivery within the hospital.

Participants were asked on the adequacy of the staffing at Chikuni Mission Hospital. This was asked in order to establish how staffing affects the delivery of services to the people. Several health workers emphasized that the hospital is operating with an insufficient workforce, making it difficult to provide adequate care. Some respondents pointed out that managing a large number of patients with limited staff is a challenge, directly affecting the quality of healthcare services. Respondents agreed that while they try their best to cover all shifts, the overall staffing levels remain inadequate, particularly in critical departments and wards. This has resulted in burnout among healthcare professionals, which can lead to fatigue, errors, and reduced efficiency.

Certain departments, such as radiology, nursing, and general medical wards, appear to be more affected than others. Some respondents pointed that the radiology department struggles with a lack of Radiography Technologists, leading to long wait times for patients in need of imaging services. A shortage in such specialized departments delays diagnostic procedures and patient treatment, reducing the hospital's ability to deliver timely interventions. Additionally, some respondents reported that the shortage of nurses is a significant concern, making it difficult to maintain high-quality patient care. Nurses are essential to healthcare delivery, and their limited numbers result in heavy workloads and increased stress levels, further impacting their ability to perform their duties effectively.

The responses from respondents indicate that high workloads are a major concern. With limited personnel, existing staff members take on additional responsibilities, which not only affects their physical and mental well-being but also reduces their efficiency in providing quality healthcare. Stress and fatigue among healthcare workers can contribute to lower morale, increased absenteeism, and even higher turnover rates, which can further worsen the staffing crisis. Below are some respondents verbatim:

Our staffing levels are far from adequate. We often have to manage large numbers of patients with limited staff, which is challenging and can affect the quality of care (HW2).

Health workers 6 and 7 had similar responses concerning staffing levels:

We have a good number of staff of about 60 to 70 but generally the hospital is understaffed, especially in critical departments and wards. We do our best to cover all shifts, but it's tough, and burnout is a real issue (HW6). Stated health worker 6.

Further, participants were asked on the skill levels of the current staff. This was done in order to ascertain if there are areas where additional training is needed for staff. Staff training and professional development are crucial in ensuring high-quality healthcare services, particularly in specialized medical fields. The responses from various health workers at Chikuni Mission Hospital indicate a significant gap in specialized skills and a need for continuous professional development. While the staff is dedicated and possesses basic

competencies, the lack of advanced training in critical areas such as neonatal care, emergency obstetrics, trauma care, and advanced diagnostics affects the hospital's ability to manage complex medical cases effectively.

One of the key challenges highlighted by some respondents is the limited training in specialized areas. The hospital staff is adequately trained for routine procedures, but there is a notable deficiency in critical care areas such as neonatal care, emergency obstetric care, trauma management, and advanced life support. Some respondents emphasized that improving training in neonatal and obstetric care would enhance maternal and child health outcomes. Similarly, some respondents pointed out that without proper trauma care and life support training, staff struggle to manage severe cases effectively, which may result in avoidable complications or fatalities.

Additionally, respondents noted that medical lab staff have basic proficiency in testing procedures, but the lack of advanced diagnostic training and familiarity with modern laboratory equipment hinders their ability to provide accurate and timely medical diagnoses.

While the hospital offers periodic workshops and training sessions, respondents noted that these sessions are often limited and do not comprehensively address all training needs. Additionally, respondents pointed out that while the hospital collaborates with external partners for specialized training, these opportunities are inconsistent and lack structured schedules.

Another major barrier to professional development is the lack of financial and logistical support. Respondents revealed that training opportunities are mostly self-driven, meaning that staff members must fund their own further education, which is not feasible for many. This lack of institutional support discourages staff from pursuing additional training, ultimately affecting the quality of healthcare services. Below were the answers:

While our staff is dedicated and hardworking, there is a noticeable gap in specialized skills, particularly in neonatal care and emergency obstetric care. Additional training in these areas would be beneficial to improve outcomes for mothers and newborns (HW20)

Like responded 20, health workers 8, 7 and 17 stressed more on the need on staff training.

The basic skill level of our staff is adequate for routine procedures, but we lack advanced training in critical areas like trauma care and advanced life support. This limits our ability to handle more severe cases effectively (HW8)

In alignment with the objective "Analyze the workforce capacity on the delivery of healthcare services in the hospital," the study revealed significant challenges affecting staffing levels, skills development, and overall service delivery at Chikuni Mission Hospital.

A key finding was the shortage of healthcare professionals, particularly in critical and specialized areas. This shortage resulted in overburdened staff, which in turn affected the quality of patient care. Many participants reported that the workforce constraints led to extended working hours, increased workload, and limited time per patient, potentially compromising the effectiveness of healthcare delivery.

Furthermore, the study identified gaps in specialized skills, particularly in neonatal care, trauma care, and advanced diagnostics. Although the hospital provides some training opportunities, they are often limited and not sufficiently structured to address the diverse needs of the staff. Many respondents emphasized the need for more structured and frequent professional development programs to enhance the competency and efficiency of healthcare providers.

The findings suggest that investing in workforce capacity through better staffing policies, enhanced professional development, and improved resource allocation would significantly improve healthcare service delivery. Addressing these workforce challenges would help ensure that Chikuni Mission Hospital meets the healthcare needs of its patients more effectively and sustainably.



Figure 3: The picture above shows some members of staff at Chikuni Mission Hospital.

Operational Processes in Enhancing Public Service Delivery at Chikuni Mission Hospital

The objective to assess the effectiveness of existing operational processes in enhancing public service delivery at Chikuni Mission Hospital was crucial for understanding how well the hospital's systems and procedures support efficient and high-quality healthcare delivery. This evaluation aimed to identify strengths and weaknesses in areas such as patient flow, resource management, and administrative practices. By examining these operational aspects, the study sought to uncover bottlenecks, inefficiencies, or gaps that could hinder the hospital's ability to meet the healthcare needs of the community effectively. Insights gained from this assessment are vital for implementing targeted improvements, optimizing resource use, and ensuring that the hospital can provide timely and accessible care to patients.

The operational processes at Chikuni Mission Hospital play a crucial role in ensuring efficient patient care and service delivery. However, various challenges hinder the hospital's ability to provide timely and high-quality healthcare services. The key areas of concern include staffing limitations, administrative delays, out-dated equipment, and inefficiencies in electronic health records (EHR) management. While the hospital has structured protocols in place for patient management, diagnostics, and pharmacy operations, gaps in infrastructure, training, and coordination impact overall effectiveness.

The study found that the hospital has a structured system in place for patient care and service delivery. Key operational processes include triage systems, standardized medical procedures, a centralized pharmacy, and an electronic health records system. These mechanisms contribute to an organized approach to healthcare delivery and help in streamlining patient management. However, despite these structured processes, their effectiveness is often compromised by several operational challenges. Limited staffing, outdated equipment, and delays in supply management were identified as major obstacles affecting service delivery. Many participants rated the hospital's overall performance as average to fair, acknowledging that while essential services are provided, issues such as timeliness in service provision and access to specialized care remain significant concerns.

To improve the effectiveness of its operational processes, the hospital needs to streamline inventory and procurement systems, enhance staff training, upgrade medical equipment, and improve communication and coordination among departments. Additionally, investing in infrastructure upgrades was suggested as a crucial step in addressing current inefficiencies. Implementing these measures would significantly enhance the hospital's ability to meet patient needs more effectively and improve overall public service delivery.

Chikuni Mission Hospital has a structured approach to healthcare delivery, but resource limitations impact its efficiency. Staffing shortages, out-dated equipment, administrative delays, and gaps in training hinder service delivery and patient satisfaction. However, by implementing strategic improvements in inventory management, training programs, staffing, technology, and infrastructure, the hospital can enhance operational efficiency and provide better patient care.

Participants were asked to describe the operational processes in place at Chikuni Mission Hospital for patient care and service delivery. The following were the answers:

We have a triage system in place to prioritize patients based on the severity of their condition. This helps in managing emergency cases more efficiently. However, the process can be slowed down due to limited staffing (HW7)

Patient admission and discharge processes are fairly straightforward, but they can sometimes be delayed due to administrative paperwork and coordination issues between departments (HW13)

DISCUSSION OF THE FINDINGS

Workforce Capacity and Its Impact on Healthcare Delivery at Chikuni Mission Hospital

The assessment of workforce capacity at Chikuni Mission Hospital reveals significant challenges that impact the quality and efficiency of healthcare services provided. The

hospital faces notable staffing shortages, particularly in critical departments such as emergency care, radiology, and psychiatric services. Participants reported that the existing workforce is frequently overburdened, struggling to manage the high volume of patients with limited personnel. This situation often leads to extended waiting times for patients, increased workloads for staff, and potential burnout among healthcare providers. The shortage of nurses, in particular, poses a severe challenge, as it directly affects patient care and safety, with some staff members having to take on additional responsibilities beyond their usual scope of practice.

The findings from Chikuni Mission Hospital align with the principles of New Public Service, particularly in how workforce capacity issues affect service delivery. The reported staffing shortages in critical departments such as emergency care, radiology, and psychiatric services highlight the constraints of economizing public service management, a central theme in NPS. However, in practice, the flexibility intended to improve efficiency appears to have resulted in overburdened healthcare professionals, struggling to manage high patient volumes with limited personnel.

Furthermore, the emphasis on quantitative performance over policy-driven development in NPS is evident in the hospital's workforce challenges. The focus on measurable efficiency may have led to cost-cutting measures, limiting staff recruitment and thereby reducing the hospital's ability to provide quality care. The reliance on existing staff to compensate for shortages reflects a broader trend in public sector management, where hospitals are expected to do more with fewer resources. This aligns with NPS's approach to competitive service provision and quasi-autonomous entities, which often prioritize financial constraints over long-term investment in human capital [11, 18, 27].

Additionally, the shift away from traditional bureaucracies toward loosely connected, quasi-autonomous entities is reflected in the challenges at Chikuni Mission Hospital. As part of a decentralized healthcare system, the hospital operates within a framework that grants public officials managerial flexibility. However, this autonomy does not always translate into improved service delivery, as the persistent staffing shortages indicate systemic inefficiencies in workforce planning and resource allocation. The hospital's experience suggests that while NPS principles advocate for greater efficiency and flexibility, the reality on the ground reveals gaps in workforce sustainability, affecting both staff well-being and patient care outcomes [1,19].

By relating these workforce challenges to the theoretical lens of NPS, it becomes clear that while the model promotes managerial autonomy and cost efficiency, its implementation in resource-constrained settings like Chikuni Mission Hospital may inadvertently contribute to workforce strain and diminished service quality. This underscores the need for a balanced approach, where managerial flexibility is complemented by adequate staffing policies and investment in human resources to enhance public service delivery in healthcare.

In terms of skill levels, the study found that while the staff at Chikuni Mission Hospital possesses a solid foundation in basic healthcare practices, there are significant gaps in specialized skills. Areas such as neonatal care, emergency obstetric care, trauma care, and advanced diagnostics were highlighted as requiring further training and development. Such skill gaps not only hinder the hospital's capacity to offer comprehensive services but also compromise the quality of care that patients receive.

Moreover, the study revealed that the current training and professional development opportunities for staff are insufficient to address these skill gaps. Although the hospital provides periodic workshops and training sessions, these are often limited in scope and frequency. Budget constraints and logistical challenges further restrict the availability of external training programs and sponsorships. As a result, many staff members rely on hands-on experience or informal mentoring to acquire new skills, which may not be adequate to keep pace with advances in medical knowledge and technology. This lack of structured and consistent professional development undermines the hospital's ability to maintain high standards of care and adapt to evolving healthcare demands. Similar arguments were put across by [18, 4].

The hospital's support for professional development, while present, appears to be inadequate and inconsistent. Some mechanisms, such as study leave and access to continuous medical education (CME) programs, are available but are not sufficiently comprehensive or well-organized. Participants expressed a need for more targeted and specialized training programs that align with the hospital's specific service needs and patient demographics. Additionally, the hospital's reliance on external collaborations for training limits the continuity and effectiveness of professional development initiatives, suggesting a need for a more robust, in-house training infrastructure.

Overall, the findings highlight a critical need for strategic improvements in workforce capacity and training at Chikuni Mission Hospital. Addressing staffing shortages, particularly in specialized and high-demand areas, is essential for reducing the strain on existing staff and improving patient care outcomes. Moreover, investing in comprehensive and continuous professional development programs will be crucial for equipping staff with the necessary skills to manage complex cases and utilize advanced medical technologies effectively. Enhanced support for professional growth, including financial and logistical resources, will not only improve the quality of healthcare services at the hospital but also contribute to staff retention and job satisfaction [23, 21-25].

Effectiveness of Operational Processes in Enhancing Public Service Delivery at Chikuni Mission Hospital

The operational processes at Chikuni Mission Hospital, including triage, standardized care procedures, centralized pharmacy systems, and electronic health records (SMART CARE), are designed to streamline patient care and ensure consistent service delivery. These processes are fundamental in managing patient flow, prioritizing care based on urgency, and maintaining an organized record-keeping system. However, despite these structured systems, the hospital faces significant challenges that hinder the full realization of these processes' potential benefits. One critical issue is the limited staffing, which often leads to delays in patient care and increased workloads for existing staff. Similar findings were reported in Ghana by [1]. The shortage of specialized personnel, such as radiologists and emergency care providers, further exacerbates the situation, impacting the hospital's ability to provide timely and specialized care.

The findings of this study align with the theoretical lens of New Public Management, which emphasizes efficiency, performance measurement, and private sector managerial techniques in public service administration. One of the critical challenges identified at

Chikuni Mission Hospital is limited staffing, which leads to delays in patient care and increased workloads for existing staff. This issue is not unique to this setting, as similar findings have been reported in Ghana by [28, 1, 2], highlighting the broader structural constraints within public healthcare systems.

From an NPM perspective, staff shortages and inefficiencies in healthcare delivery could be attributed to the traditional bureaucratic structures that often characterize public institutions. NPM advocates for leaner, more performance-driven public services, which ideally should lead to improved efficiency and responsiveness. However, in resource-constrained settings like Chikuni Mission Hospital, the shortage of specialized personnel such as radiologists and emergency care providers limits the hospital's ability to provide timely and specialized care. This situation suggests that while NPM principles aim to enhance service delivery by applying private-sector management strategies, their effectiveness is contingent upon adequate resource allocation, workforce capacity, and institutional support.

Moreover, NPM promotes decentralization, competition, and performance-based management as ways to improve public service efficiency. However, the hospital's struggles with understaffing indicate potential gaps in policy implementation, where efficiency-driven reforms may not be fully addressing the underlying structural and resource challenges. The reliance on market-oriented solutions in public administration must therefore be complemented by strategic workforce planning and investment in human resources, ensuring that healthcare institutions are not merely subjected to efficiency measures but are also adequately staffed and resourced to meet public service demands.

Participants highlighted that while the hospital's operational processes generally work well, they are often disrupted by outdated equipment and supply chain inefficiencies. For instance, the diagnostic services are occasionally hampered by equipment malfunctions or shortages of necessary reagents, leading to delays in providing timely diagnoses. Similarly, the centralized pharmacy system, while effective in managing medications, struggles during peak times, resulting in shortages or delayed access to essential drugs. These equipment and supply issues not only delay patient care but also contribute to the frustration and dissatisfaction expressed by patients and staff alike.

The use of electronic health records (SMART CARE) has been a positive development, improving the accuracy and efficiency of patient data management. However, not all staff members are fully trained in using this system, which can lead to inefficiencies and occasional errors. This situation underscores the need for comprehensive training programs to ensure that all staff can effectively utilize the Smart Care system, thus optimizing patient information management and care coordination. The lack of training also extends to other areas, where participants noted a gap in specialized skills, particularly in advanced medical technologies and emergency care protocols.

Despite the structured operational processes, the hospital's overall service delivery is rated as average to fair by participants. They acknowledge the dedication of the staff and the basic standards of care maintained, but also point out significant areas for improvement. High patient volumes, coupled with limited resources and outdated infrastructure, often result in longer waiting times and suboptimal patient experiences. The hospital's inability to consistently meet patient expectations, particularly regarding specialized care and timely service, indicates a need for a more robust and responsive operational framework.

To address these challenges, participants suggested several improvements, such as streamlining the inventory and procurement processes to minimize delays and ensure a steady supply of necessary materials. [2] study at Chipata District Health Office recommended for enhancing staff training, particularly in specialized areas like critical care and new medical technologies, was also recommended to improve service delivery. Upgrading medical equipment and implementing a proactive maintenance schedule were highlighted as crucial steps to prevent frequent breakdowns and ensure the availability of functioning equipment. These suggestions underscore the importance of both structural and operational enhancements in improving the hospital's service delivery capabilities.

Additionally, [22] in their research revealed issues in digital literacy that limited its effectiveness for some populations. The authors concluded that digital initiatives should be accompanied by digital literacy training to maximize benefits and ensure equitable access to public services. These findings would help improve the hospital's service delivery.

While Chikuni Mission Hospital has established operational processes that provide a foundation for consistent patient care, there are significant areas for improvement to enhance the effectiveness of these processes. Addressing staffing shortages, upgrading equipment, improving training, and optimizing resource management are essential steps towards achieving a higher standard of healthcare delivery [17]. These improvements, coupled with better infrastructure and communication, can significantly enhance the hospital's capacity to meet the healthcare needs of its community effectively and efficiently.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The study of workforce capacity and operational processes on delivery of healthcare services in Zambia: A case of Chikuni Mission Hospital in Monze District aimed to analyse the Public Service Delivery Performance (PSDP) systems with a focus on evaluation of the workforce capacity on delivery of healthcare services in the hospital and examining the effect of key operational processes in enhancing public service delivery at Chikuni Mission Hospital.

Staffing shortages and gaps in specialized training significantly impact healthcare delivery. While the existing workforce is dedicated and hardworking, limited professional development opportunities and a lack of skilled personnel in key areas reduce the hospital's ability to manage complex cases efficiently.

The study highlights that while Chikuni Mission Hospital has a strong commitment to public healthcare, challenges in workforce capacity, and operational efficiency continue to limit its ability to provide comprehensive and timely services. Addressing these challenges requires expanded training programs, increased funding and improved coordination among departments. Strengthening these areas will enhance public service delivery and ensure sustainable healthcare improvements for the community.

Despite these challenges, the hospital's implementation of systems such as electronic health records and centralized pharmacy management reflects a commitment to improving healthcare delivery. However, these systems are underutilized due to inadequate staff training. To enhance public service delivery, the study suggests strategic interventions such

as expanded training programs. Increasing government and external support, along with better coordination and communication within the hospital, is crucial for addressing these challenges and ensuring sustainable improvements in healthcare quality. Overall, the findings underscore the importance of a holistic approach to healthcare management at Chikuni Mission Hospital, emphasizing the need for both structural and operational enhancements to meet the evolving needs of the community it serves.

Operational processes support basic healthcare services but are inefficient in handling high patient volumes and specialized cases. Delays in admission, discharge, and diagnostics due to administrative inefficiencies, equipment shortages, and staff training gaps hinder optimal service delivery. Improved resource management, structured training programs, and enhanced coordination are necessary to enhance efficiency.

The study on Chikuni Mission Hospital reveals a complex interplay of strengths and challenges within its healthcare delivery system. Workforce challenges, including staffing shortages and gaps in specialized skills, strain the hospital's capacity to manage patient volumes and complex cases effectively. The limited availability of comprehensive training and professional development opportunities exacerbates these issues, highlighting a need for more robust investment in human resources.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Recruit additional medical staff and provide structured professional training to improve specialized healthcare services.

Procedure:

- Hire at least 10 additional healthcare professionals including specialists in critical areas like neonatology, emergency care, and radiology within one year.
- Partner with the Ministry of Health and medical training institutions to deploy skilled personnel and provide continuous medical education programs.
- Filling staffing gaps will improve patient care quality, reduce staff burnout, and enhance efficiency.
- Launch a structured training program within six months, ensuring that at least 50% of staff undergo specialized training annually.

2. Improve administrative efficiency by enhancing hospital workflows, reducing delays in patient care, and fully utilizing the electronic health records (EHR) system.

Procedure:

- Achieve a 30% reduction in patient waiting time and a 50% increase in EHR usage among staff within one year.
- Conduct monthly training sessions for hospital personnel on EHR usage and streamline triage and referral processes.
- Efficient operations will reduce overcrowding, improve patient experiences, and enhance service delivery.

- Implement workflow improvements and EHR training within six months, with quarterly performance assessments.
3. Enhance procurement planning and supply chain coordination to ensure consistent availability of essential drugs and medical equipment.

Procedure:

- Reduce stock-out incidents by at least 40% within 12 months through better inventory control and supplier partnerships.
 - Develop a hospital supply chain management system, ensuring real-time monitoring of stock levels and procurement needs.
 - Reliable medical supplies will reduce treatment delays and enhance healthcare outcomes.
 - Implement a new procurement strategy within six months and evaluate its effectiveness every quarter.
4. Establish a structured Hospital Coordination Framework (HCF) to enhance collaboration across departments.

Procedure:

- Conduct monthly interdepartmental meetings and achieve a 50% reduction in miscommunication-related service delays within one year.
- Introduce a hospital communication platform WhatsApp groups, email updates, or a staff portal for real-time updates.
- Effective communication will enhance teamwork, reduce errors, and improve patient care delivery.
- Launch the HCF initiative within three months and conduct quarterly reviews to assess improvements.

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